

FSI VIEWER

Let your website visitors have a closer look

User Manual



Version 6.0

FSI Viewer

FSI Plug-ins

FSI Pages Add-on

FSI Pages mobile

FSI Showcase Add-on

FSI TouchZoom

FSI Spin360

FSI ImageFlow

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NeptuneLabs FSI Viewer®

Introduction

FSI Viewer and the Add-ons FSI Pages and FSI Showcase have been designed to display high resolution images on the internet requiring low bandwidth only. Using the Adobe Flash™ browser plug-in FSI Viewer requests image data from Single Source Imaging Servers.

Using FSI Viewer you can present two-dimensional images as well as three-dimensional, photorealistic presentations consisting of multiple individual images. By using Single Source Imaging Servers only one high resolution source image is required for each image to be displayed.

Based on Adobe Flash™ plug-in FSI Viewer can be integrated almost independently of the browser version. As today the penetration of this plug-in exceeds 97% of all internet users FSI products can be used without downloading or setting up a browser plug-in in almost all cases.

By means of a large number of configuration options and optional FSI Skins, FSI Viewer, FSI Pages Add-on and FSI Showcase Add-on can widely be adjusted to integrate seamlessly into your website. The FSI Plug-in system is capable of integrating additional functionality into FSI Viewer at runtime without increasing the download size in general.

Thank you for using NeptuneLabs software!

www.fsi-viewer.com - Online Resources for FSI Viewer

Visit www.fsi-viewer.com for software updates, regularly updated samples, tutorials and downloads.

Compatibility and User System Requirements

Imaging Servers

FSI products covered by this manual can at present securely be run with FSI Server from version 1.0. FSI Viewer 6.0.0 does no longer support eRez Imaging Server, iSeeMedia Zoom Image Server and TrueSpectra.

Adobe Flash™

FSI Viewer, FSI Pages Add-on and FSI Showcase Add-on require Flash™ Plug-in version 6 or newer to be displayed in browsers.

FSI Viewer has been successfully tested with the following software versions:

| | | |
|----------------------|---|------------------|
| FSI Server | - | 1.0.474 -3.0 |
| Adobe Flash™ Plug-in | - | 6.0.65.0 to 11.9 |

Index of FSI Viewer

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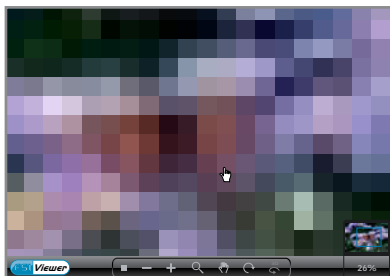
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Using FSI Viewer

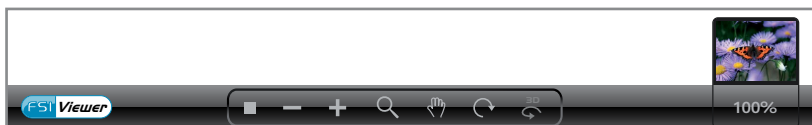
FSI Viewer is navigated by the menu bar (here below the image) and by using the mouse directly on the image. For example, you can select a section of the image you want to magnify.

The mouse functions are determined by the corresponding buttons on the menu bar (zoom, pan, rotate, etc.). The example to the right shows the mouse mode "zoom".

The optional small navigator window (bottom-right) displays the position of the image section currently viewed.



The Menu Bar







The menu bar might look different depending on skins or additional plug-ins.

Main Functions



| | |
|--|-------------------------------------------------------------------------------------------------------------------------------------|
| | Back to Initial View. Undoes zoom, pan and rotation and restores the initial view. (identical with pressing space bar) |
| | Zoom In |
| | Zoom Out |

Mouse Modes

The "Mousemodes" or "MousemodeSelect" plug-in is required to display the following mouse mode buttons.

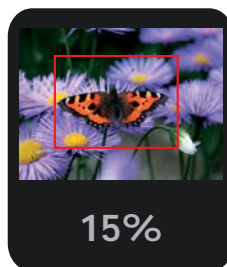
| | |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | Mouse - Zoom In Choose this function to enlarge segments using the mouse. Click on the image and drag the frame over the desired segment. Alternatively you can click on the image, without marking a segment. The image will then be magnified in steps. To zoom out in steps, hold down the CTRL-key and click on the image. |
|  | Mouse - Pan Choose this function to pan the image using the mouse. Click on the image and drag in the desired direction. To return to the original view, hold down the CTRL-key and click on the image. |
|  | Mouse - Turn Choose this function to rotate the image around the z-axis. Click on the image and drag in whatever direction you want to turn the object (to the right or the left). To reset the rotation, hold down the CTRL-key and click on the image. |
|  | Mouse - Rotate (only for 3D presentations) Choose this function to rotate the object around the y-axis or the x-axis if available. Click on the image and drag to the left or to the right. Move the mouse up or down to rotate the object around the x-axis. To reset rotation, hold down the CTRL-key and click on the image. |

Additional Buttons

| | |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
|  | Hide/Display menu Displays or hides the user interface. |
|  | Information Displays information about the viewer and refers to a configurable help page (<i>Parameter "HelpURL"</i>). |

Using the navigator window

In the navigator window you can see a miniature presentation of the entire image. The segment which is currently viewed is framed. In the navigator window you can change the current segment either by dragging the frame or by clicking on the desired area of the image.



Keyboard Shortcuts

FSI Viewer, FSI Pages and FSI Showcase can additionally be controlled using the keyboard. The list below shows the key function assignments.

| Key | Function |
|--------------------|------------------------------------------------------------------------------------------------|
| Num 5, spacebar | Back to original view |
| Num 4, left arrow | Move to the left |
| Num 6, right arrow | Move to the right |
| Num 8, up arrow | Move up |
| Num 2, down arrow | Move down |
| Num 1 | Turn around the z-axis to the left |
| Num 3 | Turn around the z-axis to the right |
| Num 7 | Rotate around the y-axis to the left (3D only) |
| Num 9 | Rotate around the y-axis to the right (3D only) |
| Num / | Rotate around the x-axis (3D only) or previous view |
| Num * | Rotate around the x-axis (3D only) or previous view |
| Num 0 | Hide/display user interface |
| D | If you have activated the debug mode, you can hide or display the debug window using this key. |
| I | Refresh the image information in the debug window. |
| Pos 1 | FSI Pages: First Page |
| Page Up | FSI Pages: Previous Page |
| Page Down | FSI Pages: Next Page |
| End | FSI Pages: Last Page |

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Index structure of FSI Viewer

| Directory | Content Description |
|------------------|--------------------------------------------------------------------------------------------------------|
| core | Core components |
| debug | Debugging components <i>This folder can safely be deleted if debugging is not required any more</i> |
| languages | User interface language files |
| plugins | FSI Plug-ins extending FSI Viewer at runtime |
| skins | FSI Skins containing the visible parts of the user interface |

Please Note:

You need to make sure that your web server properly serves files with the following extensions: *.swf, *.xml

Licencing FSI Viewer

You can use FSI Viewer without a licence key for evaluation purposes. In this case the phrase "FSI Viewer Evaluation Copy" appears on top of the image and the about box displays "Unregistered Evaluation Copy" in the "Licenced to" section.

After purchasing an FSI Viewer licence you will receive a licence key that removes the "FSI Viewer Evaluation Copy" mark and the name of the licensee appears in the "licenced to" section of the about box.

Installing the Licence Key

The FSI Viewer Licence Key needs to be installed together with the FSI Server Licence Key. For more information, please refer to the relevant section in the FSI Server manual.

Please note that FSI Viewer will run in evaluation mode regardless of the licence key if you access FSI Viewer via a different domain or IP address than you have licenced FSI Viewer to. The same applies to unregistered FSI Plug-ins or FSI Skins. In this case please check the FSI Viewer "*debug window*", which provides information on the licencing status and contact your dealer if the problem persists.

NeptuneLabs FSI Viewer

Integration into HTML Pages

Required HTML-Source Code

FSI Viewer can be integrated into HTML pages by means of an HTML `<object>` tag - just like any other Adobe Flash movie clip. Configuration parameters can be appended to the URL of the movie clip in the form of HTTP queries. If you already know how to add Flash movie clips to HTML code you can skip this chapter and move on to the chapter "*✍ Configuration*".

Object Tag

All recent browsers require an `<Object>` tag to integrate a Flash movie clip. Older browsers use the obsolete `<Embed>` tag instead.

Sample HTML code to integrate FSI Viewer into HTML pages: (Variable data printed in bold and square brackets):

HTML integrations for modern and old browsers

```
<Object classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
codebase="http://download.macromedia.com/pub/shockwave/cabs/flash/
swflash.cab#version=6,0,65,0" width="[Width]" height="[Height]">
<PARAM name="movie" VALUE="[URL and Parameter]" />
<PARAM name="bgcolor" VALUE="[Background color]" />
<PARAM name="menu" VALUE="false" />
<PARAM name="allowscriptaccess" value="always" />
<PARAM name="allowfullscreen" value="true" />
<PARAM name="quality" value="high" />
</Object>
```

Embed Tag

For browsers (e.g. Netscape 4.x) that do not support the `<object>`-tag, an additional, encapsulated `<embed>`-tag with identical parameters is required.

HTML integrations for modern and old browsers

```
<Object classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
codebase="http://download.macromedia.com/pub/shockwave/cabs/flash/
swflash.cab#version=6,0,65,0" width="[Width]" height="[Height]">
<PARAM name="movie" VALUE="[URL and Parameter]" />
<PARAM name="bgcolor" VALUE="[Background color]" />
<PARAM name="menu" VALUE="false" />
<PARAM name="allowscriptaccess" value="always" />
<PARAM name="allowfullscreen" value="true" />
<PARAM name="quality" value="high" />
<EMBED name="application/x-shockwave-flash" PLUGINSPage="http://
www.macromedia.com/shockwave/download/index.cgi?P1_Prod_
Version=ShockwaveFlash" SRC="[URL and Parameter]" WIDTH="[Width]"
HEIGHT="[Height]" BGCOLOR="[Background color]" MENU="false"
ALLOWSCRIPTACCESS="always" ALLOWFULLSCREEN="true" QUALITY="high"></
EMBED>
</Object>
```

Variables in the **<object>** and **<embed>** tags

| | |
|---------------------|--------------------------------------------------------------------------|
| [Width] | Width of the viewer in pixel or percent |
| [Height] | Height of the viewer in pixel or percent |
| [Background color] | Background color, hexadecimal (e.g. #FFFFFF for white) |
| [URL and parameter] | URL to FSI Viewer and parameters provided as HTTP query, e.g. "?cfg=foo" |

For further possible parameters or XHTML configuration options, please refer to Flash documentation or renowned HTML references.

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Configuration

Configuration parameters can be provided using XML- configuration files and/or by HTTP queries appended to the URL of the Flash movie clip.

Providing parameters by HTTP query is recommended if you plan to display large numbers of images (*Automated Implementation of Images*).

In the simplest case you only define the relative path to a configuration file within the "src" parameter of the <object>-Tag using the "cfg" parameter:

Defining the CFG parameter inside the object tag

```
<PARAM name="movie" VALUE="fsi.swf?cfg=[relative path to FSI-file]">
```

The following table lists FSI parameter value types, referred to in this documentation:

| Type | Example |
|----------|---------------------------------------------|
| Number | "90" |
| String | "ZoomIn" |
| URL | "http://www.fsi-viewer.com/" |
| Boolean | "0" / "1" or alternatively "true" / "false" |
| HexColor | "FF0000" |

Using XML Configuration Files (*.xml)

FSI Viewer uses XML configuration files which can easily be edited with any text editor.

The default configuration file "_default.xml" - which is located in the same folder as the main viewer file "fsi.swf" – is the most important XML configuration file and will always be evaluated first.

To use FSI Viewer with additional configuration files you have to provide the name of the configuration file using the "cfg" parameter attached to the URL of the "fsi.swf" file:

Specifying an XML configuration file for FSI Viewer

```
PARAM name="movie" VALUE="/fsi/fsi.swf?cfg=foo">
```

Configuration files are structured into configuration groups (XML nodes) containing parameter names and values. Only parameters in these groups will be recognized by FSI Viewer. Configuration files do not need to contain all groups though.

Each parameter has to be provided as an individual XML child node of a group where the node name is the parameter name and the parameter value needs to be provided as "value" attribute of the node.

Structure of XML configuration files

```
<fsi_parameter>

  <image>
    <parameter value="" />
  </image>

  <plugins>
    <parameter value="" />
  </plugins>

  <options>
    <parameter value="" />
  </options>

</fsi_parameter>
```

Simple XML configuration file

```
<fsi_parameter>
  <image>
    <path value="samples/Watch.jpg" />
  </image>
  <options>
    <skin value="silver" />
    <debug value="1" />
  </options>
</fsi_parameter>
```

Please keep in mind the following rules when using XML configuration files:

- attribute values must be provided in double quotes
- the last occurrence of a given parameter will be used
- configuration files might be cached by your browser, so that changes in these files require flushing the browser cache. This does not apply when using the *debug mode*.
- make sure to save configuration files in UTF-8 format if your configuration file contains language specific diacritics, Japanese characters and alike

You can comment on or disable sections of an XML configuration file using the usual XML comment syntax:

Comments and disabling parameters temporarily

```
<image>
  <!-- This is a comment -->
  <path value="image.tif" />

  <!-- The following section will be ignored -->
  <!--
  <path value="anotherimage.tif" />
  -->
</image>
```

Using HTTP Queries

In addition to using XML configuration files you can define FSI parameters by adding a HTTP query to the URL of the FSI Viewer movie clip. In this case parameters have to be provided in the following form:

Parameter1=Value1&Parameter2=Value2...



Characters that are not URL compatible such as "/" , "%" and "&" within the values need to be "URL-encoded".

Due to the missing possibility to define parameter groups when providing FSI parameters by HTTP query you have to prefix parameters with the name of the parameter group they belong to.

Prefixing parameters with group names

XML Syntax:

```
<image>
  <path value="foo.tif" />
  <servertime value="fsi" />
</image>
```

Equivalent HTTP Query:

```
?imagepath=foo.tif&imageservertime=fsi
```

Most parameters belong to the global "<options>" group. These parameters do not need to be prefix in order to keep HTTP queries as short as possible.

Providing <Options> parameters by query

XML Syntax:

```
<options>
  <debug value="true" />
  <menualign value="TL" />
</options>
```

HTTP Query equivalent:

```
?debug=true&menualign=TL
```

The FSI parameter reference provided in this documentation contains the parameter names as well as the context (name of the parameter group) they belong to.

Hierarchy of Configuration Parameters

As explained before parameters can be provided in three different ways:

1. The default configuration file "_default.xml" - located in the same folder as the main viewer file "fsi.swf" - will always be evaluated first
2. You can store image specific parameters in additional *.xml files
3. You can provide parameters by HTTP query

Parameters specified in multiple ways – for example in the default configuration **and** by HTTP query – will be evaluated in the following way:

- Parameters defined in configuration files override parameters defined in the default configuration file "_default.xml".
- Parameters provided by HTTP query override parameters in all configuration files.

The list below shows the hierarchy resulting from the sequential evaluation of the different configuration methods:

Configuration Hierarchy

1. HTTP Query
2. Configuration file (*.xml)
3. Default configuration file (_default.xml)

Choosing the adequate Configuration Method

So far you learned that FSI Viewer can be configured by any combination of:

- The default configuration file (`_default.xml`)
- Additional configuration files (`*.xml`)
- HTTP queries

These configuration options are not only alternate methods. Combining these methods offers the possibility to provide configuration parameters as easily as possible and as dynamically as required. The following considerations might be helpful when deciding which method to choose for a certain parameter.

Default Configuration

You can easily change global parameters that apply to all FSI Viewer instances by editing a single file. This is therefore the recommended configuration method for:

- Global parameters valid for all images, in particular:
 - ImageServerType
 - Licence Key
- General configuration options like:
 - Skin
 - Intro
 - Language
 - Plug-ins
 - MenuAlign, AnimationSpeed and alike

Configuration Files

Separate configuration files should be used for parameters specific to a group of images or a specific way to display images. You might for example want to setup individual configuration files for different types of FSI Viewer instances, like `"small_no_interface.xml"`, `"large_with_hotspots.xml"` as an example.

Try to avoid adding global parameters like the base path to your imaging server `"ImageServer"` or alike in individual configuration files. This way you will only need to change the `"_default.xml"` configuration file once you need to change the address of your imaging server.

Usually you don't need to create a configuration file for individual images, as you can specify the image path or other unique parameters dynamically by HTTP query.

Passing Parameters by HTTP Query

This method is recommended for parameters from databases, parameters specific to a certain image or FSI Viewer instance, or parameters related to user interaction.

Using server side script or JavaScript you can build HTTP queries to pass parameters to FSI Viewer dynamically.

If you want to display multiple images with minimal variations in the FSI Viewer configuration, it is recommended to reuse the same FSI configuration file and to provide varying parameters (like the path to the image itself) by HTTP query.

Try to provide only those parameters by HTTP query that don not apply to multiple instances of FSI Viewer. Keep in mind that changing a single configuration file for multiple images later on will be far less work compared to editing multiple HTML codes later on.

Providing parameters by HTTP query

View 1:

```
<PARAM name="movie" VALUE="fsi.swf?cfg=flowers&imagepath=rose.fpx">
```

View 2:

```
<PARAM name="movie" VALUE="fsi.swf?cfg=flower&imagepath=rose.fpx&NoNav=1">
```

Retrieving Parameters from Imaging Servers

FSI Viewer is capable of retrieving image specific parameters from FSI Server dynamically. This way you do not need to define these parameters explicitly. The list below shows some typical parameters that can be retrieved from FSI Server automatically:

- **ImageWidth**
- **ImageHeight**
- **ImageTilesX**
- **ImageTilesY**
- **SceneSets**
- **Image Collections**
- **Hyperlinks**
- **Hotspots**

In which case will these values be retrieved automatically?

FSI Viewer tries to retrieve the parameters ImageWidth and ImageHeight from the server if one of these values has not been defined manually. If the server delivers additional parameters (e.g. ImageTilesX, ImageTilesY) these parameters will only have an effect if they have not been defined manually.

Basic Parameters

The following parameters are essential and usually need to be specified.

Please refer to the chapter "*Retrieving Parameters Automatically*" for information on how to enable FSI Viewer to retrieve image specific parameter values from the imaging server.

| cfg | |
|--------------------|---------------------------------------|
| Description | Relative path to a configuration file |
| Syntax | fsi.swf?cfg=[FSI_Name] |
| Default | — |
| Context | HTTP query |

A relative path to an XML based configuration file "*.xml". The file extension ".xml" has to be omitted. You can specify a default base path to all configuration files using the "*FSIBase*" parameter.

| Defining a configuration file |
|-------------------------------------------------|
| <PARAM name="movie" VALUE="fsi.swf?cfg=foobar"> |

In this case the FSI Viewer first searches for the _default.xml file in the installation folder where the file fsi.swf is located and evaluates the configuration parameters.

The optional parameter "*FSIBase*" from the _default.xml file is then used as the path specification in order to search in the correct index for a FSI configuration file with the name "foobar.xml".

| DefaultCfg | |
|--------------------|----------------------------------------------------------|
| Description | Relative path to an alternate default configuration file |
| Syntax | fsi.swf?defaultcfg=[filename] |
| Default | _default |
| Context | HTTP query only |

Relative path to an alternative default configuration file other than "_default.xml". Only useful as part of an HTTP query. The file extension ".xml" has to be omitted.

| Server | |
|--------------------|------------------------|
| Description | URL to your FSI Server |
| Syntax | URL |
| Default | See description below |
| Context | <Image> |
| Version | 5.5.0 or higher |

The URL to your FSI Server including the servlet name, e.g.:
`<ImageServer value="http://mydomain.tld/fsi/server" />`

If you do not specify this parameter, FSI Viewer will try to determine the URL based on it's own URL and the default location of the „viewer“ folder in the FSI Server setup.

| ServerTemplate | |
|--------------------|---------------------------------------------------|
| Description | Real-time template of the imaging server |
| Syntax | String (template name) |
| Default | fsi |
| Context | <Image> (or alias <FPX>) |
| Query | ImageServerTemplate (alias: FPXServerTemplate) |
| Version | 5.5.0 or higher (2.1.0 or higher for alias <FPX>) |

This parameter specifies the name of a real-time template used when accessing the imaging server.

Using these templates you can specify e.g. the image compression, maximum image dimensions and watermarks.

| Path | |
|--------------------|------------------------------|
| Description | Path of the image to display |
| Syntax | String |
| Default | — |
| Context | <Image> |
| Version | 5.5.0 or higher |

The path to the image on your FSI Server including the importer profile name, e.g.:
`<ImagePath value="images/samples/foo.jpg" />`

| Src | |
|-------------|-----------------------------------------|
| Description | URL of the source image to be displayed |
| Syntax | URL |
| Default | — |
| Context | <FPX> |
| Query | FPXSrc |

Obsolete: Please use **ImagePath** instead

Specify either a relative URL or the absolute URL of the source image on the imaging server. The parameter "*FPXBase*" can be used to specify a base path to the imaging server.

Please refer to the documentation of your imaging server for details on supported image formats.

Image_Server Parameter

Definition of Server Parameter within the `_default.xml` file:

```
<Image>
...
    <Base value="http://domain.com/fsi/server?source=" />
...
</Image>
```

Partial (relative) addressing

```
<FPX>
    <Src value="foo/bar.tif" />
</FPX>
```

| Width and Height | |
|--------------------|---------------------------------------------------------------|
| Description | Source image dimensions |
| Syntax | Number in pixels |
| Default | — |
| Context | <Image> (or alias <FPX>) |
| Query | ImageWidth and ImageHeight (or alias: FPXWidth and FPXHeight) |
| Version | 5.5.0 or higher (2.1.0 or higher for alias <FPX>) |

Required parameters specifying the width and height of the source image. Please refer to the chapter "*Retrieving Parameters Automatically*" for information on how to automatically retrieve these values from the imaging server.

| Width and height specifications for a source image |
|-----------------------------------------------------------------------------------------------------------------------|
| <pre> <image> ... <Width value="3330" /> <Height value="4660" /> ... </image> </pre> |

Optional Parameters

The following parameters are not required to run FSI Viewer. They can be used to alter the appearance of the FSI Viewer user interface.

| Skin | |
|--------------------|-------------------------------------------------|
| Description | Filename of FSI Skin to use (without extension) |
| Syntax | String |
| Default | — |
| Context | <Options> |

Filename of FSI Skin file to use (omit the file extension). FSI Skins determine the appearance of the user interface and are located in the subdirectory "/skins". In addition to the default skins that ship with FSI Viewer customized skins are available on demand. Please note that using unregistered skins activates the evaluation mode.

| Intro | |
|--------------------|--------------------------------------------------------|
| Description | Filename of start animation to use (without extension) |
| Syntax | String |
| Default | — |
| Context | <Options> |

Filename of animation to display on startup (omit the file extension).

FSI Viewer ships with a default start animation. Custom intros are available on demand. Please note that using an unregistered intro activates the evaluation mode.

| Debug | |
|--------------------|---------------------|
| Description | Activate debug mode |
| Syntax | Boolean |
| Default | false |
| Context | <Options> |

Activate the debug mode providing configuration details, warnings and error messages. It is strongly recommended to activate the debug mode when encountering any issues running FSI Viewer.

Please refer to the chapter "*Debug Mode*" for a detailed description.

| FSIBase | |
|--------------------|---------------------------------|
| Description | Path to FSI configuration files |
| Syntax | Relative path |
| Default | config/ |
| Context | <Options> |

Enter the relative path from FSI Viewer to the image specific configuration files here. If this parameter is specified the path is added to all relative CFG parameters.

Definition of FSIBase in the `_default.xml` file

```
<options>
...
    <FSIBase value="config/" />
...
</options>
```

Specifying FSI files using the CFG parameter

```
<object ...>
...
    <PARAM name="movie" VALUE="/fsi/fsi.swf?cfg=viewer_presets/
no_nav">
...
</object>
```

The content of the parameter "CFG" will be prefixed by the parameter "FSIBase" to "config/viewer_presets/no_nav.xml"

| CropRect | |
|--------------------|--------------------------|
| Description | Defines a crop rectangle |
| Default | 0,0,1,1 |
| Context | <Options> |
| Version | 5.0.0 |

Crop rectangle (left, top, right, bottom) as 0.0..1.0 floating point values to display a given section of an image only.

Default: "0,0,1,1"

Note:

You cannot use "CropRect" AND "CropValues" parameters at a time.

If you use both, "CropRect" will be ignored.

| CropValues | |
|--------------------|-----------------------------------------|
| Description | Defines crop margin values for an image |
| Syntax | String |
| Default | 0,0,0,0 |
| Context | <Options> |
| Version | 5.6.0 |

Defines the amount that should be cut off the image from each side. Values can be provided as pixel (e.g. "20px") or percent (e.g. "10%") or floating point numbers (e.g. "0.25").

| MenuAlign | |
|--------------------|---------------------------------------------------------|
| Description | Alignment of the menu bar |
| Syntax | String |
| Default | version 1-4: TL, from version 5: BC |
| Context | <Options> |
| Version | The "center" option "C" is available from version 5.0.0 |

Possible values:

| | | | |
|----|-----------------|----|----------------|
| TL | (top-left) | TC | (top-center) |
| TR | (top-right) | BL | (bottom-left) |
| BC | (bottom-center) | BR | (bottom-right) |

| Language | |
|--------------------|-------------------------------------------------------|
| Description | Interface language |
| Syntax | String |
| Default | --- |
| Context | <Options> |
| Version | FSI Viewer 2.0 or higher / FSI Showcase 2.15 or above |

Defines the language of tool tips for the user interface.

Possible values depend on the XML based language files located in the sub-index "/languages" of the FSI Viewer setup path. To specify a language, please enter the filename without file extension, e.g. "german".

You can modify existing or add your own "*language files*".

| ImagePanButtons | |
|--------------------|---------------------------------------|
| Description | Show or hide pan buttons on the image |
| Syntax | Boolean |
| Default | false |
| Context | <Options> |
| Version | 4.0.0 and above |

Show or hide the optional pan buttons on the image. If the user points at a pan button, the image pans into the direction indicated. The buttons automatically disappear if the edge of the image has been reached.

| DetailBuffer | |
|--------------------|-------------------------------------|
| Description | Enable or disable the detail buffer |
| Syntax | Boolean |
| Default | true |
| Context | <Options> |
| Version | 3.0.0 and above |

Enabling the detail buffer keeps previously loaded image details visible when zooming in or out instead of displaying the low resolution preview image while loading additional image details. This way zoom transitions appear smoother.

| NoNav | |
|--------------------|---------------------------|
| Description | Hide the navigator window |
| Syntax | Boolean |
| Default | false |
| Context | <Options> |

Show or hide the navigator window displaying the miniature image and the current image section.

| AutoHideNav | |
|--------------------|------------------------------------------------------------------|
| Description | Hide navigator window if magnification is lower or equal to 100% |
| Syntax | Boolean |
| Default | true |
| Context | <Options> |
| Version | 6 |

Show or hide the navigator window displaying the miniature image and the current image section., if the magnification is lower or equal to 100%.

| NavWidth and NavHeight | |
|------------------------|--------------------------------------|
| Description | Maximum size of the navigator window |
| Syntax | Number in percent or pixel |
| Default | 80 |
| Context | <Options> |
| Version | 3.0.0 and above |

Defines the maximum width and height of the image inside the navigator window. The actual size will depend on the image aspect ratio.

The value can be defined absolutely or in percent of the viewer size. Use parameter "*NoNav*" to hide the navigator window.

| NavFrameColor | |
|--------------------|----------------------------------------------------------|
| Description | Color of the selection frame inside the navigator window |
| Syntax | HexColor |
| Default | FF0000 (depending on the skin) |
| Context | <Options> |
| Version | 3.0.0 and above |

Specify a 6-digit HexColor to change the color of the selection frame inside the navigator window, e.g. "0000FF" for blue.

| NavMaskColor | |
|--------------------|----------------------------------------------------------------------|
| Description | Color of the area around the selection frame of the navigator window |
| Syntax | HexColor |
| Default | depends on the skin |
| Context | <Options> |
| Version | 3.0.0 and above |

Specify a 6-digit hexadecimal color to change the color of the area outside the selection frame of the navigator window, e.g. "FFFFFF" for white.

| NavMaskAlpha | |
|--------------------|------------------------------------------------------------------------|
| Description | Opacity of the area around the selection frame of the navigator window |
| Syntax | Number (0..100) |
| Default | depends on the skin |
| Context | <Options> |
| Version | 3.0.0 and above |

Specify the opacity of the area outside the selection frame of the navigator window. Possible values are integer values from "0" (invisible) to "100" (opaque).

| InitialView | |
|--------------------|------------------------------------------------------|
| Description | Initial image segment |
| Syntax | SceneSet, Scene [left, top ,right, bottom, rotation] |
| Default | 1,1,0,0,1,1,0 |
| Context | <Options> |

Image section (and rotation) to display on startup.

The first two parameters are required as they specify the scene set and the scene. For 2D images both values default to 1. The other parameters are optional and specify the image segment and the rotation around the z-axis. Please use the plug-in "*SelectFrame*" to easily retrieve valid values for this parameter.

| InitialView |
|-------------------------------------------------------------------------------------------------------------|
| <pre> <Options> ... <InitialView value="1,5,0,0,0.25,0.25,90" /> ... </Options></pre> |

The example displays the top left quarter of the 5th scene in the 1st scene set, rotated 90° to the right.

| InitialViewPersistent | |
|-----------------------|--------------------------------------|
| Description | Keep the InitialView as default view |
| Syntax | Boolean |
| Default | false |
| Context | <Options> |
| Version | 2.0.0 or higher |

If this parameter is activated, clicking the "Reset" button will display the image section defined by the InitialView parameter instead of the entire image. If this parameter is set to "false", the initial view will be displayed on startup, but pressing the Reset button will reset the view to the entire image.

| InitialAction | |
|--------------------|-------------------|
| Description | Action on startup |
| Syntax | String |
| Default | — |
| Context | <Options> |

Specifies an action to execute on startup. The action is repeated until the user presses a button or key.

While the action is being executed no image details are loaded.

Possible values:

| | | |
|------------------|-----------------------------------------|----------|
| NextScene | (rotate around the y-axis to the right, | 3D only) |
| PreviousScene | (rotate around the y-axis to the left, | 3D only) |
| NextSceneSet | (rotate around the x-axis to the right, | 3D only) |
| PreviousSceneSet | (rotate around the x-axis to the left, | 3D only) |
| RotateRight | (rotate around the z-axis to the right, | 3D only) |
| RotateLeft | (rotate around the z-axis to the left, | 3D only) |
| ZoomIn | (zoom in) | |
| ZoomOut | (zoom out) | |

| InitialActionDelay | |
|--------------------|-----------------------------|
| Description | Speed of the initial action |
| Syntax | Number |
| Default | 3 |
| Context | <Options> |

Specifies the speed of the action specified by the InitialAction parameter.

Possible values are integer values greater than 0.

| | |
|----|---------------|
| 0 | highest speed |
| >1 | slower |

| InitialActionPersistent | |
|-------------------------|------------------------------|
| Description | Repetition of initial action |
| Syntax | Boolean |
| Default | false |
| Context | <Options> |
| Version | 2.2.0 or higher |

Initial action restarts on each 'reset' command (button or keyboard) if set to true. Otherwise the action only performs on startup.

| HelpURL | |
|--------------------|---------------------------------------------------------------------|
| Description | URL of custom help page |
| Syntax | String |
| Default | http://help.fsi-viewer.com |
| Context | <Options> |
| Version | 1.3.0 or higher |

If you want to create a custom help page for your FSI Viewer enter the complete (absolute) URL to this page using this parameter.

| HelpURLTarget | |
|--------------------|-------------------------------------|
| Description | Target (frame) for custom help page |
| Syntax | String |
| Default | _blank |
| Context | <Options> |
| Version | 1.3.0 or higher |

Using this parameter you can define the target name of the browser window if a user opens the help page. The default value "_blank" opens a new browser window.

| Initial MouseMode | |
|--------------------|-----------------------|
| Description | Mouse mode on startup |
| Syntax | Number |
| Default | 0 |
| Context | <Options> |

Specifies the selected mouse mode on startup.

Possible values:

- 0 (Zoom)
- 1 (Pan)
- 2 (Rotate 3D)
- 3 (Rotate 2D)

Some plug-ins provide additional mouse modes. Please refer to the corresponding "[plug-in reference](#)" for details.

| EnableZoomInPanMode | |
|---------------------|----------------------------|
| Description | Enable zooming in pan mode |
| Syntax | Boolean |
| Default | false |
| Context | <Options> |
| Version | 4.1.2 |

Set this parameter to true if you want to enable the user to zoom by clicking the image while mouse mode "pan" is enabled.

| EnableResetInPanMode | |
|----------------------|------------------------------------------------------------|
| Description | Reset zoom when clicking on the image at max magnification |
| Syntax | Boolean |
| Default | true |
| Context | <Options> |
| Version | 6 |

Set this parameter to true if you want to reset zoom when clicking on the image at maximum magnification. This parameter has no effect if "EnableZoomInPanMode" is enabled.

| HandCursor | |
|--------------------|---------------------------|
| Description | Shape of the mouse cursor |
| Syntax | Boolean |
| Default | true |
| Context | <Options> |

If you set this parameter to "false" the default arrow cursor will be used instead of the hand cursor when hovering over the image or the navigator window.

| ZoomLimit | |
|--------------------|-----------------------|
| Description | Maximum magnification |
| Syntax | Number |
| Default | 100 |
| Context | <Options> |

Defines the maximum magnification in percent relative to the source image. The default value "100" permits magnification to the physical resolution of the source image. Possible values are "1" to "1000".

| ZoomLimitMin | |
|--------------------|-----------------------|
| Description | Minimum magnification |
| Syntax | Number |
| Default | 100 |
| Context | <Options> |

Defines the minimum magnification in percent relative to the initial image. The default value "100" permits magnification to the size of the Viewer. Smaller values permit magnifications smaller than the viewer size. Possible values are "1" to "100".

| FlickMotion | |
|--------------------|------------------------------------------------------------|
| Description | Enables dragging lists in addition to using the scroll bar |
| Syntax | Boolean |
| Default | true |
| Context | <Options> |
| Version | 6 |

With this option enabled it is possible to drag lists in addition to using the scroll bar. This can be used for e.g. FSI Showcase thumbnails, FSI Pages index, etc.

| FlickMotionOverDrag | |
|---------------------|---------------------------------------------------|
| Description | allows dragging the content slightly over min/max |
| Syntax | Boolean |
| Default | true |
| Context | <Options> |
| Version | 6 |

Allows dragging the content slightly over the minimum and maximum and the content bounces back to the limit. Only applicable if "FlickMotion" is enabled.

| ExtendedViewport | |
|--------------------|---------------------------------|
| Description | Extend the size of the viewport |
| Syntax | Boolean |
| Default | false |
| Context | <Options> |

With this option enabled you can pan the borders of the image to the center of the view port. If you disable this option the panning range is smaller so that the user can not pan the image borders to the center of the view port.

| StrictViewport | |
|--------------------|-----------------------------------------------------|
| Description | Strict viewport allowing minimum image panning only |
| Syntax | Boolean |
| Default | false |
| Context | <Options> |
| Version | 4.1.0 or above |

With this option enabled the pan range for the image is limited to the minimum required to view the entire image. This option can be useful if you want the user to pan in one direction only, because the image width matches the view port width or height (e.g. when using FSI Pages with "autozoom=fitWidth" option).

| MagnifySmallImages | |
|--------------------|------------------------------------------|
| Description | Magnify images smaller than the viewport |
| Syntax | boolean |
| Default | false |
| Context | <Options> |
| Version | 4.1.0 or above |

Usually FSI Viewer 4.1.0 or above does not magnify small images to fit the view port. You can enable this option in case you want small images to fit the view port even if the source image is smaller than the view port.

| Animation | |
|--------------------|-------------------|
| Description | Animation quality |
| Syntax | Boolean |
| Default | true |
| Context | <Options> |

Animate zoom and rotate actions (true) or zoom and rotate in a single step (false).

| AnimationType | |
|--------------------|--------------------------------|
| Description | Defines type of zoom animation |
| Syntax | Number |
| Default | 3 |
| Context | <Options> |
| Version | 5.0.0 |

Defines the type of the zoom animation (acceleration on start or end, bounce, etc.) Possible values are 0 to 6.

| AnimationSpeed | |
|--------------------|-----------------|
| Description | Animation speed |
| Syntax | Number |
| Default | 50 |
| Context | <Options> |

Specifies the speed of the zoom and scene animations. Possible values range from 1

(very slow) to 100 (very fast).

See parameter "*Animation*" to disable animated motion.

| HideUI | |
|--------------------|---------------------|
| Description | Hide user interface |
| Syntax | Boolean |
| Default | false |
| Context | <Options> |

Hide the menu bar on startup. The user has to click the "Show Menu" button to show the user interface. This option is especially useful when an image is meant to look like an ordinary image or if there are many FSI Viewers on a single web page.

| RoundedSkinCorners | |
|--------------------|----------------------------|
| Description | Defines round skin corners |
| Default | — |
| Context | <Options> |
| Version | 5.0.0 |

Defines the radius of the rounded viewer corners.

Possible values range from 0 (no rounded corners) to 99.

| UISwitchable | |
|--------------------|------------------------------------------|
| Description | Enable hiding/showing the user interface |
| Syntax | Boolean |
| Default | true |
| Context | <Options> |
| Version | 3.2.2 and above |

Specifies whether the user is able to show or hide the user interface by clicking the corresponding button or pressing "0" on the num pad. The "Show Menu" button is hidden if this option is set to "false".

| ViewerBorder | |
|--------------------|-----------------------------------------|
| Description | Defines the color of the viewer borders |
| Default | false |
| Context | <Options> |
| Version | 5.0.0 |

Color of the border around the viewer instance as a hexadecimal color value, e.g. FF0000 for red. Use "false" for no border.

| NoImageBlend | |
|--------------------|--------------------------------------------------------------|
| Description | Subsequently loaded image details display without transition |
| Syntax | Boolean |
| Default | false |
| Context | <Options> |
| Version | 1.2.0 or higher |

If this parameter is activated, subsequently loaded image details are displayed abruptly without transition.

| MobileWindowTitle | |
|--------------------|---------------------------------------------------|
| Description | Defines the browser title text for mobile devices |
| Syntax | String |
| Default | (As defined in index.html) |
| Context | <Options> |
| Version | 5.6.0 |

Specifies the window browser title on mobile devices for e.g. FSI Pages mobile.

| Effects | |
|---------------------|----------------------------------------------|
| Description: | Image manipulation parameters for all images |
| Syntax: | String |
| Default: | — |
| Context: | <Options> |
| Version: | 1.3.0 or higher |

The effects parameter can be used to pass image manipulation parameters to the imaging server. Typical manipulation parameters include the image saturation ("saturation") and image sharpening ("sharpen"). If no effect is specified, the default settings of the server (profile) apply.

Please refer to your FSI Server documentation for a list of available effect parameters.

Example "temperature"

The "temperature" parameter changes the color temperature of images delivered by the imaging server.



Practical values range from -100 to max. 100

Example – temperature(-100)



```
<effects value="temperature(-100)" />
```

Example - temperature(100)

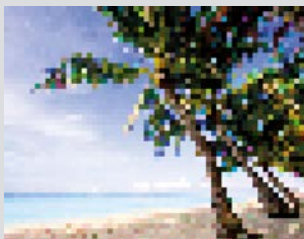


```
<effects value="temperature(100)" />
```

Example "pixelize"

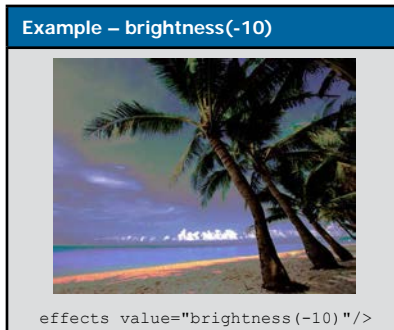
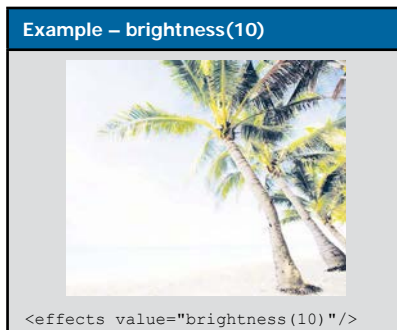
The "pixelize" parameter or sharpens images creates a pixel effect by reducing the image details of the images delivered by the imaging server.

Example – pixelize(50)



```
<effects value="pixelize(50)" />
```

Other effects change, for example, the color saturation, sharpness, hue or contrast. Please refer to your imaging server documentation for a complete description of available image effect commands.



Please refer to the FSI Server documentation for a complete list of available image effects and their parameters.

Multiple effects can be applied by concatenating the effect parameters by commas.

Example:

```
<effects value="Brightness(12),Sharpen(40)" />
```

Please note that when passing effect parameters by HTTP query, the value needs to be provided as an *url-encoded* string.

For example:

```
...fsi.swf?effects=Brightness%2812%29%2CSharpen%2840%29
```

Applying Effects to Specific Images Only

While the effects parameter holds image manipulation parameters for all images you can also apply effects to specific types of images in FSI Viewer (see "NavEffects", "SceneEffects" and "TileEffects").

For example it is sometimes useful to sharpen the images inside the navigator window as small images tend to appear a little blurry. To do so you can add a corresponding "NavEffects" parameter.

Sharpening Images in the navigator window:

```
<NavEffects value="sharpen(35)"/>
```


| NavEffects | |
|--------------------|---------------------------------------------------------------|
| Description | Image manipulation parameters applied to the navigator window |
| Syntax | String |
| Default | — |
| Context | <Options> |
| Version | 3.1.1 or higher |

Applies image manipulation effects like "sharpen" or "quality" to all images inside the navigator window. Please refer to "effects" parameter for a detailed description.

| SceneEffects | |
|--------------------|---------------------------------------------------------|
| Description | Image manipulation parameters applied to preview images |
| Syntax | String |
| Default | — |
| Context | <Options> |
| Version | 3.1.1 or higher |

Applies image manipulation effects like "sharpen" or "quality" to all un-tiled images in the viewer. Please refer to "effects" parameter for a detailed description.

| TileEffects | |
|--------------------|------------------------------------------------------|
| Description | Image manipulation parameters applied to image tiles |
| Syntax | String |
| Default | — |
| Context | <Options> |
| Version | 3.1.1 or higher |

Applies image manipulation effects like "sharpen" or "quality" to all image tiles in the main view area. Please refer to "effects" parameter for a detailed description.

| IgnoreQuery | |
|--------------------|-----------------------------------------------------|
| Description | Ignore all parameters passed via query (except cfg) |
| Syntax | Boolean |
| Default | false |
| Context | <Options> |

Ignore all parameters passed via HTTP-query except for the "cfg" parameter.
This way you can entirely disable modifications to the FSI configuration by query.

Obsolete parameters for ZoomCache software:

The successor FSI Cache does not require any special parameters.

| IgnoreQueryParameters | |
|-----------------------|-----------------------------------------|
| Description | List of parameters to ignore in queries |
| Syntax | String |
| Default | — |
| Context | <Options> |
| Version | 5.0.4 or higher |

A comma separated list of parameter names that should be ignored if specified in the HTTP query.

Example: <IgnoreQueryParameters value="language, skin" /> would prevent specifying the "skin" and "language" by HTTP query.

Please note:

- "DefaultCfg", "Cfg" and "Debug" parameters cannot be disabled
- this parameter itself cannot be specified by query

| ZoomCache | |
|--------------------|----------------------|
| Description | URL of the ZoomCache |
| Syntax | URL |
| Default | — |
| Context | <Options> |

If you use NeptuneLabs ZoomCache, please specify the URL of the ZoomCache server here. You can receive this URL and a ZoomCache ID from your image hosting provider.

| ZoomCacheID | |
|--------------------|------------------------------------|
| Description | ID of the ZoomCache access profile |
| Syntax | String |
| Default | — |
| Context | <Options> |

When using NeptuneLabs ZoomCache enter the name of the access profile for your images here. You may have several profiles i.e. if you use watermarking or different imaging servers.

| MaxZoomLevel | |
|--------------------|------------------------------------|
| Description | Load image details at maximum zoom |
| Syntax | Boolean |
| Default | true |
| Context | <Options> |
| Version | 3.2.1 or higher |

By default FSI Viewer adds a zoom level for the maximum magnification – this is FSI Viewer loads image details when reaching the maximum magnification. For extremely high resolution 2D images exceeding 32,000 pixels in width or height you can set this value to "false" to prevent display problems at the maximum magnification.

| TiltModeRelative | |
|--------------------|------------------------------------|
| Description | Use absolute or relative tilt mode |
| Syntax | Boolean |
| Default | true |
| Context | <Options> |
| Version | 3.6.0 or higher |

True: Rotate the image (2D) around the center of the view port depending on the mouse position and distance to the center. False: Rotate the image (2D) clockwise moving the mouse right and counterclockwise moving the mouse left.

| TileSizeX and TileSizeY | |
|-------------------------|--------------------------------------------------|
| Description | Size of image detail tiles |
| Syntax | Number in pixel or in percent of the viewer size |
| Default | 50% |
| Context | <Options> |
| Version | 2.3.0 or higher |

Specifies the size of image details tiles. The value can be defined relative to the viewer size (e.g. "25%") or using absolute pixel values (e.g. "256"). The default value of 50% means that each image tile is one quarter in size of the entire viewer. This way a maximum of 9 image tiles is required to display the selected image section.

Please do not change this value unless you are certain that this is necessary and you are aware of possible consequences:

- Defining smaller image tiles reduces the overall viewer performance and increases the number of requests and thus the imaging server load.
- Defining larger image tiles might lead to increased traffic and decreased download performance as more image data than actually required for a certain image section will be loaded.

| InfoTemplate | |
|--------------------|-----------------------------------------------------------|
| Description | Configuration template to retrieve image info from server |
| Syntax | String |
| Default | fsi/info.xml |
| Context | <Image> (or alias <FPX>) |
| Query | ImageInfoTemplate (or alias FPXInfoTemplate) |
| Version | 5.5.0 or higher (2.1.0 or higher for alias <FPX>) |

Specifies the configuration template used to retrieve image specific data from FSI Server. You might want to specify a custom template if you want to retrieve IPTC data for all images.

| MetaDataQueryParameters | |
|-------------------------|--------------------------------------------|
| Description | HTTP Query to append to meta data requests |
| Syntax | Query |
| Default | — |
| Context | <Options> |
| Version | 4.1.3 or higher |

An optional query string of the form "a=1&b=2&c=3..." to append to meta data request to FSI Server. These query parameters will be appended to info and list requests passed to the imaging server.

| ConcurrentRequests | |
|--------------------|---------------------------------------|
| Description | Number of simultaneous image requests |
| Syntax | Number |
| Default | 2 |
| Context | <Options> |
| Version | 2.3.0 or higher |

Specifies the number of image details (image tiles) being requested simultaneously.

Please do not change this value unless you are certain that this is necessary and you are aware of possible consequences:

- Increasing this value might lead to increased imaging server load
- Decreasing the value will decrease the download performance

| UseIntermediateZoomLevels | |
|---------------------------|---------------------------------------------------------|
| Description | Use more zoom levels than contained in the source image |
| Syntax | Boolean |
| Default | true |
| Context | <Options> |
| Version | 4.0.0 or higher |

Images with resolution levels contain the same image in different resolutions. The size of the next level is twice the size of the preceding level. If you disable this option FSI Viewer accesses these resolution levels only. Otherwise image data will be retrieved more often.

| UniqueID | |
|--------------------|--------------------------------|
| Description | Unique Identifier for plug-ins |
| Syntax | String (see description) |
| Default | — |
| Context | <Options> |
| Version | 3.6.0 or higher |

A unique string identifying the image / image collection displayed in FSI Viewer. You can for example use the path of the image or the name of a catalog. Do not use the following characters in UniqueIDs: [Space] ~ % & \ ; : " ` , < > ? #
The "*Notepad plug-in*" for example requires a UniqueID value.

| MouseVelocity | |
|--------------------|---------------------------------------|
| Description | Continue mouse actions after mouse up |
| Syntax | Boolean |
| Default | false |
| Context | <Options> |
| Version | 5.0.0 or higher |

If you enable this parameter mouse actions like "pan" will be continued depending on the speed you moved the mouse. The higher the drag speed the longer the action will be continued. This option is especially useful for 3D views. With this parameter enabled and mouse mode set to "rotate 3D" the object will continue to spin rather than stopping immediately after mouse up. Additionally a very fast spin of a 3D view will add a blur effect to the object.

Using Custom Language Files

In case you want to edit tool tips for existing languages or add support for additional languages you can edit or create language files in the subdirectory "/languages" of your FSI Viewer setup directory.

Each language file contains a list of phrases used in FSI Viewer user interface. The language files are XML files and need to be saved in UTF-8 format. The attribute "id" specifies the context of each phrase. Please note that you need to use XML entities for characters not allowed in XML files, like e.g.

| | |
|--------|---------|
| & | for "&" |
| < | for "<" |
| > | for ">" |
| " | for " |
| ' | for , |

You can use "*basic HTML tags*" to apply text formatting to the tool tips.

Excerpt from a language file

```
<Data language="english" color="000000" font="_sans" offsetTop="0"
offsetLeft="0" offsetWidth="0" offsetHeight="0">
  <tip id="ZoomOut"><b>Zoom Out</b><br/>Click to decrease
magnification</tip>
  <tip id="ZoomIn"><b>Zoom In</b><br/>Click to increase
magnification</tip>
  <tip id="Downloading Data">Downloading:</tip>
[...]
```

You can duplicate existing language files or create new files as needed. To use custom language files, please use the "language" parameter and set the parameter value to the filename without the ".xml" extension.

NeptuneLabs FSI Viewer

Virtual 360° Presentations

Preparing 360° Presentations

In addition to zoomable 2D images FSI Viewer can be used to display virtual 360° presentations of an object. This way you can provide a photorealistic, zoomable and spinable view of an object. Creating 360° views requires multiple images of the same object from different angles.

There are two different methods to setup virtual 360° views:

- Using multiple source images
- Using a single, tiled source image



Note

You can have the imaging server setup the image list for you automatically based on a directory or search query. In this case you can choose "Publish to Web" => "Publish as FSI Viewer 360" from either a directory or search result.

Method A - Using Multiple Source Images

This is the recommended way to setup virtual 360° views.

Upload the images belonging to a 360° View to a subdirectory of your imaging server. Create a configuration file (e.g. "my3dview.xml") and add the list of source images belonging to this view like in the sample as shown:

Configuration for a 360° presentation as displayed in Figure A on page 59

```
<?xml version="1.0" encoding="$charset"?>
<fsi_parameter>

    <images3d prefix="my3Dimage/image_" suffix=".tif">
        <image path="01" />
        <image path="02" />
        <image path="03" />
        <image path="04" />
        <image path="05" />
        <image path="06" />
    </images3d>

</fsi_parameter>
```

Please note that the sequence of the <image> nodes defines the sequence of the 360° scenes. You can use the parameter "SceneSets" to modify the sequence by configuration later on.

You can either enter the complete path for each image or use the prefix and suffix attributes to have FSI Viewer assemble the file names from

prefix + imagepath + suffix

In the example above, the image path for the first image is therefore: my3dimage/image_01.tif

Besides adding the <images3d> node to your configuration file you can alternatively load an external file containing the image list. This can be useful if you have a server side script or database containing the image paths for 360° views. In this case you only need to specify the images3dURL parameter which should contain the URL to the image list to retrieve.

Method B - Using a single, tiled source image

In this case you need to prepare the source image in the way, that it contains all required images as tiles of equal dimension. Please see the figure below which shows a so prepared source image with 12 image tiles.

The number of horizontal and vertical image tiles must be specified using the parameters "*TilesX*" and "*TilesY*".

Figure A displays a source image containing 12 tiles representing a rotation of 360° around the Y-axis in steps of 30°. In this case you simply add the parameters TilesX=3 and TilesY=4 to your FSI configuration.



Fig A: Rotation around Y-axis in 30° steps $4 \times 3 = 12$ tiles

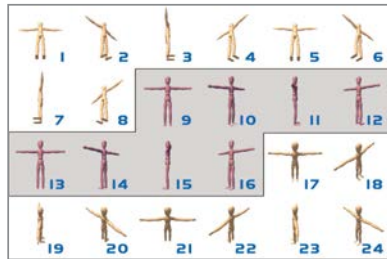


Fig B: Rotation around Y-axis in 15° steps and partial rotation around X-axis in 15° steps $6 \times 4 = 24$ tiles in 3 scene sets

Example – Configuration for a 360° presentation as displayed in Figure A

```
<?xml version="1.0" encoding="$charset"?>
<image>
    ...
    <TilesX value="4" />
    <TilesY value="3" />
    ...
</image>
```

Figure B shows a more complex 360° view representing a rotation of 360° around the X-axis in 45° steps and an additional rotation of +/- 15° around the Y-axis.

To present rotations around more than one axis or to present an object in different states you need to define "*SceneSets*".

A Scene Set describes a sequence of individual images.

The user can select individual images of a scene set using the keys "7" or "9" in the num pad or using the mouse mode "rotate" moving the mouse horizontally.

The user can additionally select a scene set using the keys "/" and "*" in the num pad or using the mouse mode rotate moving the mouse vertically.

If the TilesX or TilesY parameters are defined for a source image, but no scene set is defined, a scene set containing all the scenes from left to right, top to bottom will be created by default. Referring to Figure B this would be

```
<SceneSets value="1-24" />
```

As the presentation of Figure B consists of 6 by 4 individual images while 8 images represent a complete rotation around the Y-axis the definition of the following 3 scene sets is required:

| Image Tiles | Y-Axis | X-Axis |
|-------------|-----------|--------|
| 1 – 8 | 0 to 360° | - 15° |
| 9 – 16 | 0 to 360° | 0° |
| 17 – 24 | 0 to 360° | +15 ° |

The required configuration to rotate the object around the Y-axis moving the mouse horizontally and rotating the object around the X-axis moving the mouse vertically looks like this:

Configuration for a 360° view as displayed in Figure B

```

<image>
  ...
  <TilesX value="6" />
  <TilesY value="4" />
  ...
</image>

<options>
  ...
  <SceneSets value="1-8;9-16;17-24" />
  ...
</options>

```

You can use the SceneSet parameter to specify the image sequence independent of the way you setup the 360° view (multiple source images or a tiled source image). Please refer to the description of the "*SceneSets*" parameter for details on the different ways of defining images contained in a scene set.

Tip: If you are not sure about the number of images in your tiled source image in the x and y direction, try entering the value 1 for TilesX and TilesY. In the viewer you will then see the entire source image structure.

Parameters for Virtual 360° Presentations

The following FSI configuration parameters apply to virtual 360° presentations only.

Parameters for multiple source images (Method A) only:

| Images3D | |
|--------------------|-------------------------------------------|
| Description | Node containing the list of source images |
| Syntax | XML node |
| Default | — |
| Context | ROOT node |
| Query | n/a |

Add this node to the top level of a configuration file to list the individual images for a 360° presentation. You can add the attributes prefix and suffix instead of providing the complete path for each image individually.

Configuration for a 360° presentation as displayed in Figure A

```
<?xml version="1.0" encoding="$charset"?>
<fsi_parameter>

    <Images3d prefix="my3Dimage/image_" suffix=".tif">
        <image path="01" />
        <image path="02" />
        <image path="03" />
        <image path="04" />
        <image path="05" />
        <image path="06" />
    </Images3d>

</fsi_parameter>
```

| Images3DURL | |
|--------------------|---------------------------------------------------------|
| Description | URL to an XML file containing the list of source images |
| Syntax | URL |
| Default | — |
| Context | <options> |

URL to an external XML file containing the image lists for 360° presentations as explained above. You might want to use the parameter Images3DURLBase in your _default.xml configuration file to specify the URL base for all 360° image list URLs.

| Images3DPrefix, Images3DSuffix | |
|--------------------------------|------------------------------------------|
| Description | Prefix / Suffix to add to the image URLs |
| Syntax | String |
| Default | — |
| Context | <options> |
| Version | 4.0.7 |

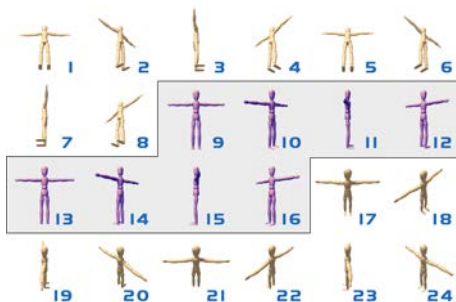
Prefix or suffix to add to the <image src=""> values. You might want to use these parameters to pass a prefix or suffix by HTTP query rather than using the corresponding "prefix" and "suffix" attributes in the <images3d> node.

Parameters for tiled source images (Method B) only:

| TilesX and TilesY | |
|--------------------|----------------------------------------------------|
| Description | Number of individual images for 360° presentations |
| Syntax | Number |
| Default | 1 |
| Context | <image> or deprecated <FPX> |
| Query | ImageTilesX and ImageTilesY |

Number of individual images contained in the source image in x- and y- direction respectively.

Example: image containing 6 x 4 tiles arranged in 3 scene sets.



Even with 'asymmetrical' scene orders - like in the example to the left - the number of tiles would be 6 in the x direction and 4 in the y direction.

Definition of 3 scene sets containing 6 x 4 = 24 tiles

```
<image>
...
    <TilesX value="6" />
    <TilesY value="4" />
...
</image>
<options>
...
    <SceneSets value="1-8,9-16,17-24" />
...
</options>
```

Parameters for all 360° presentations (Method A or Method B):

| SceneSets | |
|--------------------|---------------------------|
| Description | Scene sequence definition |
| Syntax | String |
| Default | 1 – n tiles |
| Context | <options> |

Using this parameter you can define scene sets for 360° views. Scene sets define the order of scenes to be displayed.

The default is a single scene set containing all scenes (image tiles) from scene 1 to the last scene image. The default sequence is left to right, top to bottom in a tile image and the sequence of the <image> nodes for 360° views based on individual source images.

In the viewer scenes can be selected by moving the mouse horizontally and scene sets can be selected by moving the mouse vertically.

Syntax:

Individual sets have to be separated with ";" (semicolon).

Scenes within the sets are separated with "," (comma) and specify the 1-based index of the image from left to right, top to bottom up to the total number of scenes (TilesX x TilesY or individual source images).

Instead of individual scenes you can also specify scene ranges, e.g. "5-10".

If you leave out the start or the end of a scene range, 1 or respectively the last scene will be assumed in this case. If you specify a range using "->" the scenes from the first number to the last scene image plus the first scene image up to the second number will be assumed. The example below illustrates the syntax:

| Definition of multiple scenes and scenesets |
|--------------------------------------------------------------------------------------------------------------|
| <pre><options> ... <SceneSets value="2,3,5-10;10-1;5-;8->3" /> ... </options></pre> |

The example defines 4 scene sets in total. Assumption: The source image is created from 10 individual images (scenes), 5 in a row, two rows.

This leads to the following image order for the individual scenes:

Set 1 - Scenes: 2,3,5,6,7,8,9,10
Set 2 - Scenes: 10,9,8,7,6,5,4,3,2,1
Set 3 - Scenes: 5,6,7,8,9,10
Set 4 - Scenes: 8,9,10,1,2,3

You can review the resulting scene sets in the "Info" section of the Debug Window.

| ScenePreload | |
|--------------------|--------------------------------|
| Description | Load scenes in high resolution |
| Syntax | Boolean |
| Default | false |
| Context | <options> |

If this parameter is activated (default) all scenes will be loaded at high resolution on startup. Otherwise preview images will be loaded with at a lower resolution. This parameter can significantly influence loading times and traffic volumes.

Setting this parameter to false leads to faster startup times and high resolution scene images will be loaded as soon as they need to be displayed.

| TilePaddingX and TilePaddingY | |
|-------------------------------|---------------------------------------------------|
| Description | Crops each scene image by a given number of pixel |
| Syntax | Number (pixel) or percent |
| Default | 0 |
| Context | <image> or deprecated <FPX> |
| Version | 2.2.0 or higher |

Specifies a positive number of pixels that each source scene image (2D and 360°) will be cropped by. This parameter can be used to eliminate image margins especially with 360° objects containing polychrome backgrounds.

You can specify the padding either absolutely as a number of pixel or in percent of the source image.

| NoSceneAnimation | |
|--------------------|------------------------|
| Description | No SceneSet animations |
| Syntax | Boolean |
| Default | false |
| Context | <options> |

Disable animations between scenes and scene sets. This can be useful if different scenes represent different states of an object instead of a rotation.

| NoSetLoop | |
|--------------------|------------------------------------|
| Description | No 360° rotation around the y-axis |
| Syntax | Boolean |
| Default | false |
| Context | <options> |

The first and the last scene set will be considered ending points. (E.g. for partial rotations < 360°).

Please note: The blur animation is turned off if NoSetLoop is activated.

| NoSceneLoop | |
|--------------------|------------------------------------|
| Description | No 360° rotation around the x-axis |
| Syntax | Boolean |
| Default | false |
| Context | <options> |

The first and last scene in the each scene set will be considered ending points. (E.g. for partial rotations < 360°).

Please note: The blur animation is turned off if NoSceneLoop is activated.

NeptuneLabs FSI Viewer

Debug Mode

Enabling the Debug Mode

The debug mode can be enabled or disabled by passing the "Debug" parameter either by HTTP query or in an XML configuration file.

Please use "debug=1" to enable the debug mode and "debug=0" (or omit the debug parameter) to disable the debug mode. To disable the debug mode permanently you can safely delete the "/debug" directory of your FSI setup directory.

Example:

If FSI Viewer does not work or look as expected in an HTML page you can quickly debug FSI Viewer as follows:

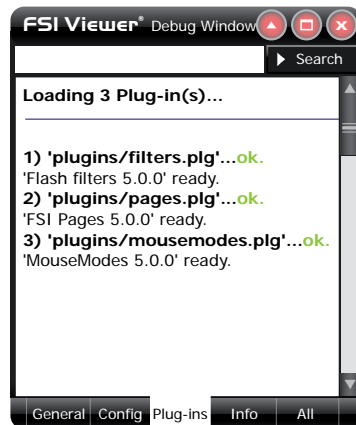
- View the source code of the HTML document and search for the FSI Viewer HTML Code
- Copy the entire FSI Viewer URL (<http://...fsi.swf?....>) to the clipboard
- Paste the URL to the address bar of your browser appending "&debug=1"

Using the Debug Window

After activating the debug mode an output window is available presenting information about the initialization progress, configuration parameters, plug-ins and image information.

You can select different debug sections by clicking the corresponding tab at the bottom of the window.

The window can be moved by dragging the window title bar and you can show or hide the window by pressing "d".





*The section "All" contains the entire debug output.
Please provide the content of this section when requesting support.*

Enabling the debug mode additionally prevents the browser from caching FSI configuration files. This allows you to easily test changes to your FSI configuration files without having to delete the browser cache each time. You can search each section by entering a keyword to the search input at the top. Pressing the "search" button multiple times will cycle through all matches.

General section

Provides general information about the initialization progress. If the viewer does not display an image you should be able to track down the error cause by determining the step where the initialization process stops.

For example if the last output is "Loading Skin and Module" the skin file is most likely missing or corrupt.

If the Viewer runs in evaluation mode you will be presented the reason why evaluating the licence key failed here. Please refer to the plug-in section for a list of active plug-ins and to the Info section for the domain evaluated by FSI Viewer.

Config section

Displays information on the configuration parsing process, the resulting configuration and possible configuration errors.

If the viewer loads successfully, but the configuration does not look as expected you should be able to track the reason in this section. This section lists all recognized parameters resulting from the 3 different configuration methods (default configuration, configuration file and query) and displays tips regarding false parameter values as well as unknown parameters.

Plug-ins section

Provides information on loaded FSI Plug-ins and configuration errors related to plug-ins. Additionally you can review all configuration parameters of the active plug-ins.

Info section

Displays version and licence information, general information related to the viewer instance and runtime information on the image being displayed.

Press "i" to refresh the image section being displayed after zooming, panning or rotating the image.

NeptuneLabs FSI Viewer

Automated Implementation of Images

Rather than creating individual configuration files for each image it is recommended to provide FSI parameters via HTTP queries appended to the FSI Viewer URL when implementing large numbers of images.

As some browsers require the obsolete `<embed>` tag, queries have to be added to both the `<object>` and the `<embed>` tag. ([↗ HTML-Source Code](#)).

FSI Viewer is able to request image specific parameters like the source image dimension (parameters "Width" and "Height") from your imaging server ("[↗ Retrieving Parameters Automatically](#)"). Using this feature reduces the required work to dynamically providing the path to the source images.

It is recommended to use server side script like ASP, PHP, JSP, Perl, etc. when implementing large numbers of images. All subsequent code examples in this section refer to PHP, but can be easily adapted to any other server side scripting language.

Steps to be taken when using large numbers of images:

1. Defining default parameters

Be sure to provide as many recurring parameters as possible in the `_default.xml` file. This way you don't have to pass these parameters via query. The most important parameter is `Image_Server`, as this parameter enables you to subsequently define image parameters using relative addressing. If there are some images that require different parameter values than defined in the `_default.xml` file, you can still overwrite the default setting by passing the value via query.

2. Creating image specific URLs

Be sure to have image specific data available for server scripting by using a database, your content management system, or any other appropriate source. You will at least need to provide the `Image_Server` parameter from your data source. After collecting the image specific data from your data source you have to build a standard HTTP query string (RFC1738) containing the data using server side scripting ("[↗ Using HTTP Queries](#)").

Generating FSI queries (fetch_fpx_image.php)

```
// Retrieve FPX properties for picture 1 from table "FPX_Images"
$result = mysql_query('select FPXSrc,FPXHeight,FPXWidth,TilesX,TilesY
from FPX_Images where PictureID=1');

if ($result) {

    // Fetch SQL data
    $fpx_parameter=mysql_fetch_assoc($result);

    if ($fpx_parameter){

        // RFC1738 parameter encoding
        foreach ($fpx_parameter as $fpx_key => $fpx_val) {
            $query_collection[] = $fpx_key.'=' .
rawurlencode($fpx_val);
        }

        // Make one large query string
        $fsi_query=implode('&', $query_collection);

        // Add Query to FSI Viewer URL
        $fsi_url='fsi.swf?'.$fsi_query;
    }
}
```

3. Creating the HTML-Code dynamically

Create a variable that contains the <object> and <embed> tag with all variables provided as script variables. Replace all variables inside the template using server side scripting.

You will usually need to replace the following 4 variables:

- URL (see above: 2. Creating image specific URLs)
- Width
- Height
- Background Color

HTML Template

```
<HTML>
<BODY>
...

<?php
include("fetch_fpx_image.php");

$fsi_url = "fsi/fsi.swf?FPXSrc=image.fpx&FPXTilesx=4&FPXTilesY=3";
$width = 320;
$height = 300;
$bgcolor = "#FFFFFF";

$template="
<Object classid=\"clsid:D27CDB6E-AE6D-11cf-96B8-444553540000\"
codebase=\"http://download.macromedia.com/pub/shockwave/cabs/flash/
swflash.cab#version=6,0,65,0\" width=\"$width\" height=\"$height\">
    <PARAM name=\"movie\" VALUE=\"$fsi_url\" />
    <PARAM name=\"bgcolor\" VALUE=\"$bgcolor\" />
    <PARAM name=\"menu\" VALUE=\"false\" />
    <PARAM name=\"allowscriptaccess\" value=\"always\" />
    <PARAM name=\"allowfullscreen\" value=\"true\" />
    <PARAM name=\"quality\" value=\"high\" />
<EMBED TYPE=\"application/x-shockwave-flash\"
PLUGINSOURCE=\"http://www.macromedia.com/shockwave/download/
index.cgi?P1_Prod_Version=ShockwaveFlash\" SRC=\"$fsi_url\"
WIDTH=\"$width\" HEIGHT=\"$height\" BGCOLOR=\"$bgcolor\"
MENU=\"false\" ALLOWSCRIPTACCESS=\"always\" ALLOWFULLSCREEN=\"true\"
QUALITY=\"high\"></EMBED>
</Object>";

echo $template;
?>

...
</BODY>
</HTML>
```

NeptuneLabs FSI Viewer

Plug-ins

FSI Plug-ins dynamically extend the functionality of FSI Viewer and can be included at runtime.

Depending on the plug-in additional buttons might be added to the menu bar. The sequence of these buttons results from the sequence of the plug-in definitions inside the <Plugins> section of the configuration file.

Using FSI Viewer Plug-ins

To include a plug-in you simply list the desired plug-ins in the <Plugins> section of any *.xml configuration file (or the _default.xml file).

The required plug-in files are located in the "/plugins" folder of the FSI setup directory.

Using FSI Plug-ins

```
<fsi_parameter>
...
<Plugins>
    <Plugin src="mousemodes" />
    <Plugin src="history" length="10" />
</Plugins>
...
</fsi_parameter>
```

The "Src" attribute which applies to all plug-ins specifies the plug-in to be included:

| Src | |
|--------------------|---------------------|
| Description | Name of the plug-in |
| Syntax | String |
| Default | — |
| Context | <Plugins> |
| Version | 2.0.0 or higher |

This attribute defines the name of the plug-in, e.g. "history". The value has to be stated without the file extension ".plg".

Alternatively you can integrate plug-ins by HTTP query using the "plugins" parameter with a comma separated list of the desired plug-ins.

Plug-in Parameter

```
http://www.example.com/fsi.swf?...&plugins=mousemodes
```

This option is available from FSI version 3.0 only.

Param

```
<PARAM name="movie" VALUE="/fsi/fsi.swf?plugins=mousemodes,history">
```

The example above integrates the plug-in "*mousemodes*" and the plug-in "*history*".

Deactivating Plug-ins

To disable previously integrated plug-ins (e.g. plug-ins defined in the `_default.xml` file) you can set a parameter with the name of the plug-in and a value of "false" to the `<Options>` section of your configuration file or provide a corresponding parameter via HTTP query.

Disabling the History Plug-in

```
<Options>
...
    <History value="false" />
...
</Options>
```

or by HTTP query:

Using a Query to disable History Plug-in

```
http://www.example.com/fsi.swf?...&history=false
```


Defining Plug-in Parameters

Plug-in parameters are usually defined as attributes of the <Plugin> tag.

Please note that some plug-ins might require specific attributes or even entire XML sections in the configuration file to work properly. For information on a specific plug-in please refer to the "[✍ Plug-in Reference](#)".

Defining plug-in parameters

```
<Plugins>
...
    <Plugin src="navextension" MenuOffset="10" visible="true" />
    <Plugin src="zoommeter">
        <SRCRelative value="true"/>
    </Plugin>
...
</Plugins>
```

Defining Plug-in Parameters dynamically

To provide plug-in parameters by query you have to prefix the corresponding parameter with the name of the plug-in and an underscore character:

PluginName_ParameterName=value

Providing plug-in parameters via HTTP query

```
fsi.swf?navextension_visible=true&history_length=10
```

The example above sets the "visible" parameter of the "NavExtension" plug-in to "true" and the "length" parameter of the "History" plug-in to "10".

Similar to providing plug-in parameters you can provide plug-in parameters in the options section of FSI Viewer configuration files by prefixing the parameter name with the name of the plug-in. This way you can specify plug-in parameters without actually including the plug-in again.

Providing plug-in parameters as global parameters

```
<Options>
...
    <history_length value="10" />
...
</Options>
```

NeptuneLabs FSI Viewer

FSI Pages Add-on

Using FSI Pages you can present image collections on-line simulating a printed catalog, booklet or photo album.

FSI Pages automatically creates a page index with thumbnails and provides interactive zooming using FSI Viewer.

The number of pages (images) has a very low impact on the loading time and performance. You can therefore use FSI Pages with 1,000 and more images or pages. Depending on the configuration, FSI Pages can be used to display different types of booklets like catalogs (with or without links), booklets, photo albums and more.



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Using FSI Pages

The integration of FSI Pages is very similar to an FSI plug-in. To enable FSI Pages you have to add a plug-in node to your XML configuration file:

Integrating FSI Pages

```
<Plugins>
...
    <Plugin src="pages" skin="silver" />
...
</Plugins>
```

Parameters for FSI Pages can be provided by adding parameters as attributes or child nodes of the FSI Pages plug-in node. As with all FSI plug-ins, you can additionally provide parameters by adding the parameter to the FSI Viewer query prefixed by "pages_".

Providing parameters as node attributes

```
<Plugins>
...
    <Plugin src="pages" MarginLeft="100" zoom="false" />
...
</Plugins>
```

Providing parameters as child nodes

```
...
<Plugins>
...
    <Plugin src="pages" MarginLeft="100" zoom="false" >
        <MarginLeft value="100" />
        <zoom value="false" />
    </Plugin>
...
</Plugins>
...
```

Providing parameters using HTTP queries attached to the movie URL

```
fsi.swf?cfg=foo&pages_marginleft=100&pages_zoom=true
```

FSI Pages Converter

FSI Pages Converter is a Java based conversion tool to split PDF documents into separate TIFF files optimized for use with FSI Server. Besides converting PDF documents into individual TIFF files, the conversion tool automatically extracts hyperlinks from the PDF document and generates partial PDF documents of the document for download. Please contact your FSI dealer to get a copy of FSI Pages Converter.

Aspect Ratio of the Pages

By default FSI Pages uses the aspect ratio of the first image in the image collection to determine the aspect ratio for all pages. Alternatively you can manually define an aspect ratio for all pages using the "ratio" parameter.

E.g. `<Plugin src="pages" ratio="1:2" />`
or `<Plugin src="pages" ratio="640:480" />`

Layout and Skins

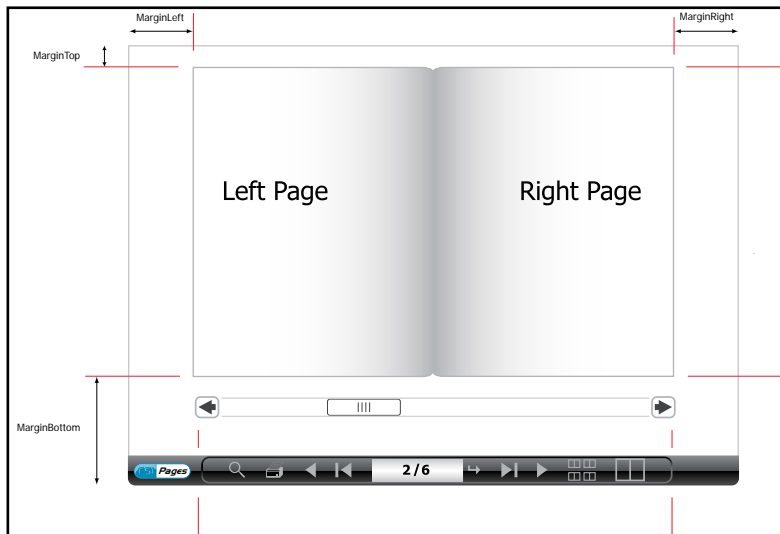
FSI Pages ships with two default skins that correspond to the default skins of FSI Viewer and an additional skin providing the user interface in a side bar. You can easily change the FSI Pages skin being used by specifying the file name of the skin using the FSI Pages "skin" parameter e.g.

Setting the skin

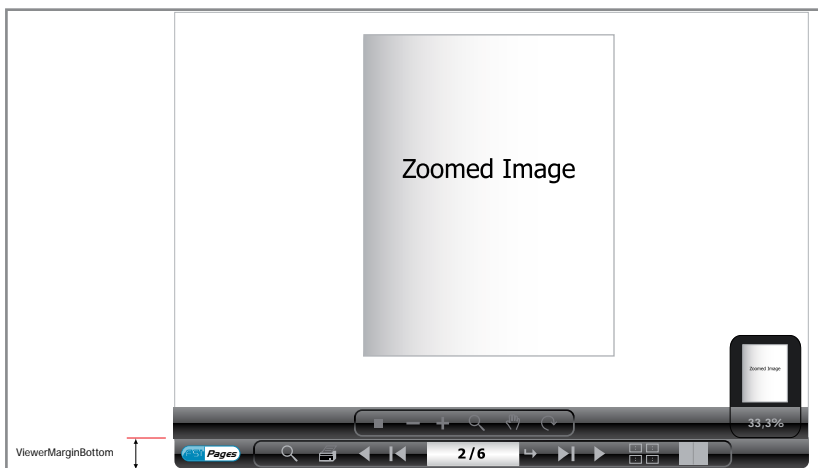
```
<Plugin src="pages" skin="silver" />
```

Additional custom skins are available on demand and may contain additional functionality and designs.

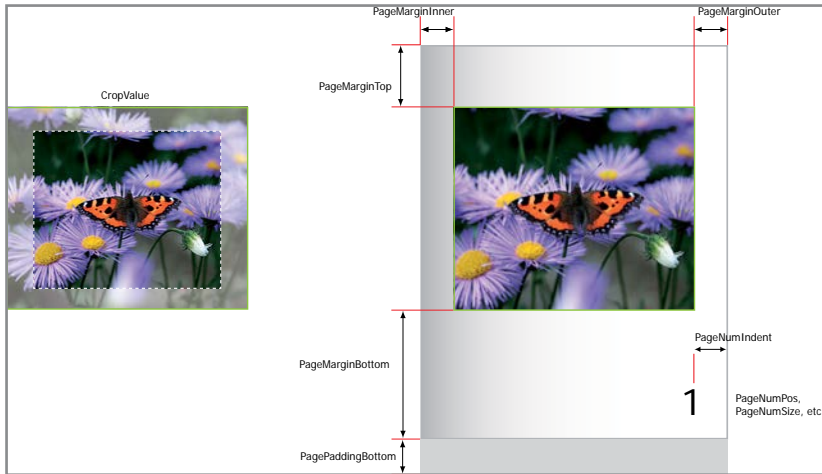
You can modify the layout of FSI Pages and FSI Viewer using the "*Margin*" and "*ViewerMargin*" parameters. The following illustrations show the use of these parameters:



Using Margin parameters to define the position of the pages and to provide space for the FSI Pages user interface.



Using ViewerMargin parameters to define the size and position of FSI Viewer inside FSI Pages. Usually you only specify ViewerMarginBottom to provide space for the FSI Pages interface.



Cropping

CropRect

The CropRect parameter defines a cropping rectangle applied to the source image. The four points to define this rectangle are floating point numbers ranging from 0.0 to 1.0, representing the edges of the image. The rectangle is defined by four floats, the order is Left, Top, Right, Bottom. The default rectangle is "0,0,1,1" which displays the entire image without any cropping. The rectangle "0,0,0.5,0.5" will crop the image to the top left quarter while "0.5,0.5,1,1" will crop to the bottom right quarter. If set, the CropRect aspect ratio will define the pages aspect ratio in FSI Pages. If CropValues (see below) are defined, the CropRect will be ignored.

CropValues

In contrast to CropRect above, the CropValues can also be given in pixel or percent. CropValues are used to define a certain area of the source image to be cut off. E.g. the CropValue "10px,20px,5%,10%" will remove 10 Pixel from the left and 20 Pixel from the top of the image while also removing 5% from the right and 10% from the bottom. If CropValues are defined, any given CropRect will be ignored.

Margin/Padding

Page margins can additionally be defined to adjust the appearance of the images in FSI Pages. A page margin will hide the part of the image as defined, while padding will add some white space to the pages. Please refer to the image (XYZXYZYZ)

AutoCropPages

This will crop each image to fit the pages aspect ratio automatically.

ImageAlign

Mostly used for photo albums with FSI Pages. If the source image does not fill the entire page, this defines the alignment of the image. Default value is "TC" which stands for Top Center. Possible values are all combinations of the vertical alignments (Top, Center, Bottom) and horizontal alignments (Left, Center, Right).

A complete reference of all "*layout parameters*" can be found at the end of this chapter.

Defining Image Collections

The images to be displayed in FSI Pages have to be defined in an <images> node added to your XML configuration file. The format and the options of the collections are the same as those of the "*FSI Showcase Add-on*" collections.

There are three different ways of defining image lists:

1. Retrieving automatically generated image lists from FSI Server
The most convenient way to create image collections is using the template system of FSI Server. You can either do so by using the "Publish to Web" option in FSI Server web interface or by specifying the server address and a directory or search query manually.

Retrieving Image Collections from Imaging Server

```
<PLUGIN src="pages">
  <ListTemplate value="catalog_list" />
  <dir value="images/catalogs/foo" />
</PLUGIN>
```

This way FSI Server uses an image "*list template*" to return the matching images in XML format. Depending on the list template, FSI Server serves IPTC data belonging to an image (e.g. for links) as well.

2. Retrieving Directory based Image Collections from FSI Server

Retrieving Directory based Image Collections from FSI Server

```
<Plugins>
...
    <!-- Passing a directory as plain text -->
    <Plugin src="pages" server=".." dir="images/flowers/" />

    <!-- Passing an encrypted string representing a directory -->
    <Plugin src="pages" server=".."
dir="*XzPzLUFVSHtmeeFxOY0NUU0" />
...
</Plugins>
```

3. Creating collections manually using XML configuration files

Creating collections manually using XML configuration files

```
<Images>
...
    <Image file="image1.xml" label="My First Image" />
    <Image file="image2.xml" label="My Second Image" />
...
</Images>
```

Method 2 and Method 3 can be freely combined while Method 1 retrieves a complete image list ignoring previously defined `<images>` nodes.

Image Order

The order of the images (this is the page order) corresponds to the order of the `<image>` declarations within the `<images>` section.

Inserting Blank Pages

You can insert blank pages by adding `<image empty="true" />` nodes anywhere in your image collection. Alternatively you can use the FSI Pages parameter *EmptyImages* to pass the page numbers to insert blank pages before separated by commas. This is especially useful if you retrieve the image collection from FSI Server (Method 1).

Removing certain Images from a List

Using the parameter "*RemovePages*" you can disable (remove) certain images from an image list. In this case you pass the page number(s) of the pages you want to remove separated by commas. This is especially useful if you retrieve the image collection from FSI Server (Method 1).

Page Reading Order

(requires FSI Pages version 4.1.5 or above)

By default FSI Pages displays pages in western reading order: left-to-right. For documents with right-to-left reading order (e.g. Arab documents) you can change the reading order to RTL (right-to-left) using the boolean FSI Pages parameter "*PageOrderRTL*".

Defning Right-To-Left reading order

```
<Plugins>
...
    <Plugin src="pages" >
        <PageOrderRTL value="true" />
    </Plugin>
...
</Plugins>
```

Changing the page order to RTL changes all aspects of FSI Pages related to the page sequence and page numbering including the page sequence, the page numbering and the thumbnail display.

Please note that the page adresssing does not change so that e.g. setting the "InitialPage" parameter to "10" shows the contents on startup independet of the "*PageOrderRTL*" parameter. The same applies to "#page=*n*" hyperlinks in PDF documents.

If you just want to reverse the page sequence without changing the reading order, you can use the booealan FSI Pages parameter "*ReversePageOrder*".

Printing Pages

If you want to enable users to print pages from within FSI Pages you can enable the built-in print function by setting the FSI Pages parameter "*print*" to "true".

Enabling Print Options

```
<Plugins>
...
    <Plugin src="pages" >
        <Print value="true" />
        <PrintResolution value="1024" />
    </Plugin>
...
</Plugins>
```

This adds a "Print" button to the menu bar. Clicking the "Print" button displays the "Print" dialog of FSI Pages. The "*print*" dialog offers different printing options to the user, depending on the current page and if the user zoomed into a page.

The printing options cover:

- Selected Range (e.g. 1-3; 9-20 or 1,6,8,12)
- Both Pages on a single sheet of paper
- Left Page
- Right Page
- The currently zoomed image section

After the user has chosen an option and clicks the "Print" button in the dialog, FSI Pages downloads the required image data (pixel data) from the imaging server and opens the print dialog on the user's system once the download has finished.

You can limit the resolution used for printing using the FSI Pages parameter "*PrintResolution*". Lower resolution leads to faster downloads at the cost of decreased print quality.

You can additionally pass effect parameters "*PrintEffects*" to sharpen the image or to specify the image compression.

You might additionally want to use a specific real time template used to retrieve the image for printing. Please use the FSI Pages parameter "*PrintTemplate*" in this case. You can limit the displayed options of the "Print" dialog using the FSI Pages parameter "*PrintOptions*".

Saving Pages

If you want to enable users to download a file related to the displayed page, the current section or the entire document, you can enable the save options by setting the FSI Pages parameter "🖋️ *save*" to "true".

Enabling Save Options

```
<Plugins>
...
    <Plugin src="pages" >
        <Save value="true" />
        <SaveAllowSavingImages value="true" />
    </Plugin>
...
</Plugins>
```

Without any additional preparation this allows users to download an image of the left or right page.

Saving PDF or other document types

In addition to downloading images you might want to enable users to download the complete source PDF or specific parts of the source PDF documents. This documentation refers to PDF documents only, but you can also provide other file types for download.

1. Downloading the entire PDF Document

Enabling this option is as easy as adding the FSI Pages parameter "🖋️ *SaveDocumentFile*" providing the absolute URL to a PDF document to download.

Example:

```
<SaveDocumentFile value="http://foo.com/somepdf.pdf" />
```

2. Downloading single or double pages

In order to enable the user to download a PDF document containing the page currently viewed in FSI Pages, the XML based data for a page needs to contain the corresponding URL or file name to that document.

If you are using FSI Pages Converter to convert your PDF document, you only need to enable the "PDF Output" option in FSI Pages Converter and FSI Pages Converter splits your source document into multiple, partial PDF documents. You will then need to upload these files to some web server to provide them for download and add the FSI Pages parameter "🖋️ *SaveURLPrefix*" specifying the URL to the directory on your server, containing these files.

Example:

You uploaded the PDF documents created by FSI Pages converter to your server and the URL to download the files is e.g. http://www.foo.com/downloads/catalog1/*.pdf

For this example your configuration should look like this:

Enabling Save Options

```
<Plugins>
...
  <Plugin src="pages" >

    <Save value="true" />
    <SaveDocumentFile value=" http://www.foo.com/downloads/
catalog1/all.pdf" />
    <SaveURLPrefix value=" http://www.foo.com/downloads/catalog1/"
  />

  </Plugin>
...
</Plugins>
```

Downloading parts of the Document

If your document is separated into logical parts (e.g. chapters or product groups), you might want to enable the user to download parts of the document. In this case you need to use the FSI Viewer plug-in "*✍ Chapters*" which enables the user to select and go to a predefined section in your document. For each section you can specify a separate document to offer for download. This way the user will be presented an option to download the current section (chapter) in the "Save" dialog.

```
<Indexdata>
...
  <Index page="1" label="Chapter 1" file="chapter1.pdf" />
  <Index page="20" label="Chapter 2" file="chapter2.pdf" />
  <Index page="30" label="Chapter 3" file="chapter3.pdf" />
...
</Indexdata>
```

Please note:

If you use the FSI Pages parameters "*SaveUrlPrefix*" and/or "*SaveUrlSuffix*" all "file" attribute values will be prefixed and/or suffixed with the values you specified. This way you can enter the file names only and provide the path to the files using the FSI Pages parameter "*SaveUrlPrefix*".

Searching in FSI Pages

FSI Pages provides an optional search dialog to perform full text search in documents. For performance reasons FSI Pages does not perform the actual search itself. Instead it accesses FSI Server or any other server capable of returning search results in XML format.

To enable the search dialog in FSI Pages you simply need to set the FSI Pages parameter "Search" to true. This will add a button to FSI Pages to show or hide the search dialog. Depending on the dimension of the FSI Pages instance you might want to increase the size of the search dialog using the FSI Pages parameters "*SearchDialogWidth*" and "*SearchDialogHeight*".

By default FSI Pages adds wildcards "*" to the search keywords the user entered. You can disable this feature in case you prefer displaying exact matches or if you are using an external server to return search results that performs wildcard searching by default.

Using FSI Server to return Search Results

By default FSI Pages uses FSI Server to retrieve search results. FSI Pages passes the term entered by the user to FSI Server and receives an XML based list of matches. Based on these matches FSI Pages presents a list of thumbnails of those pages matching the search criteria.

How does FSI Server determine matches?

By default FSI Server searches the IPTC data sets that FSI Pages Converter stores the keywords in only: iptc.caption and iptc.fsi_search_data.

If your images do not yet contain keywords you might want to add keywords to the corresponding IPTC data sets of your images. If you are using a PDF document as a source for your FSI Pages instance you can have FSI Pages Converter version 2 create IPTC keyword data for all pages based on the content of the PDF document. Please refer to the "Text Search" section of FSI Pages Converter in this case.

In case you want FSI Pages to search all (or other) IPTC data sets, please use the FSI Pages parameter "SearchQueryTemplate". The default value when using FSI Server is: iptc.caption:%%searchtext%%20iptc.fsi_search_data:%%searchtext%% which limits the search to the two given IPTC sets. To search in all data sets available, modify the parameter value to: %%searchtext%%

Using external Servers to return Search Results

Alternatively to using imaging server you might want to use an existing database on an external server to perform the search. In this case FSI Pages provides a simple interface you can use to have FSI Pages direct the search to and retrieve the results

from the external server. This is by nature an advanced feature and requires some server side scripting and database knowledge. The following section describes the required steps based on the assumption that your database contains a unique ID for each FSI Pages instance (catalog) and the required keywords.

Directing the search query to your server side script

Please use the FSI Pages parameter "SearchCustomURL" to provide the URL to the script on your server performing the search and returning the XML based results. To identify the FSI Pages instance (catalog) to return results for, you might need to pass a value identifying the catalog. This can be done using the FSI Pages Parameter "*SearchCustomValue*". Both parameters can – as usual – be specified by query or by adding the parameter to a configuration file.

Configuration parameters for external searching

```
<Plugins>
...
    <Plugin src="pages" >
        <SearchCustomURL value="http://foo.com/search.php" />
        <SearchCustomValue value="12345" />
    </Plugin>
...
</Plugins>
```

Using the parameters like in the example above will force FSI Pages to direct the search to the URL specified using the HTTP POST method. The POST data contains the following values:

searchvalue The search text entered by the user

customvalue The value you specified using "SearchCustomValue"

You might want to pass multiple, comma separated values to "SearchCustomValue" in case you need multiple values to identify a given FSI Pages instance.

Returning the XML based list of matches to FSI Pages

Your script needs to return the search result in XML format. Each result must be returned as a child node of the root node <result> (see example below). Each result item must at least contain the page number corresponding to the match. Additionally each result item may contain HTML formatted text describing the match. The sequence of the result item nodes specifies the sequence of the results displayed in FSI Pages search dialog. You therefore might want to sort the items by relevance before writing the matches to the list. Please use utf-8 encoding in case the result contains language specific, special characters.

Search Result (XML)

```
<?xml version="1.0" encoding="utf-8"?>
<Results>
  <Item page="10">
    Some <b>text</b> for this result...
  </Item>
  <Item page="20">
    Some <b>text</b> for this result...
  </Item>
  <Item page="30">
    Some <b>text</b> for this result...
  </Item>
</Results>
```

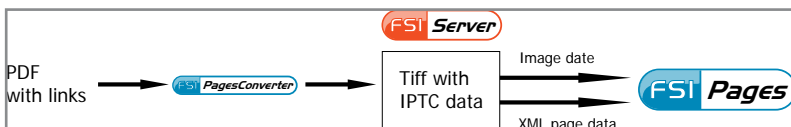
Hyperlinks

You can add interactive areas (links) on pages by providing XML data for each page specifying the coordinates, the tool tip and the action to execute.

You might for example want to publish a PDF document containing links. In this case you can use FSI Pages Converter to extract the links from the PDF document and create the required XML data for FSI Pages for you.

Publishing PDF Documents with Links using FSI Pages Converter and FSI Server

The easiest way to add links to FSI Pages is using a source PDF document containing hyperlinks. This way FSI Pages Converter prepares the required XML data by gathering the link information from the PDF document. FSI Server subsequently serves the XML data to FSI Pages.



1. Convert the source PDF document using FSI Pages Converter. Make sure to check the «Include Links» option in the "Hyperlinks" option section. This way FSI Pages Converter extracts link information from the PDF document. Make sure to uncheck the "Enable XML Output" option in the "XML Output" option section. This way FSI Pages Converter writes the XML data directly to the IPTC data of the converted TIFF files.

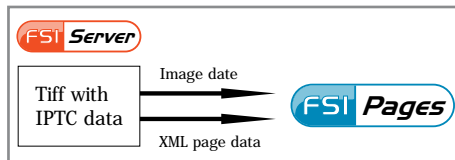
2. Upload the TIFF files (containing the IPTC data) to a directory on FSI Server
3. Go to FSI Server Interface and select the directory containing the TIFF files
4. Select "*Publish to Web*", "*Publish as FSI Pages*" Make sure to use a configuration preset with links, e.g. "Catalog with links".

Providing XML page data to FSI Pages

There are three alternative ways to provide XML data like links for each page.

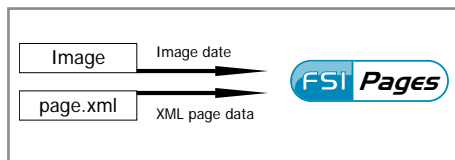
a) Using FSI Server and IPTC data fields

FSI Server is capable of serving the IPTC data contained in an image file to FSI Viewer (FSI Pages). By default FSI Pages Converter adds the required IPTC data to the output TIFF files. The IPTC data for each page can then automatically be retrieved by FSI Pages using the FSI Server template system. This is the way it works when using "Publish as FSI Pages with links" in FSI Server web interface. A great advantage of this option is, that the data persists even when renaming or moving images. For imaging servers not capable of serving IPTC data to FSI Pages, you need to choose one of the alternative methods below.



b) Using individual XML files

An alternative way to provide XML page data is using external XML files. With this method each image requires a related XML file containing the page data stored in a directory on your web server. The XML files have to be named after the related images with the additional suffix ".xml".



Example:

The XML file name for the image "page065.tif" must be "page065.tif.xml".

Usually FSI Pages Converter creates the required files for you when converting a PDF document. Please enable the option "XML Output" of FSI Pages Converter in this case.

Example:

You converted a PDF document "catalog1.pdf" using FSI Pages Converter and enabled the "XML Output" option. In the output directories you specified in FSI Pages converter

you can now find the TIFF files and the related XML files, e.g.

| | |
|--------------|------------------|
| page0001.tif | page0001.tif.xml |
| page0002.tif | page0002.tif.xml |
| ... | |

Now you need to upload the images to your imaging server and upload the XML files to a directory on your web server.

Finally you need to provide FSI Pages with the information where the XML files can be found on your web server. Please add the Parameter "*XMLBase*" to your configuration for this purpose.

Say the XML files can be accessed via:

| |
|-------------------------------------------------------------------------------------------------------------|
| http://www.myserver.com/xmldata/page01.tif.xml |
| http://www.myserver.com/xmldata/page02.tif.xml |
| ... |

The corresponding parameter for FSI pages looks as follows:

| XML Page data provided by XML files |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <pre><Plugins> ... <Plugin src="pages" > <XMLBase value="http://www.myserver.com/xmldata/" /> </Plugin> ... </Plugins></pre> |

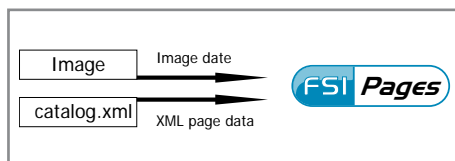
This way FSI Pages reads an XML file for each page from the location specified.



Please note that the XML files have to reside in the same domain as FSI Viewer.

c) Using <pages> nodes in configuration files

The third method is adding a <pages> node to the configuration file used for a page. Note that this method requires an individual configuration file for each page.



The example below shows the structure of page data added to a configuration file:

XML Page data in configuration files

```
<fsi_parameter>

<FPX>
...
</FPX>

<Pages>
  <Page file="page065.tif.xml">
    <Links>...</Links>
  </Page>
</Pages>

</fsi_parameter>
```

XML Data Format for Pages


Usually you don't need to edit the XML data for FSI Pages manually, as FSI Pages Converter creates the XML data for you. The description below provides information on the format in case you want to edit the data manually or if you want to use a different tool to create the page data.

XML Page data with 2 links

```
<Page file="page16.pdf">
  <Links urlprefix="http://somesite.com/product.php?id=">
    <Area tip="Some Tip" url="599">
      <Shape coords="0.20,0.73, 0.25,0.73,
0.25,0.72, 0.2,0.72" />
      <Shape coords="0.35,0.73, 0.41,0.73,
0.41,0.72, 0.35,0.72" />
      <Text>Some long descriptive text</Text>
    </Area>
    <Area tip="Another Tip" url="210">
      <Shape coords="0.20,0.73, 0.25,0.73,
0.25,0.72, 0.2,0.72" />
    </Area>
  </Links>
</Page>
```

<page> node

This is the root node for XML page data. The following attributes will be recognized by FSI Pages:

| Attribute | Description |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| File | URL or file name to use for the "  save functionality of FSI Pages" |

<page> node

```
<page file="page16.pdf" />
```

<links> nodes

These nodes encapsulate one or more <area> nodes. Each <area> node represents a link. You can use the following attributes to specify default values for all child <area> nodes. Using multiple <links> nodes you can use different default values for the <area> nodes contained.

| Attribute | Description |
|----------------------|--------------------------------------------------------------------|
| URLPrefix* | Prefix to add to all URLs specified in the child <area> nodes |
| URLSuffix* | Suffix to add to all URLs specified in the child <area> nodes |
| DefaultURL | Default URL to use for <area> nodes without a "URL" attribute |
| DefaultTarget | Default target frame for <area> nodes without a "target" attribute |
| DefaultTip | Default tool tip for <area> nodes without a "tip" attribute |

* The prefix and suffix will be used for relative links only.

Special links beginning with "javascript:", "mailto:" or "#page=" will be skipped as well.

<links> node

```
<Page>
  <Links URLPrefix="http://foo.com/" DefaultTip="No Tip">
    <area>...</area>
  </Links>
</Page>
```

<area> nodes

This node represents a link on a page.

Each link must contain at least one <shape> node describing the link area.

The table below lists the attributes recognized by FSI Pages.

| Attribute | Description |
|---------------|------------------------------------------------------|
| URL | URL to open when the user clicks the link. |
| Target | Target frame to open the URL in |
| Tip | Tool tip to display when the user points at the link |

<area> node

```

<Page>
  <Links>
    <Area URL="info.html" URLTarget="_blank" Tip="Hello" >
      ...
    </Area>
  </Links>
</Page>

```

<shape> nodes

These child nodes of the <area> node provide the coordinates of a link polygon. The format for the coordinates is "x1,y1, x2,y2, ...". The coordinates are floating point values between 0 and 1, where 0 is the left side of the image and 1 is the right side of the image. For y-coordinates 0 is top of the image and 1 is the bottom of the image. A valid shape must at least consist of 6 values (3 points).

You can use multiple <shape> nodes in an <area> node if you want to specify multiple shapes for the same link.

| Attribute | Description |
|---------------|----------------------------------------------------------------------|
| Coords | Comma separated coordinates describing the link shape (see above) |

<shape> node

```

<Page>
  <Links>
    <Area>
      <Shape coords="0,0, 1,0, 1,1, 0,1, 0,0" />
    </Area>
  </Links>
</Page>

```

The example describes a rectangular shape filling the entire image.



Please provide larger shapes first when providing overlapping shapes. FSI Pages stacks shapes above each other in the order they have been defined.

You can use any closed polygon shape. Please note that complex polygons might lead to reduced page flip performance. FSI Pages will automatically close non-closed polygons by connecting the last point to the start point.

<text> nodes (optional)

Each **<area>** may contain a **<text>** node providing HTML formatted text providing a description for the link. The "*LargeToolTips*" plug-in uses the content of this node to display tool tips for hyperlinks.

<shape> node

```
<Page>
  <Links>
    <Area>
      <Shape coords="0,0, 1,0, 1,1, 0,1" />
      <Text><b>Some descriptive text</b></Text>
    </Area>
  </Links>
</Page>
```


Link Parameters and Hierarchy of Link Parameters

FSI Pages provides a number of ways to define link properties. This provides a flexible way to configure links without the need to change the page XML data, but adds a certain level of complexity.

This chapter describes how FSI Pages assembles link URLs and the hierarchy of link parameters in general.

Example: Hierarchy of "LinkURL" parameters and attributes

| Parameter | XML Attribute | Location | Description |
|-----------------------|-------------------|---------------------|---------------------------------|
| ForceLinkUrl | | FSI Pages parameter | Force this URL for ALL links |
| | URL | <area> node | URL for this link |
| | DefaultURL | <links> node | Default URL for all child links |
| DefaultLinkUrl | | FSI Pages parameter | Default URL for links |

FSI Pages checks if there is a global FSI Pages Parameter "ForceLinkURL" first. In this case all link URLs will be overwritten with this parameter.

If the <area> node does not contain an URL attribute, FSI Pages uses the DefaultURL attribute of the parent <links> node. If this attribute is undefined, FSI Pages uses the global FSI Pages Parameter "DefaultLinkURL".

The same process applies to the "target", "tip", "prefix", "suffix" and "javascripttarget" parameters:

| Force-Parameter | Default-Parameter | <links> node | <area> node |
|-----------------------|-------------------------|---------------|--------------------------------|
| ForceLinkURL | DefaultLinkURL | DefaultURL | URL |
| ForceLinkTarget | DefaultLinkTarget | DefaultTarget | Target |
| ForceJavascriptTarget | DefaultJavascriptTarget | | Target |
| ForceLinkTip | DefaultLinkTip | DefaultTip | Tip or <text> child node |
| ForceLinkURLPrefix | DefaultLinkURLPrefix | URLPrefix | n/a |
| ForceLinkURLSuffix | DefaultLinkURLSuffix | URLSuffix | n/a |

Relative and Absolute Links

FSI Pages does not add prefixes or suffixes to absolute link URLs. In this case any prefixes and suffixes will be ignored.

Absolute Link URL

```
<Page>
  <Links>
    <Area URL="http://www.fsi-viewer.com">...</Area>
  </Links>
</Page>
```

Resulting URL: *http://www.fsi-viewer.com*

The same applies to "⚡ *special URLs*" like "javascript:" and "mailto:" as well as "⚡ *FSI Pages command URLs*" beginning with "#".

For relative links FSI Pages adds the URLPrefix and/or URLSuffix values if specified.

Relative Link URL

```
<Page>
  <Links URLPrefix="http://foo.com/" URLSuffix="&test=1">
    <Area URL="products.html?id=123">...</Area>
  </Links>
</Page>
```

Resulting URL: *http://www.foo.com/products.html?id=123&test=1*

Special URL Values

For some special URL values FSI Pages ignores the URLPrefixes and URLSuffixes as well. The following table lists these special URLs:

| URL | Description |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| javascript:foo() | Call the JavaScript function <i>foo()</i> |
| mailto:email@domain.tld | Send an email to email@domain.tld |
| #none | Do nothing. Handy if you just want to display a tool tip. Available in FSI Pages version 4.0.7 or above |
| #page= <i>n</i> | Forces FSI Pages to flip to page <i>n</i> |
| #showimage=[imageURL] | Display a custom JPEG image. The value [URL] needs to be an absolute URL to a JPEG image. |
| #zoom | Forces FSI Pages to zoom to the area covered by the link's shape(s) |
| #zoomarea | Magnifies the area covered by the link's shape(s) in place |
| #zoom=1,1,0,0,0.5,0.5 | Forces FSI Pages to zoom to the image area following "=" (See Parameter "✍ <i>InitialView</i> " for format details) |
| #zoomonpage= <i>n</i> ; <i>strView</i> | Combination of "#page=" and "#zoom=". This is: first flip to page <i>n</i> , then zoom to area <i>strView</i> . Available in FSI Pages version 4.0.7 or above |

Please note that the special links starting with "#" need to be provided exactly as listed in the table above. Using e.g. "#zoomOnPage=[...]" or "foo.html#zoom" will link to the HTML anchor provided rather than executing an FSI Pages action.

For "mailto:" URLs the target frame is always "_self", except the XML <area> node specifies a different target.

Modifying Link Values at Runtime

In some cases it might be necessary to replace parts of link URL values for links on the pages – for example when using session variables or if you use the same catalog in HTTP and HTTPS environments. Runtime link template replacement applies to links on pages as well as for "SaveURL" values used to specify external documents related to a page.

You can replace any part of these URLs using the FSI Pages parameters "LinkTemplates" and "LinkTemplateData".

Use the FSI Pages parameter "LinkTemplateData" to specify a comma separated list of values you want FSI Pages to replace the keywords with. Usually you will provide the LinkTemplateData value by appending the parameter to the FSI Viewer query using server side script.

When specifying multiple LinkTemplates, the number and sequence of the corresponding LinkTemplateData values must match to achieve correct replacement.

For example replacing the templates "[SESSION]" and "[DATE]" at runtime in all link URLs can be done like this:

Replacing parts of link URLs at runtime

```
Configuration:
...
<Plugins>
...
    <Plugin src="pages" >
        <LinkTemplates value="[SESSION],[DATE]" />
    </Plugin>
...
</Plugins>
...
FSI URL
.../fsi.swf?LinkTemplateData=somesession,01.01.2006
```

This will replace all instances of "[SESSION]" by "somesession" and all instances of "[DATE]" by "01.01.2010" in all link URLs.

Please note that LinkTemplateData values have to be provided "*url-encoded*" if the values contain invalid HTML query characters like "?&/,".

Besides using the LinkTemplates parameter to provide custom templates, you can use the following predefined LinkTemplates without providing the corresponding LinkTemplateData:

| Template | Description |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| _FSI_CURRENTPAGE_ | 1-based index of the current page (1,2,3,4...) |
| _FSI_ CURRENTDOUBLEPAGE_ | 1-based index of the current double page (1,2,4,6...) For inner pages this value represents the index of the left page. For the front and back cover the value is the actual page index |

Page Overlays

Page overlays are compiled Flash movies clips that can be used as an overlay, floating above a page in FSI Pages. You have probably seen the "Photo Album" example created with FSI Pages at www.fsi-viewer.com. The small sticky photo corners come from an overlay file.

Using Overlays

Overlay files have to reside in the "/plugins/pages/overlays/" directory of your FSI Viewer setup directory. You can add a global overlay to appear on all pages and/or specify an overlay file for specific pages.

Defining a global page overlay

```
<Plugins>
...
    <Plugin src="pages" >
        <PageOverlays>
            <Overlay default="true" file="ov_photo.swf" />
            [...]
        </PageOverlays>
    </Plugin>
...
</Plugins>
```

The example above adds the "sticky photo corners" overlay to all pages, like in the "Photo Album" sample.

Defining overlays for specific pages

```
<Plugins>
...
<PageOverlayShowZoomed value="true" />
<PageOverlays>
    <Overlay default="true" file="myDefaultOverlay.swf" />

    <Overlay page="5" file="myOverlay1.swf" />

    <Overlays page="10">
        <Overlay file="myOverlay2.swf" x="0.5" y="0.5" />
        <Overlay file="myOverlay3.swf" />
    </Overlays>
</PageOverlays>
...
</Plugins>
```

The example above does the following:

- add a default overlay "myDefaultOverlay.swf"
- adds the overlay file "myOverlay1.swf" to page 5
- adds "myOverlay2.swf" and "myOverlay3.swf" to page 21

The attributes of the <overlay> nodes can be used to specify variables for an overlay.

Note that you can, but don't need to define a default overlay.

FSI Pages Presets in FSI Server Interface "Publish to Web"

Using FSI Pages with FSI Server Imaging Server you can choose from the following presets when using the "Publish as FSI Pages" option:

- **Catalog with links**

Each image represents a page, no page margins, no overlays
If the image contains XML data in the "IPTC_FSI" data field, links will be presented on the page.

- **Catalog without links**

Each image represents a page, no page margins, no overlays.

- **Hard cover Book**

First and last page of the catalog have a inflexible appearance.

- **Teaser Thumbnail**

No user interface, zoom is disabled. Pages flip automatically when idle. You can specify a link for the entire viewer area so that you can use this template to publish a thumbnail of a catalog linking to the full size catalog. See Parameters for "[FSI Pages Thumbnails](#)" for configuration details.

- **Photo Album**

A simple photo album with photo corners and an emboss effect for each image.

Event Notifications and Actions

When using JS Bridge plug-in or FSI Viewer component you can use the following event notifications and actions to interact with FSI Pages Add-on. Please refer to JS Bridge plug-in for details on how to setup communication between JavaScript and FSI Viewer.

Event Notifications

| Event ID | Parameter | Description |
|----------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------|
| onPagesInitComplete | Integer | Called after the FSI Pages Add-on is ready for use. The parameter provides the total number of pages. |
| onPagesGotoPage | Integer | Called each time before the user goes to a different page. The parameter provides the target page number. |
| onPagesPageChanged | Integer | Called each time after the current page has changed. The parameter provides the index of the page currently visible. |
| onPagesProgress | Integer | Called each time the load progress of FSI Pages changes. The parameter provides the number of pages remaining in the load queue. |
| onPagesShowIndex | Boolean | Called each time the user shows (true) or hides (false) the page index. |
| onPagesShowZoom | Boolean | Called each time the user starts (true) or ends (false) page zoom. |
| onPagesLinkClick | URL | Called each time the user clicks a link. The parameter contains the URL. |

Commands for FSI Pages Add-on

| Command | Description |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| " (empty string) | Stop current action |
| FirstPage | Go to first page. |
| LastPage | Go to last page. |
| NextPage | Go to next page. |
| PreviousPage | Go to previous page. |
| GotoPage | <p>Go to page n Important: Use <code>SetVariable("newImageIndex", n)</code> where n is [0 .. pages] prior to sending this command</p> <p>Alternatively you can specify a page relative to the current page. To go to a page relatively you have to set "newImageIndex" to a number prefixed by "+" or "-", e.g. "+1" is the same as "NextPage".</p> |
| Print | Open or close the print dialog. |
| Save | Open or close the save dialog. |
| Search | Open or close the search dialog. |
| ZoomLeftPage | Zoom the left page |
| ZoomRightPage | Zoom the right page |
| NormalPageView | Exit zoom view |
| ShowHidePageIndex | Show or hide the page index (thumbnail view) |

Parameters to retrieve Image Collections

| Server | |
|--------------------|---------------------------------------------------------|
| Description | Address of imaging server |
| Syntax | URL |
| Default | — |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |

The URL of the setup path of imaging server to be used when retrieving image collections.

| Dir | | |
|-------------|---------------------------------------------------------|------------------------|
| Description | Image directory | |
| Syntax | String | |
| Default | — | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.0.0 | FSI Pages mobile 1.0.0 |

The directory on imaging server containing the images to use for FSI Pages.

| ListTemplate | | |
|--------------|----------------------------------------------------------|------------------------|
| Description | Template used to retrieve image list from imaging server | |
| Syntax | String | |
| Default | "fsi/image_list.xml" | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.0.0 | FSI Pages mobile 1.0.0 |

The XML based template to use when retrieving image lists from imaging server via "dir" or "query" parameters. Available templates are located in the "WEB-INF/templates/fsi/" directory of your imaging server setup.

| EmptyImages | | |
|--------------------|---------------------------------------------------------|------------------------|
| Description | Define blank pages | |
| Syntax | String | |
| Default | --- | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.3.0 or higher | FSI Pages mobile 1.0.0 |

Using this parameter you can add blank pages. The value of the parameter must contain one or more image page numbers of the blank pages to be inserted. E.g. `<EmptyImages value="2,10" />` adds two blank pages at page 2 and page 10, moving the other images in your collection correspondingly. Alternatively you can add `<image empty="true" />` nodes to your image collection.

| RemovePages | | |
|--------------------|---------------------------------------------------------|------------------------|
| Description | Remove individual pages from the collection | |
| Syntax | String | |
| Default | — | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.5.5 or higher | FSI Pages mobile 1.0.0 |

Using this parameter you can remove images from the image collection. The behavior of FSI Pages is exactly as if the images would not be listed in the image collection. E.g. `<EmptyImages value="1,3,4" />` removes the first, third and fourth image in the collection. Please note that removing images takes place before inserting blank pages using the "EmptyImages" parameter.

| ReversePageOrder | | |
|--------------------|--------------------------------------------------------------|------------------------|
| Description | Reverses the order of the individual pages in the collection | |
| Syntax | Boolean | |
| Default | false | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 4.1.5 or higher | FSI Pages mobile 1.0.0 |

Set this parameter to "true" to reverse the page sequence of pages. Please note that this parameter does not change the reading order. Please see "[Page Reading Order](#)" to change the reading order of a document.

Basic Parameters

| InitialPage | | |
|-------------|---------------------------------------------------------|------------------------|
| Description | Page to display on startup | |
| Syntax | Number | |
| Default | 1 | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.0.0 | FSI Pages mobile 1.0.0 |

Specifies the page to display on startup, e.g. "1" for the front cover.

Note: The parameter "InitialPage" has no effect if you are using the "[RememberLastViewedPage](#)" parameter to make the user to return to the last viewed page. You can use "ForceInitialPage" instead if you want FSI Pages to show a specific page independent of the last viewed page.

| PageOrderRTL | | |
|--------------|---------------------------------------------------------|------------------------|
| Description | Switch to right-to-left reading order | |
| Syntax | Boolean | |
| Default | False | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 4.1.5 or above | FSI Pages mobile 1.0.0 |

By default FSI Pages uses the western page reading order (left-to-right). Enable this parameter to use *right-to-left reading* order, e.g. for Arab documents.

| FirstPageNumber | | |
|-----------------|---------------------------------------------------------|------------------------|
| Description | Offset for page numbering | |
| Syntax | Number | |
| Default | 1 | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.0.0 | FSI Pages mobile 1.0.0 |

By default (FirstPageNumber=1) the front cover is page number one. You can specify an offset so that the page numbers start with a different value. This parameter affects page numbers, the index and the display of the current page number in the FSI Pages user interface.

| Skin | |
|--------------------|---------------------------------------------------------|
| Description | User interface (skin) for FSI Pages |
| Syntax | String |
| Default | silver |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |

Specifies the skin containing the user interface for FSI Pages. Available skins are located in the directory "skins/pages" of your FSI setup directory. Please note that this does not affect the skin of FSI Viewer which can be specified separately using the "skin" parameter of FSI Viewer.

| Slider | |
|--------------------|---------------------------------------------------------|
| Description | Show / hide the page slider |
| Syntax | Boolean |
| Default | true |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |

Show (true) or hide (false) the slider to select pages.

| Index | | |
|--------------------|---------------------------------------------------------|------------------------|
| Description | Enable / disable table of contents | |
| Syntax | Boolean | |
| Default | true | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.0.0 | FSI Pages mobile 1.0.0 |

Enable (true) or disable (false) the user to show the page index containing thumbnails of all pages.

| KeepIndex | |
|--------------------|---------------------------------------------------------|
| Description | Keep index data when hiding the index |
| Syntax | Boolean |
| Default | true |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |

Setting the value to true (default) speeds up showing and hiding the page index with a possible overall performance penalty when presenting many pages. Setting the value to false deletes index data when hiding the index, forcing the viewer to build the index each time it is shown.

| PageTurnSpeed | |
|--------------------|---------------------------------------------------------|
| Description | Speed when turning pages |
| Syntax | Number |
| Default | 82 |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |

The speed of the page turning effect. "0" is the slowest and "100" the fastest value possible.

| PageTurnAnimation | |
|--------------------|---------------------------------------------------------|
| Description | Animation when flipping to another page |
| Syntax | String |
| Default | "flip" |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 6 |

Defines the animation when flipping to another page. "flip" is the default and shows a page turn effect. "slide" slides the pages as if they were positioned next to each other (like in FSI Pages mobile).

| Zoom | | |
|--------------------|---------------------------------------------------------|------------------------|
| Description | Enable / disable zooming into pages | |
| Syntax | Boolean | |
| Default | true | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.0.0 | FSI Pages mobile 1.0.0 |

Enable (true) or disable (false) zooming into pages with FSI Viewer when clicking on a page.

| ShowLoadProgress | |
|--------------------|---------------------------------------------------------|
| Description | Show / hide the load progress display |
| Syntax | Boolean |
| Default | true |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 4.1.5 or above |

Show (true) or hide (false) the load progress display. FSI Pages automatically sets this parameter to "true" if you specify a hyperlink for the entire FSI Pages instance (see " [DemoURL](#) ").

| AutoCropPages | | |
|--------------------|---------------------------------------------------------|------------------------|
| Description | Crop images to fill entire page | |
| Syntax | Boolean | |
| Default | false | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | 3.5.0 or higher | FSI Pages mobile 1.0.0 |

Enable (true) this option to automatically crop images to fill the entire pages. You need to specify an aspect ratio manually in this case.

| ClickPageToZoom | |
|--------------------|---------------------------------------------------------|
| Description | Enable / Disable zooming by clicking a page |
| Syntax | Boolean |
| Default | true |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 4.1.5 or higher |

Enabling (true) this option enables the user to zoom a page by clicking it.

| ZoomAreaAnimationSpeedIn | |
|--------------------------|--------------------------------------------------------------------------------------------|
| Description | Defines the animation speed of in place magnifications initiated by "#zoomarea" hyperlinks |
| Syntax | Number |
| Default | 520 |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 5.0.0 or above |

Defines the speed of the zoom animation when zooming in.

| ZoomAreaAnimationSpeedOut | |
|---------------------------|--------------------------------------------------------------------------------------------|
| Description | Defines the animation speed of in place magnifications initiated by "#zoomarea" hyperlinks |
| Syntax | Number |
| Default | 240 |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 5.0.0 or above |

Defines the speed of the zoom animation when zooming **out**.

| ZoomAreaAnimationType | |
|-----------------------|-------------------------------------------------------------------------------------------|
| Description | Defines the animation type of in place magnifications initiated by "#zoomarea" hyperlinks |
| Syntax | Number |
| Default | 5 |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 5.0.0 or above |

Defines the animation type of the zoom animation.

| ZoomAreaTargetScale | |
|---------------------|------------------------------------------------------------------------------------|
| Description | Magnification level of in place magnifications initiated by "#zoomarea" hyperlinks |
| Syntax | Number |
| Default | 200 |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 5.0.0 or above |

Defines the zoom factor for the link. Two limitations apply: The zoomfactor must be 110 or greater, otherwise no zoom area is displayed. The zoomarea may not exceed the FSI Pages instance size.

| DoublePageAllowInteractivity | |
|------------------------------|----------------------------------------------------------|
| Description | Enable or disable interactivity in double page zoom mode |
| Syntax | Boolean |
| Default | false |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 5.0.0 |

When enabled the image will scroll when the user moves the mouse pointer.

| DoublePageZoom | |
|--------------------|---------------------------------------------------------|
| Description | Enables the interactive zoom mode |
| Syntax | Boolean |
| Default | false |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 5.0.0 |

If enabled the zoom mode will display both pages at the given zoom level. When disabled, interactivity (like clicking hyperlinks) is disabled in double page zoom mode.

| DoublePageZoomScale | |
|---------------------|---------------------------------------------------------|
| Description | Defines the zoom level of double page zoom |
| Syntax | Number |
| Default | 1:1 |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 5.0.0 |

Default: "1:1" (zoom to original size)

a) relative to source image resolution ("1:1", "1.5:1", ?1:2?...)

b) relative to current page size in percent (200, 300, ...)

| DoublePageZoomDragPan | |
|-----------------------|---------------------------------------------------------------|
| Description | enables dragging of the image while being in double page zoom |
| Syntax | Boolean |
| Default | true |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 6 |

With this option enabled you can drag the image while being in double page zoom mode. Otherwise, the double page zoom moves according to the mouse position.

| ForceXMLDataFiles | | |
|--------------------|---------------------------|------------------------|
| Description | Force XML data useage | |
| Default | false | |
| Context | Pages plug-in | |
| Version | FSI Pages 4.1.5 or higher | FSI Pages mobile 1.0.0 |

If set to true, the IPTC data from the image file is ignored and the links and overlay information is retrieved from the XML files. If set to false, XML data is used only if no IPTC data is present in the image.

Parameters for the Front- and Backcover

| FrontCover | | |
|--------------------|---------------------------------------------------------|------------------------|
| Description | Enable/disable the front cover | |
| Syntax | Boolean | |
| Default | true | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.5.5 or higher | FSI Pages mobile 1.0.0 |

Setting "FrontCover" parameter to false disables access to the front cover and forces FSI Pages to display the first image on the first inner left page.

| BackCover | |
|--------------------|---------------------------------------------------------|
| Description | Enable/disable the back cover |
| Syntax | Boolean |
| Default | true |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 3.5.5 or higher |

Setting "BackCover" parameter to false disables access to the back cover and forces FSI Pages to add a blank content page if required.

| BlankBackCover and BlankFrontCover | | |
|------------------------------------|---------------------------------------------------------|------------------------|
| Description | Use a blank page for front and/or back cover | |
| Syntax | Boolean | |
| Default | false | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.0.0 | FSI Pages mobile 1.0.0 |

Use a blank page as front and/or back cover. The cover page(s) will be added to images in the image list.

| FullBackCover and FullFrontCover | | |
|----------------------------------|---------------------------------------------------------|------------------------|
| Description | Fill entire front and/or back cover with image | |
| Syntax | Boolean | |
| Default | false | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.0.0 | FSI Pages mobile 1.0.0 |

Fill the entire front and/or back cover with the corresponding image. This is: Ignore page margins and do not use an overlay for the cover page specified.

| BackCoverImage and FrontCoverImage | |
|------------------------------------|---------------------------------------------------------|
| Description | Use the specified image for front or back cover |
| Syntax | String |
| Default | — |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |

A path to an image to use for the front or back cover. FSI Pages will use the "*FPXBase*" parameter of FSI Viewer for relative paths. The cover page(s) will be added to the images in the image list.

| BackCoverConfig and FrontCoverConfig | |
|--------------------------------------|--------------------------------------------------------------------|
| Description | Use the specified image configuration file for front or back cover |
| Syntax | String |
| Default | — |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |

Specify a separate image configuration file (*.xml) to be used for the front or back cover respectively. The cover page(s) will be added to images in the image list.

| HardPages | |
|--------------------|---------------------------------------------------------|
| Description | Defines page flexibility |
| Syntax | Boolean |
| Default | false / all / cover |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 5.0.0 |

Defines whether the pages are flexible or inflexible e.g. like a book cover.

| PageBackgroundImage | |
|---------------------|---------------------------------------------------------|
| Description | Relative path to the image on your imaging server |
| Syntax | Filename |
| Default | — |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 5.0.0 |

The path to an image on your imaging server to be used as a background.
If you use a relative path (recommended) the "*FSIBase*" parameter will be used to get the absolute path to the image.

| PageBackgroundImageEffects | |
|----------------------------|---------------------------------------------------------|
| Description | Image effects for the background image |
| Syntax | String |
| Default | — |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 5.0.0 |

Defines image modification parameters to apply to images used. The value of this parameter depends on the imaging server being used.
With FSI Server you can sharpen the image and define the JPEG compression level, e.g. "effects=sharpen(230)&quality=95".

Parameters defining the Layout and Appearance

| Ratio | | |
|--------------------|---------------------------------------------------------|------------------------|
| Description | Aspect ratio of pages | |
| Syntax | String | |
| Default | "auto" | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.0.0 | FSI Pages mobile 1.0.0 |

The aspect ratio of pages displayed in FSI Pages.
You can specify any aspect ration (e.g. "320:240" or "1:2") or specify "auto" to use the aspect ratio of the first image in the image collection.

| SingleSided | |
|--------------------|---------------------------------------------------------|
| Description | Use images on uneven or even pages only |
| Syntax | String |
| Default | false / even / uneven |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |

By default FSI Pages creates a page for each image in the image collection. Using this parameter you can advise FSI Pages to use images on even or uneven pages only, inserting a blank page on the opposite side.

Use "false" to display images on all pages. (default).
Use "even" to display images on even pages only.
Use "uneven" to display images on uneven pages only.

| BendEffect | |
|--------------------|---------------------------------------------------------|
| Description | Visual "3D" of the pages |
| Syntax | "Glossy" or "Matte" |
| Default | "Glossy" |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 4.0.0 or above |

The effect "Glossy" adds highlights and shadows, while "Matte" adds shadows only (like with FSI Pages version 3). Please use " *BendEffectIntensity*" parameter to modify the effect level or disable the visual effect.

| BendEffectIntensity | |
|---------------------|---------------------------------------------------------|
| Description | Level of visual "3D" effects |
| Syntax | Number |
| Default | 65 |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 4.0.0 or above |

Defines the 3D effect level of the pages in percent. Using a value of "0" disables the visual 3D effect. The value additionally affects the opacity of the drop shadow.

| DropShadow | |
|--------------------|---------------------------------------------------------|
| Description | Enable or diable the dropshadow effect for the pages |
| Syntax | Boolean |
| Default | true |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 4.0.0 or above |

Enables or disables the drop shadow of the pages.

| DropShadowDistance | |
|--------------------|---------------------------------------------------------|
| Description | Distance of the page's drop shadow |
| Syntax | Number |
| Default | 50 |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 4.0.0 or above |

Distance of the pages' drop shadow in percent, where "100" is the greatest possible distance.

| ImageAlign | | |
|--------------------|---------------------------------------------------------|------------------------|
| Description | Alignment of images on the pages | |
| Syntax | String | |
| Default | "TC" | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.0.0 | FSI Pages mobile 1.0.0 |

Alignment of the images on the pages. The default is "TC" which centers the images horizontally on top of the page.

Please specify the alignment for even (left) pages. Uneven (right) pages will be aligned correspondingly. Possible values are any combination of:

| | | |
|------------|-----|------------|
| T (Top) | | L (Left) |
| C (Center) | and | C (Center) |
| B (Bottom) | | R (Right) |

| PageColor | | |
|--------------------|---------------------------------------------------------|------------------------|
| Description | Page background color | |
| Syntax | HexColor | |
| Default | FFFFFF | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.0.0 | FSI Pages mobile 1.0.0 |

Background color of the pages specified as 6 digit web color.

| PageBorderColor | | |
|--------------------|---------------------------------------------------------|------------------------|
| Description | Color of page borders | |
| Syntax | HexColor | |
| Default | CCCCCC | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.0.0 | FSI Pages mobile 1.0.0 |

Color of the page borders specified as 6 digit web color. Use "false" for no border at all.

| HelpImageUrl | |
|--------------------|---------------------------------------------------------|
| Description | Help image to be displayed left of the first page |
| Syntax | String |
| Default | — |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 3.6.0 or above |

An absolute or relative ImageURL (like FPXSrc) to an image on the imaging server that FSI Pages displays left of the first page of the catalog.

| ScrollBaseColor | |
|--------------------|---------------------------------------------------------|
| Description | Base color for the scroll bar |
| Syntax | HexColor |
| Default | CCCCCC |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 3.5.0 or higher |

6-digit hex-color for the scroll bar in the page index.

| ScrollArrow | |
|--------------------|---------------------------------------------------------|
| Description | Color for the scroll bar's arrows |
| Syntax | HexColor |
| Default | 000000 |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 3.5.0 or higher |

6-digit hex-color for the arrows of the scroll bar in the page index.

| ScrollTrack | |
|--------------------|---------------------------------------------------------|
| Description | Color for the scroll bar's track bar |
| Syntax | HexColor |
| Default | DDDDDD |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 3.5.0 or higher |

6-digit hex-color for the track bar of the scroll bar in the page index.

| MarginBottom, MarginLeft, MarginRight, MarginTop | | |
|--------------------------------------------------|---------------------------------------------------------|------------------------|
| Description | Margin of the turning pages | |
| Syntax | Number in pixel | |
| Default | 0 | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.0.0 | FSI Pages mobile 1.0.0 |

Margin on each side of the turning pages in pixel. The margin effects the position of the pages only, not the user interface of FSI Pages. You should at least specify a bottom margin to provide space for the interface.

| PageMarginBottom, PageMarginInner, PageMarginOuter, PageMarginTop | | |
|-------------------------------------------------------------------|---------------------------------------------------------|------------------------|
| Description | Margin of the page content | |
| Syntax | Number in percent of the page width / height | |
| Default | 0 | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.0.0 | FSI Pages mobile 1.0.0 |

Margins of the content of each page in percent of the page width (inner and outer) or page height (top and bottom).

| ViewerMarginBottom, ViewerMarginLeft, ViewerMarginRight, ViewerMarginTop | |
|--------------------------------------------------------------------------|---------------------------------------------------------|
| Description | Margin of FSI Viewer |
| Syntax | Number in pixel |
| Default | 0 |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |

Margin on each side of FSI Viewer in pixel when zooming into a page. Usually you need to set "ViewerMarginBottom" to the height of the FSI Pages interface.

| ThumbSize | |
|--------------------|---------------------------------------------------------|
| Description | Max. size of thumbnails in the page index |
| Syntax | Number in pixel |
| Default | 60 |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |

The maximum size of thumbnails displayed in the index. The actual width and height depend on the aspect ratio of the pages (see parameter "*ratio*").

| ThumbPadding | |
|--------------------|---------------------------------------------------------|
| Description | Padding between thumbnails in the index |
| Syntax | Number in pixel |
| Default | 10 |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |

The padding between thumbnails displayed in the page index in pixel.

| PageNumbers | |
|--------------------|---------------------------------------------------------|
| Description | Display page numbers on pages |
| Syntax | Boolean |
| Default | true |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |

Show or hide page numbers on pages.

| PageNumPos | |
|--------------------|---------------------------------------------------------|
| Description | Alignment of page numbers |
| Syntax | String |
| Default | "BL" |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |

Alignment of page numbers. The default is "BL" for bottom-left. Please specify the alignment for even (left) pages. Uneven (right) pages will be aligned correspondingly. Possibly values are any combination of:

| | | |
|------------|-----|------------|
| T (Top) | | L (Left) |
| C (Center) | and | C (Center) |
| B (Bottom) | | R (Right) |

| PageNumIndent | |
|--------------------|---------------------------------------------------------|
| Description | Indentation of page numbers |
| Syntax | Number in percent of the page width |
| Default | 1% |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |

Specifies the indentation in percent of the page width. This parameter does not apply if the page number position is centered horizontally.

| PageNumSize | |
|--------------------|---------------------------------------------------------|
| Description | Size of page numbers |
| Syntax | Number in percent of the page height |
| Default | 8% |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |

Size of page numbers in percent of the page height.

| PageNumColor | |
|--------------------|---------------------------------------------------------|
| Description | Color of page numbers |
| Syntax | HexColor |
| Default | 000000 |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |

6-digit hex color of page numbers.

| PageNumBGColor | |
|--------------------|---------------------------------------------------------|
| Description | Background color of page numbers |
| Syntax | HexColor |
| Default | false |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |

6-digit hex color of page numbers or "false" for no background.

| UseRomanPageNumbersToPage | | |
|---------------------------|------------------------------------------------|------------------------|
| Description | Display Roman page numbers up to page number n | |
| Syntax | Number | |
| Default | 0 | |
| Context | FSI Pages | |
| Version | 5.0.4 | FSI Pages mobile 1.0.0 |

Defines the page number up to which FSI Pages uses Roman page Numbers.
The default value of "0" forces FSI Pages to display Roman numbers for negative numbers and 0.

If you set the value to "5" the display will be like this:

I,II,III,IV,V,6,7,8,9...

Note that you can use the Parameter "*✍ FirstPageNumber*" to offset all page number values.

| RomanPageNumbersOffset | | |
|------------------------|------------------------------------------|------------------------|
| Description | Offset Roman page numbers by given value | |
| Syntax | Number | |
| Default | 0 | |
| Context | FSI Pages | |
| Version | FSI Pages 5.0.4 | FSI Pages mobile 1.0.0 |

Defines the value of the first Roman page number.

The default value of "0" means no offset so that the Roman numbers start with "I".

| CustomPageNumbers | | |
|--------------------|---------------------------------------------------------|------------------------|
| Description | Comma separated string of custom page numbers | |
| Syntax | Number | |
| Default | ----- | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 5.5.5 or higher | FSI Pages mobile 1.0.0 |

Use "CustomPageNumbers" to specify custom page numbers as a comma separated string. Items starting with underscore ("_") will not be displayed.

Pages without a custom page number will use the ordinary page numbering.

Example: `< CustomPageNumbers value="_cover1,_cover2,3,4,5,_" />`

In this case the cover page and the first left page will have no page number.

The first right page will start with page number "3". The sixth page again has no page number and the seventh and following page will be numbered as usual.

Note: The parameter "*FirstPageNumber*" has no impact on the custom page numbers. You can therefore use this parameter to modify the value of the first ordinary page number.

| CustomPageNumbersFile | | |
|-----------------------|-----------------------------------------------------------|------------------------|
| Description | URL or path to an XML file containing custom page numbers | |
| Syntax | String | |
| Default | ----- | |
| Context | plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 5.5.5 or higher | FSI Pages mobile 1.0.0 |

Same as CustomPageNumbers, but the page number values will be loaded from an XML file.

You can either define a path relative to the fsi/config/pages_xml/ directory or an absolute URL. The required format of the XML file is as follows:

```
<fsi>
  <pagenumbers>3,6,7</pagenumbers>
</fsi>
```


Parameters for Links on Pages

| FollowLinks | | |
|--------------------|---------------------------------------------------------|------------------------|
| Description | Enable or disable FSI Pages to open links | |
| Syntax | Boolean | |
| Default | true | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.6.0 or above | FSI Pages mobile 1.0.0 |

Setting this parameter to "false" prevents FSI Pages from opening links on the pages. Links and tool tips will nevertheless be displayed.

| ShowLinksWhileFlipping | | |
|------------------------|---------------------------------------------------------|--|
| Description | Show or hide links during flip animations | |
| Syntax | Boolean | |
| Default | false | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | 4.0.0 or above | |

Set this parameter to "true" if you want FSI Pages to display link shapes during flip animations. Showing links decreases the performance of the flip animations.

| LinkFillAlpha | | |
|--------------------|---------------------------------------------------------|------------------------|
| Description | Opacity of the link area | |
| Syntax | Number | |
| Default | 0 | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | 3.5.0 or higher | FSI Pages mobile 1.0.0 |

Specify the opacity of the link areas from 0 (no fill) to 100 (opaque). The color corresponds to the color of the link area's border color.

| LinkRGBANormal | | |
|--------------------|---------------------------------------------------------|------------------------|
| Description | Color and opacity of links in normal state | |
| Syntax | RGBA | |
| Default | 0000FFFF | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.0.0 | FSI Pages mobile 1.0.0 |

8-digit hexadecimal number specifying the color and opacity of links on the pages in normal state in the form "RRGGBBAA". E.g. "FF0000FF" for opaque red or "00FF0099" for semi-transparent green

| LinkRGBAHover | | |
|--------------------|---------------------------------------------------------|------------------------|
| Description | Color and opacity of links in hover state | |
| Syntax | RGBA | |
| Default | FF00FFFF | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.0.0 | FSI Pages mobile 1.0.0 |

8-digit hexadecimal number specifying the color and opacity of links on the pages when the user points at a link in the form "RRGGBBAA". E.g. "FF0000FF" for opaque red or "00FF0099" for semi-transparent green

| LinkRGBAActive | | |
|--------------------|---------------------------------------------------------|------------------------|
| Description | Color and opacity of links in active state | |
| Syntax | RGBA | |
| Default | FF0000FF | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.0.0 | FSI Pages mobile 1.0.0 |

8-digit hexadecimal number specifying the color and opacity of links on the pages when the user clicks a link in the form "RRGGBBAA". E.g. "FF0000FF" for opaque red or "00FF0099" for semi-transparent green

| ForceLinkURL | | |
|--------------------|---------------------------------------------------------|------------------------|
| Description | Force URL for all links on pages | |
| Syntax | String | |
| Default | — | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | 3.6.0 or above | FSI Pages mobile 1.0.0 |

Force FSI Pages to use this URL for all links on all pages. This overwrites any URLs specified in the page data.

| ForceLinkTarget | | |
|--------------------|---------------------------------------------------------|------------------------|
| Description | Force a target frame for all hyperlinks on all pages | |
| Syntax | String | |
| Default | — | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | 3.6.0 or above | FSI Pages mobile 1.0.0 |

Force FSI Pages to use this HTML target frame for all links on all pages. This overwrites any target frames specified in the page XML data.

Note: this parameter does not affect "javascript:" and "mailto:" links.

| ForceJavaScriptTarget | | |
|-----------------------|-----------------------------------------------------------|------------------------|
| Description | Force a target frame for all "javascript:" links on pages | |
| Syntax | String | |
| Default | — | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 4.1.1 or above | FSI Pages mobile 1.0.0 |

Force FSI Pages to use this HTML target frame for all "javascript:" links on all pages. This overwrites any target frames specified in the page XML data.

Note: this parameter does not affect URL and "mailto:" links.

| ForceLinkUrlPrefix, ForceLinkUrlSuffix | | |
|----------------------------------------|---------------------------------------------------------|------------------------|
| Description | Force a link prefix / suffix for all links on pages | |
| Syntax | String | |
| Default | — | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.6.0 or above | FSI Pages mobile 1.0.0 |

Force FSI Pages to use this prefix /suffix for all links on all pages. This overwrites any prefixes and suffixes specified in the page data. Prefixes and suffixes will not be applied to absolute URLs and "*special link values*" like "javascript:".

| ForceLinkTip | | |
|--------------------|---------------------------------------------------------|------------------------|
| Description | Force a tool tip for all links on pages | |
| Syntax | String | |
| Default | — | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.6.0 or above | FSI Pages mobile 1.0.0 |

Force FSI Pages to use this tool tip for all links on the pages. This overwrites any tool tips specified in the page data.

| DefaultLinkURL | | |
|--------------------|---------------------------------------------------------|------------------------|
| Description | Default URL for links on pages | |
| Syntax | String | |
| Default | — | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.6.0 or above | FSI Pages mobile 1.0.0 |

Use this URL for links if no URL has been specified in the page data.

| DefaultLinkTarget | | |
|--------------------|---------------------------------------------------------|------------------------|
| Description | Default target frame for all hyperlinks on all pages | |
| Syntax | String | |
| Default | — | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.6.0 or above | FSI Pages mobile 1.0.0 |

Use this HTML target frame for links if no target frame has been specified in the page XML data.

| DefaultJavascriptTarget | | |
|-------------------------|--------------------------------------------------------------------|------------------------|
| Description | Default target frame for all "javascript:" hyperlinks on all pages | |
| Syntax | String | |
| Default | — | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 4.1.1 or above | FSI Pages mobile 1.0.0 |

Use this HTML target frame for "javascript:" links if no target frame has been specified in the page data.

| DefaultLinkUrlPrefix, DefaultLinkUrlSuffix | | |
|--------------------------------------------|---------------------------------------------------------|------------------------|
| Description | Default prefix / suffix for link URLs on pages | |
| Syntax | String | |
| Default | — | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.6.0 or above | FSI Pages mobile 1.0.0 |

Use this prefix or suffix for all links on the pages if no prefix / suffix has been specified in the page data.

| DefaultLinkTip | | |
|----------------|---------------------------------------------------------|------------------------|
| Description | Default tool tip for links on pages | |
| Syntax | String | |
| Default | — | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.6.0 or above | FSI Pages mobile 1.0.0 |

Use this tool tip for all links on the pages if no tool tip has been specified in the page data.

| LinkTemplates | | |
|---------------|---------------------------------------------------------|------------------------|
| Description | Template identifiers for link URLs | |
| Syntax | String(s) | |
| Default | — | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.0.0 | FSI Pages mobile 1.0.0 |

You can provide one or more identifiers that will be replaced in Link URLs. The identifiers are case sensitive and must be separated by commas. The values to insert have to be defined by the parameter "LinkTemplateData" explained below. Please refer to the chapter "[Modifying link values](#)" at runtime above for details.

| LinkTemplateData | | |
|------------------|---------------------------------------------------------|------------------------|
| Description | Values to replace template identifiers in link URLs | |
| Syntax | String(s) | |
| Default | — | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.0.0 | FSI Pages mobile 1.0.0 |

When defining "[LinkTemplates](#)" to replace place holders in Link URLs you can use this parameter to specify the values that shall be inserted. The number and sequence of the values must match the number and sequence of the templates you defined using the "LinkTemplates" parameter. Multiple values have to be separated by commas and the individual values have to be provided "[url-encoded](#)". Please refer to the chapter "[Modifying link values at runtime](#)" above for details.

Parameters for FSI Pages Thumbnails

Due to the Single Source Imaging concept you can display a small, flipping thumbnail of your catalog just by using a different configuration file and choosing a smaller dimension for the FSI Pages instance. The parameters below focus on thumbnail pages.

| Menu | | |
|--------------------|---------------------------------------------------------|------------------------|
| Description | Show / hide the user interface | |
| Syntax | Bool | |
| Default | true | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.0.0 | FSI Pages mobile 1.0.0 |

Show (true) or hide (false) the user interface of FSI Pages add-on.

| IdleAutoTurn | |
|--------------------|---------------------------------------------------------|
| Description | Turn pages automatically |
| Syntax | Boolean |
| Default | false |
| Context: | Pages plug-in node or HTTP query prefixed with "pages_" |

Run the FSI Pages in demonstration mode and turn pages automatically when the user does not interact (move the mouse) for n seconds, as defined by "*IdleAutoTurnDelay*"

| IdleAutoTurnDelay | |
|--------------------|---------------------------------------------------------|
| Description | Min. delay between automatic page flips |
| Syntax | Floating Point Number (seconds) |
| Default | 2 |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 3.6.0 |

Show each page for at least n seconds when flipping pages automatically. Please note that a page might be displayed for longer if loading the page takes longer than the time specified.

| IdleAutoTurnMaxPage, IdleAutoTurnMinPage | |
|------------------------------------------|---------------------------------------------------------|
| Description | Auto flip range |
| Syntax | Number (page) |
| Default | (all pages) |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 3.6.0 |

Loop the auto flip action between IdleAutoTurnMinPage and IdleAutoTurnMaxPage. This way you can restrict the auto flip to a range of pages. If the initial page is outside the range specified, FSI Pages flips towards the range before looping between the range specified.

| DemoURL | |
|--------------------|---------------------------------------------------------|
| Description | Global link when clicking FSI Pages |
| Syntax | URL |
| Default | — |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 3.5.5 or higher |

Specifies a link to open when the user clicks anywhere on the FSI Pages instance. This parameter is especially useful when using a small preview of a catalog to lead the user to the full size version of FSI Pages. You can use URLs starting with "javascript:" to have a Javascript function called when the user clicks the viewer.

You can also use the parameter value "#fullscreen" for the "DemoURL" parameter. Doing so FSI Viewer will enter full screen mode when clicking the FSI Viewer instance.

| DemoURLTarget | |
|--------------------|---------------------------------------------------------|
| Description | Global link when clicking FSI Pages |
| Syntax | URL |
| Default | — |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 3.5.5 or higher |

HTML frame in which to open the URL specified by "DemoURL" parameter in. You can use default frame names like "_self" or "_blank" or use a custom frame of your HTML frame set.

| Rotation | |
|--------------------|---------------------------------------------------------|
| Description | Rotation in degrees of the thumbnail |
| Syntax | Number |
| Default | 0 |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 4.1.0 or higher |

Optional rotation of FSI Pages thumbnails. Please note that using the "rotation" parameters with normal size FSI Pages instances is not recommended as zooming, printing, index view and alike do not correspond to the rotation.

| PageInput | | |
|--------------------|-------------------------------|------------------------|
| Description | Show or hide Page Input field | |
| Syntax | Boolean | |
| Default | true | |
| Context | Pages plug-in | |
| Version | 4.0.0 or higher | FSI Pages mobile 1.0.0 |

Defines whether the input form for page numbers is shown.

| ButtonsFirstLastPage | | |
|----------------------|--------------------------------------|------------------------|
| Description | Show or hide First/Last Page buttons | |
| Syntax | Boolean | |
| Default | true | |
| Context | Pages plug-in | |
| Version | 4.0.0 or higher | FSI Pages mobile 1.0.0 |

Defines whether the navigation buttons for jumping to the first or last page are shown.

Parameters for Statistics

(Requires FSI Viewer 4.1.3 or above)

The following parameters can be used to measure the usage of FSI Pages instances by means of third party statistic tools. Using these parameters you can define a template based URL to be called each time the user performs a specified action like flipping to another page. The templates in the URL will be replaced at runtime. You can specify a custom delay before the statistics URL will be loaded.

| PageLogURL | |
|--------------------|---------------------------------------------------------|
| Description | Template based URL for page view logging |
| Syntax | URL |
| Default | — |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 4.1.3 or higher |

Template based URL to load each time the user flips to another page.

The following templates will be replaced at runtime:

| | |
|----------------|--------------------------------------------------------------------------------------------------------------------------|
| [uniqueid] | The FSI Pages parameter value "UniqueID" |
| [instanceid] | A unique number identifying the FSI Pages instance (unique per instance) |
| [pagenum] | The page number of the current left page |
| [targetpage] | The target page number to flip to (if applicable) |
| [totaltime] | Total seconds the FSI Pages instance is running |
| [action] | String identifying the action which caused the log event (one of: flip, chapters, index, input, hyperlink, hyperlinkurl) |
| [hyperlinkurl] | The URL of the clicked hyperlink (if applicable) |

Example URL:

[http://example.com/log.php?catalog=foo&action=\[action\]&page=\[pagenum\]&targetpage=\[targetpage\]&uniqueid=\[uniqueid\]&totaltime=\[totaltime\]&IID=\[instanceid\]&targeturl=\[hyperlinkurl\]](http://example.com/log.php?catalog=foo&action=[action]&page=[pagenum]&targetpage=[targetpage]&uniqueid=[uniqueid]&totaltime=[totaltime]&IID=[instanceid]&targeturl=[hyperlinkurl])

You can alternatively call a Javascript function using the "javascript:" syntax. In this case you need to define a valid HTML target frame using the "PageLogTarget" parameter.

| PageLogEvents | |
|--------------------|---------------------------------------------------------|
| Description | Send PageLog Event Parameters |
| Syntax | String |
| Default | flip |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 5.5.3 |

This defines which parameters are sent to the PageLogURL when using the pagelog feature of FSI Pages.

| | |
|--------------|-----------------------------------------------------------------|
| flip | flipping a page |
| chapters | selecting an entry in the drop down |
| index | selecting a page from the thumbnail page index |
| input | goto page from page number input |
| hyperlink | flip to a page via "#page" or "#zoomonpage" hyperlink |
| hyperlinkurl | clicking a hyperlink that links to an URL, Javascript call etc. |
| zoom | [targetpage] contains the index of the zoomed page |
| print | [targetpage] contains the index of the saved page |
| save | [tagetpage] contains the index of the saved page |

| PageLogTarget | |
|--------------------|---------------------------------------------------------|
| Description | HTML Target Frame to open the PageLogURL in |
| Syntax | String |
| Default | _internal |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 4.1.3 or higher |

By default FSI Pages uses the special target "_internal" which loads the URL from within the Flash plug-in. You can use this parameter to specify a different HTML target frame like "_self" or "_top".

| PageLogDelay | |
|--------------------|---------------------------------------------------------|
| Description | Page View logging delay |
| Syntax | Number (milliseconds) |
| Default | 2000 |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 4.1.3 or higher |

Specifies a minimum period of time a page must be visible before loading the

PageLogURL. Use "0" to log each page access immediately. The default value of 2000 (ms) ensures, that a page has been viewed for at least 2 seconds.

Advanced Parameters

| RememberLastViewedPage | |
|------------------------|---------------------------------------------------------|
| Description | Store the most recently viewed page locally |
| Syntax | Boolean |
| Default | false |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 4.0.5 or above |

If you enable this parameter FSI Pages stores the page number of the most recently viewed page on the user's computer and displays this page on start up the next time the user views the same catalogue (image collection) again.

Note: The parameter "*InitialPage*" has no effect if there is a valid value for the last viewed page. You can use "*ForceInitialPage*" if you want FSI Pages to show a specific page independent of the last viewed page

Note: When using image collections retrieved from FSI Server, FSI Pages uses the "*dir*" parameter to identify the image collection automatically. If you create image collections manually, you additionally need to add the parameter "*UniqueID*" so that the "last viewed page" can be assigned to this image collection.

| RememberLastViewedPageExpireAfter | |
|-----------------------------------|---------------------------------------------------------------|
| Description | Expire time for "RememberLastViewedPage" parameter in seconds |
| Syntax: | Number (seconds) |
| Default | Undefined (infinite) |
| Context: | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 4.0.9 or above |

By default the last viewed page will be restored on the next visit of a user if you enable the RememberLastViewedPage parameter. You might want to specify an expire time after that the last viewed page will be discarded. Please specify the expire time in seconds, e.g. "3600" for one hour.

| AutoZoom | |
|--------------------|--------------------------------------------------------------------|
| Description | Initial magnification in FSI Viewer |
| Syntax | Number in percent of the source image or "fitWidth" or "fitHeight" |
| Default | — |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |

The initial magnification in FSI Viewer after the user selected an image to zoom. Specify the magnification in percent of the source image, e.g. "100" zooms to the physical resolution of the source image (default maximum magnification).

With FSI Viewer 4.1 or above you can additionally use the parameter values "fitWidth" or "fitHeight" to make FSI Viewer zoom a page to fit the entire width or height of a page. If you do not specify this parameter FSI Viewer displays the entire image.

| PreloadForward | |
|--------------------|---------------------------------------------------------|
| Description | Number of pages to pre-cache |
| Syntax | Number |
| Default | 4 |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |

Number of subsequent pages to load in advance.

| PreloadBackward | |
|--------------------|---------------------------------------------------------|
| Description | Number of pages to pre-cache |
| Syntax | Number |
| Default | 2 |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |

Number of preceding pages to load in advance.

| PageCacheLimit | |
|--------------------|---------------------------------------------------------|
| Description | Number of pages to hold in memory |
| Syntax | Number |
| Default | 8 |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 4.1.3 |

Defines the number of pages to hold in memory. Using larger numbers will make FSI Pages consume more memory (RAM) and cached pages will be read from the browser's file cache less frequently. Use "false" to hold all pages in memory once loaded. This is the default behaviour of previous versions.

| PageCacheRemoveTime | |
|---------------------|---------------------------------------------------------|
| Description | Minimum time each page is being held in memory |
| Syntax | Number (seconds) |
| Default | 3 |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 4.1.3 |

Defines the minimum time each page is being held in memory after it has been viewed the last time. Set this parameter to "0" to remove pages exceeding the "PageCacheLimit" immediately.

| PageOverlays | |
|--------------------|------------------------------------------------|
| Description | Defining overlay(s) for all or a specific page |
| Syntax | XML |
| Default | — |
| Context | Pages plug-in node |
| Version | 4.0.0 or above |

Define a global page overlay for all pages and/or for individual pages. A page overlay is a movie clip that loads on top of a page. To specify a default overlay for all pages except for those, you specified an individual overlay for, please add a default="true" attribute to the <overlay> node. Please see chapter "[Page Overlays](#)" for details.

Defining a global page overlay

```
<Plugins>
...
    <Plugin src="pages" >
        <PageOverlays>
            ...
            <Overlay default="true" file="ov_photo.swf"
        />
            <Overlay page="5" file="myOverlay1.swf"
posX="6" posY="12"/>
            <Overlay page="21" file="myOverlay2.swf"
posX="0" posY="98"/>
            ...
        </PageOverlays>
    </Plugin>
...
</Plugins>
```

The example defines the default overlay "ov_photo.swf" and defines individual overlays for pages 5 and 21.

| PageOverlayShowZoomed | |
|-----------------------|---------------------------------------------------------|
| Description | Show overlays when zooming pages |
| Syntax | Boolean |
| Default | false |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 4.0.0 or above |

Defines whether to show or hide page overlays when zooming into a page.

| MovePages | |
|--------------------|---------------------------------------------------------|
| Description | Move pages when zooming |
| Syntax | Boolean |
| Default | true |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |

Move the pages when zooming to maximize the space available for FSI Viewer. If set to "false" images will be zoomed in-place.

| XMLBase | | |
|--------------------|---------------------------------------------------------|------------------------|
| Description | Path to XML page data | |
| Syntax | String | |
| Default | — | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 3.0.0 | FSI Pages mobile 1.0.0 |

An absolute or relative URL base to XML files containing data like hyperlinks for FSI Pages. If the IPTC data of the images does not contain data for FSI Pages, the viewer will load XML data from the location specified. Alternatively you can force loading XML files rather than using IPTC data by setting the *ForceXMLDataFiles* parameter to "true".

The complete URL to load the XML file from will be created based on the XMLBase parameter value plus the image path with an ".xml" extension.

Example:

```
"http://example.com/xmldata" [^] + "/images/catalog/page_001.tif" + ".xml"
```

You can set the XMLBaseUseImageFileName to "true" to use the image file name instead of the entire image path.

Example:

```
"http://example.com/xmldata" [^] + "/page_001.tif" + ".xml"
```

If you specify this parameter, FSI Pages will try to load XML data for each page from the location specified. The file path of the XML files must match XMLBase/[image filename].xml

| XMLBaseUseImageFileName | | |
|-------------------------|---------------------------------------------------------|------------------------|
| Description | Use file name or path to build XML data URLs | |
| Syntax | Boolean | |
| Default | false | |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" | |
| Version | FSI Pages 5.6.3 | FSI Pages mobile 1.0.7 |

By default the image path will be added to the XMLBase to build the URL to XML data files. Set the parameter to true to use file names instead. In this case, you will need to specify XMLBase differently for each publication.

| Print | |
|--------------------|---------------------------------------------------------|
| Description | Enable printing of pages |
| Syntax | Boolean |
| Default | false |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 3.5.0 or higher |

Enable or disable the user to print the content of the current page. Please refer to the chapter "[Printing and Saving Pages](#)" for details.

| PrintResolution | |
|--------------------|---------------------------------------------------------|
| Description | Max. size of the image to print |
| Syntax | Number (pixels) |
| Default | 2000 |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 3.6.0 or higher |

Defines the maximum size of the image in pixels to download for printing. Please note that the actual size depends on the size of the image defined in the real time template used with FSI Viewer (see parameter "[PrintTemplate](#)").

| PrintOptions | |
|--------------------|---------------------------------------------------------|
| Description | Options to show in the print dialog |
| Syntax | String |
| Default | "range,both,left,right,view" |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 6 |

Allows you to change the options which are displayed in the print dialog. By default, all options available (Range, Both, Left, Right, View) are shown. Please refer to the chapter "[Printing and Saving Pages](#)" for details.


| PrintEffects | |
|--------------------|---------------------------------------------------------|
| Description | Image effects for the image to print |
| Syntax | String |
| Default | — |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 3.6.0 or higher |

Defines image modification parameters to apply to images used for printing. The value of this parameter depends on the imaging server being used. With FSI Server you can sharpen the image and define the JPEG compression level, e.g.
`"effects=sharpen(230) &quality=95"`.

| PrintTemplate | |
|---------------------|---------------------------------------------------------|
| Description: | Real time template for the image to print |
| Syntax | String |
| Default | fsi |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version: | 3.6.0 or higher |

Defines the FSI Server profile used to load the print image. By default FSI Pages uses the default real time template "fsi".

| Save | |
|--------------------|---------------------------------------------------------|
| Description | Enable / disable saving of pages |
| Syntax | Boolean |
| Default | false |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 3.6.0 or higher |

Enables save functionality. Using the save function you can enable the user to open or download a document related to the current page – e.g. the source PDF document of a catalog. Please refer to the chapter "* Printing and Saving Pages*" for details.

| SaveDocumentFile | |
|--------------------|---------------------------------------------------------|
| Description | URL to a PDF document containing all pages |
| Syntax | URL |
| Default | — |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 4.0.0 or higher |

URL to a document containing all pages displayed in an FSI Pages instance. This is the URL the user will be redirected to when choosing the "Entire Document" option in the "Save" dialog. Please refer to the chapter "*Printing and Saving Pages*" for details.

| SaveURLPrefix and SaveUrlSuffix | |
|---------------------------------|---------------------------------------------------------|
| Description | Prefix or suffix for page download URLs |
| Syntax | String |
| Default | — |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 3.6.0 or higher |

Specifies a prefix and/or suffix for the URL FSI Pages opens when the user chooses the "Left Page" or "Right Page" option in the Save dialog. Please refer to the chapter "*Printing and Saving Pages*" for details.

| SaveURLTarget | |
|--------------------|---------------------------------------------------------|
| Description | Target frame for downloading a file related to a page |
| Syntax | String |
| Default | _blank |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 3.6.0 or higher |

HTML frame to open page related files (SaveURL) in. Please refer to the chapter "*Printing and Saving Pages*" for details.

| ForceSaveURL | |
|--------------------|---------------------------------------------------------|
| Description | URL to use for downloading a file related to a page |
| Syntax | String |
| Default | — |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 3.6.0 or higher |

This parameter overrides the download URL specified in the "file" attribute of the page's XML data. Specifying this parameter forces FSI Pages to use the same download URL for all pages. Please refer to the chapter "[Printing and Saving Pages](#)" for details.

| SaveAllowSavingImages | |
|-----------------------|---------------------------------------------------------|
| Description | Add image download options to the "Save" dialog |
| Syntax | Boolean |
| Default | true |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 4.0.0 or higher |

Set this parameter to "false" if you want to prevent the user from downloading images of pages. In this case the PDF download options will be displayed only. Please refer to the chapter "[Printing and Saving Pages](#)" for details.

| SaveResolution | |
|--------------------|---------------------------------------------------------|
| Description | Max. resolution for downloading images |
| Syntax | Number (pixel) |
| Default | 2000 |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 4.0.0 or higher |

The maximum resolution for images the user can choose to download in the "Save" dialog. Please note that the actual size of the image might be limited by the resolution of the source image or by an imaging server restriction. Please refer to the chapter "[Printing and Saving Pages](#)" for details.

| SaveEffects | |
|--------------------|---------------------------------------------------------|
| Description | Image effects for the image to download |
| Syntax | String |
| Default | — |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 4.0.0 or higher |

Defines image modification parameters to apply to images used for downloading. The value of this parameter depends on the imaging server being used. With FSI Server you can sharpen the image and define the JPEG compression level, e.g.

"effects=sharpen(230) &quality=95".

| SaveTemplate | |
|--------------------|---------------------------------------------------------|
| Description | FSI Server profile to use when downloading images |
| Syntax | String |
| Default | fsi |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 4.0.0 or higher |

The FSI Server profile to use when downloading images in the "Save" dialog. Please refer to the chapter "*✍ Printing and Saving Pages*" for details.

| SaveOptions | |
|--------------------|---------------------------------------------------------|
| Description | Enable or disable options in the "Save" dialog |
| Syntax | String |
| Default | — |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 4.0.0 or higher |

A comma separated list of options to be presented to the user in the "Save" dialog. The default is presenting all options which corresponds to the following parameter value:

`document, chapters, both, left, right`

Using the parameter value: `left, right` enables saving the left or right page only. Please note that the options might as well not appear, if there is no data available or specified to download for any of these options. Please refer to the chapter "[Printing and Saving Pages](#)" for details.

| Search | |
|--------------------|---------------------------------------------------------|
| Description | Enable searching a catalog |
| Syntax | Boolean |
| Default | false |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 4.0.0 or higher |

Enables or disables the search interface of FSI Pages. Please refer to the chapter "[Searching in FSI Pages](#)" for details.

| SearchType | |
|--------------------|----------------------------------------------------|
| Description | Use "simplesearch" or "search" type for FSI Server |
| Syntax | String |
| Default | "simplesearch" |
| Context | plug-in node or HTTP query prefixed with "pages_" |
| Version | 5.5.6 or higher (FSI Server only) |

Using "simplesearch" makes FSI Server search in the data fields "iptc.fsi_search_data" and "iptc.caption" only by default rather than searching in all meta data fields. When using FSI Server 1 please set the value of this parameter to "search" in your `_default.xml`

| SearchContext | |
|--------------------|-----------------------------------------------------|
| Description | meta data fields to search |
| Syntax | String |
| Default | "iptc.fsi_search_data,iptc.caption, iptc.fsi_extra" |
| Context | plug-in node or HTTP query prefixed with "pages_" |
| Version | 5.5.6 or higher (FSI Server only) |

Comma separated list of meta data fields names to search in.
FSI Server with FSI Viewer parameter SearchType="simplesearch" only.

| SearchDialogHeight and SearchDialogWidth | |
|------------------------------------------|---------------------------------------------------------|
| Description | Size of the search dialog |
| Syntax | Number (pixel) |
| Default | 400 (width) / 300 (height) |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 4.0.0 or higher |

The size of the search dialog in pixel. Please refer to the chapter "[Searching in FSI Pages](#)" for details.

| SearchAutoWildCards | |
|---------------------|---------------------------------------------------------|
| Description | Add wildcards ("*") to keywords automatically |
| Syntax | Boolean |
| Default | true |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 4.0.0 or higher (depricated for FSI Server) |

By default FSI Pages adds wildcards ("*") to the keywords the user entered into the search input of the search dialog. Set this parameter to "false" if you don't want FSI Pages to add wildcards automatically. Please refer to the chapter "[Searching in FSI Pages](#)" for details.

| SearchAutoSelectFirstResult | |
|-----------------------------|---------------------------------------------------------|
| Description | Search Complete Action |
| Syntax | Boolean |
| Default | true |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 5.5.4 |

Select the first search result item when the search is complete (true, default) or just show the results (false).

| SearchResultClickAction | |
|-------------------------|---------------------------------------------------------|
| Description | Defines action when search result is clicked |
| Syntax | Enum |
| Default | flip |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 5.5.4 |

flip: flip to result page (default)

zoom: zoom the result page

| SearchTextOnStart | |
|--------------------|---------------------------------------------------------|
| Description | Search text on startup |
| Syntax | String |
| Default | — |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 5.5.4 |

Define a text to search for on start or an empty string (default) to not initiate a text search on start.

| SearchAutoExactMatch | |
|----------------------|---------------------------------------------------------|
| Description | Add quotes (") to keywords automatically |
| Syntax | Boolean |
| Default | false |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 4.1.5 or higher |

Setting this parameter to "true" makes FSI Pages add quotes to search requests so that only exact matches will be returned. Setting this parameter implicitly disables the "🔗 SearchAutoWildCards" parameter.

| SearchParameters | |
|--------------------|---------------------------------------------------------|
| Description | Adds parameters (modifiers) to the search query |
| Syntax | String |
| Default | — |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 4.1.5 or higher |

This parameter provides the possibility to add parameters to the search query within FSI Pages. The parameters need to be provided in the regular HTTP request format: `param1=value1¶m2=value2 [...]`.

| SearchCustomURL | |
|--------------------|---------------------------------------------------------|
| Description | URL to request the search result from |
| Syntax | URL |
| Default | — |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 4.0.0 or higher |

You can assign a custom URL to direct search requests to using this parameter. For example you might want to use a database and server side script to return pages related to the search request. This is the default way if you are not using imaging server. Please refer to the chapter "🔗 Searching in FSI Pages" for details.

| SearchCustomValue | |
|--------------------|---------------------------------------------------------|
| Description | A custom value to pass with the search request |
| Syntax | String |
| Default | — |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 4.0.0 or higher |

A custom string to pass to the server along with the search request. This option is useful when using a server other than FSI Server to return search results. Please refer to the chapter "*Searching in FSI Pages*" for details.

| SearchQueryTemplate | |
|---------------------|---------------------------------------------------------|
| Description | Template for the search value |
| Syntax | String |
| Default | See description below |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 5.5.0 or higher |

Specifies the template to create the search query value.

When using FSI Server the default template is:

```
iptc.caption:%%searchtext%%20iptc.fsi_search_data:%%searchtext%%
```

This limits the search result to matches in the IPTC Caption and the special IPTC field "fsi_search_data". These are the places FSI Pages Converter adds the search keywords to. In order to search all text meta data fields available you can specify the following template instead: %%searchtext%%

Please refer to the FSI Server documentation for additional search options.

Please refer to the chapter "Searching in FSI Pages" for further details.

| SearchResultServerTemplate | |
|----------------------------|---------------------------------------------------------|
| Description | Template for the search result |
| Syntax | String |
| Default | pages_searchresult" (FSI Server) |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 5.5.5 or higher |

Specifies the server template to request in search queries.

| SearchUseMethodGet | |
|--------------------|---------------------------------------------------------|
| Description | Use HTTP GET method to request search results |
| Syntax | Boolean |
| Default | false |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 4.0.0 or higher |

By default FSI Pages requests search results using the HTTP POST method. Using this parameter you can force FSI Pages to use the HTTP GET method when requesting search results. Please refer to the chapter "[Searching in FSI Pages](#)" for details.

| SearchSortResults | |
|--------------------|---------------------------------------------------------|
| Description | Sort search results |
| Syntax | Boolean |
| Default | True |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 5.0.4 |

If set to true, the search results are ordered by page number.

If set to false, the search results are listed in the order the imaging server sends them to FSI Pages.

| CropBottom, CropLeft, CropRight, CropTop | |
|------------------------------------------|---------------------------------------------------------|
| Description | Crop page images |
| Syntax | Number in pixel or percent |
| Default | 0 |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |

Specify the amount in pixel (e.g. "100") or in percent (e.g. "10%") to crop from the specified side of the page image. This parameter is especially useful to remove crop marks from catalogs. Instead of using the crop amounts "CropLeft" and "CropRight" you might want to use "CropInner" and "CropOuter" for alternating crop margins for even/uneven pages.

Obsolete as of version 5.6.0 see [✍ CropRect](#).

| CropInner, CropOuter | |
|----------------------|---------------------------------------------------------|
| Description | Crop page images |
| Syntax | Number in pixel or percent |
| Default | 0 |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |

Specify the amount in pixel (e.g. "100") or in percent (e.g. "10%") to crop from the inner or outer side of the page image. These parameters override the "CropLeft" and "CropRight" parameters. "CropInner" is the right side for even pages and the left side for uneven pages. "CropOuter" is the left side for even pages and the right side for uneven pages.

Obsolete as of version 5.6.0 see [✍ CropRect](#).

| Events | |
|--------------------|---------------------------------------------------------|
| Description | Enable plug-in events |
| Syntax | Boolean |
| Default | false |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |

Using this parameter you can enable or disable plug-in event notifications e.g. for the JS Bridge plug-in. Please see "[✍ JavaScript Bridge Plug-in](#)" for details.

| FlipCornerSize | |
|--------------------|---------------------------------------------------------|
| Description | Size of interactive page corners |
| Syntax | Number |
| Default | 10% |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 3.5.5 or higher |

Specifies the size of the interactive page corners you can use to flip pages. You can either specify the size in pixels or in percent of the page width. Setting this parameter to "0" disables interactive page flipping by dragging the page corners.

| FlipEdgeSize | |
|--------------------|---------------------------------------------------------|
| Description | Size of interactive page edges |
| Syntax | Number |
| Default | 5% |
| Context | Pages plug-in node or HTTP query prefixed with "pages_" |
| Version | 3.5.5 or higher |

Specifies the size of the interactive outer page edges you can use to flip pages. You can either specify the size in pixels or in percent of the page width. Setting this parameter to "0" disables interactive page flipping by dragging the page edges.

NeptuneLabs FSI Pages mobile

FSI Pages mobile



The FSI Pages mobile application brings the core functionality of FSI Pages to Apple iOS and Google Android based mobile devices which do not support the Adobe Flash™ Plug-in.

In contrast to FSI Pages which requires the Adobe Flash® Player, FSI Pages mobile is based on JavaScript and does not require the Adobe Flash® Player. Images will be displayed according to the way the mobile device is held (horizontal/vertical) using the single source imaging capabilities of FSI Server. FSI Pages mobile offers touch screen support.

How to embed FSI Pages mobile

The standard request to load FSI Pages is as follows:

```
http://fsi.domain.com/fsi/viewer/fsi.swf?cfg=pages_presets/catalog_links&[more_parameters]
```

The related request to load FSI Pages mobile would be:

```
http://fsi.domain.com/fsi/viewer/applications/pagesmobile/?cfg=pages_presets/catalog_links&[more_parameters]
```

Please note the "fsi.swf" is replaced by the path of your FSI Pages mobile installation, which is "applications/pagesmobile/" in the FSI Viewer folder.

Changing images on the image server will be visible for the end user immediately, as images are loaded on request and are not embedded into the application in contrast to other "apps" for mobile devices. FSI Pages Mobile uses the same configuration files

and parameters as FSI Pages, but due to technical limitations not all parameters are supported. Unsupported parameters will be ignored by FSI Pages mobile, thus it does not require additional configuration to publish your images on mobile devices as well. Please refer to the FSI Pages parameter list to see whether a certain parameter is supported by FSI Pages mobile.

Requirements

Webkit based browser (Apple Safari on iOS or Google Chrome on Android devices)
FSI Server 2.0 or above

Pages Mobile Parameters

| MobileDoublePageRatioLimit | | |
|----------------------------|--------------------------------|------------------------|
| Description | Defines Page display behaviour | |
| Syntax | String (Float or n%) | |
| Default | 0.7 | |
| Context | Pages | |
| Version | FSI Pages n/a | FSI Pages mobile 1.0.0 |

If displaying two pages will automatically result in less than 70% (default) of the screen height being used, a single page is displayed instead of two pages for better space utilization. Setting this parameter to 100% will force single pages only, accordingly 0% will force double pages only.

| InstructionsImageLandscape | | |
|----------------------------|------------------------------------------------------|------------------------|
| Description | Help image to be displayed left of the first page | |
| Syntax | String | |
| Default | _service/FSI Pages mobile/instructions/landscape.tif | |
| Context | Pages | |
| Version | FSI Pages n/a | FSI Pages mobile 1.0.0 |

An absolute or relative ImageURL that FSI Pages mobile displays left of the first page of the catalog in landscape format.

| InstructionsImagePortrait | | |
|---------------------------|-----------------------------------------------------|------------------------|
| Description | Help image to be displayed left of the first page | |
| Syntax | String | |
| Default | _service/FSI Pages mobile/instructions/portrait.tif | |
| Context | Pages | |
| Version | FSI Pages n/a | FSI Pages mobile 1.0.0 |

An absolute or relative ImageURL that FSI Pages mobile displays left of the first page of the catalog in portrait format.

| MobileQuitButton | | |
|--------------------|---------------------------------------------|------------------------|
| Description | adds the option "Close Window" the the menu | |
| Syntax | Boolean | |
| Default | ture if window.opener exists | |
| Context | FSI Pages mobile | |
| Version | FSI Pages n/a | FSI Pages mobile 1.1.0 |

Adds the option "Close Window" to the menu.

| DeferLinksToOpener | | |
|--------------------|----------------------------------------------------------|------------------------|
| Description | redirects links in FSI Pages mobile to the opener window | |
| Syntax | Boolean | |
| Default | false | |
| Context | FSI Pages mobile | |
| Version | FSI Pages n/a | FSI Pages mobile 1.1.0 |

Redirects links in FSI Pages mobile to the opener window.

Pages Mobile Plug-in Attribute targetdevice

```
<plugin src="imprint" targetdevice="desktop,mobile" />
```

Defines whether a plug-in should be loaded on the desktop Flash application, the mobile device, or both of them. Plug-ins have default values according to the availability on each platform, so this should not be changed unless you know what you are doing.

NeptuneLabs FSI Viewer

FSI Showcase Add-on

FSI Showcase Add-on integrates scroll pane to FSI Viewer displaying thumbnails of multiple images. Clicking a thumbnail displays the image in FSI Viewer.

This way a single viewer instance can be used to display hundreds of images presenting thumbnails and optional texts for each image.



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Using FSI Showcase

The integration of FSI Showcase is very similar to an ordinary FSI plug-in. To enable the showcase you have to add a plug-in node to your (default) XML configuration file:

Integrating FSI Showcase

```
<Plugins>
...
  <Plugin src="showcase" basecolor="58A8FF"/>
...
</Plugins>
```

Defining Image Lists

The images to be displayed in FSI Showcase have to be defined in an `<images>` node added to your XML configuration file. The format and options of the collections is the same as the collections for FSI Pages Add-on.

There are three different ways of defining image lists:

1. Creating image nodes referencing external XML configuration files

External XML configuration files

```
<Images>
...
  <Image label="My First Image" file="image1.xml" />
  <Image label="My Second Image" file="image2.xml" />
...
</Images>
```

2. Creating image nodes containing complete image configuration

Complete XML configurations

```
<Images>
...
  <Image label="My First Image">
    <FPX>
      <SRC value="image1.fpx" />
    </FPX>
  </Image>

  <Image label="My Second Image">
    <FPX>
      <SRC value="image2.fpx" />
      <Width value="8096" />
      <Height value="12300" />
    </FPX>
    <Options>
      <NoNav value="true" />
    </Options>
  </Image>
...
</Images>
```

3. Retrieving automatically generated image lists from a server

Complete XML configurations

```
<Plugins>
...
  <Plugin src="showcase" server="..." dir="..." />
...
</Plugins>
```

Method 1 and Method 2 can be freely combined while Method 3 retrieves a complete image list ignoring previously defined `<images>` nodes. Please note that the format of image lists is the same as for FSI Pages. The chapter on FSI Pages contains more detailed information on creating and retrieving "*image lists*".

Image Order

The order of the images within the thumbnail bar corresponds to the order of the `<image>` declarations within the `<images>` section.

Graphical Bookmarks and Product Tours

The Showcase does not re-load images if the image source did not change (e.g. "FPXSrc" and "Effects"). You can therefore use the Showcase to create graphical bookmarks or product tours by specifying the same image source ("FPXSrc") for multiple images and defining different "InitialView" parameters. The Showcase parameter "*UseInitialView*" should be set to "true" (default) in this case.

FSI Parameters and FSI Showcase

All FSI parameters and FSI Plug-in parameters can be used with FSI Showcase Add-on. The only exception is the plug-in integration which will be described later on. The Showcase Add-on follows the hierarchy displayed below to build the configuration for an image:

Hierarchy of parameter definitions

1. Default Configuration File
2. Showcase Configuration File
3. Image Configuration File
4. Image Node
5. HTTP Query

This way you can define global parameters for all images by defining the parameters in 1 (default configuration)
2 (showcase configuration) or
5 by HTTP query.

Parameters specific to certain images have to be defined in the external image configuration file (3) or in the <image> node of the image list (4).




Due to the hierarchy displayed above parameters declared by query override all other parameter definitions. This can be especially useful if you want to override parameters defined in external configuration files, for example overriding the "MenuAlign" parameter.

FSI Showcase Layout



The appearance of the Showcase Add-on can be customized by a large number of configuration parameters. The parameters will be described in detail in the sections "Basic Parameters" and "Advanced Parameters".

This section describes general layout considerations and measures.

Parameter Layout:

| Outside | Inside | Floating |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|  |  |  |
| <i>Shrinks the size of the viewer by the initial size of the thumbnail bar</i> | <i>Shrinks the size of the image (view port) by the initial size of the thumbnail bar</i> | <i>Floats above the viewer without modifying the viewer or image size</i> |

Parameter Align:

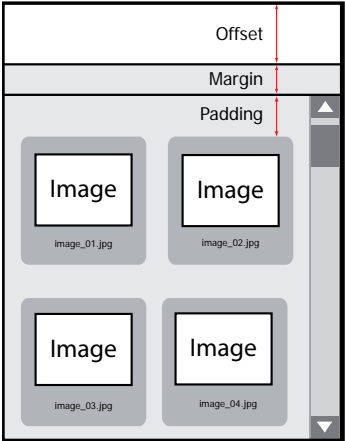
| Right | Left | Top | Bottom |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
|  |  |  |  |

The figures to the left show the alignment with "Layout" set to "Outside" and "MenuAlign" set to "BL" (Bottom Left). You can achieve various layouts by modifying the 2 Showcase parameters ("Layout" and "Align") and the FSI Viewer parameter "MenuAlign".

In addition to the layout parameters explained above you can define Offsets, Margins and Paddings for each side of the Showcase. If you use the "Inside" or "Floating" layout you will most likely have to define an offset to avoid parts of the Showcase being hidden below the menu bar.

The actual values depend on the FSI Skin being used. The figure to the right illustrates the parameters "OffsetTop", "MarginTop" and "PaddingTop".

The values for the right, left and bottom side can be set accordingly.

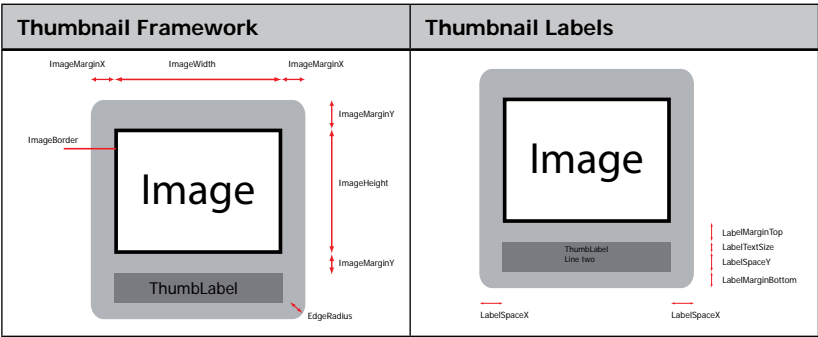


- Use Offset to offset the entire thumbnail bar
- Use Margin to offset the scroll bar and thumbnails
- Use Padding to offset the thumbnails



Using Offset values you can define small thumbnail bars that do not occupy the entire width or height of the viewer.

The chapter "*Advanced Parameters*" provides a description of parameters which can be used to resize and/or colorize all elements of the thumbnail framework. If you just want to change the general color scheme you can use the parameter "BaseColor" instead. You can rescale the thumbnail using the parameter "BaseScale".



Using FSI Showcase and FSI plug-ins

You can use additional plug-ins just like with FSI Viewer. There are some rules you should follow when working with additional plug-ins:

- You can not add plug-ins dynamically after FSI Showcase loaded. You can on the other hand disable plug-ins for individual images adding an `<options>` parameter with the name of the plug-in to the corresponding `<image>` tags of the image list:

Example – Disabling a plug-in inside an `<image>` definition

Defining FSI Showcase image nodes

```
<Images>
...
  <Image label="No Magnifier" >
    <FPX>
      <SRC value="image2.fpx" />
      <Width value="8096" />
      <Height value="12300" />
    </FPX>
    <Options>
      <Magnifier value="false" />
    </Options>
  </Image>
...
</Images>
```

- Plug-in parameters defining the initial state of a plug-in do only apply to the first image. The initial state does not get restored when selecting an image in the thumbnail bar. For example if you set the "visible" parameter of the "Magnifier" plug-in to "true" it will be initially visible, but it will not be displayed each time the user selects an image if the user disabled the magnifier glass by clicking the corresponding button.

Showcase Parameters

The Showcase parameters described in the following can be provided in 3 different ways:

a) Attributes of the plug-in tag

Example – Parameter provided as attribute

```
<Plugins>
...
  <Plugin src="showcase" Layout="Outside" />
...
</Plugins>
```

b) Child nodes of the plug-in node

Example – Parameter provided as child nodes

```
<Plugins>
...
  <Plugin src="showcase" >
    <Layout value="Outside" />
    <Align value="Left" />
  </Plugin>
...
</Plugins>
```

c) By HTTP query value prefixed with "showcase_"

Example – Parameter provided by query

```
<Param name="movie" value="fsi.swf?showcase_layout=Outside">
```

The following value types can be used:

| Type | Example |
|------------------|--------------------------------------|
| Number | "90" |
| Pixel | "90" |
| String | "ZoomIn" |
| URL | "http://www.neptunelabs.com/" |
| Bool | either "0" / "1" or "true" / "false" |
| HexColor | "FF00FF" |
| Color Transition | "FF00FF, FFFFFFFF" |

Basic Parameters

| BaseColor | |
|--------------------|---------------------------------------------------------------|
| Description | Base color of the thumbnail bar |
| Syntax | HexColor |
| Default | "DDDDDD" (light gray) |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Base color for the thumbnail frame work, the scroll bar and the background of the thumbnail bar. All color values will automatically be derived from this color if not defined separately (see "[Advanced Parameters](#)").

| BaseScale | |
|--------------------|---------------------------------------------------------------|
| Description | Scale of thumbnail images |
| Syntax | Number |
| Default | 100 |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Scale of thumbnails in percent, e.g. "150" for 150% of the original size. The user can additionally scale the thumbnails by clicking the corresponding buttons in the drag bar menu. Please note that this value does not change the dimension of thumbnails being retrieved from the server (see ImageWidth and ImageHeight).

| Layout | |
|--------------------|---------------------------------------------------------------|
| Description | Defines the way FSI Showcase integrates into the viewer |
| Syntax | "outside", "inside" or "floating" |
| Default | "outside" |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

- **Outside (default)**

The showcase occupies the entire height or width of the viewer instance shrinking the viewer size by the initial size of the thumbnail bar. The thumbnail bar will be placed above all viewer elements when enlarging the thumb bar by default.

- **Inside**

The showcase reduces the view port of the viewer by the initial size of the thumbnail bar, leaving the menu elements unchanged. The thumbnail bar will be placed below all viewer elements when enlarging the thumb bar by default.

- Floating

The showcase floats above the view port without modifying the viewer or the view port size. The thumbnail bar will be placed below all viewer elements when enlarging the thumb bar by default.

| Align | |
|--------------------|---------------------------------------------------------------|
| Description | Position of the thumbnail bar |
| Syntax | "left", "top", "right", "bottom" |
| Default | "right" |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Defines the position of the thumbnail bar. Please note that the orientation of a possible scrollbar can be defined by the parameter "HScroll".

| InitialSize | |
|--------------------|---------------------------------------------------------------|
| Description | Initial size of the thumbnail bar |
| Syntax | Size in pixel or percent or in number of items |
| Default | "1 item" |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Defines the initial size of the thumbnail bar. You can define the size in absolute pixel values (e.g. "120"), in percent of the viewer size ("50%") or by the number of thumbnails being displayed horizontally (Align="left"/"right") or vertically (Align="top"/"bottom").

If you set the "Layout" parameter to "Outside" or "Inside" this value additionally defines the minimum size of the thumbnail bar the user can achieve by dragging the thumbnail bar.

| HScroll | |
|--------------------|---------------------------------------------------------------|
| Description | Display a horizontal scroll bar if required |
| Syntax | Boolean |
| Default | false |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

- false

Arrange thumbnails vertically and use a vertical scroll bar if required

- true

Arrange thumbnails horizontally and use a horizontal scroll bar if required

| DragBar | |
|--------------------|---------------------------------------------------------------|
| Description | Enable/Disable dynamic resizing of the thumbnail bar |
| Syntax | "Resizable", "Fixed" or "Hidden" |
| Default | "Resizable" |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

- Resizable

The user is able to resize the thumbnail bar dynamically. The width of the splitter bar of the showcase is increased.

- Fixed

The user is not able to resize the thumbnail bar dynamically. The width of the splitter bar of the showcase is normal.

- Hidden

The user is not able to resize the thumbnail bar dynamically and the splitter bar of the showcase is invisible.

| DragBarWidth | |
|--------------------|---------------------------------------------------------------|
| Description | Size of the drag bar |
| Syntax | Number |
| Default | 8 |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

A floating point value defining the width of the drag bar of the thumbnail bar.

| DragMenu | |
|--------------------|---------------------------------------------------------------|
| Description | Show/Hide the buttons in the thumbnail bar |
| Syntax | Boolean |
| Default | true |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Show the buttons of the thumbnail bar enabling the user to resize the thumbnails and the bar itself. This parameter is always "false" if the parameter "DragBar" is "hidden".

| DragMenuWidth | |
|--------------------|---------------------------------------------------------------|
| Description | Size of the menu of the drag bar |
| Syntax | Number |
| Default | 9 |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

A floating point value defining the size of the menu inside the drag bar.

| UseInitialView | |
|--------------------|---------------------------------------------------------------|
| Description | Use InitialView parameters for thumbnail images |
| Syntax | boolean |
| Default | true |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Use the image section defined by the parameter "InitialView" to create the thumbnail image if set to "true". If set to "False" the entire image will be used.

| InitialImage | |
|--------------------|---------------------------------------------------------------|
| Description | Image selected at startup |
| Syntax | Number |
| Default | 1 |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

The index of the image selected on startup. Enter the index of the image from 1 to n images.

| ToolTips | |
|--------------------|---------------------------------------------------------------|
| Description | Show tool tips when hovering above a thumbnail |
| Syntax | Boolean |
| Default | true |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Show tool tips when the mouse cursor hovers above a thumbnail. The text presented in the tool tip is the text of the thumbnail.

This option can be useful if you choose to hide the text on the thumbnail or if the thumbnail label is too long to be entirely displayed on the thumbnail itself. Multi-line texts are being presented separated by commas.

| MinimizeOnSelect | |
|--------------------|---------------------------------------------------------------|
| Description | Minimize the thumbnail bar on select |
| Syntax | Boolean |
| Default | true |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Minimize the thumbnail bar to the initial size when the user selects (clicks) a thumbnail.

| TextOutsideFrame | |
|--------------------|---------------------------------------------------------------|
| Description | Display text outside thumbnail frame |
| Syntax | Boolean |
| Default | false |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Display the thumbnail label inside the thumbnail frame work (false) or outside the frame work (true). The option only applies to thumbnails in normal state, it does not have an impact on active and selected thumbnails.

| ThumbEffects | |
|--------------------|-----------------------------------------------------------|
| Description | Image manipulation parameters applied to thumbnail images |
| Syntax | String |
| Default | — |
| Context | <Options> |
| Version | 3.1.1 or higher |

Applies image manipulation effects like "sharpen" or "quality" to all thumbnail images. Please refer to the "*FSI Viewer "effects"*" parameter for a detailed description.

| ShowControls | |
|--------------------|-------------------------------------|
| Description | Show or hide image changing buttons |
| Default | true |
| Context | <Options> |
| Version | 3.1.1 or higher |

If set to false, the buttons to switch to the next or previous lages are hidden.

ImageList Parameters

You can additionally use automatically generated showcase configuration files for a specific directory on FSI server.

The generated showcase configuration contains all required data listing images in alphabetical order.

Experienced users might additionally edit the server template files used to generate the image list. The corresponding file is located in the 'WEB-INF/templates/list/' directory of your FSI Server:

| Filename | Description |
|-----------------------|------------------------------------------------------------|
| image_list.xml | Creates the <Images> section of the Showcase configuration |

You can specify custom templates to create the image list using the "ListTemplate" parameter.

The following parameters have to be passed to the showcase in order to use automatic showcase configurations:

| Dir | |
|--------------------|---------------------------------------------------------------|
| Description | Image server Base directory |
| Syntax | String |
| Default | — |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Specifies the image directory on the imaging Server the <Images> section will be created for, e.g. 'images/paintings/'

| Server | |
|--------------------|---------------------------------------------------------------|
| Description | Path to imaging server |
| Syntax | String |
| Default | — |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Specifies the URL of the imaging server to generate the configuration. E.g. 'http://mydomain.com/fsi/'

This parameter can be omitted if the Showcase has been installed to the default location on the imaging server.

Please note: Loading configurations across domain boundaries will fail due to a security restriction of the Adobe Flash™ plug-in.

| ListTemplate | |
|--------------------|---------------------------------------------------------------|
| Description | Template to retrieve image lists |
| Syntax | String |
| Default | "fsi/image_list.xml" |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |
| Version | 3.2.6 |

Specifies the XML template to be used to retrieve the image list from imaging server. You can use custom list templates to retrieve image configurations files from imaging server, e.g. to including HotSpot definitions contained in IPTC data of the images.

| EmptyImages | |
|--------------------|---------------------------------------------------------------|
| Description | Define blank images (place holders) |
| Syntax | String |
| Default | --- |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |
| Version | 3.3.0 or higher |

Using this parameter you can add place holders to your image collection. The value of the parameter must contain one or more image indices the place holders shall occupy. E.g. `<EmptyImages value="2,10" />` adds place holders at position 2 and 10. Alternatively you can add `<image empty="true" />` nodes to your image collection.

Advanced Parameters

The following parameters can be used to customize the appearance of the thumbnails and the thumbnail bar. Please note that you can easily change the color scheme by defining a `BaseColor` rather than defining all colors individually.

To change the overall scale of thumbnails you can use the basic parameter `"BaseScale"`.

| Background | |
|--------------------|----------------------------------------------------------------------------|
| Description | Color of the background of the thumbnail bar |
| Syntax | HexColor |
| Default | Defined by parameter <code>BaseColor</code> |
| Context | Showcase plug-in node or HTTP query prefixed with <code>"showcase_"</code> |

Color of the background of the thumbnail bar.

| BackgroundAlpha | |
|--------------------|----------------------------------------------------------------------------|
| Description | Opacity of the background of the thumbnail bar |
| Syntax | Number |
| Default | 100 |
| Context | Showcase plug-in node or HTTP query prefixed with <code>"showcase_"</code> |

Defines the opacity of the thumbnail bar background from `"0"` (invisible) to `"100"` (opaque).

| ScrollBaseColor | |
|--------------------|----------------------------------------------------------------------------|
| Description | Base color of the scroll bar |
| Syntax | HexColor |
| Default | Derived from <code>BaseColor</code> |
| Context | Showcase plug-in node or HTTP query prefixed with <code>"showcase_"</code> |

Defines a color for the scroll bar.

| ScrollTrack | |
|--------------------|---------------------------------------------------------------|
| Description | Color of the track bar of the scroll bar |
| Syntax | HexColor |
| Default | Derived from ScrollBaseColor |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Defines a color for the track area of the scroll bar.

| ScrollArrow | |
|--------------------|---------------------------------------------------------------|
| Description | Color of the arrows of the scroll bar |
| Syntax | HexColor |
| Default | Derived from ScrollBaseColor |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Defines a color for the arrows on the buttons of the scroll bar. Please note that the same color applies to the labels of the drag bar menu.

| DragBarHighlight | |
|--------------------|---------------------------------------------------------------|
| Description | Highlight color of the drag bar |
| Syntax | HexColor |
| Default | Derived from BaseColor |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |
| Version | 3.5.0 or higher |

Defines the highlight color of the drag bar.

| DragBarShadow | |
|--------------------|---------------------------------------------------------------|
| Description | Shadow color of the drag bar |
| Syntax | HexColor |
| Default | Derived from BaseColor |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |
| Version | 3.5.0 or higher |

Defines the shadow color of the drag bar.

| DragBarRoundBevel | |
|--------------------|---------------------------------------------------------------|
| Description | Use a round or small bevel for the drag bar |
| Syntax | Boolean |
| Default | true |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |
| Version | 3.5.0 or higher |

Use a large, round bevel or a small, rectangular bevel when drawing the drag bar.

| ImageHeight and ImageWidth | |
|----------------------------|---------------------------------------------------------------|
| Description | Dimension of thumbnail images |
| Syntax | Pixel |
| Default | 45 |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Defines the maximum physical dimension of thumbnail images in pixel. The actual size of thumbnail images depends on the aspect ratio of an image.

| ThumbspacingX and ThumbspacingY | |
|---------------------------------|---------------------------------------------------------------|
| Description | Space between thumbnails |
| Syntax | Pixel |
| Default | 4 |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

The spacing between the thumbnails in the thumbnail bar in horizontal and vertical direction.

| ImageMarginX and ImageMarginY | |
|-------------------------------|---------------------------------------------------------------|
| Description | Space around thumbnail image |
| Syntax | Pixel |
| Default | 0 |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Space between image border and thumbnail border left/right of the image (ImageMarginX) and above/below the image (ImageMarginY).

If you choose round edges (parameter "EdgeRadius") this value will automatically be increased if required to ensure that the image does not overlap the thumbnail edge.

| ImageBorderWidth | |
|--------------------|---------------------------------------------------------------|
| Description | Thickness of the border around the thumbnail image |
| Syntax | Pixel |
| Default | 1 |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Defines the thickness of the border around the thumbnail image.

Setting this parameter to "0" disables the image border.

| ImageBorderHighlight | |
|----------------------|---------------------------------------------------------------|
| Description | Highlight color of the border around the thumbnail image |
| Syntax | HexColor |
| Default | Derived from BaseColor |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Defines the color of the highlighted section of the image border (left and top).

| ImageBorderShadow | |
|--------------------|---------------------------------------------------------------|
| Description | Shadow color of the border around the thumbnail image |
| Syntax | HexColor |
| Default | Derived from BaseColor |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Defines the color of the darkened section of the image border (right and bottom).

| ThumbFace | |
|--------------------|---------------------------------------------------------------|
| Description | Color of the thumbnail face |
| Syntax | HexColor or color transition |
| Default | Color transition derived from BaseColor |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Defines the color of the thumb face.

This value can be either defined as a solid color (e.g. "00FF00") or as a linear color transition from top/left to bottom/right by entering two color values separated by comma (e.g. "FF0000, 00FF00").

The corresponding parameters for active and selected state are: ThumbActiveFace and ThumbSelectedFace.

| ThumbBorderWidth | |
|--------------------|---------------------------------------------------------------|
| Description | Thickness of the thumbnail border |
| Syntax | Pixel |
| Default | 1 |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Thickness of the border around the thumbnail. Enter "0" to disable the border.

The corresponding parameters for active and selected state are: ThumbBorderActiveWidth and ThumbBorderSelectedWidth.

| ThumbBorderHighlight | |
|----------------------|---------------------------------------------------------------|
| Description | Highlight color of the thumbnail border |
| Syntax | HexColor |
| Default | Color derived from BaseColor |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Defines the color of the highlighted section of the thumbnail border (left and top).

The corresponding parameters for active and selected state are:
ThumbBorderActiveHighlight and ThumbBorderSelectedHighlight.

| ThumbBorderShadow | |
|--------------------|---------------------------------------------------------------|
| Description | Shadow color of the thumbnail border |
| Syntax | HexColor |
| Default | Color derived from BaseColor |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Defines the color of the darkened section of the thumbnail border (right and bottom).

The corresponding parameters for active and selected state are:
ThumbBorderActiveShadow and ThumbBorderSelectedShadow.

| EdgeRadius | |
|--------------------|---------------------------------------------------------------|
| Description | Radius of rounded thumbnail edges |
| Syntax | Pixel |
| Default | 6 |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Defines a radius for drawing rounded edges of the thumbnail frame. Use "0" for straight edges and positive values for rounded edges.

| OffsetBottom, OffsetLeft, OffsetRight, OffsetTop, | |
|---------------------------------------------------|---------------------------------------------------------------|
| Description | Offset from the top of the viewer instance |
| Syntax | Pixel |
| Default | 0 |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

This value defines the offset from the top of the viewer instance to the top of the thumbnail bar of the showcase. Please see the "Showcase measurements" figures for details.

| MarginBottom, MarginLeft, MarginRight, MarginTop | |
|--------------------------------------------------|---------------------------------------------------------------|
| Description | Margin from the top of the thumbnail bar |
| Syntax | Pixel |
| Default | 0 |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

This value defines the margin in pixels from the top of the thumbnail bar to the content and scrollbar of the thumbnail bar of the showcase.
Please see the "Showcase measurements" figures for details.

| PaddingBottom, PaddingLeft, PaddingRight, PaddingTop | |
|------------------------------------------------------|---------------------------------------------------------------|
| Description | Padding of thumbnails inside the thumbnail bar |
| Syntax | Pixel |
| Default | 0 |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

This value defines the top padding of thumbnails inside the thumbnail bar of the showcase.
Please see the "Showcase measurements" figures for details.

| HoverZoom | |
|--------------------|---------------------------------------------------------------|
| Description | Zoom thumbnails "onMouseOver" |
| Syntax | Number |
| Default | 100 (disabled) |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Zoom thumbnails when the user points at a thumbnail. The default value is "100" (no effect). Possible values are 100% (no effect) to 250%.

| HoverRotation | |
|--------------------|---------------------------------------------------------------|
| Description | Rotate thumbnails "onMouseOver" |
| Syntax | Number |
| Default | 0 (disabled) |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Rotate thumbnails when the user points at a thumbnail. The default value is "0" (no effect). Possible values are 0 (degree) to 360 (degree).

The following parameters can be used to customize the text displayed on the thumbnails.

| LabelTextSize | |
|--------------------|---------------------------------------------------------------|
| Description | Text size of the thumbnail labels |
| Syntax | Pixel |
| Default | 0 (no text) |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Text size in pixel for the text presented below the thumbnail image.
Use "0" to disable text and positive values (e.g. "8") to enable texts on the thumbnails.

| LabelMode | |
|--------------------|---------------------------------------------------------------|
| Description | Content of the thumbnail labels |
| Syntax | Number |
| Default | 0 |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Obsolete. Please use LabelContent and LabelTemplates parameters described below instead.

| LabelContent | |
|--------------------|---------------------------------------------------------------|
| Description | Content of thumbnail labels |
| Syntax | String |
| Default | — |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

The specified string serves as a label for the thumbnail images in the thumbnail bar. The string may contain "*basic HTML tags*" to format the text. Additionally you can add templates being replaced at runtime. Please see "*LabelTemplates*" parameter below for details.

| LabelTemplates | |
|--------------------|---------------------------------------------------------------|
| Description | Runtime Templates for thumbnail labels |
| Syntax | String |
| Default | — |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

FSI Showcase add-on replaces the specified templates in the thumbnail labels (parameter "LabelContent") with the value specified in the image's configuration at runtime. This is: any configuration value (specified in _default.xml, image.xml or by HTTP Query) can be integrated into the thumbnail label. To do so, you need to

- Add a corresponding template to the "LabelContent" parameter value
- Add the template to the "LabelTemplates" value

Each template needs to be entered as an XML node, while the node name is the name of the full configuration parameter name like you would use the parameter in the HTML query for FSI Viewer, e.g. <FPXWidth/> or <Showcase_Dir/>.

Thumbnail labels with runtime templates

```
<Plugin src="showcase">
...
<LabelContent><b><ImageIndex/>. <ImageLabel /></b><br/>Size:
<FPXWidth/> x <FPXHeight/> px</LabelContent>
<LabelTemplates value="FPXWidth,FPXHeight" />
...
</Plugin>
```

The resulting label with this configuration looks like this:

```
1. SomeImageName.tif
Size: 2048 x 1024 px
```

The two templates <ImageIndex/> and <ImageLabel /> are built-in templates containing the numeric index of an image and the "label" attribute of the <image> node of the image list.

| LabelPrefix | |
|--------------------|---------------------------------------------------------------|
| Description | Prefix applied to thumbnail texts |
| Syntax | String |
| Default | — |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

A prefix string applied to all thumbnail labels or "false" for no prefix.

| LabelTextHeight and LabelTextWidth | |
|------------------------------------|---------------------------------------------------------------|
| Description | Horizontal or vertical space for thumbnail labels |
| Syntax | Pixel |
| Default | — |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

You can use this value to increase the horizontal or vertical space available for thumbnail labels. In case the thumbnail label text does not fit into the available space, the label will be displayed cropped, but the entire label is available in the thumbnail's tool tip.

| LabelTextAlign | |
|--------------------|---------------------------------------------------------------|
| Description | Text alignment for all thumbnail labels |
| Syntax | left, center or right |
| Default | left |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Align the thumbnail labels left, centered, or right in the available space for label texts. This value has no effect if the contents of a label contains `<p align="[alignment]" "></p>` tags.

| LabelTextFont | |
|--------------------|---------------------------------------------------------------|
| Description | Font used for thumbnail label texts |
| Syntax | String |
| Default | "_sans" |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Defines the font used to display thumbnail labels. This value has no effect if the contents of a label contains `` tags. Please note that the font will only be reflected, if the font is available on the user's system. Otherwise a similar font will be displayed.

| LabelTextColor | |
|--------------------|---------------------------------------------------------------|
| Description | Text color of thumbnail labels |
| Syntax | HexColor |
| Default | 000000 |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

A 6-digit hexadecimal color value defining the text color of thumbnail labels. This value has no effect if the contents of a label contains `` tags.

| LabelMarginBottom and LabelMarginTop | |
|--------------------------------------|---------------------------------------------------------------|
| Description | Margin above/below the thumbnail text |
| Syntax | Pixel |
| Default | 0 |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

You can use this value to add additional space above (LabelMarginTop) or below (LabelMarginBottom) the thumbnail text.

| LabelOffsetTop | |
|--------------------|----------------------------------------------------------------|
| Description | Adjust vertical position of the thumbnail text |
| Syntax | Pixel |
| Default | 0 |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_ " |

You can use this value to adjust the vertical position of the text area of the thumbnail. Negative values move the text area up while positive values move the text area down.

| LabelOnRight | |
|--------------------|----------------------------------------------------------------|
| Description | Display thumbnail labels right of the image |
| Syntax | Boolean |
| Default | false |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_ " |
| Version | 4.1.3 |

Set this parameter to "true" to display thumbnail labels right of the images instead of below the thumbnail images.

| LabelOffsetLeft | |
|--------------------|----------------------------------------------------------------|
| Description | Adjust horizontal position of thumbnail text |
| Syntax | Pixel |
| Default | 10 |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_ " |
| Version | 4.1.3 |

You can use this value to adjust the horizontal position of the text area of the thumbnail. Negative values move the text area to the left while positive values move the text area to the right.

| PreloadThumbs | |
|--------------------|---------------------------------------------------------------|
| Description | Load all thumbnail images on startup |
| Syntax | Number |
| Default | 0 |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |

Setting the value to "0" makes the showcase load thumbnails on-demand. Setting positive values enables the pre-loader which loads all images on startup. The given value specifies the number of images to preload simultaneously.

Please note: Be careful when activating this option especially with automatically generated image lists or large image lists as it might cause higher server loads and increased (and possibly unnecessary) network traffic.

| CropThumbnails | |
|--------------------|---------------------------------------------------------------|
| Description | Crop images to match thumbnail dimension |
| Syntax | Boolean |
| Default | false |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |
| Version | 3.5.0 or higher |

Automatically crop images to match the dimensions of the thumbnails.

| KeepImageSection | |
|--------------------|---------------------------------------------------------------|
| Description | Preserve the view when selecting thumbnails |
| Syntax | Boolean |
| Default | false |
| Context | Showcase plug-in node or HTTP query prefixed with "showcase_" |
| Version | 3.5.0 or higher |

Usually FSI Showcase displays the entire image (or the image section specified by the parameter "InitialView") when selecting a thumbnail. Set this parameter to "true" to if you want to preserve the image section you are currently viewing when selecting another image.

Plug-in Reference

This part of the documentation lists all standard FSI Viewer plug-ins. The purpose of FSI Viewer plug-ins is integrating functionality at runtime that might not be required in general. This way users need to download only that part of FSI Viewer code necessary to provide the required functionality. Additionally the plug-in system provides the possibility to add functionality required by an individual customer or by a certain group of customers. Please contact your FSI Viewer dealer in case you are missing any kind of functionality.

Plug-in Extends

The Plug-in Extends section lists the available plugins for FSI Viewer and Addons and what each plugin extends. Please note that any plugin that extends FSI Viewer may also affect FSI Pages in page zoom mode, as page zoom mode is FSI Viewer technically.

Plug-in AddThis



Plug-in Extends:

- FSI Pages
- FSI Pages mobile

Function:

Social Platform Sharing Tool

Syntax:

```
<plugin src="addthis"/>
```



Plug-in Parameters

| UserName | |
|--------------------|---------------------------------------|
| Description | Username to login the addthis service |
| Syntax | String |
| Default | — |
| Context | Plug-in tag |

This value defines your AddThis username to login the addthis service.

| TargetFrame | |
|--------------------|----------------------------------------------------|
| Description | defines the HTML frame to open the AddThis page in |
| Syntax | String |
| Default | — |
| Context | Plug-in tag |

This value defines the HTML frame to open the AddThis page in.

| DialogWidth | |
|--------------------|----------------------------------------|
| Description | defines the width of the dialog window |
| Syntax | Number |
| Default | 480 |
| Context | Plug-in tag |

Defines the width of the dialog window.

| DialogHeight | |
|--------------------|-----------------------------------------|
| Description | defines the height of the dialog window |
| Syntax | Number |
| Default | 430 |
| Context | Plug-in tag |

Defines the height of the dialog window.

| ShowLabels | |
|--------------------|--------------------------------------------------------|
| Description | defines whether the service labels should be displayed |
| Syntax | Boolean |
| Default | false |
| Context | Plug-in tag |

This value defines whether the service names in the dialog should be displayed.

| ShowTooltips | |
|--------------------|-----------------------------------------------|
| Description | defines whether tooltips should be displayed. |
| Syntax | Boolean |
| Default | false |
| Context | Plug-in tag |

This value defines whether tooltips describing the services should be displayed.

| BookmarkTitle | |
|--------------------|------------------------------------|
| Description | defines the title for the bookmark |
| Syntax | String |
| Default | "auto:document" |
| Context | Plug-in tag |

This value defines the title for the bookmark (default: "auto:document" which is the title of the container HTML document)

| BookmarkURL | |
|--------------------|-----------------------------|
| Description | defines the URL to bookmark |
| Syntax | String |
| Default | "auto:document" |
| Context | Plug-in tag |

This value defines the URL to bookmark (default: "auto:document" which is the URL of the container HTML document). For further information please see the section "Details on the BookmarkURL" below.

| Services | |
|--------------------|---------------------------------------|
| Description | defines which services should be used |
| Syntax | String |
| Default | all |
| Context | Plug-in tag |

Comma separated string: defines which services should be used.

To get a list of all service codes available, please see the "listServices" parameter or visit the [addThis website](#).

| ListServices | |
|--------------------|------------------------------|
| Description | lists all available services |
| Syntax | Boolean |
| Default | false |
| Context | Plug-in tag |

List all available services and priorityServices in plug-ins section of the debug window

| PriorityServices | |
|--------------------|-----------------------------------------|
| Description | defines which services to display first |
| Syntax | String |
| Default | - |
| Context | Plug-in tag |

Comma separated string: services to display first

Example: "twitter,hyves,google,email,facebook,linked"

| RemoveServices | |
|--------------------|----------------------------------------------|
| Description | defines whether tooltips should be displayed |
| Syntax | Boolean |
| Default | false |
| Context | Plug-in tag |

Comma separated string: services to hide in the list
 Example: "twitter,hyves,google,email,facebook,linkedin"

Please see a list of supported services below.

| AppendFSIParameters | |
|---------------------|------------------------------------------------------------|
| Description | automatically add FSI Viewer parameters to the BookmarkURL |
| Syntax | Boolean |
| Default | true |
| Context | Plug-in tag |

Automatically add FSI Viewer parameters to the BookmarkURL (e.g. pages_InitialPage with the value of the current page)

| ShareURLTemplate | |
|--------------------|--------------------------------------------|
| Description | template to create the AddThis URL to call |
| Syntax | String |
| Default | see below |
| Context | Plug-in tag |

Template to create the AddThis URL to call.

Default:
[http://api.addthis.com/oexchange/0.8/forward/\[SERVICEID\]/offer?url=\[URL\]&title=\[TITLE\]&username=\[USERNAME\]](http://api.addthis.com/oexchange/0.8/forward/[SERVICEID]/offer?url=[URL]&title=[TITLE]&username=[USERNAME])

| Library | |
|--------------------|-----------------------------------------------------------|
| Description | defines the SWF file containing service icons and details |
| Syntax | XML |
| Default | addthis_lib.swf |
| Context | Plug-in tag |

This value defines the SWF file containing service icons and details.

Details on the BookmarkURL:

By default the plug-in uses the URL of the container HTML document if possible. You can on the other hand specify any other URL.

The "AppendFSIParameters" (default:true) specifies whether to add FSI Viewer parameters dynamically to the BookmarkURL. The plug-in will then add/modify the query parameter "FSIPassthrough" to the URL. The value of this query parameter contains the automatically added FSI Viewer parameters you should pass on to the FSI Viewer instance, e.g. using Javascript or a server side scripting language.

This way you can not only bookmark an HTML document containing a specific FSI Viewer instance, but you can instead bookmark a specific page of the FSI Pages instance.

All you need to do is extracting the "FSIPassthrough" query value from the documents URL and add this parameters to the FSI Viewer instance (e.g. in the writeFlashCode() Javascript call).

Plug-in BackgroundImage



Plug-in Extends:

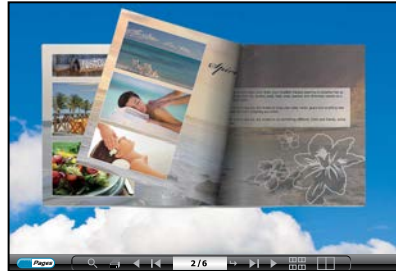
- FSI Viewer
- FSI Showcase
- FSI Pages
- FSI Pages mobile

Plug-in Location:

/plugins/backgroundimage.plg

Function:

Adds a background image to FSI Viewer



Syntax:

```
<Plugin src="backgroundimage" FPXSrc="images/bgimage.tif" />
```

This plug-in adds a background image to FSI Viewer. Usually background images are used with FSI Pages only, as with FSI Viewer and FSI Showcase most of the background image is covered by the zoomable image.

The plug-in crops the specified image so that the entire area of FSI Viewer instance is filled with the background image.

Plug-in Parameters

| FPXSrc | |
|--------------------|---------------------------------------------------|
| Description | Relative path to the image on your imaging server |
| Syntax | String |
| Default | — |
| Context | Plug-in tag |

The path to an image on your imaging server to be used as a background. If you use a relative path (recommended) the FSIBase parameter will be used to get the absolute path to the image.

| Effects | |
|--------------------|----------------------------------------------------------|
| Description | Optional effect parameters to pass to the imaging server |
| Syntax | String |
| Default | — |
| Context | Plug-in tag |

Like with the "*Effects parameter*" for FSI Viewer itself you can optionally pass image effect parameters to your imaging server that affect the appearance of the background image.

Plug-in Chapters



Plug-in Extends:

- FSI Pages
- FSI Pages mobile

Plug-in Location:

/plugins/chapters.plg

Function:

Adds a select box to access parts of a catalog directly.

Syntax:

```
<Plugin src="chapters"/>
```

| CHAPTER | |
|------------------|----|
| --- Select --- | ▼ |
| Woman..... | 4 |
| Man..... | 25 |
| Sports Wear..... | 35 |

This plug-in adds a select box to the user interface of FSI Pages. The user can directly access sections of a catalog by selecting the corresponding item in the select box. You can assign colors and different levels to each chapter using simple XML based data describing the document structures.

Example: XML data for the Chapters plug-in

```
<Indexdata>
  <Index label="First Page" page="1" color="FFFF00" />
  <Index label="Chapter 1" page="10" color="00FF00">
    <Index label="Chapter 1.1" page="20" color="00FF00"/>
    <Index label="Chapter 1.2" page="30" color="00FF00"/>
    <Index label="Chapter 1.3" page="40" color="00FF00"/>
  </Index>
  <Index label="Chapter 2" page="50" color="0000FF"/>
  <Index label="Chapter 3" page="60" color="CCCCCC"/>
  <Index label="Chapter 4" page="70" color="FF0000"/>
</Indexdata>
```

Plug-in Parameters

| IndexData | |
|--------------------|-----------------------------|
| Description | XML document structure data |
| Syntax | XML Data |
| Default | --- |
| Context | Plug-in attribute |

XML Data describing the document structure. Add the XML data as a child node of the "Chapters" plug-in node. Alternatively you can specify the XML data using an external XML file.

| IndexDataFile | |
|----------------------|---------------------------------------------------------------|
| Description | URL to an external XML file describing the document structure |
| Syntax | String |
| Default | --- |
| Context | Plug-in attribute |

Alternatively to the "IndexData" parameter you can use an external XML file to provide the XML document structure data required for this plug-in. The XML file must be located in the same domain as FSI Viewer to avoid cross-domain security restrictions. If you enter a relative path, FSI Viewer loads the file from the subdirectory "pages_url" of your FSI Viewer configuration directory ("FSIBase") If you store XML files in the directory "[fsi]/config/pages_xml/" you therefore only need to specify the file name of the XML file to load.

Please note: You need to use an external XML file in UTF-8 format when using special language specific characters (characters \geq 0x80).

With Version 3 of FSI Server, it is possible to set this parameter to "auto" in order to request the information from the server instead of loading the information from the file.

| PageNumbers | |
|--------------------|-------------------------------------------------|
| Description | Display a starting and ending pages of chapters |
| Syntax | Boolean |
| Default | true |
| Context | Plug-in attribute |

Add the starting and ending page of a chapter to the chapter label.

| ComboLabelBackgroundAlpha | |
|---------------------------|-------------------------------------------------|
| Description | Background opacity of the select box background |
| Syntax | Number |
| Default | 10 |
| Context | Plug-in attribute |

Opacity of the select box background from 0 (transparent) to 100 (opaque).

| ColoredIndex | |
|--------------------|-------------------------------------------------|
| Description | Display colored index markers in the select box |
| Syntax | Boolean |
| Default | true |
| Context | Plug-in attribute |

Display the color specified in the document structure XML data in front of the chapter labels.

| IndexMarginWidth | |
|--------------------|---------------------------------|
| Description | Width of the colored page index |
| Syntax | Number |
| Default | 0 |
| Context | Plug-in attribute |

Floating point value specifying the width of the colored index located on the outer page margin in percent of the page width. Enter 0 to disable the colored page margin. Please note: This value requires setting "ColoredIndex" to true as well.

| Width | |
|--------------------|-------------------------|
| Description | Width of the select box |
| Syntax | Pixels |
| Default | 200 (depending on skin) |
| Context | Plug-in attribute |

Usually the FSI Pages skin defines the width and position of the select box. Alternatively you can specify a fixed width in pixels using this parameter.

| Sort | |
|--------------------|---------------------------------|
| Description | Sort index items by page number |
| Syntax | Boolean |
| Default | true |
| Context | Plug-in attribute |
| Version | 4.1.5 or above |

By default the plug-in sorts the index items ascending by page number. Set this parameter to "false" to use the order in which the index items are listed in the XML file.

| Update | |
|--------------------|----------------------------------------|
| Description | Update the selected index on page flip |
| Syntax | Boolean |
| Default | true |
| Context | Plug-in attribute |
| Version | 4.1.5 or above |

By default the plug-in automatically selects the matching index item after a page flip. Set this parameter to "false" to display the first index item always, e.g. to make the plug-in display "Go to section ..." always.

| ValidateData | |
|--------------------|----------------------------|
| Description | Use valid index items only |
| Syntax | Boolean |
| Default | true |
| Context | Plug-in attribute |
| Version | 4.1.5 or above |

By default the plug-in does not display items that refer to page numbers higher than the last page or lower than first page. Set this parameter to display all index items, even if refer to non-existing pages.

Index Item Attributes

Each <index> node represents an item in the chapters drop down referring the user to a page in your document. The following attributes need to or can be added to each <index> item:

| Attribute | Description |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| page | Index of the page to refer to (required) |
| label | Title for a chapter (required) |
| file | File to download for a chapter (from version 4.0.0) See chapter " <i>✍ Saving Pages</i> " for details. |
| color | 6-digit hexcolor for use with "ColoredIndex" parameter |
| musicSong | An absolute or relative URL to an MP3 file to play for this chapter (from version 4.0.7). Please note that you need to add the plug-in "music" as well in this case. |

Plug-in ClockProgress



Plug-in Extends:

- FSI Viewer
- FSI Showcase

Plug-in Location:

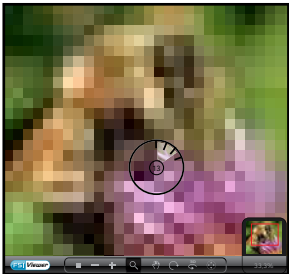
/plugins/clockprogress.plg

Function:

Replacement for default progress bar

Syntax:

```
<Plugin src="clockprogress" />
```



The "ClockProgress" plug-in replaces the default progress bar with a round progress indicator.

Plug-in Parameters

The clockprogress plug-in can be customized by adding attributes to the <plugin> tag. E.g. <Plugin src="clockprogress" alpha="20"/>

The following attributes can be used to customize the clockprogress plug-in:

| Alpha | |
|-------------|-------------------------------|
| Description | Opacity of progress indicator |
| Syntax | Number |
| Default | 50 |
| Context | Plug-in attributes |

Defines the opacity of the progress indicator. Possible values range from 0 to 100.

- 0 transparent
- 100 opaque

| Size | |
|--------------------|----------------------------|
| Description | Size of progress indicator |
| Syntax | Number |
| Default | 60 |
| Context | Plug-in Tag |

Defines the overall size of the progress indicator in pixel.

| Color1 | |
|--------------------|-----------------------------------------------------------|
| Description | Color of the area representing the amount of pending data |
| Syntax | HexColor |
| Default | 000000 |
| Context | Plug-in attributes |

A 6-digit hexadecimal number defining the color of the area representing the amount of pending data.

| Color2 | |
|--------------------|------------------------------------------------------------------|
| Description | Color of the area representing the amount of data already loaded |
| Syntax | HexColor |
| Default | FFFFFF |
| Context | Plug-in attributes |

A 6-digit hexadecimal number defining the color of the area representing the amount of data already loaded.

| LineColor | |
|--------------------|-------------------|
| Description | Line color |
| Syntax | HexColor |
| Default | 000000 |
| Context | Plug-in attribute |

A 6-digit hexadecimal number defining the color of the lines.

| TextColor | |
|--------------------|-------------------|
| Description | Text color |
| Syntax | HexColor |
| Default | 000000 |
| Context | Plug-in attribute |

A 6-digit hexadecimal number defining the color of the text.

| posX | |
|--------------------|--------------------------------|
| Description | Horizontal Position |
| Syntax | String / Number |
| Default | Depends on MenuAlign parameter |
| Context | Plug-in attribute |

Defines the horizontal position of the progress indicator.

Possible values:

| | |
|----------------------|-----------------------|
| C | Centered horizontally |
| Number > 0 | Offset from left |
| Number < 0 | Offset from right |

| posY | |
|--------------------|--------------------------------|
| Description | Vertical position |
| Syntax | String / Number |
| Default | Depends on MenuAlign parameter |
| Context | Plug-in attribute |

Defines the vertical position of the progress indicator.

Possible values:

| | |
|----------------------|---------------------|
| C | Centered vertically |
| Number > 0 | Offset from top |
| Number < 0 | Offset from bottom |

Plug-in ColorAdjust



Plug-in Extends:

- FSI Viewer
- FSI Showcase
- FSI Pages

Plug-in Location:

/plugins/coloradjust.plg

Function:

Adjusts the color level of images

Syntax:

```
<Plugin src="coloradjust" />
```



Plug-in Parameters

| AutoHideDialog | |
|--------------------|------------------|
| Description | Auto Hide Dialog |
| Syntax | Boolean |
| Default | true |
| Context | ColorAdjust |
| Version | 5.0.0 |

Hides the interface dialog when changing values.

| Blue, Green, Red | |
|--------------------|------------------------------------|
| Description | Blue value, Green value, Red value |
| Syntax | Float |
| Default | 100 |
| Context | ColorAdjust |
| Version | 5.0.0 |

Amount of blue, green and red.

| Brightness | |
|--------------------|---------------------|
| Description | Brightness of image |
| Syntax | Float |
| Default | 100 |
| Context | ColorAdjust |
| Version | 5.0.0 |

The image brightness.

| MenuOffset | |
|--------------------|-----------------|
| Description | MenuOffset |
| Syntax | Number (Pixels) |
| Default | — |
| Context | ColorAdjust |
| Version | 5.0.0 |

Defines the menu offset.

| SetValuesForEachImage | |
|-----------------------|---------------------------------------|
| Description | Save Values for each image seperately |
| Syntax | Boolean |
| Default | false |
| Context | ColorAdjust |
| Version | 5.0.0 |

If enabled, the color values can be set for each image. If disabled (default) the values are used for all images.

| ShowUI | |
|--------------------|----------------|
| Description | Show Interface |
| Syntax | Boolean |
| Default | true |
| Context | ColorAdjust |
| Version | 5.0.0 |

If disabled, the user interface will be hidden, enabling the effects.

Plug-in ContextMenu



Plug-in Extends:

- FSI Viewer
- FSI Showcase
- FSI Pages

Plug-in Location:

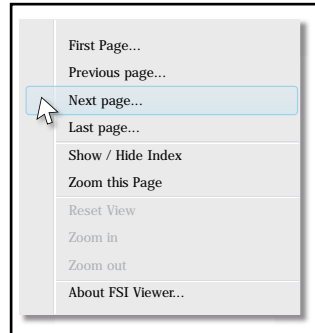
/plugins/contextmenu.plg

Function:

Adds FSI Viewer related items to the Flash player's context menu

Requirements:

Flash player 7 or above



Syntax:

```
<Plugin src="contextmenu" />
```

This plug-in does not provide any parameters. You can on the other hand translate the menu items or additional items. The example below shows the built-in configuration of this plug-in.

Sample configuration

```
<Plugin src="contextmenu" >
  <MenuItems>
    <!-- FSI PAGES ONLY -->
    <Item label="First Page..." action="FirstPage" />
    <Item label="Previous page..." action="PreviousPage" />
  />

  <Item label="Next page..." action="NextPage" />
  <Item label="Last Page..." action="LastPage" />
  <Separator />
  <Item label="Show / Hide Index"
action="ShowHidePageIndex"/>
  <Item label="Zoom this Page" action="ZoomPage"/>
  <Separator />
  <!-- FSI SHOWCASE ONLY -->
  <Item label="Previous Image" action="PreviousImage"/>
  <Item label="Next Image" action="NextImage"/>
  <Separator />
  <!-- FSI VIEWER -->
  <Item label="Reset View" action="Reset"/>
  <Item label="Zoom in" action="ZoomIn"/>
  <Item label="Zoom out" action="ZoomOut"/>
  </MenuItems>
</Plugin>
```

Plug-in Parameters

| Menu Items | |
|--------------------|-------------------------------------------------------|
| Description | Refers to the XML describing the context menu entries |
| Syntax | String |
| Default | — |
| Context | Plug-in tag |
| Version | 5.0.0 |

Defines the XML snippet describing the context menu. Please refer to the "[✍ FSI Contrib package](#)" if you want to modify or translate the context menu.

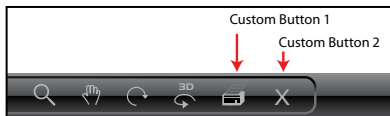
Plug-in CustomButton

**Plug-in Extends:**

- FSI Viewer
- FSI Showcase

Plug-in Location:

/plugins/custombutton.plg

**Function:**

Adds custom buttons to the FSI Viewer menu bar

Syntax:

```
<Plugin src="CustomButton" buttons="btn1,btn2" />
```

The "CustomButton" plug-in can be used to integrate one or more custom buttons into the menu bar of FSI viewer. Clicking a button invokes the URL specified in the plug-in parameter. This way you can integrate buttons performing a JavaScript call or opening up a web page.

Plug-in Parameters

| MenuOffset | |
|--------------------|-------------------------------------------|
| Description | Offset in pixel to previous menu elements |
| Syntax | Number in pixel |
| Default | 0 |
| Context | Plug-in tag |

Defines an offset of all custom buttons in pixels to elements of the menu bar.

| Buttons | |
|--------------------|--------------------------------------------|
| Description | Comma separated list of unique identifiers |
| Syntax | String |
| Default | — |
| Context | Plug-in tag |

Enter a list of unique identifiers separated by commas. Each identifier represents a new button that can be configured using the parameters below. E.g. "btn1,btn2" adds two custom buttons. To specify parameters for these buttons you have to prefix the parameters by the unique identifier plus, e.g. "btn1.Url" defines the URL to use for the button named "btn1".

| [ID].Offset | |
|--------------------|------------------------------------------------------------|
| Description | Offset of the button in pixel to previous (custom) buttons |
| Syntax | Number in pixels |
| Default | 0 |
| Context | Plug-in tag |

Specifies an offset for the button named "[ID]" in pixel to previous (custom) buttons.

| [ID].URL | |
|--------------------|----------------------|
| Description | Url to open on click |
| Syntax | String |
| Default | — |
| Context | Plug-in tag |

Specifies an URL to open when the user clicks the button named "[ID]". You can specify a URL to a web page or alternatively a script call, e.g. "javascript: void alert("foo");" Please note: You can use templates to be replaced by FSI Viewer at runtime. The button appears disabled if no URL is specified.

| [ID].Frame | |
|--------------------|-----------------------------------------|
| Description | HTML frame to open the specified URL in |
| Syntax | String |
| Default | _self |
| Context | Plug-in tag |



Specifies the HTML frame in which to open the specified URL for the button named "[ID]". Besides using an identifier of a frame inside your HTML frame set you can as well use one of the predefined values "_self", "_top", "_blank" or "_parent".




| [ID].ToolTip | |
|--------------------|---------------|
| Description | Tool tip text |
| Syntax | String |
| Default | — |
| Context | Plug-in tag |

Specifies the tool tip to be displayed when the user places the cursor above the custom button named "[ID]".

| [ID].LabelFrame | |
|--------------------|--------------------------------|
| Description | Symbol displayed on the button |
| Syntax | Number |
| Default | 1 |
| Context | Plug-in Tag |

Specifies the symbol to be displayed on top of the custom button named "[ID]". The predefined symbols are:

| GFX | ID | Example |
|-------------------------------------------------------------------------------------|----|-------------|
|  | 1 | Information |
|  | 2 | Close |

| | | |
|-----------------------------------------------------------------------------------|---|-------------------|
|  | 3 | Resize or Restore |
|  | 4 | Open window |
|  | 5 | Print |

You can add your own graphics to be used as a label for custom buttons. Please refer to the "*FSI Contrib package*" for a sample and instructions how to create your own custom button icons. You will need Adobe Flash™ editor to add custom icons.

Using Templates in URL parameters

Starting from FSI version 3.2.3 you can use templates when defining URLs for custom buttons. These templates will be replaced by FSI Viewer when the user clicks a custom button. This way you can retrieve parameters from FSI Viewer dynamically and pass the values to a JavaScript function or a server side script.

Templates in CustomButton URLs

```
<Plugin src="custombutton" buttons="btn1" btn1.
URL="javascript:alert('$${cfg.FPXWidth}$ x ${cfg.FPXHeight}$') " />
```

The example above outputs the size of the source image via JavaScript.

The list below shows available templates for custom button URLs:

| Template in URL | Replaced by... |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>\$\$cfg.[Name]\$\$</code> | The value of the FSI Viewer parameter <i>[name]</i> . Be sure to use the long parameter names only (e.g. " FPXWidth " instead of " Width "). You can retrieve parameter values retrieved from the imaging server using this template as well. E.g. " <code>\$\$cfg.FPXWidth\$\$</code> " returns the size of the source image – whether specified manually or retrieved from the imaging server. |
| <code>\$\$View\$\$</code> | A string representing the current image section in FSI Viewer (see Parameter " <i>InitialView</i> " for details) |
| <code>\$\$URLView\$\$</code> | The complete URL to the image currently displayed in FSI Viewer. The resulting string contains the templates " <code>\$\$width\$\$</code> ", " <code>\$\$height\$\$</code> " and " <code>\$\$template\$\$</code> " which need to be replaced in JavaScript or server side script. |
| <code>\$\$URLScene\$\$</code> | Same as above, but representing the entire scene image. |
| <code>\$\$DownloadRatio\$\$</code> | Aspect ratio representing the factor "width/heigth". You can use this value to calculate the width of the image to download. |
| <code>\$\$Zoom\$\$</code> | Current magnification relative to the initial size of the image. |
| <code>\$\$Selection\$\$</code> | A string representing the current selection (requires plug-in SelectFrame) |
| <code>\$\$Measure\$\$</code> | A string representing the current measurement (requires plug-in Measure) |

Plug-in Fullscreen



Plug-in Extends:

- FSI Viewer
- FSI Showcase
- FSI Pages

Plug-in Location:

/plugins/fullscreen.plg

Function:

switch to fullscreen mode



Syntax:

```
<Plugin src="fullscreen"/>
```

If using the object tag when embedding FSI Viewer, please note the parameter `allowfullscreen` has to be set as shown.

HTML integration without considering old browsers

```
<Object classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
codebase="http://download.macromedia.com/pub/shockwave/cabs/flash/
swflash.cab#version=6,0,65,0" width="[Width]" height="[Height]">
  <PARAM name="movie" VALUE="[URL and Parameter]">
  <PARAM name="bgcolor" VALUE="[Background color]">
  <PARAM name="menu" VALUE="false">
  <PARAM name="allowfullscreen" VALUE="true" />
</Object>
```



Please note that the Adobe Flash™ Player prohibits keyboard input in full screen mode.

Plug-in History



Plug-in Extends:

- FSI Viewer
- FSI Showcase
- FSI Pages



Plug-in Location:

/plugins/history.plg

Function:

History functionality to jump to previously viewed image sections

Syntax:

```
<Plugin src="history" length="25" />
```

The "History" plug-in extends the user interface by 2 buttons, "History Back" and "History Forward".

Using these two buttons the user is able to navigate through image sections previously viewed.

Plug-in Parameters

| MenuOffset | |
|-------------|---------------------------------|
| Description | Indentation of the menu buttons |
| Syntax | Number |
| Default | 0 |
| Context | Plug-in Tag |

Specifies the space in pixels left of the menu button(s) of the plug-in.

| Length | |
|--------------------|----------------------------|
| Description | Length of the history list |
| Syntax | Number |
| Default | 10 |
| Context | Plug-in tag |

The number of image sections that will be stored in the view history from 1 to 99. If the list exceeds the amount of entries defined by the "length" parameter, the first entry of the list will be replaced.

| Loop | |
|--------------------|-----------------------|
| Description | Loop the history list |
| Syntax | Boolean |
| Default | false |
| Context | Plug-in tag |

If this value is set to "true" the viewer will display the first viewed section when exceeding the last entry of the history and the last entry when stepping before the first entry of the history list.

Providing the default value "false", the history will not be looped, this is the history list stops at the first and the last position.

| SmallButtons | |
|--------------------|----------------------|
| Description | Size of menu buttons |
| Syntax | Boolean |
| Default | true |
| Context | Plug-in tag |

If this value is set to "false" the buttons of this plug-in will be displayed in the default button size. Otherwise the buttons appear slightly smaller than other buttons.

Plug-in HotSpots



Plug-in Extends:

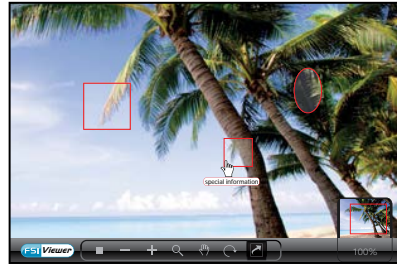
- FSI Viewer
- FSI Showcase

Plug-in Location:

/plugins/hotspots.plg

Function:

By defining clickable areas (hotspots) the user is able to interact with the image by clicking on areas inside the zoomable image.



Syntax:

```
<Plugin src="hotspots" />
```



Enterprise editions of FSI Viewer contain this plug-in by default. For all other editions this plug-in can be optionally obtained.

The "HotSpots" plug-in adds an image map like functionality to the FSI Viewer. The plug-in adds a button to the menu bar which allows the user to show or hide the HotSpots.

The clickable areas are defined via XML inside the image specific *.xml file and enable an increased interaction with the Viewer.

There are 4 different combinable actions that can be assigned to each hotspot:

- Display a tool tip
- Zoom to the area defined by the hotspot
- Open a HTML page
- Restart the Viewer with a different image / configuration

Adding Hotspot Functionality to your Images

Integrating the Plug-in

To integrate the HotSpot plug-in into the viewer you have to add the following line to the <Plugins> section of either the _default.fsi file or to an image specific .fsi configuration file:

```
<Plugin src="hotspots" />
```

Defining the HotSpots Section

To define HotSpots for an image you have to add an XML-section to your image specific .fsi file. The definition syntax is similar to image maps for static images inside a HTML page.

Each HotSpot is being defined by a single XML node inside the <HotSpots> group.

The basic structure of a HotSpot definition is the following:

| HotSpot definition |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <pre> <Plugin src="hotspots" visible="true"> <HotSpots> <circle spot="" tip="" url="" /> <rect spot="" tip="" url="" /> </HotSpots> </Plugin> </pre> |

Alternatively to adding the hotspot XML section as a child node of the HotSpot <plugin> node, you can add the XML section as a root child in the same level as <FPX> or <Options> in a configuration file.

Plug-in Parameters

| Visible | |
|--------------------|-------------------------------------------|
| Description | Initial visibility of the HotSpots |
| Syntax | Bool |
| Default | false |
| Context | Plug-in attribute or <HotSpots> group tag |

Defines the initial visibility of HotSpots.

The HotSpot button state will be set accordingly.

| Alpha | |
|--------------------|--------------------------------------|
| Description | Defines the opacity for all HotSpots |
| Syntax | Number between 0-100 |
| Default | 100 |
| Context | Plug-in attribute or <HotSpots> tag |

Defines the opacity for all HotSpots from 0 (invisible) to 100 (opaque).

| BaseURL | |
|--------------------|-------------------------------------------|
| Description | Prefix for relative HotSpot URLs |
| Syntax | String |
| Default | — |
| Context | Plug-in attribute or <HotSpots> group tag |

Defines a prefix that will be applied to all HotSpots containing relative URLs.
This way you can omit e.g. the domain in URL-attributes of subsequent HotSpots.

| Events | |
|--------------------|-------------------------------------|
| Description | Enable JSBridge events for HotSpots |
| Syntax | Boolean |
| Default | false |
| Context | HotSpots |
| Version | 5.0.4 |

Enable to fire event notifications for HotSpots via JSBridge.
The following events will be fired:

- 1) hotspots_MouseOver
- 2) hotspots_MouseOut
- 3) hotspots_MousePress
- 4) hotspots_MouseRelease

The event value for event 1-3 is the hot spot's tool tip or – if defined – the hot spot node's "id" attribute.

The event value for event 4 depends on the hot spot action and can be:

- the value of the "URL" attribute
- the area to zoom to
- the "cfg" parameter of a new configuration file to load
- the value of the "SelectImage" attribute

| DefaultFillAlpha | |
|--------------------|--------------------------------------------|
| Description | Default fill opacity for the HotSpot areas |
| Syntax | Number |
| Default | 25 |
| Context | Plug-in attribute or <HotSpots> group tag |
| Version | 5.0.4 |

Defines the default fill opacity for HotSpots that do not contain the "FillAlpha" attribute where "0" is transparent and "100" fully opaque.

Defining Default Attributes

The following attributes define default attributes to all HotSpot that do not contain a corresponding attribute itself.

E.g. defining a DefaultTarget of "_self" will open all hyperlinks in the frame the viewer resides in, provided that there is no individual Target attribute defined in a hotspot node.

| DefaultTarget | |
|--------------------|-------------------------------------------|
| Description | Default target for hyperlinks |
| Syntax | String |
| Default | _blank |
| Context | Plug-in attribute or <HotSpots> group tag |

Defines the default target(frame) for HotSpot hyperlinks.

Valid parameters are "_blank", "_self", "_top", "_parent" and names of frames inside a HTML frameset.

| DefaultMove | |
|--------------------|-------------------------------------------|
| Description | Zoom to HotSpot area by default |
| Syntax | Bool |
| Default | true |
| Context | Plug-in attribute or <HotSpots> group tag |

Defines the default value for all subsequent HotSpots that do not contain the "Move" attribute.

| DefaultSkew | |
|--------------------|-------------------------------------|
| Description | Permit skewing of HotSpots |
| Syntax | Bool |
| Default | false |
| Context | Plug-in attribute or <HotSpots> tag |

Defines the default value for all subsequent HotSpots that do not contain the "Skew" attribute.

| DefaultColor | |
|--------------------|-------------------------------------|
| Description | Default color of HotSpot borders |
| Syntax | HexColor |
| Default | FF0000 |
| Context | Plug-in attribute or <HotSpots> tag |

Defines the default color of HotSpot borders.

| DefaultFill | |
|--------------------|-------------------------------------------|
| Description | Fill the HotSpot area by default |
| Syntax | Boolean |
| Default | true |
| Context | Plug-in attribute or <HotSpots> group tag |

Defines the default value for all subsequent HotSpots that do not contain the "Fill" attribute.

If this value is set to false, all HotSpots will be shown as outlines by default.

| DefaultFillColor | |
|--------------------|-------------------------------------------|
| Description | Default fill color for the HotSpot areas |
| Syntax | HexColor |
| Default | FFFFFF (white) |
| Context | Plug-in attribute or <HotSpots> group tag |

Defines the default fill color for HotSpots that do not contain the "FillColor" attribute.

| DefaultFillAlpha | |
|--------------------|--------------------------------------------|
| Description | Default fill opacity for the HotSpot areas |
| Syntax | Number |
| Default | 25 |
| Context | Plug-in attribute or <HotSpots> group tag |

Defines the default fill opacity for HotSpots that do not contain the "FillAlpha" attribute where "0" is transparent and "100" fully opaque.

Defining Individual HotSpots

Each HotSpot definition must at least contain the name of the HotSpot shape and the "spot" attribute which defines the position of the HotSpot.

The tag name of each definition specifies the shape of the HotSpot.

Available default shapes include:

- rect (Square / Rectangle)
- circle (Circle / Ellipse)
- star (Star)
- polygon (Polygon of n straight lines)

| HotSpot definition |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <pre> <HotSpots> <circle spot="1, 1, 0.35842, 0.15383, 0.61261, 0.40802, 0" tip="circle /> <rect spot="1, 10, 0.54314, 0.68446, 0.74036, 0.88168, -56" wtip="rectangle" url="rect.htm" /> <polygon coords="0.5,0 ,1,0 ,1,0.5, 0.5,0.5" > <text>some formatted text</text> </polygon> </HotSpots> </pre> |

Please refer to the chapter "*HotSpot Authoring*" for useful tips on how to create HotSpots.

Please refer to the "*FSI Contrib package*" for a sample and instructions how to add custom link shapes. The contrib package contains sample HotSpot XML definitions as well.

HotSpot Parameters

The following attributes can be assigned to each HotSpot:

| Spot | |
|--------------------|-------------------------|
| Description | Position of the HotSpot |
| Syntax | String |
| Default | — |
| Context | HotSpot tag |

Defines the position of the HotSpot.

It is recommended to use the plug-in "*SelectFrame*" to obtain this value. Please refer to the chapter "HotSpot Authoring tips" for more information on this parameter.

| Coords | |
|--------------------|---------------------------------------|
| Description | Coordinates for polygon shapes |
| Syntax | String |
| Default | — |
| Context | HotSpot tag |

Defines the coordinates of a polygon shape. In contrast to predefined shapes, polygons do not require the "spot" parameter. Instead you need to provide the x and y coordinates (0..1) for each point determining the polygon shape. You might want to add the spot parameter to specify the scene and sceneset the polygon applies to with 3D presentations.

| View | |
|--------------------|--------------------------|
| Description | Image section to display |
| Syntax | String |
| Default | Value of spot parameter |
| Context | HotSpot tag |
| Version | 3.2.3 and above |

Defines the position to display when move is set to true. If this parameter is undefined, the value of spot will be used instead.

Please refer to the chapter "HotSpot Authoring tips" for more information on this parameter.

| Tip | |
|--------------------|-------------|
| Description | Tooltip |
| Syntax | String |
| Default | — |
| Context | HotSpot tag |

Defines a string to be used for a tooltip when the user moves the cursor over the HotSpot. For long texts or "*HTML formatted*" texts you can add a `<text>` child node to each hotspot node instead of using the "Tip" parameter.

| HotSpot text definition |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <pre> <HotSpots> ... <Circle spot="1,1,0,0,0.6,0.4,0" > <text>Headline Some text</text> </Circle> ... </HotSpots> </pre> |

| Move | |
|--------------------|-------------------------------|
| Description | Zoom to HotSpot area on click |
| Syntax | Boolean |
| Default | false |
| Context | HotSpot tag |

Zoom to the image section covered by the HotSpot, if the user clicks the HotSpot. You can use the "DefaultMove" parameter to change the default behavior.

| Skew | |
|--------------------|-----------------------------------|
| Description | Allow skewing of the HotSpot area |
| Syntax | Boolean |
| Default | false |
| Context | HotSpot tag |

If this parameter is set to false the width of the hotspot area will equal the height of the HotSpot regardless of the values provided with the "Spot" parameter. You might want to use this parameter to ensure that e.g. HotSpots defined with the `<circle>` tag look like circles instead of ellipses. You can use the "DefaultSkew" parameter to change the default behavior.

| Color | |
|--------------------|-----------------------------|
| Description | Color of the HotSpot border |
| Syntax | HexColor |
| Default | FF0000 |
| Context | HotSpot tag |

Defines the color of the HotSpot border.

The value has to be a 6 digit hexadecimal number like "FFFF00" for yellow or "0000FF" for blue. You can use the "DefaultColor" parameter to change the default border color.

| Fill | |
|--------------------|-----------------------|
| Description | Fill the HotSpot area |
| Syntax | Bool |
| Default | false |
| Context | HotSpot tag |

If this value is set to false, the HotSpot will be shown as an outline.

You can use the "DefaultFill" parameter to change the default behavior.

| URL | |
|--------------------|--------------------------|
| Description | Hyperlink of the HotSpot |
| Syntax | URL |
| Default | — |
| Context | HotSpot tag |

Defines a hyperlink to be opened if the user clicks the HotSpot.

The URL can be given relatively or absolutely.

The Target parameter (or respectively the "DefaultTarget" parameter) defines the targetframe for the hyperlink. Please refer to the "BaseURL" parameter as well.

| Target | |
|--------------------|-----------------------------|
| Description | Target frame for hyperlinks |
| Syntax | String |
| Default | _blank |
| Context | HotSpot tag |

Defines the targetframe for HotSpot-hyperlinks.

Valid parameters include "_blank", "_self", "_top", "_parent" and names of frames inside a HTML frameset.

Please refer to the "DefaultTarget" parameter for details on how to set a default target for hyperlinks.

| CFG | |
|--------------------|------------------------------------|
| Description | FSI parameters to be used on click |
| Syntax | String (query) |
| Default | — |
| Context | HotSpot tag |

If you define a CFG parameter for a HotSpot the viewer will be reinitialized with the given configuration if the user clicks the HotSpot.

This can be useful to switch from one image to another if the user clicks a HotSpot.

The syntax of the CFG parameter has to consist of FSI Parameters concatenated with the ampersand character (like a HTTP query).

Parameter1=value1&Parameter2=value2...

Example:

`cfg="cfg=image2&NoNav=1"`

Defining the parameter like this, the viewer would reinitialize using the configuration file "image2.xml" providing the FSI parameter "NoNav" with a value of "true".

Please refer to the FSI Viewer manual for a list of all FSI Parameters and for details on how to create a query string that provides FSI parameters.

| SelectImage | |
|--------------------|------------------------------------------|
| Description | Select another image (FSI Showcase only) |
| Syntax | Number |
| Default | — |
| Context | HotSpot tag |

Clicking the HotSpot selects another image inside FSI Showcase.

The index can be specified absolutely by providing a number only. The first image is being represented by "0".

Alternatively you can select an image relatively from the currently selected image. To select an image relatively you have to provide a number prefixed by "+" or "-", e.g. "+1" selects the next image.

Hotspot Authoring

The following section provides tips on how to obtain the string value required to define the "Spot" and the optional "View" parameter of a HotSpot.

The Spot parameter consists of 7 numbers concatenated with commas and provides the scene set, the scene, the image section (as a rectangle) and the rotation.

Example: 1, 10, 0.19056, 0.33579, 0.44862, 0.59385, 35

scene set 1, scene 10, rectangle [0.19056, 0.33579, 0.44862, 0.59385], rotation 35 °

Although you can define hotspot parameters manually, it is recommended to use the FSI Server web interface to edit hotspots.

Obtaining Hot Spot positions

Include the plug-in "SelectFrame" by adding the following parameters to the "_default.xml" or any other configuration file.

Including the SelectFrame plug-in

```
<Plugins>

  <Plugin src="SelectFrame" visible="1" window="1" rotate="1"
    AspectRatio="1:1" />

</Plugins>
```

After including the plug-in you will be able to author hotspots directly in FSI Viewer.

- You can use the value displayed in the "Selection" window for the "Spot" parameter of the hotspot.
- You can use the value displayed in the "View window for the optional "View" parameter.

When modifying the select box please use:

| | |
|-------------|------------------------------------------------|
| SHIFT | to lock the aspect ratio of the selection |
| CTRL | to resize the selection relative to the center |
| ALT | to rotate the selection |
| ALT + SHIFT | to rotate the selection in steps of 5 degrees |

Defining Polygon HotSpots

Besides using predefined shapes as hotspots you can additionally add polygons. In this case you need to specify the X and Y coordinates for each point of the polygon using the "coords" attribute of the hotspot node.

HotSpot Polygon definition

```
<HotSpots>
  <Polygon spot="1,1" coords="0.5,0 ,1,0 ,1,0.5, 0.5,0.5" />
</HotSpots>
```

Please note that the "spot" attribute is required only, if you want to specify the target scene and/or scene set for the hotspot when using a 3D image.

The "coords" attribute contains [0..1] floating point coordinates where 0 is left or top and 1 is right or bottom. The coordinates for the polygon points defining the polygon shape need to be specified in the form:

x1, y1, x2, y2, x3, y3 ...

Theoretically you can use any number of coordinates (points), but keep in mind that more coordinates and more polygons require more CPU power on the user's system. Using very complex polygons with hundreds of coordinates will lead to poor performance as the polygons will be drawn by FSI Viewer at runtime.

HotSpot Z-Order

When defining HotSpots that overlap each other, you have to keep the z-order of the HotSpots in mind. The z-order of HotSpots is determined by the sequence in which they are defined in the configuration file, from bottom to top.

As a rule of thumb you should define big Hot Spot areas first to ensure that smaller Hot Spots are not completely hidden beneath.

Plug-in Imprint



Plug-in Extends:

- FSI Pages mobile

Function:

Display informations

Syntax:

```
<plugin src="imprint"
datafile="imprint.html" />
```



Plug-in Parameters

| DataFile | |
|--------------------|--------------------------------------------------------------|
| Description | URL to an external XML file describing the library structure |
| Syntax | String |
| Default | — |
| Context | Plug-in tag |

The HTML file "imprint.html" will be displayed when the user opens the imprint window in FSI Pages mobile.

Please note that the HTML file must be an XHTML fragment, which means there must not be any <head>...</head> or <body>..</body> tags defined.

Please see the FSI Pages mobile Technotes for styling instructions on www.fsi-viewer.com.

Please note: You need to use an external XML file in UTF-8 format when using special language specific characters (characters >= 0x80).

HTML Sample

```
<content>

<style type="text/css">
#imprint .x-html, #imprint .x-html
*{
    font-size: small;
    color:#cccccc;
    vertical-align:top;
}
</style>

<h1 style="font-size:large">Imprint</h1><hr>
<!--
other HTML code
/-->
</content>
```

AddButton

| | |
|--------------------|-------------------------------------------------|
| Description | defines whether the plug-in icon is displayed |
| Syntax | Boolean |
| Default | false if FSI Pages is activated, otherwise true |
| Context | Plug-in tag |

Defines whether the plug-in icon is displayed in the FSI Viewer tool bar. Defaults to FALSE if FSI Pages is activated.

MenuOffset

| | |
|--------------------|-------------------------------------------------------------------------|
| Description | defines offset of all custom buttons in pixels to elements of menu bar. |
| Syntax | Number |
| Default | 0 |
| Context | Plug-in tag |

Defines an offset of all custom buttons in pixels to elements of the menu bar.

| DialogWidth | |
|--------------------|----------------------------------------|
| Description | defines the width of the dialog window |
| Syntax | Number |
| Default | 480 |
| Context | Plug-in tag |

Defines the width of the dialog window.

| DialogHeight | |
|--------------------|-----------------------------------------|
| Description | defines the height of the dialog window |
| Syntax | Number |
| Default | 430 |
| Context | Plug-in tag |

Defines the height of the dialog window.

Plug-in JavaScript Bridge



Plug-in Extends:

- FSI Viewer
- FSI Showcase
- FSI Pages

Plug-in Location:

/plugins/jsbridge.plg

Function:

Integrates a JavaScript interface to enable interaction between FSI Viewer and JavaScript contained in the hosting HTML page.

Syntax:

```
<Plugin src="jsbridge" />
```

Requirements:

Browser supporting live connect between Flash and JavaScript (Livewire)



*This plug-in can be optionally obtained. Using the plug-in without a valid licence key activates the evaluation mode.
Please note: FSI Pages does not send JavaScript Events by default. Please set the FSI Pages parameter "events" to activate JSBridge interactivity.*

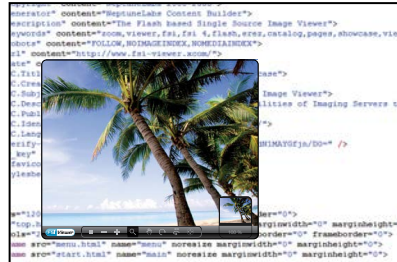
The "JavaScript Bridge" plug-in provides a scripting interface to control FSI Viewer using JavaScript. Using the JavaScript bridge you can control viewer functions like "ZoomIn" and "Reset", you can remotely press/release Buttons inside the FSI Viewer and you can zoom to specified image sections directly. Additionally you can implement a JavaScript function receiving FSI event notifications.

Though the integration of the plug-in is very easy, basic knowledge of JavaScript is required to use JSBridge plug-in – especially regarding browser dependent JavaScript implementations.

Implementing the JavaScript Bridge plug-in

1) Add an ID-attribute to your FSI Viewer Object and Embed tag

```
<object id="fsviewer" classid= ...>
<embed NAME="fsviewer"...>
```



This way you are able to access the viewer object via Javascript.

2) Provide the appropriate action via SetVariable command

To control FSI Viewer from JavaScript you have to pass the appropriate command by setting the "FSICMD" variable of the FSI Viewer movie clip using the SetVariable() function.

Example: Button "Zoom In" (MSIE)

```
<input type="button" value="Zoom In"
  onMouseDown="document.all.fsiviewer.SetVariable('FSICMD',
  'ZoomIn');"
  onMouseUp  ="document.all.fsiviewer.SetVariable('FSICMD', ''); >
```

Command Parameters

There are 3 different command types you can pass to FSI Viewer, FSI Pages or FSI Showcase:

1. Initiate an action directly, e.g. "ZoomIn" or "Reset"
2. Press and release of FSI Viewer buttons, e.g. "Button:Mouse_Mode_0"
3. Zoom to a specified image section, e.g. "Goto:1,6,0.4,0.2,0.6,0.4"
Please see the "HotSpot Authoring" section for details on how to obtain valid image section parameters.

The following table lists possible values you can pass to FSI Viewer.

Please note that especially regarding the "Button:" command there might be more or not all commands listed available, depending on your FSI Viewer skin and integrated plug-ins.

All command strings have to be provided exactly as stated in the lists below, especially regarding upper-/ lowercase writing and white spaces.

1) Direct Commands

Usage: `FSIViewer.SetVariable('FSICMD', '[command]');`

To stop the initiated action use: `FSIViewer.SetVariable('FSICMD', '');`

| Command | Description |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| " (empty string) | Stop current action / Release Button |
| Reset | Reset Viewer |
| ZoomIn | Start zooming in |
| ZoomOut | Start zooming out |
| Up | Start panning upwards |
| Down | Start panning downwards |
| Left | Start panning to the left |
| Right | Start panning to the right |
| RotateLeft | Start rotating counter-clockwise (Z-axis) |
| RotateRight | Start rotating clockwise (Z-axis) |
| NextScene | Start rotating clockwise (Y-axis) |
| PreviousScene | Start rotating counter-clockwise (Y-axis) |
| NextSceneSet | Start rotating clockwise (X-axis) |
| PreviousSceneSet | Start rotating counter-clockwise (X-axis) |
| __DebugWindow | Show / Hide the debug window (if available) |
| __InfoWindow | Show / Hide the "about"-window (if available) |
| FSI Showcase only: | Description |
| PreviousImage | Select previous Image |
| NextImage | Select next Image |
| SelectImage | <p>Select image n</p> <p>Important: Use <code>SetVariable("newImageIndex", n)</code> where n is <code>[0 .. images]</code> prior to sending this command</p> <p>Alternatively you can select an image relatively from the currently selected image. To select an image relatively you have to set "newImageIndex" to a number prefixed by "+" or "-", e.g. "+1" selects the next image.</p> |
| SwitchThumbs | Show / Hide Thumb bar |

| FSI Pages only: | Description |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FirstPage | Go to first page. |
| LastPage | Go to last page. |
| NextPage | Go to next page. |
| PreviousPage | Go to previous page. |
| GotoPage | <p>Go to page n Important: Use <code>SetVariable("newImageIndex", n)</code> where n is <code>[0..pages]</code> prior to sending this command</p> <p>Alternatively you can specify a page relative to the current page. To go to a page relatively you have to set "newImageIndex" to a number prefixed by "+" or "-", e.g. "+1" is the same as "NextPage".</p> |
| Print | Open or close the print dialog. |
| Save | Open or close the save dialog. |
| Search | Open or close the search dialog. |
| ZoomLeftPage | Zoom the left page |
| ZoomRightPage | Zoom the right page |
| NormalPageView | Exit zoom view |
| ShowHidePageIndex | Show or hide the page index (thumbnail view) |

2) Button press / release

Using this command remotely presses/releases a button in FSI Viewer / FSI Showcase. There can not be more than one button pressed at a time. Pressing another button (by script) will automatically release the previous button.

Usage:

```
FSIViewer.SetVariable('FSICMD', 'Button:[ButtonID]');
```

To release the button previously pressed use:

```
FSIViewer.SetVariable('FSICMD', '');
```

| ButtonID | Description |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| " (empty string) | Release previously pressed button |
| Mouse_Mode_ <i>n</i> | <p>Activate mouse mode <i>n</i> .</p> <p>0 – Zoom 1 – Pan 2 – Rotate 3D 3 – Rotate (Z-axis)</p> <p>There might be more mouse modes available depending on loaded plug-ins</p> |
| Tool_Reset | "Reset" button, see command "Reset" |
| Tool_ZoomIn | "Zoom In" button, see command "ZoomIn" |
| Tool_ZoomOut | "Zoom Out" button, see command "ZoomOut" |
| Tool_SwitchUI | Show / Hide FSI Viewer user interface |
| Plugin_SwitchMusic | Toggle music on or off |
| Plugin_ExtendedNavigation | Toggle display of ExtendedNavigation plug-in |
| Plugin_HistoryBack | Click "History Back" button of the history plug-in |
| Plugin_HistoryForward | Click "History Forward" button of the history plug-in |

Identifying commands of buttons not listed in the table

There might be some button identifiers that are not listed below, especially buttons integrated by other plug-ins. To obtain command identifiers of these buttons follow the steps below:

1. Activate the debug window of the FSI viewer (set parameter "debug" to "true").
2. Set the explore parameter of the jsbridge plug-in to "true".
3. Click the desired button inside FSI Viewer and copy the identifier from the debug window.

3) Navigating to image sections

To navigate to a specific image section you simply use the "Goto" command followed by a valid image section parameter. Please refer to the chapter "[Debug Mode](#)" for details on how to obtain image section parameters.

Example: Button "Zoom to image section" (MSIE)

```
<input type="button" value="Zoom to section"
  onClick="document.all.fsiviewer.SetVariable('FSICMD',
'Goto:1,3,0,0,0,0');">
```

Implementing JavaScript callbacks

Using JavaScript callbacks enables you to react to FSI Viewer, FSI Pages or FSI Showcase events by executing JavaScript code. The JSBridge plug-in calls a JavaScript function using the Flash FSCOMMAND architecture providing an event identifier and a parameter.

Please follow the steps below to implement JavaScript callbacks from FSI Viewer:

Step 1. Enable JavaScript callbacks by setting the plug-in parameter "Callback" to "true", e.g.

Example: Enabling JavaScript Callbacks

```
<plugin src="jsbridge" callback="true" />

Or alternatively via HTTP query:

...fsi.swf?cfg=foo&jsbridge_callback=1
```

Step 2. Add a unique identifier to the <object> and the <embed> tag of FSI Viewer / FSI Showcase.

Example: Adding ID / NAME parameters

```
<object id="fsiviewer" classid= ...>
<Param name="movie" value="...">
...
<embed NAME="fsiviewer"...">
...
</object>
```

Step 3. Add a JavaScript function to your HTML page receiving the event notifications via FSCommand like in the example below.

IMPORTANT

The function name has to be exactly like in the example below and it has to start with the ID/NAME parameter specified in step 2.

If you do not use the ID/NAME "fsviewer" you have to replace the corresponding script sections in the example below (printed bold) by your ID/NAME parameter.

Example: JavaScript Callback Function

```
<script language="javascript" type="text/javascript">

function fsviewer_DoFSCommand(fsi_event, params) {
    switch(fsi_event){
        case "LoadProgress":
            ...
            break;
    }
}

// Hook for Internet Explorer
if (navigator.appName && navigator.appName.indexOf("Microsoft") != -1
&&
navigator.userAgent.indexOf("Windows") != -1 && navigator.userAgent.
indexOf("Windows 3.1") == -1) {
    document.write('<SCRIPT LANGUAGE=VBScript\> \n');
    document.write('on error resume next \n');
    document.write('Sub fsviewer_FSCommand(ByVal fsi_event, ByVal
params)\n');
    document.write('    call fsviewer_DoFSCommand(fsi_event,
params)\n');
    document.write('end sub\n');
    document.write('</SCRIPT\> \n');
}
</script>
```

After following the 3 steps described before you will receive the following event notifications:

| Event (fsi_event) | Parameter (params) | Description |
|------------------------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| InitComplete | — | The viewer has finished parsing the configuration and is about to start loading image data. |
| ImageInfo | String | Provides concatenated image information. *See details below this table. |
| LoadingComplete | — | The initial load progress of an image completed. |
| LoadProgress | Number (percent) | Number corresponding to the progress bar inside FSI Viewer. |
| Press | Button ID | The button "ID" has been pressed. |
| Release | Button ID | The button "ID" has been released. |
| ToolTip | String (" <i>escaped</i> ") | The tool tip "String" is about to be displayed. *See details below this table. |
| View | Image Section | The image section currently displayed. Can be used with the "Goto" command. |
| ImageUrl | URL template | Provides a template that can be used to build an image URL corresponding to the image being displayed in FSI Viewer. *See details below this table. |
| Action | Action ID | The action "ID" is currently being executed. |

| | | |
|----------------------------|--------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Modal | true / false | The viewer enters a passive (true) or an active (false) state. |
| MouseMode | Mouse Mode ID | The mouse mode "ID" has been activated. |
| Zoom | Magnification (percent) | The magnification has changed. |
| ImageSelected | Image index (0..nImages) | A new image has been selected. (FSI Showcase only) |
| FSI Pages only | | |
| onPagesInitComplete | Integer | Called after the FSI Pages Add-on is ready for use. The parameter provides the total number of pages. |
| onPagesGotoPage | Integer | Called each time before the user goes to a different page. The parameter provides the target page number. |
| onPagesPageChanged | Integer | Called each time after the current page has changed. The parameter provides the index of the page currently visible. |
| onPagesProgress | Integer | Called each time the load progress of FSI Pages changes. The parameter provides the number of pages remaining in the load queue. |
| onPagesShowIndex | Boolean | Called each time the user shows (true) or hides (false) the page index. |
| onPagesShowZoom | Boolean | Called each time the user starts (true) or ends (false) page zoom. |
| onPagesLinkClick | URL | Called each time the user clicks a link. The parameter contains the URL. |

Please note that some plug-ins provide additional events. Please refer to the "events" parameter of the corresponding plug-in for details.

The recommended way to react to an event is to extend the switch...case block of the `fsiviewer_DoFSCommand(fsi_event, params)` callback function introduced in Step 3.

Detailed Event Parameter Description

INFO

The "Info" event parameter provides attributes of the source image currently being displayed.

Example:

```
width=8000;height=6000;TilesX=4;TilesY=3;SceneSets=;ImageIndex=4
```

The attribute "ImageIndex" applies to FSI Showcase or FSI Pages only and provides the 0-based index of the image currently selected.

ImageURL

To receive this notification you have to set the "ImageURLs" parameter of the plug-in to "true".

(Please refer to "Plug-in Parameters" below for details)

The "ImageURL" event parameter provides an URL template that can be used to retrieve the image currently displayed in FSI Viewer.

Example:

```
http://imageserver.domain/fsi/server?source=images/zoomimage.fpx
&width=[width]&height=[height]&left=0&top=0&right=1&bottom=1
&template=[template]
```

The URL template can for example be used to set the "src" attribute of an tag.

Prior to using the template you have to replace the place holders (bold, in brackets) with valid values.

The **[template]** place holder applies to FSI Servers only.

ToolTip

The "ToolTip" event parameter provides the tool tip text that is about to be displayed. The values depend on the tool tip language selected. You have to use the JavaScript function **decodeURIComponent ()** before displaying this parameter.

JSBridge Plug-in Parameters

| AllowDomains | |
|---------------------|-----------------------------------------------------------------------------|
| Description: | Sub(domains) allowed to acces the JSBridge interface |
| Syntax: | Domain list separated by " , " |
| Default: | Subdomain of FSI Viewer, "www.domain.tld", "domain.tld", "*. domain.tld" |
| Context: | Plug-in attribute |
| Version: | 4.1.0 or above |

With Adobe Flash version 8 an additional limitation regarding Javascript to Flash access has been introduced. Starting with version 8, only a script from the same subdomain as the Flash movie (e.g. "fsi.domain.com") is allowed to access Flash / the JSBridge interface.

With FSI Viewer and FSI server it is very likely that you use FSI Viewer from "fsi.yourdomain.tld" while your HTML document resides in the subdomain "www.yourdomain.tld". Therefore JSBridge plug-in allows script access from the subdomain "www.yourdomain.tld" and from the main domain "yourdomain.tld" by default.

In case you need to access JSBridge from other (sub)domains you can specify a list of subdomains separated by ", "using this parameter, e.g.: <allowdomains value="www.domain.com,www.domain2.com" />

| Explore | |
|---------------------|-------------------------------------|
| Description: | Activate debug output of Button IDs |
| Syntax: | Boolean |
| Default: | false |
| Context: | Plug-in attribute |

If enabled the debug window will display the Button ID of each button pressed inside FSI Viewer. This way you are able to determine Button IDs not listed in this documentation. Additionally the debug window will output each command received by the JSBridge plug-in.

| Callback | |
|---------------------|-----------------------------|
| Description: | Enable JavaScript callbacks |
| Syntax: | Boolean |
| Default: | false |
| Context: | Plug-in attribute |

If enabled the events of FSI Viewer, FSI Pages or FSI Showcase will be forwarded to a specific JavaScript function.

Please refer to the section "[✍ Implementing JavaScript Callbacks](#)" for details

| ImageUrls | |
|---------------------|------------------------------------------------------|
| Description: | Provide ImageUrl templates with JavaScript callbacks |
| Syntax: | Boolean |
| Default: | false |
| Context: | Plug-in attribute |

This parameter depends on the "Callback" parameter above. If "Callback" and "ImageUrls" parameter have been set to "true", "ImageUrl" notifications providing image URL templates will be sent to the JavaScript callback function.

Please refer to the "ImageUrl" callback identifier for details.

Plug-in LargeToolTips



Plug-in Extends:

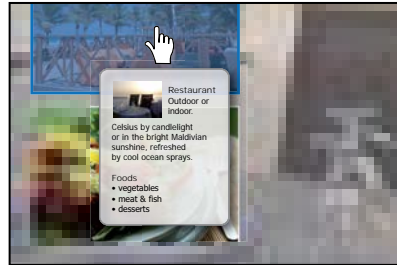
- FSI Pages
- FSI Pages mobile

Plug-in Location:

/plugins/largetooltips.plg

Function:

Display multi-line tool tips with HTML formatted text.



Syntax:

```
<Plugin src="largetooltips"/>
```

This plug-in adds multi-line tool tips displaying HTML formatted text to links in FSI Pages add-on. The following HTML tags can be used in the tool tip text data:

```
<b>...</b> <i>...</i> <u>...</u>
```

```
<br/>
```

```
<font size="n" color="#RRGGBB" >...</font>
```

```
<p align="...">...</p>
```

```

```



Please note: Certain limitations apply when using the img-tag: The width and height attributes are mandatory and the URL in the src-attribute must end with .jpg or .png. If you are using a single source imaging server to provide these images, then consider appending something like &ext=.jpg to the src-URL. Furthermore images will always be inserted into the textflow, if it is desired to continue the text below the inserted image, extra line breaks will be needed.

Plug-in Parameters

| Width | |
|--------------------|------------------------------------------------------------|
| Description | Width of the tool tip box |
| Syntax | Pixels |
| Default | 200 |
| Context | Plug-in node or HTTP query prefixed with "targettooltips_" |

Width of the tool tip box. The height of the box will be adjusted according to the length of the contained text.

| Delay | |
|--------------------|------------------------------------------------------------|
| Description | Delay before displaying a tool tip |
| Syntax | Number (milliseconds) |
| Default | 600 |
| Context | Plug-in node or HTTP query prefixed with "targettooltips_" |

You can specify a delay in milliseconds (1000 milliseconds = 1 sec) after pointing at a link area and before displaying a tool tip. Use 0 to display the tool tips immediately without a delay

| Shadow | |
|--------------------|------------------------------------------------------------|
| Description | Display a drop shadow |
| Syntax | Boolean |
| Default | true |
| Context | Plug-in node or HTTP query prefixed with "targettooltips_" |

Display (true) or hide (false) a drop shadow for the tool tip box.

| BackgroundColor | |
|--------------------|------------------------------------------------------------|
| Description | Background color of the tool tip box |
| Syntax | HexColor |
| Default | FFFFFF |
| Context | Plug-in node or HTTP query prefixed with "targettooltips_" |

Background color of the tool tip box.

| BackgroundAlpha | |
|------------------------|------------------------------------------------------------|
| Description | Opacity of the background of the tool tip box |
| Syntax | Number |
| Default | 90 |
| Context | Plug-in node or HTTP query prefixed with "targettooltips_" |

Defines the opacity of the tool tip background from 0 (invisible) to 100 (opaque).

| HighlightColor | |
|-----------------------|------------------------------------------------------------|
| Description | Border highlight color |
| Syntax | HexColor |
| Default | 999999 |
| Context | Plug-in node or HTTP query prefixed with "targettooltips_" |

6-digit hexadecimal color value specifying the highlighted (top-left) part of the tip box border.

| ShadowColor | |
|--------------------|------------------------------------------------------------|
| Description | Border shadow color |
| Syntax | HexColor |
| Default | 999999 |
| Context | Plug-in node or HTTP query prefixed with "targettooltips_" |

6-digit hexadecimal color value specifying the shadow (bottom-right) part of the tip box border.

| LineWidth | |
|--------------------|------------------------------------------------------------|
| Description | Thickness of the tip box border |
| Syntax | Number |
| Default | 2 |
| Context | Plug-in node or HTTP query prefixed with "targettooltips_" |

Thickness of the tip box border in pixels.

| TextFont | |
|--------------------|-----------------------------------------------------------|
| Description | Defines the font of the tool tip text |
| Syntax | String |
| Context | Plug-in node or HTTP query prefixed with "largetooltips_" |
| Version | 5.0.0 |

Defines the font of the tool tip text. Please note that the desired font must be available on the users machine.

You need to specify the font name (e.g. "Courier New" or use one of the Flash Player predefinitions "_sans", "_serif" or "_typewriter")

| TextColor | |
|--------------------|-----------------------------------------------------------|
| Description | Default text color |
| Syntax | HexColor |
| Default | 000000 |
| Context | Plug-in node or HTTP query prefixed with "largetooltips_" |

Default text color of text in the tip box. To use different colors in a tool tip you can use the HTML tag in the tool tip text data.

| TextSize | |
|--------------------|-----------------------------------------------------------|
| Description | Default text size |
| Syntax | Number |
| Default | 11 |
| Context | Plug-in node or HTTP query prefixed with "largetooltips_" |

Default text size of text in the tip box. To use different sizes in a tool tip you can use the HTML tag in the tool tip text data.

| CornerRadius | |
|--------------------|-----------------------------------------------------------|
| Description | Radius of box corners |
| Syntax | Pixel |
| Default | 20 |
| Context | Plug-in node or HTTP query prefixed with "largetooltips_" |

Radius of the box corners. Use "0" for straight edges and positive values for rounded edges.

Plug-in PagesLibrary



Plug-in Extends:

- FSI Pages mobile

Function:

Provides access to a list of additional publications to the user.



Syntax:

```
<Plugin src="pageslibrary" datafile="library.xml" />
```

Display a list of former publications to the user to choose from. The list of publications is defined using XML in the specified datafile. The value of the parameter datafile needs to be pageslibrary in order for the tag to work.

Plug-in Parameters

| DataFile | |
|--------------------|--------------------------------------------------------------|
| Description | URL to an external XML file describing the library structure |
| Syntax | String |
| Default | — |
| Context | Plug-in tag |

Relative URL to an external XML file to provide the XML data required for this plug-in. The XML file must be located in the same domain as FSI Viewer to avoid cross-domain security restrictions.

The XML file contains a list of items to display in the library dialog.

Each item must contain the following attributes:

src = the path to the images for this publication. The first image will be used to display the thumbnail.

label = optional description of the publication

cfg = the configuration file to open if the user clicks the thumbnail

See "Library XML data structure" below for details and an example.

| ImageWidth | |
|--------------------|-------------------------------------------------------|
| Description | defines width of the cover image in the dialog window |
| Syntax | Number |
| Default | 200 |
| Context | Plug-in tag |

This value defines the width of the cover image in the dialog window.

| ImageHeight | |
|--------------------|--------------------------------------------------------|
| Description | defines height of the cover image in the dialog window |
| Syntax | Number |
| Default | 120 |
| Context | Plug-in tag |

This value defines the height of the cover image in the dialog window.

| AddButton | |
|--------------------|-------------------------------------------------|
| Description | defines whether the plug-in icon is displayed |
| Syntax | Boolean |
| Default | false if FSI Pages is activated, otherwise true |
| Context | Plug-in tag |

Defines whether the plug-in icon is displayed in the FSI Viewer toolbar. Defaults to FALSE if FSI Pages is activated.

| MenuOffset | |
|--------------------|-------------------------------------------------------------------------|
| Description | defines offset of all custom buttons in pixels to elements of menu bar. |
| Syntax | Number |
| Default | 0 |
| Context | Plug-in tag |

Defines an offset of all custom buttons in pixels to elements of the menu bar.

| MarginX/MarginY | |
|--------------------|---------------------------------------------------------------------|
| Description | define the margin in pixels of the the content in the dialog window |
| Syntax | Number |
| Default | 12 |
| Context | Plug-in tag |

These values define the margin in pixels of the the content in the dialog window.

| ShowLabels | |
|--------------------|--------------------------------------------------------|
| Description | defines whether the service labels should be displayed |
| Syntax | Boolean |
| Default | false |
| Context | Plug-in tag |

This value defines whether the service labels should be displayed.

| DialogWidth | |
|--------------------|----------------------------------------|
| Description | defines the width of the dialog window |
| Syntax | Number |
| Default | 480 |
| Context | Plug-in tag |

Defines the width of the dialog window.

| DialogHeight | |
|--------------------|-----------------------------------------|
| Description | defines the height of the dialog window |
| Syntax | Number |
| Default | 430 |
| Context | Plug-in tag |

Defines the height of the dialog window.

Library XML data structure

Each publication item is defined in an <item> node. Three node attributes defines the publication source, label and fsi configuration file:

src = Image Path on Server
label = Title of publication to be displayed
cfg = Configuration file to be used

XML Sample

```
<?xml version="1.0" encoding="UTF-8" ?>
<library>
  <item src="/demo/January/" label="Issue 01" cfg="cfg_01" />
  <item src="/demo/February/" label="issue 02" cfg="cfg_02" />
</library>
```


Plug-in Magnifier



Plug-in Extends:

- FSI Viewer
- FSI Showcase

Plug-in Location:

/plugins/magnifier.plg

Function:

Adds a magnifier to the user interface

Syntax:

```
<Plugin src="magnifier"
visible="true" size="10" />
```



The "Magnifier" plug-in adds a magnifier to the user interface that can be dragged using the mouse. Using the magnifier plug-in does not cause additional data traffic, as the plug-in enlarges already loaded image data by software.

The magnifier can be hidden and shown using a corresponding button in the menu bar. The level of magnification and the magnifier size can be defined by plug-in parameters.

Plug-in Parameters

| MenuOffset | |
|--------------------|--------------------------------|
| Description | Indentation of the menu button |
| Syntax | Number |
| Default | 0 |
| Context | Plug-in attribute |

Specifies the space in pixels left of the menu button of the plug-in.

| Visible | |
|--------------------|-----------------------------|
| Description | Initial state of visibility |
| Syntax | Boolean |
| Default | false |
| Context | Plug-in attribute |

Defines the initial visibility of the magnifier.

| Size | |
|--------------------|-------------------|
| Description | Size of magnifier |
| Syntax | Number |
| Default | 10 |
| Context | Plug-in attribute |

Defines the overall size of the magnifier. Possible values are between 4 and 16. Please note that greater values require more CPU power.

| Magnification | |
|--------------------|------------------------|
| Description | Level of magnification |
| Syntax | Number |
| Default | 2 |
| Context | Plug-in attribute |

Defines the level of magnification where 1 means no magnification, 2 means a magnification of 200% and so on. The maximum level of magnification is 8.

| Reflections | |
|--------------------|--------------------------------|
| Description | Show or hide glass reflections |
| Syntax | Bool |
| Default | true |
| Context | Plug-in attribute |

Show (true) or hide (false) glass reflections of the magnifier.

| Handle | |
|--------------------|-------------------------------|
| Description | Show or hide magnifier handle |
| Syntax | Bool |
| Default | true |
| Context | Plug-in attribute |

Show (true) or hide the handle of the magnifier glass.

| HandleSize | |
|--------------------|-------------------------------|
| Description | Size of the handle in percent |
| Syntax | Number |
| Default | 100 |
| Context | Plug-in attribute |

Size of the magnifier handle.

Plug-in MaxZoom



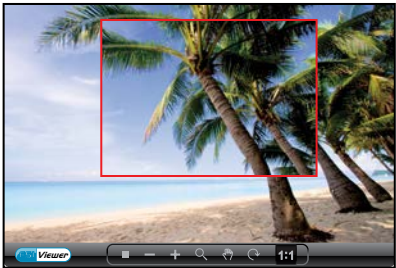
Plug-in Extends:

- FSI Viewer
- FSI Showcase

Plug-in Location:
/plugins/maxzoom.plg

Function:
Zoom to physical resolution of the image.

Syntax:
<Plugin src="maxzoom" />



The "MaxZoom" plug-in expands the user interface by a button to quickly zoom to the physical resolution of the source image.

Plug-in Parameters

| MenuOffset | |
|-------------|--------------------------------|
| Description | Indentation of the menu button |
| Syntax | Number |
| Default | 0 |
| Context | Plug-in attribute |

Specifies the space in pixels left of the menu button of the plug-in.

Plug-in Measure



Plug-in Extends:

- FSI Viewer
- FSI Showcase

Plug-in Location:

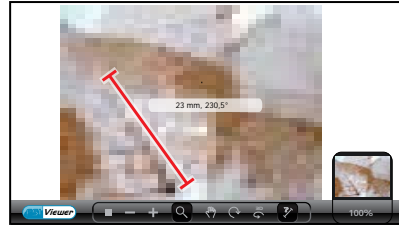
/plugins/measure.plg

Function:

Provides distance and angle measuring

Syntax:

```
<Plugin src="measure" />
```



*This plug-in can be optionally obtained.
Using the plug-in without a valid licence key activates the evaluation mode.*

The Measure plug-in provides an additional mouse mode which enables the user to measure distances and angles inside the FSI Viewer by clicking & dragging.

Pressing SHIFT locks the angle to 45 degree steps.
Pressing CTRL moves the measurement line.

Mouse Mode

The mouse mode id for the measuring mode is 100.
You can use this id to set the InitialMouseMode parameter of the FSI Viewer.
e.g.
`<InitialMouseMode value="100" />`
or
`?cfg=foo&InitialMouseMode=100`

Setting up the Plug-in

The Measure Plug-in requires the real width of the entire image to enable distance measuring.

Example 1:

If you already know the entire width of the image simply add the "ImageWidth" and the "Suffix" parameter to the plug-in tag:

If the width of the entire image is 120.5 inches the corresponding plug-in tag looks as follows:

```
<plugin src="measure" ImageWidth="120.5" Suffix=" inches" />
```

Please note:

You might as well define all plug-in parameters via query or inside the <options> group by using the prefix "measure_".

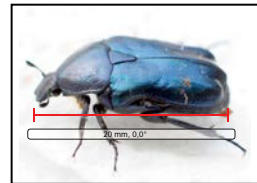
E.g.:

```
?cfg=image&Measure_ImageWidth=120.5&Measure_Suffix=%20inches
```

Example 2:

If you know the width of a part of the image, but you do not know the width of the entire image, you should follow the steps below:

1. Add the measure plug-in without any parameters.
<Plugin src="measure" />
2. Open the image inside the FSI Viewer and choose the "Measure" mouse mode.
3. Measure the part of the image you know the real width of.
(The Measure plug-in will display a decimal number n between 0 and 1)
4. The value w for the ImageWidth parameter is:
 $w = \text{RealWidth} / n$.
The Measure plug-in displays $n=20$.
The real length L of the bug is 53 mm.
ImageWidth $w = L / n = 50 / 20 = 2,65$



The corresponding plug-in tag is the following:

```
<plugin src="measure" ImageWidth="2.65" Suffix=" mm" />
```

Please note:

You might as well define all plug-in parameters via query or inside the <options> group by using the prefix "measure_".

E.g.:

```
?cfg=engine&Measure_ImageWidth=2.65&Measure_Suffix=%20mm
```

Accuracy

The plug-in does not support any perspective correction.

This means that measuring scanned maps, diagrams will be accurate, measuring 3 dimensional objects is less accurate.

Plug-in Parameters

The following attributes can be assigned to the <plugin> tag.

You might as well define all plug-in parameters via query or inside the <options> group by using the prefix "measure_" with the parameter name, e.g. "measure_ ImageWidth"

| MenuOffset | |
|--------------------|--------------------------------|
| Description | Indentation of the menu button |
| Syntax | Number |
| Default | 0 |
| Context | Plug-in attribute |

Specifies the space in pixels left of the menu button of the plug-in.

| ImageWidth | |
|--------------------|--------------------------------|
| Description | Real width of the entire image |
| Synta | Floating Point Value |
| Default | 100.0 |
| Context | Plug-in attribute |

Defines the real width of the entire image (e.g. 120 inches).

Please see the explanation in the previous section.

| Prefix | |
|--------------------|---------------------------------------|
| Description | Defines a prefix for the length value |
| Syntax | String |
| Default | --- |
| Context | Plug-in attribute |

Defines the prefix for the length value e.g. "length: ".

| Suffix | |
|--------------------|---------------------------------------|
| Description | Defines a suffix for the length value |
| Syntax | String |
| Default | mm |
| Context | Plug-in attribute |

Defines the suffix for the length value e.g. "inches". Usually this is a length unit.

| Decimals | |
|--------------------|----------------------------------------|
| Description | Number of decimals of the length value |
| Syntax | Number |
| Default | 1 |
| Context | Plug-in attribute |

Defines the number of decimals of the length value.

| ShowText | |
|--------------------|----------------------------------------|
| Description | Display the current measurement string |
| Syntax | Boolean |
| Default | true |
| Context | Plug-in attribute |

Hides the text displaying the current measurement if set to "false".

| ShowAngle | |
|--------------------|-----------------------|
| Description | Display current angle |
| Syntax | Boolean |
| Default | true |
| Context | Plug-in attribute |

If set to true the plug-in appends a text representing the current angle in degrees to the text display. E.g. "120.2 inches, 43.2°".

| LineColor | |
|--------------------|----------------------------------------|
| Description | Defines the color of the measure lines |
| Syntax | HexColor |
| Default | FF0000 |
| Context | Plug-in attribute |

6-digit hexadecimal color value defining the color of the measure lines.

| TextColor | |
|--------------------|-------------------------------|
| Description | Defines the color of the text |
| Syntax | HexColor |
| Default | 000000 |
| Context | Plug-in attribute |

6-digit hexadecimal color value defining the color of the text.

| TextBorder | |
|--------------------|--------------------------------------|
| Description | Defines the color of the text border |
| Syntax | HexColor or "false" |
| Default | 000000 |
| Context | Plug-in attribute |
| Version | 4.1.0 or above |

6-digit hexadecimal color value defining the color of the text border. Use "false" for no border.

| TextSize | |
|--------------------|-------------------|
| Description | Size of the text |
| Syntax | Number (pixel) |
| Default | 12 |
| Context | Plug-in attribute |

Text size for the textual output in pixels.

| BGColor | |
|--------------------|------------------------------------------|
| Description | Defines the color of the text background |
| Syntax | HexColor |
| Default | FFFFFF |
| Context | Plug-in attribute |

6-digit hexadecimal color value defining the background color of the text.

| BGAlpha | |
|--------------------|--------------------------------------------|
| Description | Defines the opacity of the text background |
| Syntax | Number |
| Default | 80 |
| Context | Plug-in attribute |

Defines the opacity of the text background (0...100).

| GlowRange | |
|--------------------|-------------------------|
| Description | Size of the glow effect |
| Syntax | Number |
| Default | 4 |
| Context | Plug-in attribute |

The glow range is a highlighted area surrounding the measure tool to improve it's visibility. Using the GlowRange parameter you can define the size of the "glowing" area. Use "0" to disable the glow range.

| GlowAlpha | |
|--------------------|---------------------------|
| Description | Opacity of the glow range |
| Syntax | Number |
| Default | 25 |
| Context | Plug-in attribute |

Opacity of the glow range surrounding the measure tool.

| GlowColor | |
|--------------------|-------------------------|
| Description | Color of the glow range |
| Syntax | HexColor |
| Default | FFFFFF |
| Context | Plug-in attribute |

6-digit color defining the color of the glow range surrounding the measure tool.

| Events | |
|--------------------|----------------------------------|
| Description | Send plug-in event notifications |
| Syntax | Boolean |
| Default | false |
| Context | Plug-in attribute |
| Version | 3.2.5 and above |

Specifies whether the plug-in sends plug-in event notifications. Plug-in events can be handled when using JSBridge plug-in or FSI Viewer Component.

The following events apply to this plug-in:

| Event ID | Parameter | Description |
|------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------|
| onMeasureEnable | Boolean | The measure tool gets enabled or disabled. |
| onMeasureStart | String | The user starts measuring. The parameter provides the current distance and angle as displayed in the measure tool. |
| onMeasure | String | The user drags the measure tool. The parameter provides the current distance and angle as displayed in the measure tool. |
| onMeasureStop | String | The user stopped measuring. The parameter provides the current distance and angle as displayed in the measure tool. |

Plug-in Mousemodes

**Plug-in Extends:**

- FSI Viewer
- FSI Showcase

**Plug-in Location:**

/plugins/mousemodes.plg

Function:

Integrates buttons into the menu bar to select the mouse mode.

Syntax:

```
<Plugin src="mousemodes" />
```

The "Mousemodes" plug-in provides 3 buttons (2D images) or 4 buttons (3D presentations) to select the current mouse mode.

Plug-in Parameters

| MenuOffset | |
|--------------------|---------------------------------|
| Description | Indentation of the menu buttons |
| Syntax | Number |
| Default | 0 |
| Context | Plug-in Tag |

Specifies the space in pixels left of the menu button(s) of the plug-in.





| Mode <i>n</i> | |
|--------------------|--------------------------------------------------------------|
| Description | Removes the button for mouse mode <i>n</i> from the menu bar |
| Syntax | Boolean |
| Default | — |
| Context | Plug-in Tag |

Provides the possibility to hide specific mouse mode buttons.

Remove Drag-Button

```
<Plugin src="mousemodes" Model="false" />
```

The example above shows how to hide the button for mouse mode 1 (Drag).

| Mode n | | Mouse Mode |
|--------|-----------------------------------------------------------------------------------|----------------------|
| Mode0 |  | Zoom |
| Mode1 |  | Pan |
| Mode2 |  | Rotate 3D (X/Y Axis) |
| Mode3 |  | Rotate 2D (Z Axis) |

| Sequence | |
|--------------------|-------------------------|
| Description | Sequence of the buttons |
| Syntax | String |
| Default | 0,1,3,2 |
| Context | Plug-in Tag |
| Version | 3.5.0 or higher |

You can alter the sequence of the buttons by providing the modes separated by commas (see the table above). Example: "1,0,2,3" alters the sequence of the buttons to "Pan, Zoom, Rotate 3D, Rotate 2D".

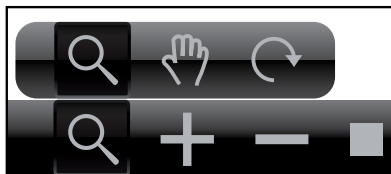
Plug-in MousemodeSelect

**Plug-in Extends:**

- FSI Viewer
- FSI Showcase

Plug-in Location:

/plugins/mousemodeselect.plg

**Function:**

Integrates a button and a dropdown menu into the menu bar to select the mouse mode.

Syntax:

```
<Plugin src="mousemodeselect" />
```

The "Mousemode Select" plug-in adds a button and a dropdown menu to the menu bar to select the mouse mode.

Plug-in Parameters

| MenuOffset | |
|--------------------|--------------------------------|
| Description | Indentation of the menu button |
| Syntax | Number |
| Default | 0 |
| Context | Plug-in Tag |

Specifies the space in pixel left of the menu button of the plug-in.





| Mode <i>n</i> | |
|--------------------|----------------------------------------------------------|
| Description | Removes the button for mouse mode <i>n</i> from the menu |
| Syntax | Boolean |
| Default | — |
| Context | Plug-in attributes |

Provides the possibility to hide specific mouse mode buttons in the dropdown menu.

Remove Drag-Button

```
<Plugin src="mousemodes" Model="false" />
```

The example above shows how to hide the button for mouse mode 1 (Drag).

| Mode n | | Mouse Mode |
|--------|-----------------------------------------------------------------------------------|----------------------|
| Mode0 |  | Zoom |
| Mode1 |  | Pan |
| Mode2 |  | Rotate 3D (X/Y Axis) |
| Mode3 |  | Rotate 2D (Z Axis) |

Plug-in Music

**Plug-in Extends:**

- FSI Viewer
- FSI Showcase
- FSI Pages

Plug-in Location:

/plugins/music.plg

Function:

Adds streaming background music or sound to the FSI Viewer.

Syntax:

```
<Plugin src="music" song="music.mp3" autoplay="true" />
```

The "Music" plug-in adds a background sound or music to FSI Viewer. Additionally a button will be added to the menu bar to switch the music on or off.

**Plug-in Parameters**

| MenuOffset | |
|--------------------|--------------------------------|
| Description | Indentation of the menu button |
| Syntax | Number |
| Default | 0 |
| Context | Plug-in attribute |

Specifies the space in pixels left of the menu button of the plug-in.

| AutoPlay | |
|--------------------|------------------------------------|
| Description | Start playing the sound on startup |
| Syntax | Boolean or String |
| Default | false |
| Context | Plug-in attribute |

Set the value to Boolean "true" to make the sound play on startup. From version 1.3 of the plug-in you can additionally set the value to "onLoad" to start the sound after image data has been loaded completely.

| Song | |
|--------------------|------------------------------------|
| Description | Path to an MPEG3 audio file (.mp3) |
| Syntax | URL |
| Default | — |
| Context | Plug-in attribute |

Defines an absolute or relative path to an MPEG3 file (*.mp3). If you specify a relative path (instead "http://..." or "https://...") the path needs to be provided relative to the "music" subdirectory of the "/fsi" folder.

| Loop | |
|--------------------|----------------------------|
| Description | Loop / Play the sound once |
| Syntax | Bool |
| Default | false |
| Context | Plug-in attribute |

Defines if the sound will be played once or in a continuous loop.

| PauseOnStop | |
|--------------------|---------------------------------------------------------------|
| Description | Pause music rather than stop when clicking the plug-in button |
| Syntax | Boolean |
| Default | false |
| Context | Plug-in attribute |
| Version: | 4.0.7 |

By default pressing the plug-in button stops/plays the music. Setting this parameter to "true" makes the plug-in pause/resume when clicking the plug-in button so that the song does not restart from the beginning.

| Volume | |
|--------------------|-------------------|
| Description | Sound volume |
| Syntax | Number (0-100) |
| Default | — |
| Context | Plug-in attribute |

Defines the volume of the sound from 0 (quiet) to 100 (maximum).

| KeepState | |
|--------------------|--------------------------------------------|
| Description | Keep Stop/Play state when selecting images |
| Syntax | Boolean |
| Default | true |
| Context | Plug-in attribute |

For viewers with multiple images only.

Keep the playing state and ignore the "AutoPlay" parameter when switching from one image to another. This way "AutoPlay=true" does not start the sound if the user switched the music off.

Plug-in Notepad



Plug-in Extends:

- FSI Viewer
- FSI Showcase
- FSI Pages

Plug-in Location:

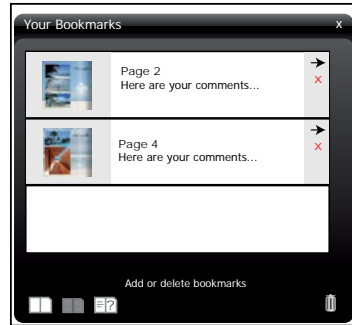
/plugins/notepad.plg

Function:

Creating and displaying bookmarks with text and image.

Syntax:

```
<Plugin src="notepad" />
```



*Enterprise editions of FSI Viewer contain this plug-in by default.
For all other editions this plug-in can be optionally obtained.*

The notepad plug-in enables the user to create bookmarks for an image section with descriptive text. The available bookmark buttons and options depend on the Add-on you are using:

| Add-on | Description |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| FSI Pages | <ul style="list-style-type: none"> - Bookmark current page(s) - Bookmark product link * - Bookmark image section |
| FSI Showcase | <ul style="list-style-type: none"> - Bookmark current image - Bookmark image section of the current image |
| None | <ul style="list-style-type: none"> - Bookmark entire image - Bookmark image section |

* for bookmarks containing descriptive text (<text> nodes in XML page data, e.g. for the LargeToolTip plug-in) this text is being used as default text for the bookmark (see image above)

Unique ID

It's crucial to specify a unique ID for each application of the notepad plug-in in order to store the notepad data in a separate data set on the user's system. Otherwise the user might see bookmarks for another image or catalog. You can either use the global FSI Viewer parameter "UniqueID" or use the Notepad plug-in parameter. Please refer to the "UniqueID" parameter description below for details.

Persistent Data Storage

The notepad uses an internal Flash technique to permanently store the notepad data on the users system. No server side script or cookies are required.

Please note that the notepad data does not store the thumbnail images, but the URL to the thumbnail instead. If you remove an image from your imaging server the user will not see the thumbnail any more when opening the notepad later on.

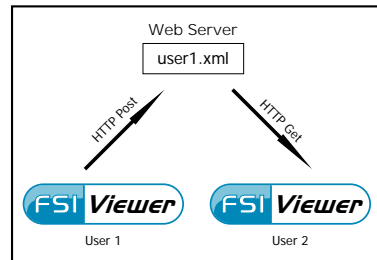
Posting and Loading data

The notepad plug-in provides the functionality to post bookmarks in XML format to a web server. Additionally the plug-in is capable of reading an XML data file from the server.

Using a little server side script you can this way setup a number of interesting communication systems. For example a *"send bookmarks by email"* option.

In this case you store the XML data file received from "User1's" notepad plug-in on a web server and email a link to an FSI Viewer instance including the name of the stored XML file returned by the web server to User2. This way User2 can see the bookmarks and remarks created by User1.

Additionally you can provide predefined notepad data, for example to present hot products, special offers and alike. In this case you provide the URL to a predefined XML data file using the "LoadXML" parameter. This way the notepad on the client computer loads the notepad data from this file instead of using any data stored locally on the user's computer.



Plug-in Parameters – Basic



Required Parameter !

| UniqueID | |
|--------------------|--------------------------------------------------|
| Description | Unique String used to store notepad data locally |
| Syntax | String (see description) |
| Default | --- |
| Context | Plug-in attribute |

A unique string identifying the notepad data. Using the same (or no) UniqueID for different images or image collections (catalogs) will present false bookmarks in the notepad. You can for example use the path of the image or the name of a catalog. Do not use the following characters in UniqueIDs: [Space] ~ % & \ ; : " ' , < > ? #
Alternatively to the plug-in parameter you can use the global FSI Parameter "UniqueID" to specify a unique identifier.

| Revision | |
|--------------------|------------------------------|
| Description | Revision of the notepad data |
| Syntax | Number |
| Default | 1 |
| Context | Plug-in attribute |

You can use different revisions for the same UniqueID. Changing the revision invalidates all bookmarks for a given UniqueID. You might for example change the revision if you change, add or remove pages in an FSI Pages catalog.

Plug-in Parameters – Layout and Appearance

| Visible | |
|--------------------|-------------------------------------|
| Description | Show or hide the notepad on startup |
| Syntax | Boolean |
| Default | false |
| Context | Plug-in attribute |

Show (true) or hide (false) the notepad on startup.

| Width, Height | |
|--------------------|----------------------------------------|
| Description | Width and height of the notepad window |
| Syntax | Number (pixels) |
| Default | 320 (width) and 272 (height) |
| Context | Plug-in attribute |

Width and height in pixels of the notepad window.

| ImageWidth, ImageHeight | |
|-------------------------|-------------------------------------------|
| Description | Max. width and height of thumbnail images |
| Syntax | Number (pixels) |
| Default | 80 (width) and 66 (height) |
| Context | Plug-in attribute |

The maximum width and height of thumbnail images in pixels.

| BackgroundColor | |
|--------------------|----------------------------------------------------------|
| Description | Background color of the notepad window. |
| Syntax | HexColor(s) |
| Default | FFFFFF,DDDDDD |
| Context | Plug-in attribute |
| Version | Obsolete from version 5.0.0 (defined by FSI Viewer Skin) |

Background color of the notepad window. You can specify a solid color or use multiple hexadecimal color values concatenated by, " to specify a color gradient, e.g. "FF0000,00FF00,FF0000".

| BackgroundGradientAngle | |
|--------------------------------|----------------------------------------------------------|
| Description | Angle of the background color gradient |
| Syntax | Number (degrees) |
| Default | 45 |
| Context | Plug-in attribute |
| Version | Obsolete from version 5.0.0 (defined by FSI Viewer Skin) |

Angle of the background color gradient in degree. The default value 45 creates a gradient from top left to bottom right. Has no effect if you used a single color value for the BackgroundColor parameter.

| FrameWidth | |
|--------------------|----------------------------------------------------------|
| Description | Width of the window frame |
| Syntax | Floating Point Number (pixels) |
| Default | 1.1 |
| Context | Plug-in attribute |
| Version | Obsolete from version 5.0.0 (defined by FSI Viewer Skin) |

Width of the window border.

| FrameColor | |
|--------------------|----------------------------------------------------------|
| Description | Color of the window frame |
| Syntax | HexColor |
| Default | 000000 |
| Context | Plug-in attribute |
| Version | Obsolete from version 5.0.0 (defined by FSI Viewer Skin) |

Color of the window border.

| EdgeRadius | |
|--------------------|----------------------------------------------------------|
| Description | Radius of the window corners |
| Syntax | Number |
| Default | 6 |
| Context | Plug-in attribute |
| Version | Obsolete from version 5.0.0 (defined by FSI Viewer Skin) |

Radius of the window corners. Use "0" for straight edges.

| ImageBackgroundColor | |
|----------------------|-----------------------------------------------|
| Description | Color of the background behind the thumbnails |
| Syntax | HexColor |
| Default | EEEEEE |
| Context | Plug-in attribute |

Color of the background behind the thumbnails.

| ItemButtonsBackgroundColor | |
|----------------------------|-------------------------------------------------|
| Description | Color of the background behind the item buttons |
| Syntax | HexColor |
| Default | EEEEEE |
| Context | Plug-in attribute |

Color of the background behind the items buttons right of the bookmarks.

| TextColor | |
|--------------------|---------------------------------------------------------|
| Description | Color of the hints (tool tips) displayed below the list |
| Syntax | HexColor |
| Default | 000000 |
| Context | Plug-in attribute |

Color of the help texts below the bookmark list.

| ScrollBaseColor, ScrollArrow, ScrollTrack | |
|--------------------------------------------------|---------------------------|
| Description | Colors for the scroll bar |
| Syntax | HexColor |
| Default | --- |
| Context | Plug-in attribute |

ScrollBaseColor defines the base color for the scroll bar in the bookmark list. Additionally you specify a HexColor value for the Arrows and the track area of the scroll bar.

| EnableAddFullBookmark, EnableAddLinkBookmark, EnableAddCustomBookmark, EnableSendBookmarks | |
|---------------------------------------------------------------------------------------------------|---------------------------------------------------|
| Description | Show or hide the buttons |
| Syntax | Boolean |
| Default | Depending on loaded add-on (SendBookmarks: false) |
| Context | Plug-in attribute |

Use these parameters to enable or disable the buttons below the bookmark list.

- EnableAddFullBookmark: Enable bookmarking of entire images or pages
- EnableAddLinkBookmark: Enable bookmarking of links
- EnableAddCustomBookmark: Enable bookmarking of custom areas
- EnableSendBookmarks: Enable sending bookmark data

| ImageEffects | |
|---------------------|-------------------------------|
| Description | Image modification parameters |
| Syntax | String |
| Default | --- |
| Context | Plug-in attribute |

Optional parameter to add image parameters for the thumbnail images. For FSI Server you can for example sharpen an image or adjust the image compression level, e.g. "effects=sharpen(230)&quality=95".

| ExpandSelectionToImage | |
|------------------------|--------------------------------------------------|
| Description | Expand image selections to fill entire thumbnail |
| Syntax | Boolean |
| Default | true |
| Context | Plug-in attribute |

By default the notepad plug-in expands bookmark selections (custom and link bookmarks) to fill the entire thumbnail area. Setting the value to "false" disables expanding bookmark selections.

| AddButton | |
|--------------------|--------------------------------|
| Description | Add notepad button to menu bar |
| Syntax | Boolean |
| Default | true (FSI Pages: false) |
| Context | Plug-in attribute |

Add a button to the FSI Viewer menu bar to show or hide the notepad. FSI Pages skins provide a button independent of this parameter.

| MenuOffset | |
|--------------------|------------------------------|
| Description | Offset of the notepad button |
| Syntax | Number (pixels) |
| Default | 0 |
| Context | Plug-in attribute |

Offset of the notepad button in the menu bar (FSI Viewer only).

| FlipAndZoomInOneGo | |
|---------------------------|--------------------------------------------------------------|
| Description | Flip and zoom in one go after clicking an FSI Pages bookmark |
| Syntax | Boolean |
| Default | true |
| Context | plug-in node or HTTP query prefixed with "notepad_" |
| Version | 5.6.0 |

Setting this parameter to "false" changes the behavior when clicking an FSI Pages bookmark containing a bookmark area. The first click flips to the bookmarked page, the second click zooms the page and the third click zooms to the bookmarked area. The actual number of clicks depend on the page you are viewing and if you already zoomed the bookmarked page.

Setting this parameter to "true" (default) the actions flip (and zoom) will be execute in one goe requiring one click only.

Plug-in Parameters – Loading and Posting Data

The parameters below are required only if you want to send or load bookmark data to or from a web server.

Loading bookmarks from an XML file is as easy as specifying the URL to the XML data file using the parameter "LoadXML". You can use the "LoadXMLPrefix" parameter to prefix all "LoadXML" parameters, e.g. with the server URL.

Sending the XML data to a web server:

- Make sure to enable the "EnableSendBookmarks" parameter to display the corresponding button below the bookmark list
- If the user clicks the button, the plug-in sends the notepad data in XML format via HTTP POST to the server. The data is being send in the "data" post variable
- The answer (the content of the receiving page) of the web server in return must be simple XML data:

```
<result success="true">filename.xml</result>
if the server succeeded in saving the file OR
<result success="false">error reason</result>
```

Depending on the result the plug-in displays the web page specified by the "SendXMLUriSuccess" or "SendXMLUriFailed".

The plug-in posts the following values to the success or failure HTML page:

| Data | Description |
|-----------------------|-------------------------------------------------------------|
| datafile | The file name of the stored XML file returned by the server |
| error | Error description |
| FSI_Url | The URL of the calling FSI Viewer instance |
| FSI_notepad_id | The unique id of the notepad (UniqueID) |

| LoadXML | |
|--------------------|----------------------------------------------|
| Description | URL or file name of an XML data file to load |
| Syntax | String |
| Default | --- |
| Context | Plug-in attribute |

URL or file name of an XML data file to load from a web server. If you add this parameter, the notepad loads the bookmarks from the file specified instead of loading bookmarks from the user's system.

| LoadXMLPrefix | |
|--------------------|-----------------------------------------|
| Description | Prefix to use for the LoadXML parameter |
| Syntax | String |
| Default | --- |
| Context | Plug-in attribute |

You can use this value e.g. in the `_default.xml` configuration file to specify the server address and folder to load XML notepad data files from. Example: "http://foo.com/notepaddata/".

| SendXMLStoreURL | |
|------------------------|-----------------------------|
| Description | URL to post notepad data to |
| Syntax | String |
| Default | --- |
| Context | Plug-in attribute |

URL of a web server receiving the notepad data in XML format. See "Loading and Posting Data" on the preceding page for details.

| SendXMLUriSuccess | |
|--------------------------|-------------------------------------------|
| Description | URL to open if sending XML data succeeded |
| Syntax | String |
| Default | --- |
| Context | Plug-in attribute |

Url to open if sending the XML data to the web server specified by "SendXMLStoreURL" parameter succeeded.

| SendXMLUriFailed | |
|-------------------------|----------------------------------------|
| Description | URL to open if sending XML data failed |
| Syntax | String |
| Default | --- |
| Context | Plug-in attribute |

URL to open if sending the XML data to the web server specified by "SendXMLStoreURL" parameter failed.

| SendXMLUriSuccessTarget, SendXMLUriFailedTarget | |
|--------------------------------------------------------|--------------------------------------|
| Description | HTML target frame to open the URL in |
| Syntax | String |
| Default | _blank |
| Context | Plug-in attribute |

HTML target frame to open the "SendXMLUriSuccess" or the "SendXMLUriFailed" page in.

Plug-in Parameters – Advanced Customization_Customizing Image

You can replace the default animations / images displayed when the bookmark list is empty, when the user adds a custom or a link bookmark.

The plug-in loads the optional custom help images from your imaging server. The syntax of these parameters therefore corresponds to the "FPXSrc" parameter. If you specified the "FPXBase" parameter you only need to provide the path to the image, e.g. "helpimages/emptynotepad.tif".

The following images can be defined:

ImageHelpMain: image to display when the bookmark list is empty

ImageHelpLinkBookmark: image to display while the user adds a link bookmark in FSI Pages

ImageHelpLinkCustom: image to display while the user adds a custom bookmark

Plug-in NavExtension



Plug-in Extends:

- FSI Viewer
- FSI Showcase

Plug-in Location:

/plugins/navextension.plg

Function:

Additional navigation control.

Syntax:

```
<Plugin src="navextension"
visible="true" />
```



The "NavExtension" plug-in adds a draggable navigation control to the FSI Viewer user interface that can be hidden and shown with a corresponding button in the menu bar. The control automatically adds buttons for scenes and scene sets depending on the image configuration.

Plug-in Parameters

| MenuOffset | |
|--------------------|--------------------------------|
| Description | Indentation of the menu button |
| Syntax | Number |
| Default | 0 |
| Context | Plug-in attributes |

Specifies the space in pixels left of the menu button of the plug-in.

| Visible | |
|--------------------|-----------------------|
| Description | Initial display state |
| Syntax | Boolean |
| Default | false |
| Context | Plug-in attribute |

Defines the initial visibility state of the control.

| X | |
|-------------|-----------------------------|
| Description | Initial X position in pixel |
| Syntax | Number |
| Default | 0 |
| Context | Plug-in Tag |

Initial horizontal position of the control in pixels relative to the top-left corner of the viewer.

| Y | |
|-------------|-----------------------------|
| Description | Initial Y position in pixel |
| Syntax | Number |
| Default | 0 |
| Context | Plug-in Tag |

Initial vertical position of the control in pixels relative to the top-left corner of the viewer.

Plug-in PagesMirror



Plug-in Extends:

- FSI Pages

Plug-in Location:

/plugins/pagesmirror.plg

Function:

Displays a mirror like effect.

Syntax:

```
<Plugin src="pagesmirror"/>
```



Plug-in Parameters

| Blur | |
|--------------------|----------------------------------|
| Description | Defines the blur effect of pages |
| Syntax | Number |
| Default | --- |
| Context | PagesMirror |
| Version | 5.0.0 |

Defines the blur factor of the mirrored images.

| Offset | |
|--------------------|----------------------------------------------------------|
| Description | Defines distance between the pages and the mirror effect |
| Syntax | Number (Pixels) |
| Default | --- |
| Context | PagesMirror |
| Version | 5.0.0 |

Defines the distance of the mirror effect and the pages.

| StartAlpha | |
|--------------------|---------------|
| Description | Alphablending |
| Syntax | Number |
| Default | 70 |
| Context | PagesMirror |
| Version | 5.0.0 |

Defines the mirror effects start opacity .

| EndAlpha | |
|--------------------|---------------|
| Description | Alphablending |
| Syntax | Number |
| Default | 0 |
| Context | PagesMirror |
| Version | 5.0.0 |

Defines the mirror effects opacity on the near end.



Please note: For technical reasons the PagesMirror plugin will not work when using page overlays

Plug-in PageSounds



Plug-in Extends:

- FSI Pages

Plug-in Location:

/plugins/pagesounds.plg

Function:

Adds page flip sounds to FSI Pages

Syntax:

```
<Plugin src="pagesounds" />
```



This plug-in adds page flip sounds to FSI Pages and does not have any effect with FSI Showcase or FSI Viewer instances.

Plug-in Parameters

| Volume | |
|--------------------|--------------------------------|
| Description | Volume of the page flip sounds |
| Syntax | Number |
| Default | 50 |
| Context | Plug-in tag |

The volume to play the flip sounds at from "0" (off) to "100" (maximum volume).

| Library | |
|--------------------|---------------------------------------|
| Description | File name of the sound library to use |
| Syntax | File Name |
| Default | pagesoundlib_coated.swf |
| Context | Plug-in tag |

File name of an SWF file (compiled Flash movie) containing the flip sounds. FSI Viewer ships with two different sound libraries:

| | |
|----------------------------|----------------------------------|
| pagesoundlib_coated.swf | (coated pages like catalogs) |
| pagesoundlib_newspaper.swf | (uncoated pages like newspapers) |

Plug-in PagesThumbBar

**Plug-in Extends:**

- FSI Pages

Plug-in Location:

/plugins/thumbbar.plg

Function:

Displays a bar with thumbnail images.

Syntax:

```
<Plugin src="thumbbar"/>
```

**Plug-in Parameters**

| AlignLeft | |
|--------------------|----------------------------------------|
| Description | Keep current image aligned to the left |
| Syntax | Number (Pixels) |
| Default | false |
| Context | PagesThumbBar |
| Version | 5.0.0 |

When enabled, the thumbnail of the currently active image is shown left in the thumbnail bar. When disabled, the thumbnail is shown in the center below the catalog.

| Arrows | |
|--------------------|-----------------------|
| Description | Display scroll arrows |
| Syntax | Boolean |
| Default | true |
| Context | PagesThumbBar |
| Version | 5.0.4 |

If set to false, the arrows for scrolling the thumbnailbar are hidden and the user needs to drag the thumbs to scroll.

| ArrowAlphaActive | |
|--------------------|------------------|
| Description | Opacity of arrow |
| Syntax | Number |
| Default | 100 |
| Context | PagesThumbBar |
| Version | 5.0.0 |

Opacity of the arrows when mouse hovers over the thumbnail bar.

| ArrowAlphaNormal | |
|--------------------|------------------|
| Description | Opacity of arrow |
| Syntax | Number |
| Default | 0 |
| Context | PagesThumbBar |
| Version | 5.0.0 |

Defines the opacity of the arrows in normal state.

| ArrowFillColor | |
|--------------------|------------------|
| Description | Arrow fill color |
| Syntax | HexColor |
| Default | FFFFFF |
| Context | PagesThumbBar |
| Version | 5.0.0 |

The fill color of the arrows inside in the thumbnailbar.

| ArrowLineColor | |
|--------------------|------------------|
| Description | Arrow line color |
| Syntax | HexColor |
| Default | FFFFFF |
| Context | PagesThumbBar |
| Version | 5.0.0 |

The fill color of the arrows inside in the thumbnailbar.

| DropShadow | |
|--------------------|--------------------------|
| Description | Enable Thumbnail Shadows |
| Syntax | Boolean |
| Default | false |
| Context | PagesThumbBar |
| Version | 5.0.0 |

Enable/Disable the drop shadow effect of the thumbnails.

| Height | |
|--------------------|--------------------------|
| Description | Size of thumbnail images |
| Syntax | Number (Pixels) |
| Default | 80 |
| Context | PagesThumbBar |
| Version | 5.0.0 |

Defines the height of the thumbnails in the thumbnail bar. The width is derived from the image size.

| HideOnZoom | |
|--------------------|------------------------------|
| Description | Hide thumbnails when zooming |
| Syntax | Boolean |
| Default | false |
| Context | PagesThumbBar |
| Version | 5.0.0 |

When enabled, the thumbs will be hidden if an image is zoomed into.

| MagnifyCurrentPages | |
|---------------------|--------------------------|
| Description | Size of thumbnail images |
| Syntax | Float |
| Default | 100 |
| Context | PagesThumbBar |
| Version | 5.0.0 |

Defines the magnification level of the current thumbnail. Values greater than 100 will increase, smaller values will decrease the thumbnail size.

| MarginBottom | |
|--------------------|-------------------------|
| Description | Margin of the thumb bar |
| Syntax | Number (Pixels) |
| Default | 0 |
| Context | PagesThumbBar |
| Version | 5.0.0 |

Defines the bottom margin of the thumbnail bar.

| MarginTop | |
|--------------------|-------------------------|
| Description | Margin of the thumb bar |
| Syntax | Number (Pixels) |
| Default | 8 |
| Context | PagesThumbBar |
| Version | 5.0.0 |

Defines the top margin of the thumbnail bar.

| OffsetLeft | |
|--------------------|-------------------------|
| Description | Offset of thumbnail bar |
| Syntax | Number (Pixels) |
| Default | 0 |
| Context | PagesThumbBar |
| Version | 5.0.0 |

Defines the offset of the thumbnail bar.

| OffsetRight | |
|--------------------|-------------------------|
| Description | Offset of thumbnail bar |
| Syntax | Number (Pixels) |
| Default | 0 |
| Context | PagesThumbBar |
| Version | 5.0.0 |

Defines the offset of the thumbnail bar.

| Padding | |
|--------------------|-------------------|
| Description | Thumbnail Padding |
| Syntax | Number (Pixels) |
| Default | 10 |
| Context | PagesThumbBar |
| Version | 5.0.0 |

Defines the distance between the thumbnails.

| SelectionBorderWidth | |
|----------------------|--------------------------------|
| Description | Border of the active thumbnail |
| Syntax | Number |
| Default | 4 |
| Context | PagesThumbBar |
| Version | 5.0.4 |

Width of the border around the active thumbnail.

| SelectionColor | |
|--------------------|-------------------------------|
| Description | Color of the active thumbnail |
| Syntax | HexColor |
| Context | PagesThumbBar |
| Version | 5.0.4 |

Defines the backgroundcolor of the active pages in the thumbnail bar.

| SelectionMarginBottom | |
|-----------------------|---------------------------------------|
| Description | Bottom margin of the active thumbnail |
| Syntax | Number |
| Default | 6 |
| Context | PagesThumbBar |
| Version | 5.0.4 |

Defines the bottom margin of the active thumbnail.

| SelectionRoundCorner | |
|----------------------|---------------------------------------|
| Description | Round corner size of active thumbnail |
| Syntax | Number |
| Default | 4 |
| Context | PagesThumbBar |
| Version | 5.0.4 |

Defines the rounded corner effect for the active thumbnail. Straight corners if set to 0.

| TextColor | |
|--------------------|-----------------------|
| Description | Color of page numbers |
| Syntax | HexColor |
| Context | PagesThumbBar |
| Version | 5.0.4 |

Defines the rounded corner effect for the active thumbnail. Straight corners if set to 0. Defines the color of the page numbers in the Thumbbar Plugin.

| TextColorHighlight | |
|--------------------|---------------------------------------|
| Description | Round corner size of active thumbnail |
| Syntax | Number |
| Context | PagesThumbBar |
| Version | 5.0.4 |

Defines the textcolor of the active thumbnail.

Plug-in PrintSave



Plug-in Extends:

- FSI Viewer
- FSI Showcase

Plug-in Location:

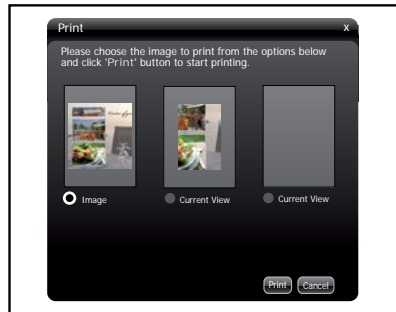
/plugins/printsave.plg

Function:

Add printing and saving capabilities to FSI Viewer.

Syntax:

```
<Plugin src="printsave"/>
```



Plug-in Parameters

| MenuOffset | |
|--------------------|-------------------------------------------|
| Description | Offset in pixel to previous menu elements |
| Syntax | Number (Pixels) |
| Default | --- |
| Context | PrintSave |
| Version | 5.0.0 |

Offset in pixel to previous menu elements.

| Print | |
|--------------------|-------------------------|
| Description | Enable/Disable printing |
| Syntax | Boolean |
| Default | --- |
| Context | PrintSave |
| Version | 5.0.0 |

If disabled, the menu button is hidden.

| PrintEffects | |
|--------------------|---------------------|
| Description | Image effects |
| Syntax | String (urlencoded) |
| Default | --- |
| Context | PrintSave |
| Version | 5.0.0 |

Defines image modification parameters to apply to images used for printing. The value of this parameter depends on the imaging server being used.

With FSI Server you can sharpen the image and define the JPEG compression level, e.g. "effects=sharpen(230)&quality=95".

| PrintResolution | |
|--------------------|-----------------------------|
| Description | Max. size of image to print |
| Syntax | Number (Pixels) |
| Default | 2000 |
| Context | PrintSave |
| Version | 5.0.0 |

Defines the maximum size of the image in pixels to download for printing.

Please note that the actual size depends on the size of the image and (with FSI server) on the maximum size defined in the real time template used with FSI Viewer (see parameter PrintTemplate).

| PrintTemplate | |
|--------------------|---------------------------|
| Description | Image template to be used |
| Syntax | String |
| Default | --- |
| Context | PrintSave |
| Version | 5.0.0 |

Defines the FSI Server profile used to load the print image.

| Save | |
|--------------------|-----------------------|
| Description | Enable/Disable saving |
| Syntax | Boolean |
| Default | true |
| Context | PrintSave |
| Version | 5.0.0 |

If disabled, the menu button is hidden.

| SaveEffects | |
|--------------------|---------------------|
| Description | Image effects |
| Syntax | String (urlencoded) |
| Default | --- |
| Context | PrintSave |
| Version | 5.0.0 |

Defines image modification parameters to apply to images used for saving. The value of this parameter depends on the imaging server being used.

With FSI server you can sharpen the image and define the JPEG compression level, e.g. "effects=sharpen(230)&quality=95".

| SaveResolution | |
|--------------------|----------------------------|
| Description | Max. size of image to save |
| Syntax | Number (Pixels) |
| Default | 600 |
| Context | PrintSave |
| Version | 5.0.0 |

Defines the maximum size of the image in pixels to download for printing.

Please note that the actual size depends on the size of the image and (with FSI server) on the maximum size defined in the real time template used with FSI Viewer (see parameter PrintTemplate).

| SaveTemplate | |
|--------------------|---------------------------|
| Description | Image template to be used |
| Syntax | String |
| Default | --- |
| Context | PrintSave |
| Version | 5.0.0 |

Defines the FSI Server profile used to download an image.

Plug-in Resize



Plug-in Extends:

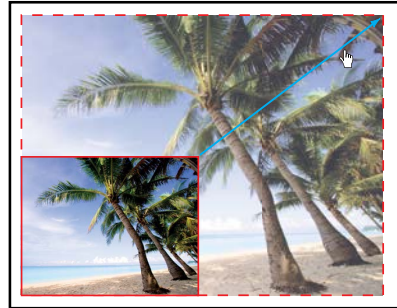
- FSI Viewer
- FSI Showcase
- FSI Pages
- FSI Pages mobile

Plug-in Location:

/plugins/resize.plg

Function:

Rearranges user interface elements after resizing the viewer



Syntax:

```
<PlugIn src="resize" MaxWidth="800 MaxHeight="600"/>
```

Using the resize plug-in you can define the viewer dimension in percent of your HTML document. After resizing the plug-in rearranges the user interface according to the size of the object tag without reloading the entire viewer instance and without the need for client side scripting. Note that this plug-in is required only, if you want to allow the user to dynamically resize an FSI Viewer instance.

Plug-in Parameters

| MaxWidth and MaxHeight | |
|------------------------|--------------------------|
| Description | Maximum width and height |
| Syntax | Number in pixel |
| Default | — |
| Context | Plug-in Tag |

FSI Viewer can not be resized to a dimension greater than specified by these values.

| MinWidth and MinHeight | |
|------------------------|--------------------------|
| Description | Minimum width and height |
| Syntax | Number in pixel |
| Default | — |
| Context | Plug-in Tag |

FSI Viewer can not be resized to a dimension smaller than specified by these values.

| EnlargeBy | |
|--------------------|--------------------------------------|
| Description | Resize viewer in steps of n pixels |
| Syntax | Number |
| Default | 1 |
| Context | Plug-in tag |

Specifies the steps FSI Viewer will be resized by. Entering 1 means that the viewer resizes exactly according to the size of the object tag. Entering greater numbers forces the viewer to resize by the number of pixels specified. Using values > 1 increases the chance of imaging server cache hits and might thus reduce server load.

Plug-in SelectFrame



Plug-in Extends:

- FSI Viewer
- FSI Showcase

Plug-in Location:

/plugins/selectframe.plg

Function:

Provides a resizable select frame

Syntax:

```
<Plugin src="selectframe" />
```



This plug-in adds a resizable select frame into FSI Viewer.

Pressing SHIFT locks the aspect ratio of the selection.

Pressing CTRL resizes the selection relative to the center

Pressing ALT rotates the selection

Pressing ALT + SHIFT rotates the selection in steps of 5 degrees

Plug-in Parameters

The following attributes can be assigned to the <plugin> tag.

You might as well define all plug-in parameters via query or inside the <options> group by using the prefix "selectframe_" with the parameter name, e.g. "selectframe_window".

| MenuOffset | |
|--------------------|--------------------------------|
| Description | Indentation of the menu button |
| Syntax | Number |
| Default | 0 |
| Context | Plug-in attribute |

Specifies the space in pixels left of the menu button of the plug-in.

| Visible | |
|--------------------|-------------------------------------|
| Description | Show or hide the plug-in on startup |
| Syntax | Boolean |
| Default | false |
| Context | Plug-in attribute |

Show or hide the select box on startup.

| Window | |
|--------------------|--------------------------------|
| Description | Show or hide the output window |
| Syntax | Boolean |
| Default | true |
| Context | Plug-in attribute |

Show or hide the output window of the plug-in.

| AnimatedRect | |
|--------------------|-----------------------------------|
| Description | Enable or Disable frame animation |
| Syntax | Boolean |
| Default | false |
| Context | Plug-in attribute |

If enabled the frameborders will be animated.

| Rotate | |
|--------------------|----------------------------------|
| Description | Enable rotation of the selection |
| Syntax | Boolean |
| Default | true |
| Context | Plug-in attribute |

Enable rotating the selection by pressing ALT key or ALT + SHIFT keys and dragging the handles of the select box.

| MaskColor | |
|--------------------|-------------------|
| Description | Color of the mask |
| Syntax | HexColor |
| Default | FFFFFF |
| Context | Plug-in attribute |

Define a 6-digit hexadecimal color value for the mask of the select box.

| MaskAlpha | |
|--------------------|---------------------|
| Description | Opacity of the mask |
| Syntax | Number |
| Default | 75 |
| Context | Plug-in attribute |

Defines the opacity of the mask of the select box (0 = invisible).

| AspectRatio | |
|--------------------|-------------------------------|
| Description | Aspect ratio of the selection |
| Syntax | String |
| Default | --- |
| Context | Plug-in attribute |

Defines an aspect ratio for the selection, e.g. "320:200". Use SHIFT to lock or unlock the aspect ratio when resizing the selection.

| InvertShift | |
|--------------------|---------------------------------------|
| Description | Inverts the function of the SHIFT key |
| Syntax | Boolean |
| Default | false |
| Context | Plug-in attribute |


You can use this parameter to invert the function of the SHIFT key while dragging.

| Callback | |
|--------------------|------------------------------|
| Description | JavaScript callback function |
| Syntax | String |
| Default | --- |
| Context | Plug-in attribute |

Specify the name of a custom JavaScript function to call each time the selection changes. The arguments passed to this function are:

SceneSet, Scene, Left, Top, Right, Bottom, Rotation, Current View

| Example: JavaScript callback function |
|------------------------------------------------------------------------------------------|
| <pre>function onSelect(set, scene, l, t, r, b, rot, strView){ doSomething(); }</pre> |

Additionally you can as use the template "\$\$selection\$\$" for the " CustomButton" plug-in.

| Events | |
|--------------------|----------------------------------|
| Description | Send plug-in event notifications |
| Syntax | Boolean |
| Default | false |
| Context | Plug-in attribute |
| Version | 3.2.5 and above |

Specifies whether the plug-in send plug-in event notifications. Plug-in events can be handled when using JSBridge plug-in or FSI Component.

The following events apply to this plug-in:

| Event ID | Parameter | Description |
|----------------------------|-----------|------------------------------------------------------------------------------------------------------------------|
| onSelectFrameEnable | Boolean | The select has been enabled or disabled. |
| onSelectFrameStart | --- | The user starts selecting. |
| onSelectFrame | String | The user modifies the select frame. The parameter provides a string representing the current selection. |
| onSelectFrameStop | String | The user stopped modifying the selection. The parameter provides a string representing the current selection. |

Plug-in ShoppingList



Plug-in Extends:

- FSI Pages

Plug-in Location:

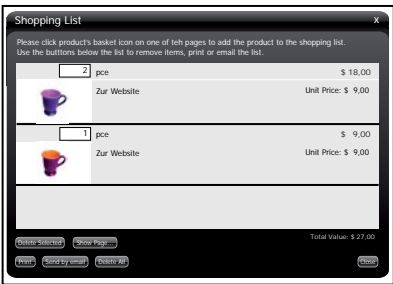
/plugins/shoppinglist.plg

Function:

Add shopping cart functionality to FSI Pages.

Syntax:

<Plugin src="shoppinglist"/>



Please note: This Plug-in requires the Template Sever.

Plug-in Parameters

| Currency | |
|-------------|----------------------|
| Description | Defines the currency |
| Default | --- |
| Context | ShoppingList |
| Version | 5.0.0 |

Defines the currency inside the shoppinglist.

| DecimalCharacter | |
|------------------|-------------------|
| Description | Decimal delimiter |
| Syntax | String |
| Default | --- |
| Context | ShoppingList |
| Version | 5.0.0 |

Decimal delimiter.

| DefaultUnit | |
|--------------------|---------------------|
| Description | Default unit string |
| Syntax | String |
| Default | pce |
| Context | ShoppingList |
| Version | 5.0.0 |

Defines the default unit of items added to the shoppinglist

| Email | |
|--------------------|--------------------------------------|
| Description | Enable/Disable sending list by email |
| Default | true |
| Context | ShoppingList |
| Version | 5.0.0 |

When enabled, the user can email a shoppinglist to others.

| MaxCountPerItem | |
|--------------------|------------------------|
| Description | Maximum Count per item |
| Syntax | Number |
| Default | 99 |
| Context | ShoppingList |
| Version | 5.0.0 |

Defines the maximum unit per item that can be added to the shoppinglist.

| MinItemHeight | |
|--------------------|-------------------------------------|
| Description | Minimum Height of items in the list |
| Syntax | Number |
| Default | 64 |
| Context | ShoppingList |
| Version | 5.0.0 |

Defines the minimum height of each item in the list.

| PersistentStorage | |
|--------------------|-------------------------------------------------|
| Description | Store shopping list data on the user's computer |
| Default | true |
| Context | ShoppingList |
| Version | 5.0.0 |

Enable or disable the caching of list data. If disabled, the list info is lost when the user leaves the FSI pages instance.

| PersistentStorageExpiresAfter | |
|-------------------------------|------------------|
| Description | Expire list data |
| Syntax | Number |
| Context | ShoppingList |
| Version | 5.0.0 |

Defines after which period of time the shopping list data expires.

| Print | |
|--------------------|-------------------------------------|
| Description | Minimum Height of items in the list |
| Default | true |
| Context | ShoppingList |
| Version | 5.0.0 |

Enable/Disable printing.

| ShowListOnAddItem | |
|--------------------|-----------------------------|
| Description | Show shoppinglist behaviour |
| Syntax | string |
| Default | once |
| Context | ShoppingList |
| Version | 5.0.0 |

Defines whether the shoppinglist is displayed after an item has been added.

| TargetURL | |
|--------------------|-------------------------------------|
| Description | Defines the target for shoppinglist |
| Default | --- |
| Context | ShoppingList |
| Version | 5.0.0 |

Defines the target URL of the servlet the shoppinglist data is send to.

| Template | |
|--------------------|-----------------|
| Description | Template to use |
| Syntax | template name |
| Context | ShoppingList |
| Version | 5.0.0 |

Defines the HTML templates to be used for rendering the pages.

| ShowListOnAddItem | |
|--------------------|-----------------------------|
| Description | Show shoppinglist behaviour |
| Default | once |
| Context | ShoppingList |
| Version | 5.0.0 |

Description of the template.

| DialogHeight | |
|--------------------|------------------------------------------------------|
| Description | Defines the height of the shoppinglist dialog window |
| Syntax | Number |
| Default | 400 |
| Context | ShoppingList |
| Version | 5.0.0 |

Defines the height of the shoppinglist dialog window.

| DialogWidth | |
|--------------------|-----------------------------------------------------|
| Description | Defines the width of the shoppinglist dialog window |
| Syntax | Number |
| Default | 600 |
| Context | ShoppingList |
| Version | 5.0.0 |

Defines the width of the shoppinglist dialog window.

Plug-in SoftwareCursor



Plug-in Extends:

- FSI Viewer
- FSI Showcase
- FSI Pages

Plug-in Location:

/plugins/softwarecursor.plg

Function:

Adds a software cursor to the FSI Viewer.



Syntax:

```
<Plugin src="softwarecursor" />
```

The "Software Cursor" plug-in adds a software cursor representing the current mouse mode (Zoom, Drag, Rotate-2D, Rotate 3D).

Plug-in parameters

| Library | |
|--------------------|------------------------------------------------|
| Description | File name of an SWF containing cursor graphics |
| Syntax | String |
| Default | — (built-in library) |
| Context | Plug-in attributes |

File name of an SWF (compiled Flash movie) file containing custom cursor graphics. Please refer to the "*FSI Contrib package*" for a sample and instructions how to create your own cursor library.

Plug-in StickyNotes



Plug-in Extends:

- FSI Pages

Plug-in Location:

/plugins/stickynotes.plg

Function:

Adds bookmark functionality to FSI Pages.

Syntax:

```
<Plugin src="stickynotes"/>
```



Plug-in Parameters

| AllowMirroredNotes | |
|--------------------|-----------------------------------|
| Description | Enable/Disable mirrored note text |
| Syntax | Boolean |
| Default | false |
| Context | StickyNotes |
| Version | 5.0.0 |

When enabled, the notes text will be mirrored when the page is turned, otherwise it will not be displayed.

| Alpha | |
|-------------|-----------------------------|
| Description | Opacity of the sticky notes |
| Syntax | Number |
| Default | 50 |
| Context | StickyNotes |
| Version | 5.0.0 |

Defines the opacity of the sticky notes from invisible (0) to opaque (100).

| Color | |
|--------------------|---------------------------------------|
| Description | Defines the color of the sticky notes |
| Syntax | Color |
| Default | FFFF55 |
| Context | StickyNotes |
| Version | 5.0.0 |

Defines the main color of the sticky notes.

| TextColor | |
|--------------------|---------------------------------------|
| Description | Defines the color of the page numbers |
| Syntax | Color |
| Default | 000000 |
| Context | StickyNotes |
| Version | 5.5.3 |

Color of the page numbers on sticky notes.

| ColorHighlight | |
|--------------------|-----------------------|
| Description | Color of lighter part |
| Syntax | Color |
| Default | FFFFEE |
| Context | StickyNotes |
| Version | 5.0.0 |

Defines the color of the lighter part of the sticky notes.

| ColorShadow | |
|--------------------|--------------------------------------------------------|
| Description | Defines the color of the dark part of the sticky notes |
| Syntax | Color |
| Default | CCCC00 |
| Context | StickyNotes |
| Version | 5.0.0 |

Defines the color of the dark part of the sticky notes.

| NaturalRotation | |
|--------------------|---------------------------------------|
| Description | Enables slightly rotated sticky notes |
| Syntax | Boolean |
| Default | true |
| Context | StickyNotes |
| Version | 5.0.0 |

When this option is enabled, the sticky notes will be rotated slightly, to give a more natural look and feel.

| PageNumbers | |
|--------------------|-----------------------------|
| Description | Enable/Disable Page numbers |
| Default | True |
| Context | StickyNotes |
| Version | 5.0.0 |

Display page numbers on the sticky notes.

| PersistentStorage | |
|--------------------|------------------------|
| Description | Cache notes inforation |
| Default | True |
| Context | StickyNotes |
| Version | 5.0.0 |

When disabled, the sticky notes will be deleted when the user leaves the FSI Pages instance. When enabled the data will be cached for the given time (defined by PersistentStorageExpiresAfter).

| PersistentStorageExpiresAfter | |
|-------------------------------|-------------------------------|
| Description | Keep note data for given time |
| Syntax | Number |
| Context | StickyNotes |
| Version | 5.0.0 |

Defines after which period of time the cached note data expires.

| Position | |
|--------------------|------------------------------|
| Description | Position of the sticky notes |
| Syntax | String |
| Default | top |
| Context | StickyNotes |
| Version | 5.0.0 |

Sticky notes position on the page (top, bottom or right).

| Scale | |
|--------------------|--------------------------|
| Description | Size of the sticky notes |
| Syntax | Number |
| Default | 100 |
| Context | StickyNotes |
| Version | 5.0.0 |

Defines the size of the sticky notes.

| Spacing | |
|--------------------|-----------------------------------------------|
| Description | Defines the distance between the sticky notes |
| Syntax | Number (Pixels) |
| Default | 8 |
| Context | StickyNotes |
| Version | 5.0.0 |

Defines the distance between the sticky notes.

| CornerRadius | |
|--------------------|-------------------------------------------|
| Description | Defines corner radius of the sticky notes |
| Syntax | Float |
| Default | 4 |
| Context | StickyNotes |
| Version | 5.5.3 |

Defines the corner radius of the sticky notes. Use 0 for a squared shape.

Plug-in Synchronize



Plug-in Extends:

- FSI Viewer
- FSI Showcase

Plug-in Location:

/plugins/synchronize.plg



Function:

Synchronize multiple instances of FSI Viewer.

Syntax:

```
<Plugin src="synchronize" ID="UNIQUE_STRING" />
```



*Enterprise editions of FSI Viewer contain this plug-in by default.
For all other editions this plug-in can be optionally obtained.*

Using the Synchronize plug-in you can synchronize multiple instances of FSI Viewer. To synchronize FSI Viewers you need to use this plug-in in all instances of FSI Viewer you want to synchronize and assign the same unique ID parameter to the instances. The plug-in synchronizes the view (2D and 3D) as well as the mouse cursor and the plug-in measure. The plug-in does not synchronize add-ons like FSI Showcase or FSIPages.

Plug-in Parameters

| ID | |
|-------------|-------------------|
| Description | Unique identifier |
| Syntax | String |
| Default | --- |
| Context | Plug-in attribute |

All FSI Viewer instances using this plug-in with the same ID will be synchronized. Please note that this will even be the case if the viewers reside in different browser windows.

| SyncSoftwareCursor | |
|--------------------|------------------------------------|
| Description | Synchronize SoftwareCursor plug-in |
| Syntax | Boolean |
| Default | true |
| Context | Plug-in attribute |
| Version | 4.1.5 or above |

Enable/disable synchronizing the mouse cursor position among synchronized FSI Viewer instances. Note that this parameter has no effect, if you do not use the SoftwareCursor plug-in.

| SyncMeasure | |
|--------------------|---------------------------------|
| Description | Synchronize the Measure plug-in |
| Syntax | Boolean |
| Default | true |
| Context | Plug-in attribute |
| Version | 4.1.5 or above |

Enable/disable synchronizing the Measure plug-in. This parameter has no effect, if you do not use the Measure plug-in. You might want to disable this parameter if you want to enable users to measure distances in synchronized FSI Viewer instances independently.

Plug-in ZoomMeter



Plug-in Extends:

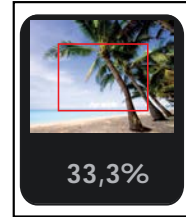
- FSI Viewer
- FSI Showcase

Plug-in Location:

/plugins/zoommeter.plg

Function:

Displays the current level of magnification.



Syntax:

```
<Plugin src="zoommeter" color="000000" />
```

The "ZoomMeter" plug-in extends the navigator window with a display of the current magnification.

Plug-in Parameters

| Color | |
|--------------------|-------------------|
| Description | Text color |
| Syntax | HexColor |
| Default | "000000" (black) |
| Context | Plug-in attribute |

Text color of the zoom display.

The color has to be defined as a 6-digit hexadecimal number.

(E.g. "FFFF00" for yellow).

| SrcRelative | |
|--------------------|---------------------------------------------------------------|
| Description | Display magnification relative to source image or viewer size |
| Syntax | Boolean |
| Default | false |
| Context | Plug-in attribute |
| Version | 3.0.0 or higher |

Display the current magnification in percent of the viewer size (false) or relative to the size of the source image.

FSI TouchZoom

FSI TouchZoom is an HTML5 and Javascript based tool adding image zoom to touch enabled devices like Apple iPad™. When pinch zooming into a website containing single source images provided by FSI Server, the images will be displayed in the resolution matching the current magnification.

Supported devices

- iPad (1-3)
- Android 4.x based devices
- Windows 8 with Internet Explorer 10 and touch device
- Mac OS with touch device

Usage

To use FSI TouchZoom, make sure the respective images on your website come from FSI Server and add the following script to the <head> section of your website:

Example:

```
<head>
[...]
<script src="js/fsitouchzoom.js" type="text/javascript">
</script>

<script type="text/javascript">
    FSITouchZoom = new $FSI.TouchZoom();
    FSITouchZoom.init();
</script>
</head>
```

How it works

The script searches for all tags that contain an FSI Server single source image URL. It watches the current document magnification and scroll position. The images within the current viewport will be replaced by higher resolution images matching the current magnification on the fly.

When allowing tiled images (default) the script will replace tags by multiple images on the fly as soon as the width or height of the magnified image exceeds 1000 pixels in width or height.

Note on Internet Explorer:

In order to make FSI TouchZoom work, Internet Explorer must run in IE8 quirks, IE9 or higher quirks or standards mode. You can ensure that by adding an X-UA-Compatible meta tag to the head section of your web page, for example:

```
<meta http-equiv="X-UA-Compatible" content="IE=Edge,chrome=1">
```

FSI Touch Zoom Parameters

You can optionally modify the way FSI TouchZoom works by passing parameters to the script. To do so, pass an object containing the parameters and value as an object to the constructor:

Example:

```
<script type="text/javascript">
FSITouchZoom = new $FSI.TouchZoom({debug:true,
zoomPrecision:6});
FSITouchZoom.init();
</script>
```

| debug | |
|--------------------|----------------------------------------------------------------|
| Description | displays debug & status information in the javascript console. |
| Syntax | Boolean |
| Default | false |
| Context | FSI TouchZoom |

Display debug and status information in the browser's javascript console.

| useDevicePixelRatio | |
|---------------------|--------------------------------------------------------------|
| Description | Use the device's pixel ratio to display even sharper images. |
| Syntax | Boolean |
| Default | true |
| Context | FSI TouchZoom |

Use the device's pixel ratio to display even sharper images. For devices with a pixel ratio >1 (e.g. Apple iPad 3) the images will be displayed in higher resolutions. If the aspect ratio is 2, the images loaded when pinching a page will be 2 x the resolution compared to devices with a pixel aspect ratio of 1.

| monitorPositions | |
|--------------------|------------------------------------------------------------------|
| Description | The script monitors the position of all single source tags |
| Syntax | Boolean |
| Default | true |
| Context | FSI TouchZoom |

By default the script monitors the position of all single source tags to ensure that a higher resolution image will be loaded if the image is within the viewport. For huge amounts of images on a single web page you might want to disable this feature, if the positions of the images do not change (e.g. there is no javascript modifying the DOM tree).

| useTiledImages | |
|--------------------|-------------------------------------------------------|
| Description | Zoomed images will be tiled into multiple image tiles |
| Syntax | Boolean |
| Default | true |
| Context | FSI TouchZoom |

By default, zoomed images of 1000 pixel in width or height will be tiled into multiple image tiles. While this increases the user experience and the loading performance, you might want to disable this feature if you e.g. change the style of an image (e.g. style. display) at runtime. In this case the change would not effect the tiled image.

| zoomPrecision | |
|--------------------|----------------------------------------------------------------|
| Description | This parameter defines the precision of loading zoomed images. |
| Syntax | Integer |
| Default | 4 |
| Context | FSI TouchZoom |

This parameter defines the precision of loading zoomed images. Using the value "0" will load images exactly matching the current magnification. This does on the other hand prevent effective caching. Values greater than 0 increase the precision how often the script loads new images when changing the magnification. The value 4 means that the script loads new images at 1.0, 1.25, 1.5, 1.75, 2.0 etc. magnification levels.

| loadingImage | |
|--------------------|----------------------------------------------------------------------|
| Description | Specifies which image to display at the bottom right of the viewport |
| Syntax | Boolean or URL |
| Default | true |
| Context | FSI TouchZoom |

Specifies whether or which image to display at the bottom right of the viewport while new images are being retrieved from FSI Server. You can use true or false to enable/disable the loading image display or provide an URL to a custom image.

| enableByCSSClass | |
|--------------------|----------------------------------------------------|
| Description | provides a comma separated list of CSS class names |
| Syntax | String |
| Default | "" |
| Context | FSI TouchZoom |

Using the enableByCSSClass parameter you can provide a comma separated list of CSS class names. Only images containing at least one of the given class names will be modified by this script. All other images normal images that do not increase the resolution dynamically.

You can combine this parameter with the disableByCSSClass parameter.

| disableByCSSClass | |
|--------------------|----------------------------------------------------|
| Description | provides a comma separated list of CSS class names |
| Syntax | String |
| Default | "" |
| Context | FSI TouchZoom |

Using the disableByCSSClass parameter you can provide a comma separated list of CSS class names. Images containing at least one of the given class names will NOT be modified by this script. All other images containing single source image URLs will be modified.

You can combine this parameter with the enableByCSSClass parameter.

Javascript Interface

Usually you will not need to use the javascript interface.

Even if you modify an images src parameter at runtime, the tool will notice that and replace the magnified image accordingly.

If you on the other hand add images to the DOM tree at runtime or modify the position of images by script, the following interface is available to update the images and positions:

```
FSITouchZoom = new $FSI.TouchZoom();  
FSITouchZoom.init();
```

```
FSITouchZoom.scanForNewImages = function()
```

Calling the scanForNewImages method will make the script look for single source images that have not been present in the DOM tree when the document finished loading. If you e.g. add tags at runtime, you need to call this method in order to make the script aware of new image(s).

```
FSITouchZoom.addImage = function(elImg, src)
```

This adds a single node to the list of dynamic touch zoom images.

elImg the node object
src (optional) the image URL (img.src if undefined)

Note: you can as well call scanForNewImages() after adding an node.

```
FSITouchZoom.removeImages = function(images)
```

Removes one or more touch zoom images and restores their original state.

images an node object or an array of node objects

```
FSITouchZoom.updateImagePositions = function()
```

This makes the tool update all image positions and refresh images if needed.

You might want to call this after modifying the DOM tree by script.

```
FSITouchZoom.setZoomPrecision = function(nPrecision)
```

Use this method to modify the parameter zoomPrecision at runtime.

FSI Spin360

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Spin360

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FSI Spin360 is an HTML5 and JavaScript based tool to display 360° Object spins and 2D image zooming. Depending on the device capabilities it offers in place zoom or pinch zoom support. Using an optional video, the rotation of the object can be displayed extremely smooth on devices that support video capturing.

Optional hot spots with HTML content can be added by providing 3D coordinates (x,y,z) in millimeters.

Supported devices:

- Desktop PCs
- iPad (1-3)
- Android 4.x based devices
- Windows Phone 8 and Windows RT devices
- Windows 8 with Internet Explorer 10 with touch device

Usage:

Add an empty <div> tag to the part of your document body that shall display the 360° product spin. Add a unique id attribute, and the desired dimension to it:

Integrate FSI Spin360

```
<body>
[...]
<div id="viewPort" style="width:600px;height:400px" />
```

Now add the fsispin360.js script and the fsitouchzoom.js script (to support zooming on mobile devices) and initialize the fsispin360 object with the desired parameters. Note that you can as well use FSI Viewer configuration files (required when using hot spots):

Using FSI Viewer Configuration Files

```
<head>
[...]
```

```
<script src="js/fsispin360.js" type="text/javascript"></script>
<script src="js/fsitouchzoom.js" type="text/javascript"></script>

<script type="text/javascript">
FSITouchZoom = new $FSI.TouchZoom();
    FSITouchZoom.init();

var parameters = {cfg:"spin360/sample.xml"};
    var spin = new $FSI.Spin360("viewPort", parameters);
    spin.start();
</script>
</head>
```

How it works

The script modifies the given <div> tag to display a 360° object spin.

If a video has been defined, the script captures video frames on start to provide an ultra smooth rotation.

Without a video (or on devices not supporting video capturing) a fixed number of images from different viewing angels will be used to display the object spin.

The user can drag the image left and right to spin and zoom in/out either using pinch zoom or by clicking on the object.

Notes on Internet Explorer

In order to make FSI Spin360 work, Internet Explorer must run in IE8 quirks, IE9 or higher quirks or standards mode. You can ensure that by adding an X-UA-Compatible meta tag to the head section of your web page, for example:

```
<meta http-equiv="X-UA-Compatible" content="IE=Edge">
```

FSI Spin360 Parameters

You can optionally modify the way FSI TouchZoom works by passing parameters to the script. To do so, pass an object containing the parameters and value as an object to the constructor:

Example:

```
<script type="text/javascript">
var spin = new $FSI.Spin360({debug:true, cfg:"spin360/sample.xml"});
    spin.start();
</script>
```

| debug | |
|--------------------|----------------------------------------------------------------|
| Description | display debug and status information in the JavaScript console |
| Syntax | Boolean |
| Default | false |
| Context | FSI Spin360 |

Display debug and status information in the browser's JavaScript console.

| headers | |
|--------------------|----------------------------------------------------------------|
| Description | display debug and status information in the JavaScript console |
| Syntax | String |
| Default | "cors" |
| Context | FSI Spin360 |

The "&headers=" parameter to use for image requests.
The default value "cors" ensures cors compatibility for cross-origin scenarios.

| autoSpinSpeed | |
|--------------------|-------------------------------------|
| Description | Time in seconds for a full rotation |
| Syntax | float |
| Default | - |
| Context | FSI Spin360 |

Time in seconds for a full rotation. Negative values reverse spin direction.

| cfg | |
|--------------------|-----------------------------------------------------------------|
| Description | relative path to an XML configuration file in FSI Viewer format |
| Syntax | String |
| Default | "" |
| Context | FSI Spin360 |

The relative path to an XML configuration file in FSI Viewer format.
When using a relative path the location specified by the FSI Viewer "FSIBase" parameter will be used, which is [viewer]/config/ by default.

| enableZoom | |
|--------------------|------------------------------------|
| Description | enable the user to zoom in and out |
| Syntax | Boolean |
| Default | true |
| Context | FSI Spin360 |

Enable the user to zoom in and out.
On touch enabled devices zoom requires FSI TouchZoom and is based on the native pinch zoom gesture. On non touch enabled devices, in place zoom by clicking the object or dragging up/down will be enabled instead.

| zoomPrecision | |
|--------------------|------------------------------------------------|
| Description | defines the precision of loading zoomed images |
| Syntax | integer |
| Default | 2 |
| Context | FSI Spin360 |

This parameter defines the precision of loading zoomed images.
Using the value "0" will load images exactly matching the current magnification. This does on the other hand prevent effective caching.
Values greater than 0 increase the precision how often the script loads new images when changing the magnification. The value 2 means that the script loads new images at 1.0, 1.25, 1.5, 1.75, 2.0 etc. magnification levels.

NOTE: On touch enabled devices the FSI TouchZoom parameter zoomPrecision applies.

| desktopClickZoomScale | |
|-----------------------|---------------------------------------------------------|
| Description | the magnification level to use when clicking the object |
| Syntax | Float |
| Default | 2.5 |
| Context | FSI Spin360 |

For desktop browsers only. The magnification level to use when clicking the object.

| dir | |
|--------------------|-------------------------------------------------------------|
| Description | path to the source images for the object spin on FSI Server |
| Syntax | String |
| Default | "" |
| Context | FSI Spin360 |

The path to the source images for the object spin on FSI Server.
The viewer will load the list of images from the given directory.

| backgroundColor | |
|--------------------|-----------------------------|
| Description | the background color to use |
| Syntax | 6-digit hex-color |
| Default | #FFFFFF |
| Context | FSI Spin360 |

The background color to use. The color should match the video's or image's background color (usually white or black).

| mouseBarColorNormal | |
|---------------------|--------------------------------|
| Description | Menu bar color in normal mode. |
| Syntax | RGB |
| Default | (0,0,0) |
| Context | FSI Spin360 |

Menu bar color in normal mode.

| mouseBarColorOver | |
|--------------------|-----------------------------------|
| Description | Menu bar color in mouse over mode |
| Syntax | RGB |
| Default | (51,153,255) |
| Context | FSI Spin360 |

Menu bar color in mouse over mode.

| mouseSensitivity | |
|--------------------|------------------------------------------------------------|
| Description | sensitivity of the mouse movement when rotating the object |
| Syntax | float |
| Default | 1.0 |
| Context | FSI Spin360 |

Sensitivity of the mouse (finger) movement when rotating the object.

| pellets | |
|--------------------|-------------------------------------------------|
| Description | viewer draws optionally small dots on the video |
| Syntax | boolean |
| Default | true |
| Context | FSI Spin360 |

When using a spin video you can optionally have the viewer draw small dots on the video. This improves the visual impression of the video in higher resolutions.

| pelletsOpacity | |
|--------------------|------------------------------------------------------------|
| Description | defines opacity of the dots ("pellets") drawn on the video |
| Syntax | float |
| Default | 0.09 |
| Context | FSI Spin360 |

Opacity of the dots ("pellets") drawn on the video, if the pellets parameter is enabled.

| drawCube | |
|--------------------|--------------------------------------------------------------|
| Description | draws a 3D cube wireframe representing the spin object space |
| Syntax | boolean |
| Default | false |
| Context | FSI Spin360 |

Draws a 3D cube wireframe representing the object space of the spin as defined by the "virtualSpace" parameters.

The drawCube option can be useful to validate the "virtualSpace" parameters.

This option only works on desktop computers using the HTML canvas element.

| drawTable | |
|--------------------|--------------------------------------|
| Description | draws a virtual rotating table plate |
| Syntax | boolean |
| Default | false |
| Context | FSI Spin360 |

Draws a virtual rotating table plate. **This option only works on desktop computers using the HTML canvas element.**

| drawGroundPlate | |
|--------------------|------------------------------|
| Description | draws a virtual ground plate |
| Syntax | boolean |
| Default | false |
| Context | FSI Spin360 |

Draws a virtual ground plate.

This option only works on desktop computers using the HTML canvas element.

| imagesources | |
|--------------------|---------------------------------------------|
| Description | paths to single images used for FSI Spin360 |
| Syntax | String |
| Default | "" |
| Context | FSI Spin360 |

Defines the paths to single images used for FSI Spin360. Example: "dir1/1.jpeg, dir1/2.jpeg, dir2/1.jpeg,..."

Global Parameters for Hot Spots

| enableHotspots | |
|--------------------|-------------------------------|
| Description | enables or disables hot spots |
| Syntax | boolean |
| Default | true |
| Context | FSI Spin360 |

You can set this value to false if hot spots have been defined, but shall not be displayed.

| hotspotCallbackFunction | |
|-------------------------|-------------------------------|
| Description | enables or disables hot spots |
| Syntax | string/ function |
| Default | "" |
| Context | FSI Spin360 |

The name of a custom JavaScript callback function in window scope to call each time a hot spot mouse action occurs.

Alternatively you can pass the function directly as a JavaScript parameter.

Example of a callback function prototype:

| Callback Function Prototype |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <pre>function onFSISpin360HSAction(strAction, viewer, idViewer, idHotspot, node, param, angle) { if (strAction == "click") { alert("clicked on hot spot " + idHotspot); } }</pre> |

| Attribute | Description |
|-----------|----------------------------------------------------------------------------------|
| action | a string representing the action "mouseover", "mouseout", "mousedown" or "click" |
| viewer | the FSI Spin360 viewer instance calling the method |
| idViewer | the value of the "id" attribute of the viewer's <div> tag |
| idHotspot | the 0-based id of the hotspot |
| node | the <div> node containing the hot spot content |
| param | the content of the "actionParameter" parameter of the hot spot |
| angle | the hot spot's perimeterAngle value (the angle at which it's visible best) |

| hotspotLineColor1 | |
|--------------------|--------------------------------------------|
| Description | lighter color of the hot spot marker lines |
| Syntax | 6-digit hex color |
| Default | #FFFF00 |
| Context | FSI Spin360 |

The lighter color of the hot spot marker lines.

| hotspotLineColor2 | |
|--------------------|-------------------------------------------|
| Description | darker color of the hot spot marker lines |
| Syntax | 6-digit hex color |
| Default | #000000 |
| Context | FSI Spin360 |

The darker color of the hot spot marker lines.

| hotspotDotColor1 | |
|--------------------|--------------------------------------------|
| Description | lighter color of the hot spot marker lines |
| Syntax | 6-digit hex color |
| Default | #FFFF00 |
| Context | FSI Spin360 |

The lighter color of the hot spot marker circle's gradient.

| hotspotDotColor2 | |
|--------------------|-------------------------------------------|
| Description | darker color of the hot spot marker lines |
| Syntax | 6-digit hex color |
| Default | #000000 |
| Context | FSI Spin360 |

The darker color of the hot spot marker circle's gradient.

| hotspotDotRadius | |
|--------------------|--------------------------------------------|
| Description | radius of the hot spot marker circle in px |
| Syntax | float |
| Default | 4.0 |
| Context | FSI Spin360 |

The radius of the hot spot marker circle in px.

<camera> Section

The camera section contains parameters describing the technical specifications and the position of the camera when shooting the 360° spin.

You only need to specify these values if you are using the virtual space, e.g. for hot spots.

For spins without hot spots you can omit this parameter group.

| cameradigitalCropFactor | |
|-------------------------|--------------------------------------------------------------|
| Description | depends on the size of the optical sensor chip of the camera |
| Syntax | float |
| Default | 1.0 |
| Context | FSI Spin360 |

The value depends on the size of the optical sensor chip of the camera.

For full frame cameras the value is "1.0". For cameras with smaller chips, please refer to the cameras technical specifications. Common values are between 1.5 to 1.6. The crop factor is the same factor that affects the focal length of your camera's objective. E.g. the focal length of an objective with a full frame camera is 50mm. With a camera that has a crop factor of 1.5 the effective focal length would be $1.5 \times 50\text{mm} = 75\text{mm}$.

| camerafocalLength | |
|--------------------|--------------------------------------|
| Description | focal length of the camera objective |
| Syntax | float (in mm) |
| Default | 50 |
| Context | FSI Spin360 |

The focal length of the camera objective.

| cameradistanceToTableCenter | |
|-----------------------------|------------------------------------------------------------------|
| Description | distance from cameras image plane to the center of the turntable |
| Syntax | float (in mm) |
| Default | 0 |
| Context | FSI Spin360 |

The straight distance from the cameras image plane to the center of the turn table in mm (see illustration below).

| cameraheightcamera | |
|--------------------|-------------------------------------------------------|
| Description | distance from image plane of the camera to the ground |
| Syntax | float (in mm) |
| Default | 0 |
| Context | FSI Spin360 |

The straight distance from the optical center of your camera to the ground in mm (see illustration below).

| cameraheighttable | |
|--------------------|---------------------------------------------------|
| Description | distance from top of the turn table to the ground |
| Syntax | float (in mm) |
| Default | 0 |
| Context | FSI Spin360 |

The straight distance from the top of the turn table to the ground in mm. (see illustration below)

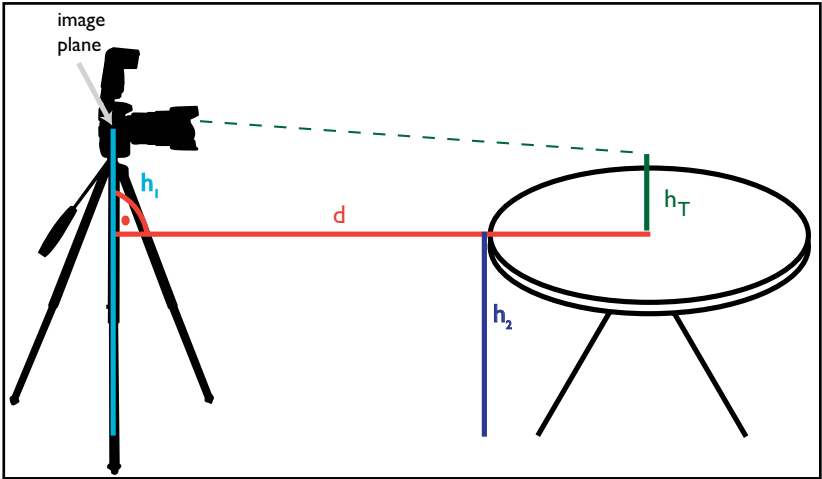
| cameratargetHeightOffset | |
|--------------------------|-----------------------------------------------------------------|
| Description | height of the camera target spot at the center of the turntable |
| Syntax | float (in mm) |
| Default | 0 |
| Context | FSI Spin360 |

The height of the camera target spot at the center of the turn table in mm.
If you vertically target the table center the value is 0.0 mm.
(see illustration below)

| cameratargetWidthOffset | |
|-------------------------|---------------------------------------------|
| Description | horizontal offset of the camera target spot |
| Syntax | float (in mm) |
| Default | 0 |
| Context | FSI Spin360 |

The horizontal offset of the camera target spot at the vertical the center of the turn table related to the center of the turn table in mm. If you target the horizontal table center (default) the value is 0.0 mm.

Camera Positioning Illustration



| Attribute | Description |
|-----------|----------------------------------------|
| h_T | Parameter: cameratargetHeightOffset |
| h_1 | Parameter: cameraCameraHeight |
| h_2 | Parameter: cameraTableHeight |
| d | Parameter: cameradistanceToTableCenter |

<virtualSpace> Section

The virtualSpace section is optional and only required if you want to verify the 3D projections for use with hot spots. Using the camera parameters, the viewer calculates the position of the hot spots based on the given 3D coordinates only.

| virtualspacecubeSizeX, virtualspacecubeSizeY and virtualspacecubeSizeZ | |
|------------------------------------------------------------------------|--------------------------------------------------------------|
| Description | "cube" is the bounding box of the spin object in millimeters |
| Syntax | float |
| Default | - |
| Context | FSI Spin360 |

The "cube" is the bounding box of the spin object in millimeters.

| virtualspacebaseRotationY | |
|----------------------------------|----------------------------------------|
| Description | specifies a rotation offset in degrees |
| Syntax | float |
| Default | 0 |
| Context | FSI Spin360 |

You can specify a rotation offset in degrees.

This is required only, if you started the 360° shooting session at an angle other than 0°.

| virtualspaceshiftX, virtualspaceshiftY and virtualspaceshiftZ | |
|----------------------------------------------------------------------|--------------------------------------------------------------|
| Description | defines an offset of the spin object on the turn table in mm |
| Syntax | float |
| Default | - |
| Context | FSI Spin360 |

Optionally defines an offset of the spin object on the turn table in mm.

<hotspots3d> Section

The hotspots3d section is optional and only required if you want to display hot spots on your 360° object spin. Hot Spots consist of a marker line and a marker dot as well as content area. The content area may contain all kind of HTML content, e.g. formatted text, hyperlinks, images, videos and alike.

Each hotspot requires an individual hot spot definition node.

In addition a <defaults> node can be used to define default parameter values.

Hot Spot definition node

```
<hotspots3d>
  <defaults>
    <normalClass value="hotspotNormal"/>
    <hoverClass value="hotspotOver"/>
    <perimeterAngleFadeOut value="15" />
  </defaults>
  <hotspot>
    <text value="Hot Spot A "/>
    <x value="11"/>
    <y value="223"/>
    <z value="-116"/>
    <perimeterAngle value="0"/>
    <perimeterAngleRange value="60"/>
  </hotspot>
  <hotspot>
    <text value="Hot Spot B "/>
    <x value="11"/>
    <y value="223"/>
    <z value="-116"/>
    <perimeterAngle value="90"/>
    <perimeterAngleRange value="30"/>
    <perimeterAngleFadeOut value="5" />
  </hotspot>
  [...]
</hotspots3d>
```

Hot Spot Parameters:

| x, y and z | |
|--------------------|--------------------------------------------------------------------|
| Description | x, y, z distance on the real object measured from center of object |
| Syntax | float (in mm) |
| Default | - |
| Context | FSI Spin360 |

The x, y and z distance in mm on the real object measured from the center of the object (usually equal to the center of the turn table).

Combined with the required <camera> parameters, the viewer calculates the rotated and projected position of the hot spot on screen.

| text | |
|--------------------|-------------------------------------------|
| Description | HTML content to display for this hot spot |
| Syntax | string |
| Default | "" |
| Context | FSI Spin360 |

The HTML content to display for this hot spot.

Note that the value needs to be XML encoded if the content contains invalid characters for XML attribute values (e.g. '&' for '&', '<' for '<', '>' for '>' and '"' for '"')

| horizontalMarkerSize | |
|----------------------|--------------------------------------------------------|
| Description | length of the horizontal line of the hot spot's marker |
| Syntax | integer |
| Default | 30 |
| Context | FSI Spin360 |

Length of the horizontal line of the hot spot's marker.

| verticalMarkerSize | |
|--------------------|------------------------------------------------------|
| Description | length of the vertical line of the hot spot's marker |
| Syntax | integer |
| Default | 100 |
| Context | FSI Spin360 |

Length of the vertical line of the hot spot's marker.

| perimeterAngle | |
|--------------------|-----------------------------------------------------------|
| Description | viewing angle in degrees at which to display the hot spot |
| Syntax | float |
| Default | - |
| Context | FSI Spin360 |

The viewing angle in degrees at which to display the hot spot.

E.g. for a hot spot on the left side of the object use "90".

For a hot spot at the back of the object use "180".

| perimeterAngleRange | |
|---------------------|----------------------------------------------------|
| Description | angle range in which the hot spot shall be visible |
| Syntax | float |
| Default | 30 |
| Context | FSI Spin360 |

The angle range in which the hot spot shall be visible.

E.g. a perimeterAngle of "90" and a perimeterAngleRange of "40" would display the hot spot from 70 to 110 degrees (+/- 20°).

| perimeterAngleFadeOut | |
|-----------------------|-------------------------------------------------------------|
| Description | angle range in which the hot spot shall be faded in and out |
| Syntax | float |
| Default | 10 |
| Context | FSI Spin360 |

The angle range in which the hot spot shall be faded in and out.

A value of "0" means that the hot spot will be displayed or hidden immediately when entering or leaving the perimeterAngleRange. Values greater than 0 extend the perimeterAngleRange by the given degrees in which the hot spot's opacity changes.

| perimeterZoom | |
|--------------------|---------------------------------------------------------------------|
| Description | specifies from which magnification level on a hot spot is displayed |
| Syntax | float |
| Default | 1.0 |
| Context | FSI Spin360 |

An optional parameter specifying from which magnification level on a hot spot should be displayed. E.g. 2.5 would hide the hot spot as long as the magnification level is below 2.5. This parameters has no effect if zoom is disabled by the global "enableZoom" parameter.

| perimeterImageWidth | |
|---------------------|---------------------------------------------------------------------|
| Description | defines the absolute width of spin instance for displaying hot spot |
| Syntax | float |
| Default | 1.0 |
| Context | FSI Spin360 |

Similar to perimeterZoom. While perimeterZoom depends on the magnification this parameter defines the absolute width of the (zoomed) spin instance to decide whether to show or hide a tooltip. It is recommend to set this parameter as a default hot spot parameter when using relative instance sizes.

| interactive | |
|--------------------|------------------------------------------------------------------------|
| Description | enables or disables recations of hot spot areas to interactive actions |
| Syntax | boolean |
| Default | false |
| Context | FSI Spin360 |

The hot spot content area will not react on mouse over, click actions and alike when setting "interactive" to false.

| actionParameter | |
|--------------------|-----------------------------------------------------------|
| Description | value will be passed on to the hot spot callback function |
| Syntax | string |
| Default | "" |
| Context | FSI Spin360 |

An optional parameter value that will be passed on to the hot spot callback function.

| url | |
|--------------------|----------------------------------------------------------------|
| Description | An optional URL to open if the user clicks the hot spot label. |
| Syntax | string |
| Default | "" |
| Context | FSI Spin360 |

An optional URL to open if the user clicks the hot spot label.
You can use any URL you can use with the window.open command, like regular URLs as well as "javascript:" or "email:" URLs.

| urlTarget | |
|--------------------|-------------------------------------------|
| Description | target frame or window to open the URL in |
| Syntax | string |
| Default | _self |
| Context | FSI Spin360 |

The target frame or window to open the URL in.
Use e.g. "_blank" to open hyperlinks in a new window.

| normalClass | |
|--------------------|-------------------------------------------------------------|
| Description | CSS class name to use for content <div> tag in normal state |
| Syntax | string |
| Default | "FSI360HotSpot_Normal" |
| Context | FSI Spin360 |

A CSS class name to use for the content <div> tag in normal state.

| activeClass | |
|--------------------|-----------------------------------------------------------------|
| Description | CSS class name to use for content <div> tag in mouse over state |
| Syntax | string |
| Default | "FSI360HotSpot_Active" |
| Context | FSI Spin360 |

A CSS class name to use for the content <div> tag in mouse over state.

Example CSS classes:

It is recommended to add the following CSS classes to the HTML document containing FSI Spin360 instances with hot spots. These classes will be used if you do not define "normalClass" and "activeClass" parameters for your hot spots. The _Mobile und _SmallMobile classes will be added to the hot spot class names on mobile device or small mobile devices (phones). You can use them to adjust the font size to increase the readability of text within the hot spots.

Example CSS classes

```
<style type="text/css">

div.FSI360HotSpot_Normal{
    border:2px solid rgba(255, 255, 0, 0.8);
    font-family:Arial,Helvetica,sans-serif;
    color:#000;
    font-size:13px;
background: rgba(255, 255, 200, 0.8);
    padding:3px;
    border-radius: 3px;
    cursor:pointer;
    box-shadow: 4px 4px 4px rgba(0,0,0,0.3);
    white-space:nowrap;
}

div.FSI360HotSpot_Active{
    background: #FFF;
}

div.FSI360HotSpot_Mobile{
    font-size:13px;
}

div.FSI360HotSpot_SmallMobile{
    font-size:32px;
}
</style>
```

| cssClass | |
|--------------------|-----------------------------------------------------------|
| Description | CSS class name to add to the hot spot's content <div> tag |
| Syntax | string |
| Default | "" |
| Context | FSI Spin360 |

An additional CSS class name to add to the hot spot's content <div> tag.

| cssStyle | |
|--------------------|------------------------------------------------------------|
| Description | CSS style value to add to the hot spot's content <div> tag |
| Syntax | string |
| Default | "" |
| Context | FSI Spin360 |

A additional CSS style value to add to the hot spot's content <div> tag.

<video> Section

The video section is optional and only required if you want to enable ultra smooth rotations by providing a video of the spin.

| videosource | |
|--------------------|------------------------------------------------------------|
| Description | CSS style value to add to the hot spot's content <div> tag |
| Syntax | string |
| Default | "" |
| Context | FSI Spin360 |

The value may be an absolute URL. Otherwise it will be relative to the [viewer]/applications/spin360/videos/ folder.

NOTE: Just provide the file name WITHOUT the file extension.

Please refer to "Creating Videos" below for more information on spin videos.

| videobase | |
|--------------------|---------------------------------------------|
| Description | optional prefix for all "source" parameters |
| Syntax | string |
| Default | "" |
| Context | FSI Spin360 |

An optional prefix for all "source" parameters.

| videospindirection | |
|--------------------|-----------------------------------------|
| Description | defines the spin direction of the video |
| Syntax | String "left" or "right" |
| Default | "left" |
| Context | FSI Spin360 |

Defines the spin direction of the video.

You might want to change the spinDirection option if the object spins into the wrong direction when dragging the mouse left or right.

| videocaptureframes | |
|--------------------|--------------------------------------------|
| Description | number of frames to capture from the video |
| Syntax | integer |
| Default | 120 |
| Context | FSI Spin360 |

The number of frames to capture from the video.

The more frames you define the smoother the rotation will appear.

More frames require more time to capture the videos on startup.

120 frames (default) means 3° per frame.

| videocaptureoffsetstart | |
|-------------------------|-----------------------------------------------------------------|
| Description | offset at start of video to use when capturing the video frames |
| Syntax | float (in seconds) |
| Default | 0 |
| Context | FSI Spin360 |

An optional offset at the start of the video to use when capturing the video frames. You might want to define an offset if the video does not start exactly at the position of the first image (0°).

| videocaptureoffsetend | |
|-----------------------|---------------------------------------------------------------|
| Description | offset at end of video to use when capturing the video frames |
| Syntax | float (in seconds) |
| Default | 0 |
| Context | FSI Spin360 |

An optional offset at the end of the video to use when capturing the video frames. You might want to define an offset if the video does not start exactly at the position of the first image (0°).

| videowidthcorrectionfactor | |
|----------------------------|-------------------------------------------------------------|
| Description | adjusts width of the video to width of the images on screen |
| Syntax | float |
| Default | 1.0 |
| Context | FSI Spin360 |

An optional factor to adjust the width of the video to the width of the images on screen. You might want to adjust the value if the image do not match the video dimension.

| videoheightcorrectionfactor | |
|-----------------------------|---------------------------------------------------------------|
| Description | adjusts height of the video to height of the images on screen |
| Syntax | float |
| Default | 1.0 |
| Context | FSI Spin360 |

An optional factor to adjust the height of the video to the height of the images on screen. You might want to adjust the value if the image do not match the video dimension.

| videoxcorrectionfactor | |
|------------------------|-----------------------------------------------------------------------|
| Description | adjusts horizontal position of video to horizontal position of images |
| Syntax | float |
| Default | 0.0 |
| Context | FSI Spin360 |

An optional factor to adjust the horizontal position of the video to the horizontal position of the images on screen. You might want to adjust the value if the image do not match the video position.

| videocorrectionfactor | |
|-----------------------|-------------------------------------------------------------------|
| Description | adjusts vertical position of video to vertical position of images |
| Syntax | float |
| Default | 0.0 |
| Context | FSI Spin360 |

An optional factor to adjust the vertical position of the video to the vertical position of the images on screen. You might want to adjust the value if the image do not match the video position.

Creating and using Spin Videos

When creating spin videos for ultra smooth rotations it is strongly recommended to use a camera that can take photos and record videos so that the position and technical specifications apply to both, the video and the photos.

Make sure you do not modify the object or camera position between the video and photo shooting session.

- 1) Take the photos from different viewing angles
- 2) Record a video of a full, continuous object spin starting at the angle you took the first photo from until reaching the same angle again. You might want to take a video of 2 full spins and cut the video later on.
- 3) Cut the video if required making sure the video starts and ends at the viewing angle you took the first photo at
- 4) Export the video in the following formats:
webm (for Chrome, Firefox, Safari, etc.)
mp4 (for MS IE)
- 5) Copy the video files to either a static source connector on FSI Server or to the [viewer]/applications/spin360/videos/ folder using the same file names just with the file extension matching the video format
- 6) Add the <video> section to your configuration file and add the "source" parameter (just the file name WITHOUT the file extension).

JavaScript interface

The JavaScript interface of FSI Spin360 can be useful if you want to add additional content depending on the object spin position or hot spot actions.

JavaScript Interface Documentation

```
spin = new $FSI.Spin360();  
spin.start();
```

```
spin.spintToDegree = function(degree)
```

Spins to the position indicated by degree. Note that you can only spin to a position that has a corresponding HD image, not to a position that shows a video only.

degree the desired position in degree (0 .. 360)

```
spin.changeConfig = function(strConfig, params)
```

Reset the object spin and change the configuration to the given configuration file.

strConfig (optional) path to the configuration file (see "cfg" parameter)

params (optional) an object containing parameters. If present, these parameters will overwrite the parameters defined upon initialization

```
spin.destroy = function()
```

Destroys the given FSI Spin 360 object.

You should destroy the instance before you remove the object spins <div> tag from the DOM tree.

```
spin.getVersion = function()
```

Returns a string containing the FSI Spin360 software version.

```
spin.setZoom(nZoom, bPreliminary, bAnimate);
```

Set magnification to the amount indicated by nZoom [0...100], where nZoom = 0 means normal scale and nZoom = 100 for maximum magnification.

bPreliminary Set to true if the magnification level is temporary only. In this case no additional image data will be loaded.

bAnimate Set to true to animate from the current to the given magnification level.

```
spin.onZoomChange = function(nZoom){ [...] }
```

This optional callback function will be called each time the magnification level changes. nZoom is the magification level from 0 to 100.

Overview of Features supported by different Operating Systems and Browsers

| Browser and OS | Uses Canvas | Zoom | Video Support |
|--------------------------------------------|-------------|----------|---------------|
| MS Internet Explorer | yes | in-place | yes |
| MS Internet Explorer 10+ with touch device | yes | pinch | yes |
| Google Chrome | yes | in-place | yes |
| Firefox | yes | in-place | yes |
| Mac OS Safari | no | pinch | no |
| Mobile | | | |
| Android < 4 Chrome | no | no | no |
| Android 4+ Chrome | no | pinch | no |
| iOS Safari | no | pinch | no |

Uses Canvas:

"yes" means that an HTML canvas element is used to display the object.

When using canvas you can optionally enable 3D debug options like "drawCube" and this is one requirement for using videos.

Zoom:

"in-place": the use can zoom in/out by dragging the mouse up or down.

The size of the instance does not change.

"pinch": on pinch devices the magnification will be recognized and the display will be adjusted accordingly, including adjusting the image resolution.

Video Support:

"yes": if you specify a video the spin will be softer by capturing frames from the video

"no": video capturing either not supported or not appropriate

FSI ImageFlow

FSI ImageFlow is a Javascript based image carousel with optional image zoom.

Usage

Add an empty `<div>` tag to the part of your document body that shall display FSI ImageFlow. Add a unique id attribute and the desired dimension to it:

Example:

```
<body>
[...]
<div id="flow_1" style="width:600px;height:400px" />
```

Now add the `fsiimageflow.js` script and initialize the FSI ImageFlow JavaScript object with the desired parameters. Note that you can as well use FSI Viewer configuration files:

Example:

```
<head>
[...]
<script src="js/fsiimageflow.js" type="text/javascript"></script>

<script type="text/javascript">
FSIImageFlow = new $FSI.ImageFlow ();

var parameters = {dir:"images/foo", enableZoom:true,
backgroundColor:"#FFF"};
FSIImageFlow.init(parameters);
</script>
</head>
```

How it works

The script retrieves an image list from FSI Server and display the images in form of an image carousel by means of a `<canvas>` element added to the specified `<div>` container element.

Note on Internet Explorer:

In order to make FSI ImageFlow work, Internet Explorer must run in IE8 quirks, IE9 or higher quirks or standards mode. You can ensure that by adding an X-UA-Compatible meta tag to the head section of your web page, for example:

```
<meta http-equiv="X-UA-Compatible" content="IE=Edge,chrome=1">
```

FSI ImageFlow Parameters

You can optionally modify the way FSI ImageFlow works by passing parameters to the script. You can either use an XML configuration passing the path using a "cfg" parameter or pass parameters and values as an object to the constructor:

Example:

```
<script type="text/javascript">
flow = new $FSI.ImageFlow({debug:true, backgroundColor:"#ff0"});
    flow.init();
</script>
```

| debug | |
|--------------------|----------------------------------------------------------------|
| Description | displays debug & status information in the javascript console. |
| Syntax | Boolean |
| Default | false |
| Context | FSI ImageFlow |

Display debug and status information in the browser's javascript console.

| backgroundColor | |
|--------------------|----------------------------------------------|
| Description | The background color for the image carousel. |
| Syntax | String |
| Default | "#FFFFFF" |
| Context | FSI ImageFlow |

The background color for the image carousel.

Use "none" if the background should be visible.

Use a web color (e.g. #FFFF00) to define the color of the background.

| dir | |
|--------------------|---------------------------------------------------------------|
| Description | The path to the source image folder on FSI Server to display. |
| Syntax | string |
| Default | "" |
| Context | FSI ImageFlow |

The path to the source image folder on FSI Server to display.

| imagesources | |
|--------------------|-----------------------------------------------|
| Description | paths to single images used for FSI ImageFlow |
| Syntax | String |
| Default | "" |
| Context | FSI ImageFlow |

Alternative way to define the paths to single images used for FSI ImageFlow. Example: "dir1/1.jpeg, dir1/2.jpeg, dir2/1.jpeg,..."

| elementWidth | |
|--------------------|----------------------------------------------------|
| Description | The maximum width of images in the image carousel. |
| Syntax | Integer |
| Default | 200 |
| Context | FSI ImageFlow |

The maximum width of images in the image carousel.

Note: The maximum height depends on the container element's height, the mirrorHeight and padding parameters.

| elementSpacing | |
|--------------------|--------------------------------------|
| Description | Spacing between the images in pixel. |
| Syntax | Integer |
| Default | 8 |
| Context | FSI ImageFlow |

Spacing between the images in pixel.

Note: If the resulting image height limits the image dimension, there is a spacing even if you define elementSpacing with a value of "0". In this case you either need to:

- a) Increase the container <div> element height
- b) Decrease the value of the elementWidth parameter

| preloadCount | |
|--------------------|-----------------------------------|
| Description | The number of images to pre-load. |
| Syntax | Integer |
| Default | true |
| Context | FSI ImageFlow |

The number of images to pre-load although they are currently not visible.
Possible values are integers greater or equal to 0.

| autoRotateSpeed | |
|--------------------|-------------------------------|
| Description | Image carousel auto-rotation. |
| Syntax | Integer |
| Default | 0 |
| Context | FSI ImageFlow |

Use numbers greater or smaller than 0 to make the carousel rotate on start with the given speed and direction. Auto-rotation stops as soon as the user interacts with the carousel.

| autoRotateSpeed | |
|--------------------|-------------------------------|
| Description | Image carousel auto-rotation. |
| Syntax | Integer |
| Default | 0 |
| Context | FSI ImageFlow |

Use numbers greater or smaller than 0 to make the carousel rotate on start with the given speed and direction. Auto-rotation stops as soon as the user interacts with the carousel.

| CropValues | |
|--------------------|------------------------------------------------------|
| Description | Defines the amount that should be cut off the image. |
| Syntax | String |
| Default | "" |
| Context | FSI ImageFlow |

Defines the amount that should be cut off the image from each side.
Values can be provided as pixel (e.g. "20px") or percent (e.g. "10%") or floating point numbers (e.g. "0.25").

Use 4 values for left, top, right, bottom.

Example: 10%,0,10%,0

| effects | |
|--------------------|----------------------------------------------------|
| Description | Optional FSI Server effects to use for all images. |
| Syntax | String |
| Default | "" |
| Context | FSI ImageFlow |

Optional FSI Server effects to use for all images.

Example: effects:"Sepia()"

| imageServerTemplate | |
|---------------------|--------------------------------------------|
| Description | The FSI Server template to request images. |
| Syntax | String |
| Default | "jpg" |
| Context | FSI ImageFlow |

The FSI Server template to request images.

Usually this is "jpg" or "png".

The default quality is part of the server template definition.

| Quality | |
|--------------------|-----------------------------------------------------------------|
| Description | JPEG quality level when retrieving JPEG images from the server. |
| Syntax | Integer |
| Default | - |
| Context | FSI ImageFlow |

The JPEG quality level when retrieving JPEG images from the server.

| paddingTop | |
|--------------------|-----------------------|
| Description | Top padding in pixel. |
| Syntax | Integer |
| Default | 10 |
| Context | FSI ImageFlow |

Top padding in pixel.

| mirrorHeight | |
|--------------------|------------------------------------------------------------------------|
| Description | The height of the optional mirror effect relative to the image height. |
| Syntax | Float |
| Default | 0.5 |
| Context | FSI ImageFlow |

The height of the optional mirror effect relative to the image height.

0 turns the mirror effect off.

1.0 uses the entire image height.

| mirrorStartOpacity | |
|--------------------|------------------------------------------|
| Description | The start opacity for the mirror effect. |
| Syntax | Float |
| Default | 0.35 |
| Context | FSI ImageFlow |

The start opacity for the mirror effect.

1.0 means a very heavy mirror effect starting with 100% reflection of the original image.

| backgroundDarkness | |
|--------------------|--------------------------------------------------------------------|
| Description | This parameter determines, if images in the back will be darkened. |
| Syntax | Float |
| Default | 0.3 |
| Context | FSI ImageFlow |

This parameter determines, if images in the back will be darkened.
0 turns this effect off.

| depthFadeout | |
|--------------------|----------------------------------------------------------|
| Description | An optional value to determine the depth to clip images. |
| Syntax | Float |
| Default | 0.2 |
| Context | FSI ImageFlow |

An optional value to determine the depth to clip images.
If images appear and disappear abruptly at the sides you might want to decrease the value to e.g. 0.1.

| enableScrollBar | |
|--------------------|-----------------------------------|
| Description | enable or disable the scroll bar. |
| Syntax | Boolean |
| Default | true |
| Context | FSI ImageFlow |

This value enables or disables the scroll bar.

| scrollColor | |
|--------------------|-----------------------------------|
| Description | The color to draw the scroll bar. |
| Syntax | 6-digit hex color |
| Default | #555555 |
| Context | FSI ImageFlow |

The color to draw the scroll bar.

| curveHeight | |
|--------------------|-------------------------------------------------------------|
| Description | This value determines the y-position of images in the back. |
| Syntax | Float |
| Default | 0.35 |
| Context | FSI ImageFlow |

This value determines the y-position of images in the back.

0 means that all images are equally bottom aligned.

Values greater than 0 increase the radius like viewing the images from an elevated position.

| imageBorderColor | |
|--------------------|---------------------------------------|
| Description | defines the border around the images. |
| Syntax | String |
| Default | "none" |
| Context | FSI ImageFlow |

Use "none" for no borders around the images.

Otherwise define a 6-digit color, e.g. "#ff0000".

| placeholderColor | |
|--------------------|----------------------------------------|
| Description | The color to draw image space holders. |
| Syntax | String |
| Default | "#EEEEEE" |
| Context | FSI ImageFlow |

The color to draw image space holders.

Space holders appear while the actual images data is being loaded.

Use "none" to disable drawing placeholders.

| presentationType | |
|--------------------|--------------------------------------------|
| Description | The overall image presentation appearance. |
| Syntax | Enum |
| Default | "carousel" |
| Context | FSI ImageFlow |

Selects the overall image presentation (carousel, shuffle, flat) appearance in FSI Imageflow.

| enableZoom | |
|--------------------|----------------------------------------------|
| Description | Enable or disable zooming the focused image. |
| Syntax | Boolean |
| Default | true |
| Context | FSI ImageFlow |

Enable or disable zooming the focused image. The focused image is the last image clicked. If the image is not the image in the center, you therefore need to click twice to zoom.

When zooming an image, FSI ImageFlow adds a <div> element to the document body, holding the zoomed image.

| zoomBorderWidth | |
|--------------------|-------------------------------------------|
| Description | Width of the border around zoomed images. |
| Syntax | Integer |
| Default | 4 |
| Context | FSI ImageFlow |

Width of the border around zoomed images.

| zoomBackgroundColor | |
|---------------------|-------------------------------------------------------------|
| Description | The CSS background-color property to use for zoomed images. |
| Syntax | String |
| Default | "#FFFFFF" |
| Context | FSI ImageFlow |

The CSS background-color property to use for zoomed images.

Use "none" for a transparent background.

| zoomBorderStyle | |
|--------------------|---------------------------------------------------------|
| Description | The CSS border-style property to use for zoomed images. |
| Syntax | String |
| Default | "solid" |
| Context | FSI ImageFlow |

The CSS border-style property to use for zoomed images.

| zoomBorderColor | |
|--------------------|---------------------------------------------------------|
| Description | The CSS border-color property to use for zoomed images. |
| Syntax | 6-digit hex color |
| Default | #777777 |
| Context | FSI ImageFlow |

The CSS border-color property to use for zoomed images.

| zoomFadeColor | |
|--------------------|-------------------------------------------------------|
| Description | The color to use to fade out behind the zoomed image. |
| Syntax | 6-digit hex color |
| Default | #FFFFFF |
| Context | FSI ImageFlow |

The color to use to fade out the document behind the zoomed image.

| zoomFadeOpacity | |
|--------------------|---------------------------------------------------------|
| Description | The opacity to use to fade out behind the zoomed image. |
| Syntax | Integer |
| Default | 80 |
| Context | FSI ImageFlow |

The opacity (0 to 100) to use to fade out the document behind the zoomed image.

| zIndexZoom | |
|--------------------|----------------------------------------------|
| Description | holding the zoom image to the document body. |
| Syntax | Integer |
| Default | 1000 |
| Context | FSI ImageFlow |

The CSS z-index to add the <div> holding the zoom image to the document body.

Javascript Interface

```
FSIImageFlow = new $FSI.ImageFlow();  
FSIImageFlow.init(dir:"images/foo");
```

I) Public Methods

```
FSIImageFlow.init = function(parameters)
```

Initializes the FSI Image Flow instance with the given parameters.

```
FSIImageFlow.destroy = function()
```

Destroys the FSI ImageFlow instance leaving the empty container <div> only. You can re-use the same container calling FSIImageFlow.init()

```
FSIImageFlow.focusImage = function(nIndex)
```

Rotate the carousel until the image with the given index is in the foreground.

```
FSIImageFlow.zoomImage = function(nIndex)
```

Rotate the carousel until the image with the given index is in the foreground and zoom the given image afterwards.

```
FSIImageFlow.closeZoom = function()
```

Remove the zoomed image if any.

II) Callback functions

The optional JavaScript callback functions enables developers to react on events fired by FSI ImageFlow. To use a callback you need to implement a corresponding JavaScript function AND pass the name of the callback function to the FSI ImageFlow instance, e.g.:

Example:

```
function onFSIImageFlowStart(oInstance, idElement, strDir,
nImages){
console.log("The FSI ImageFlow instance with the id " +
idElement + " displays a total of " + nImages + " images".)
FSIImageFlow = new $FSI.ImageFlow();
FSIImageFlow.init(dir:"images/foo", callBackStart:onFSIImageF
lowStart);
```

Note: You can either pass the function or the function name in window scope as a string.

The following callback functions can be used:

```
callBackStart
function(oInstance, idElement, strDir, nImagesTotal)
Called once after loading the image list.
```

```
callBackClick
function(oInstance, idElement, nImageIndex, strImagePath)
Called each time the user clicks an image.
```

```
callBackFocus
function(oInstance, idElement, nImageIndex, strImagePath)
Called each time the foreground image changes.
```

```
callBackZoomStart
function(oInstance, idElement, nImageIndex, urlZoomedImage)
Called each time a zoomed image starts loading.
```

```
callBackZoomEnd
function(oInstance, idElement)
Called each time a zoomed image has been closed.
```


Appendix

Escaping or URL-encoding parameter values

In some situations you need to pass escaped (URL-encoded) parameters values to FSI Viewer, because using unescaped values would break the XML syntax or because you need to use characters prohibited in URLs.

In cases like this you can pass escaped values rather than passing the actual value.

What does escaping (URL-encoding) mean?

URL-encoding (or percent-encoding) means converting the character to its corresponding value in ASCII and then representing that value as a pair of hexadecimal digits. The digits, preceded by a percent sign ("%"), are then used in place of the reserved character. FSI Viewer transforms URL-encoded values back to the original value.

How can I URL-encode a value?

Most scripting languages (JavaScript, ActionScript, PHP and alike) provide methods for this purpose. Please note that FSI Viewer from version 4 requires Unicode safe encoding rather than non-unicode safe encoding – this is an escaped character might be represented by one or more 2-digit numbers preceded by "%".

Using JavaScript you therefore need to use the method "encodeURIComponent()" instead of "escape()".

HTML Tags available in FSI Viewer

FSI Viewer from version 4 supports basic HTML tags in various contexts like when entering custom tool tips, texts for the "LargeToolTips" plug-in, search results and alike. Whenever this documentation refers to "Basic HTML formatting tags", the following HTML tags can be used (variable values printed):

```
<b></b>
<i></i>
<u></u>
<br>
<font color="#FF0000" size="12" face="Arial"></font>
<p align="left|center|right"></p>
```

Please note that you need to use XML syntax in order to avoid XML syntax errors in configuration files - this is e.g. using `
` instead of `
`.

Example of a _default.xml file

```
<fsi_parameter>
  <!-- This file contains default parameters.
  All parameters will be overwritten by additional .xml files or query
  parameters. -->

  <FPX>
    <ServerType value="fsi" />
    <Base value="http://fsi.neptunelabs.com/fsi/server?source=" />
  </FPX>

  <Plugins>
    <Plugins src="mousemodes" />
    <PLUGIN src="zoommeter" SrcRelative="1"/>
  </Plugins>

  <Options>
    <FSIBase value="config/" />
    <ScenePreload value="true" />
    <MenuAlign value="BR" />
  </Options>
</fsi_parameter>
```

Example of an image specific FSI configuration file

```
<fsi_parameter>

  <FPX>
    <!-- Src will be prefixed by FPXBase of _default.xml -->
    <Src value="3d_object.fpx" />
    <Width value="8128" />
    <Height value="9168" />
    <TilesX value="4" />
    <TilesY value="3" />
  </FPX>

  <Options>
    <InitialAction value="NextScene" />
    <InitialActionDelay value="3" />
    <MenuAlign value="TL" />
    <NoNav value="true" />
  </Options>

</fsi_parameter>
```

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