

Prizm Content Connect Developer Guide for Windows

Version 5.0

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Preface

This document describes how to integrate and use Prizm Content Connect on Windows server. Instructions are also included to set up the Zero Footprint Client, an end-user viewing option optimized for scanned documents including TIFF and PDF.

Intended Audience

The intended audience is IT developers and administrators. Some familiarity with Java, JavaScript, & Windows OS is expected.

Revision History

The following changes have been made to this document.

Revision History	Revision Date Description
Oct 11	Draft for version 4.6.3
Feb 12	Draft for version 5.0

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PRIZM CONTENT CONNECT IS BUILT IN SUCH A WAY THAT IT CAN BE TRULY INTEGRATED AND EMBEDDED INTO YOUR APPLICATION. EVENTS ARE JAVASCRIPT AJAX CALLS THAT THE VIEWER CAN GENERATE WHEN CERTAIN ACTIONS OCCUR. DEVELOPERS CAN ALSO SEND JAVASCRIPT AJAX EVENTS TO THE VIEWER FROM THEIR CODE AND HAVE THE VIEWER PERFORM CERTAIN ACTIONS WITHOUT RELOADING THE WHOLE PAGE.

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TO LOCALIZE PRIZM CONTENT CONNECT, SIMPLY PASS A FLASH VARIABLE WITH THE LOCATION OF THE XML FILE CONTAINING THE LANGUAGE TRANSLATIONS. FOR EXAMPLE, TO DISPLAY HINDI LANGUAGE, SIMPLY PASS THE FLASHVAR AS

TOOLTIPS=HINDI.XML

WHERE ARABIC.XML IS THE FOLLOWING .XML FILE RESIDING AT SAME LOCATION AS VIEWER.SWF.....38

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IMAGE CONVERSION.....39

source: the source file for conversion

target: the target folder and target file. Target can be image (.jpeg, .png, .tiff or .bmp)

dpi: specifies depth per inch ratio of output .swf and image files

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Generating images using convert2swfclient

Example 1:

To create a .png image of page 1 of sample.doc:

java -jar convert2swfclient.jar source=sample.doc target=sample.png pages=1.....39

To create a .bmp image of page 1 of sample.doc:

java -jar convert2swfclient.jar source=sample.doc target=sample.bmp pages=1

Example 2:

To create a .png image of all pages of sample.doc:

java -jar convert2swfclient.jar source=sample.doc target=sample.png39

To create a .tiff image of all pages of sample.doc:

java -jar convert2swfclient.jar source=sample.doc target=sample.tiff

Generating images using Webservice

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To create a .png image of page 1 of sample.doc:
[http://localhost:18680/convert2swf?](http://localhost:18680/convert2swf?source=C:\temp\sample.doc&target==C:\temp\samplecode\sample.png&pages=1)
[source=C:\temp\sample.doc&target==C:\temp\samplecode\sample.png&pages=1](http://localhost:18680/convert2swf?source=C:\temp\sample.doc&target==C:\temp\samplecode\sample.png&pages=1)
39

To create a .bmp image of page 1 of sample.doc: [http://localhost:18680/convert2swf?](http://localhost:18680/convert2swf?source=C:\temp\samplecode\sample.doc&target==C:\temp\samplecode\sample.bmp&pages=1)
[source=C:\temp\samplecode\sample.doc&target==C:\temp\samplecode\sample.bmp&pages=1](http://localhost:18680/convert2swf?source=C:\temp\samplecode\sample.doc&target==C:\temp\samplecode\sample.bmp&pages=1)

Example 2:

To create a .png image of all pages of sample.doc:
[http://localhost:18680/convert2swf?](http://localhost:18680/convert2swf?source==C:\temp\samplecode\sample.doc&target==C:\temp\sample.png)
[source==C:\temp\samplecode\sample.doc&target==C:\temp\sample.png](http://localhost:18680/convert2swf?source==C:\temp\samplecode\sample.doc&target==C:\temp\sample.png)
39

To create a .tiff image of all pages of sample.doc: [http://localhost:18680/convert2swf?](http://localhost:18680/convert2swf?source==C:\temp\samplecode\sample.doc&target=C:\temp\sample.tiff)
[source==C:\temp\samplecode\sample.doc&target=C:\temp\sample.tiff](http://localhost:18680/convert2swf?source==C:\temp\samplecode\sample.doc&target=C:\temp\sample.tiff)
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How Does the Viewer Work?

The Zero Footprint Client uses a combination of Flex, HTML & AJAX technology to render scanned documents. Here are steps which show in detail how the viewer works:

Step 1 – A request is sent from the client browser to view a document. Start page and document viewing options may also be included

Step 2 – Server returns a .swf or .png file

Step 3 – Viewer makes an AJAX call for Actual Total Page Count

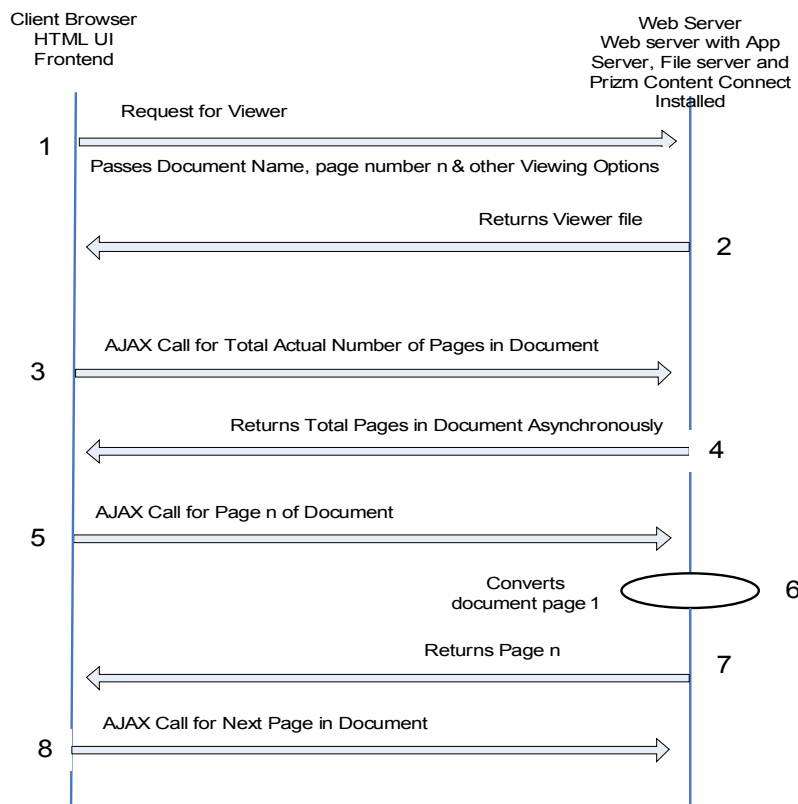
Step 4 – Total Page Count of the document is calculated on the server and returned asynchronously

Step 5 – Viewer makes an AJAX call for page n of the document

Step 6 – Conversion File on server gets the document name and page number and converts page n of the document to .swf or .png file

Step 7 – Conversion File returns the generated .swf or .png file for viewer to display

Step 8 – Viewer makes an AJAX call for the next page of the document



Chapter 2

Components & Command Line Syntax

Prizm Content Connect's Prizm Services installs various components & utilities which work together to perform document conversion.

Here are some of the main components and & files which perform specific functions:

Components/Utilities	Description	Location
convert2swf.jar	Performs document conversion	Installation Directory C:\Prizm
convert2swfclient.jar	Makes a call to convert2swf.jar for conversion. *Can be on a different machine in 3-tier installation mode	Installation Directory C:\Prizm
proxyserver.jar	Manages conversion and performs load balancing	C:\Prizm\bin
convert2swf_proxy.properties	Proxy Server properties file required by proxyserver.jar	C:\Prizm\conf
jrunner.exe	Utility to setup & install Prizm Services	C:\Prizm\bin
jrunner.properties	Properties file required by utility jrunner.exe	C:\Prizm\conf
proxyserver.log	Proxy Server log file generated by proxyserver.jar	C:\Prizm\logs
Service Start Up\Install Scripts	Call jrunner.exe. Provided for easier start\stop of Prizm Services	C:\Prizm\scripts

convert2swfclient.jar

convert2swfclient.jar is a Java-based .jar file that provides methods to convert documents to the .png format to be used by the viewer client. This .jar file can only be run if Proxy Server is running.

Note- convert2swf.jar is depreciated and is left for backwards compatibility only. For new implementations, **use convert2swfclient.jar**

To run this utility simply type *java -jar convert2swfclient.jar*

Usage: *java -jar convert2swfclient.jar argument1=value1 argument2=value2 ...*

Argument list:

ooserver	OpenOffice.org server hostname:port
proxyserver	Convert2SWF Proxy server hostname:port
source	Source file path
target	Target directory or target file path if target is empty, the result is saved to the source directory
log	Log file path, if not specified all logging goes to a terminal

pages	Indicates the range of pages to be printed, semicolon separated examples: to print all pages, beginning from 2nd: 2- to print 1st, 3rd, and 5th page: 1;3;5 to print first 10 pages: 1-10 to print 1st, 2nd and a range from 10 to 20: 1;2;10-20 to print 2nd, and the rest from 10th: 2;10
openpass	Password that allows the user to open the PDF file, enclose the value in double-quotes if you want to use space(s) examples: openpass=hj1uLWI openpass="Best Converter 2 PDF and SWF"
optimize	Specifies the optimization level (0, 1, 2)
embedfonts	Embed fonts in swf for a better search in swf (Default No:0) (Values= 0 or 1)
ignoreswferrors	SWF conversion might at times result in errors. This flag forces swf conversions (Default No:0) (Values= 0 or 1)
totalpages	Returns the number of the pages in document (Returns accurate total number of pages but requires more processing time)
fastpgcnt	Returns the number of the pages in document based on properties (Faster, but might not be accurate, use totalpages for actual page count)
pagesize	Used when converting tiff image, possible values: a4 - resize the result pages to A4 (210 x 297 mm) (default) letter - resize the result pages to Letter (8,5 x 11") original - keep the original size of the pages
modulesdir	Directory to be used for modules and inter-process communication (by default this directory exists in the installation directory)
pagetype	used when converting multi-page tiff images, possible values: a4 - resize the result pages to A4 (210 x 297 mm) letter - resize the result pages to Letter (8,5 x 11") original (default) - keep the original size of the pages
dpi	for specifying depth per index ratio of output swf and image files
pdfdensity	used when converting pdf document. Only used for encrypted PDF. Default:100
fidelity	the factor which will make docx, xlsx and pptx documents appear exactly same as original; setting fidelity as 'high' means more time spent for conversion (default: normal)
convtimeout	maximum time to wait for the conversion to be done (in seconds) (used for large files). Use 0 to wait for infinite time, default: 660 seconds
flashver	sets the flash version of the converted swf (default: 9)(viewer supports only 9+)
thumbnail	specifies thumbnail image width and height, e.g.: 150x200. Only used for creating thumbnails in png format of document pages
customerid	Customer id
regkey	Registration key
monochrome	Create grayscale TIFF images (monochrome=1)
getattachments	Get attachment List for msg & eml formats (getattachments=1)
extractattachments	Extract attachments from msg & eml formats (extractattachments=1)
xlsfidelity	suppress the XLS pre-processing of one page per sheet. Default: high

	(Values: low/high)
allowTextSelect	Allows users to select text in a document when set to true. Setting to No disallows text selection. (Default=true)
showFullscreenNotice	Allows the fullscreen keyboard events notice to not be displayed if set to No. (Default=Yes)
suppressSaveAnnotationNotice	Allows Annotation Saved notice to not be displayed when set to Yes. (Default=No)
srcencoding	Specify the text import filter parameters for text files. (Gets used only for .txt and .text files) For the Korean files srcencoding would be: srcencoding=EUC_KR,CRLF,Times New Roman,ko-KR where: EUC_KR is the encoding, complete list is here: http://docs.python.org/release/2.4.2/lib/standard-encodings.html CRLF is the line ending character (either: CR, LF, CRLF) Times New Roman is the default font used ko-KR is the language encoding

Default AJAX Based Client Examples:

Example 1:

To convert sample.doc to sample.swf having Proxy Server running on 18580 in Demo Mode:
`java -jar convert2swfclient.jar source=sample.doc`

Example 2:

To convert page 1 only of sample.doc to sample.swf:
`java -jar convert2swfclient.jar pages=1 source=sample.doc`

Example 3:

To convert pages 1,5,7 only of sample.doc to sample.swf:
`java -jar convert2swfclient.jar pages=1,5,7 source=sample.doc`

Example 4:

To get total pages in sample.doc:
`java -jar convert2swfclient.jar totalpages source=sample.doc`

Example 5:

To get fast page count in sample.doc:
`java -jar convert2swfclient.jar source=sample.doc`
 fastpgcnt – gets total pages in the document quickly but might not be as accurate as totalpages

Example 6:

To create a thumbnail of page 1 of sample.doc:
`java -jar convert2swfclient.jar source=sample.doc thumbnail=100x100 pages=1`

Example 7:

To create a thumbnail of all pages of sample.doc:
`java -jar convert2swfclient.jar source=sample.doc thumbnail=100x100`

Note: If the registration information is not valid or empty, the library runs in demo mode. Some features are limited.

Note: For unregistered products or in trial mode, the Convert2SWF runs in trial mode and produces a DEMO watermark on converted documents.

Zero Footprint Client Examples:

Example 1:

To convert sample.tiff to sample.png having Proxy Server running on 18580 in Demo Mode:
java -jar convert2swfclient.jar source=sample.tiff target=sample.png

Example 2:

To convert page 1 only of sample.pdf to sample.png:
java -jar convert2swfclient.jar source=sample.pdf target=sample.png pages=1

Example 3:

To convert pages 1,5,7 only of sample.tiff to sample.png having Proxy Server running on 18580:
java -jar convert2swfclient.jar source=sample.tiff target=sample.png pages=1,5,7

Example 4:

To get total pages in sample.pdf:
java -jar convert2swfclient.jar source=sample.pdf totalpages

Example 5:

To create a thumbnail of page 1 of sample.tiff:
java -jar convert2swfclient.jar source=sample.tiff thumbnail=100x100 pages=1
target=sample.png

Example 6:

To create a thumbnail of all pages of sample.tiff:
java -jar convert2swfclient.jar source=sample.tiff thumbnail=100x100 target=sample.png

Note: If the registration information is not valid or empty, the library runs in demo mode. Some features are limited.

Note: For unregistered products or in trial mode, Convert2SWF runs in trial mode and produces a DEMO watermark on converted documents.

proxyserver.jar - Prizm Proxy Server

Proxy server is required to be running for convert2swf utility to run. This service is installed and started during the installation process.

Prizm Services basically creates a proxy which handles document conversions and provides load balancing by using various ports on the machine.

convert2swf_proxy.properties contains the parameters and port information needed for proxy server to run and is located in the C:\Prizm\conf directory.

Starting the Proxy Server

Method 1: Starting from the Control Panel

Prizm Services should ideally be started\stopped from the control panel. Simply right click on Prizm services in control panel to Start\Stop the services.

If access to the control panel is not available, services can also be started\stopped from the command line using following commands:

```
net start Convert2SWFSvc
net stop Convert2SWFSvc
```

Logs are created in C:\Prizm\logs directory

Method 2: Starting as a service manually

jrunner.exe utility is provided for installation & set up of Prizm Services

jrunner.exe requires jrunner.properties & oodir as arguments

If oodir is not mentioned, jrunner.exe takes the oodir mentioned in jrunner.properties

jrunner.properties contains the Prizm Proxy Service setup information and is located in C:\Prizm\conf.

jrunner Usage:

```
jrunner <command> <configuration file> [configuration properties] [...]
jrunner <configuration file> [configuration properties] [...]
  (<command> implicitly '-c')
jrunner <command>
  (<configuration file> implicitly 'jrunner.properties')
jrunner
  (<command> implicitly '-c' and <configuration file> 'jrunner.properties')
```

where <command> can be one of:

```
-c --console run as a Console application
-t --start start an NT service
-a --pause pause a started NT service
-e --resume resume a paused NT service
-p --stop stop a running NT service
-i --install Install as an NT service
-r --remove Remove as an NT service
-q --query Query the current status of the service
-qs --quersilent Silently Query the current status of the service
-v --version print the wrapper's version information
-? --help print this help message
```

<configuration file> is the jrunner.properties to use. Name must be absolute or relative to the location of jrunner

[configuration properties] are configuration name-value pairs which override values in jrunner.properties. For example: jrunner.debug=true

Method 3: Starting with provided utility scripts

To set up the service manually or to start the service manually you can use the included scripts to start, stop or install and uninstall the services. These utilities reside in C:\Prizm\scripts and assume that correct 'ooo_installation' parameter is specified in the

C:\Prizm\conf\jrunner.properties file

Make sure that OpenOffice.org installation base directory is specified correctly in the C:\Prizm\conf\jrunner.properties file

```
# OpenOffice.org installation base directory  
ooo_installation=C:\Prizm\App\openoffice
```

Script	Description
install-service	Install the Prizm Content Connect Services
start-service	Start the Prizm Content Connect Services
stop-service	Stop the Prizm Content Connect Services
remove-service	Remove the Prizm Content Connect Services

Viewer.swf

Viewer.swf is Prizm Content Connect's default client navigation and viewer file containing the UI code. Viewer.swf basically acts as a wrapper viewing file and makes AJAX calls to get the document pages in swf format. This file is used with convert2swf utility to produce the resulting swf file with the navigation UI.

settings.xml

settings.xml file contains parameters used by the viewer. Update this based on your conversion file name.

Parameter	Value
conversionFileURL	File which will take care of ajax calls and performs the conversion Default value : convert.aspx

Example settings.xml file

```
<settings>  
<conversionFileURL>convertdocument.asp</conversionFileURL>  
</settings>
```

Chapter 3

Document Conversion ProxyWebservice

Prizm Content Connect has a built in HTTP & HTTPS WebServer which serves the document conversion requests and does load balancing and various other tasks.

By default, after complete installation you can check if the HTTP WebServer is running by pointing your browser to:

<http://localhost:18680/convert2swf>

convert2swf Webservice by default is setup to run on port 18680 and in http mode.

Usage:

ooserver	OpenOffice.org server hostname:port
proxyserver	Convert2SWF Proxy server hostname:port
source	Source file path
target	Target directory or target file path if target is empty, the result is saved to the source directory
log	Log file path, if not specified all logging goes to a terminal
pages	Indicates the range of pages to be printed, semicolon separated examples: to print all pages, beginning from 2nd: 2- to print 1st, 3rd, and 5th page: 1;3;5 to print first 10 pages: 1-10 to print 1st, 2nd and a range from 10 to 20: 1;2;10-20 to print 2nd, and the rest from 10th: 2;10
openpass	Password that allows the user to open the PDF file, enclose the value in double-quotes if you want to use space(s) examples: openpass=hj1uLWl openpass="Best Converter 2 PDF and SWF"
optimize	Specifies the optimization level (0, 1, 2)
embedfonts	Embed fonts in swf for a better search in swf (Default No:0) (Values= 0 or 1)
ignoreswferrors	SWF conversion might at times result in errors. This flag forces swf conversions (Default No:0) (Values= 0 or 1)
totalpages	Returns the number of the pages in document (Returns accurate total number of pages but requires more processing time)
fastpgcnt	Returns the number of the pages in document based on properties (Faster, but might not be accurate, use totalpages for actual page count)
pagesize	Used when converting tiff image, possible values: a4 - resize the result pages to A4 (210 x 297 mm) (default) letter - resize the result pages to Letter (8,5 x 11") original - keep the original size of the pages
modulesdir	Directory to be used for modules and inter-process communication (by default this directory exists in the installation directory)
pagetype	used when converting multi-page tiff images, possible values:

	a4 - resize the result pages to A4 (210 x 297 mm) letter - resize the result pages to Letter (8,5 x 11") original (default) - keep the original size of the pages
dpi	for specifying depth per inch ratio of output swf and image files
pdfdensity	used when converting pdf document. Only used for encrypted PDF. Default:100
fidelity	the factor which will make docx, xlsx and pptx documents appear exactly same as original; setting fidelity as 'high' means more time spent for conversion (default: normal)
convtimeout	maximum time to wait for the conversion to be done (in seconds) (used for large files). Use 0 to wait for infinite time, default: 660 seconds
flashver	sets the flash version of the converted swf (default: 9)(Viewer supports only 9+)
thumbnail	specifies thumbnail image width and height, e.g.: 150x200. Only used for creating thumbnails in png format of document pages
customerid	Customer id
regkey	Registration key
monochrome	Create grayscale TIFF images (monochrome=1)
getattachments	Get attachment List for msg & eml formats (getattachments=1)
extractattachments	Extract attachments from msg & eml formats (extractattachments=1)
xlsfidelity	suppress the XLS pre-processing of one page per sheet. Default: high (Values: low/high)
allowTextSelect	Allows users to select text in a document when set to true. Setting to No disallows text selection. (Default=true)
showFullscreenNotice	Allows the fullscreen keyboard events notice to not be displayed if set to No. (Default=Yes)
suppressSaveAnnotationNotice	Allows Annotation Saved notice to not be displayed when set to Yes. (Default=No)
srcencoding	Specify the text import filter parameters for text files. (Gets used only for .txt and .text files) For the Korean files srcencoding would be: srcencoding=EUC_KR,CRLF,Times New Roman,ko-KR where: EUC_KR is the encoding, complete list is here: http://docs.python.org/release/2.4.2/lib/standard-encodings.html CRLF is the line ending character (either: CR, LF, CRLF) Times New Roman is the default font used ko-KR is the language encoding

REST Based Examples

Example 1:

To convert sample.doc to sample.swf:

<http://localhost:18680/convert2swf?source=c:\temp\sample.doc&target=c:\temp\sample.swf>

Example 2:

To convert page 1 only of sample.doc to sample.swf:

<http://localhost:18680/convert2swf?source=c:\temp\sample.doc&pages=1>

Example 3:

To convert pages 1,5,7 only of sample.doc to sample.swf:

<http://localhost:18680/convert2swf?source=c:\temp\sample.doc&target=c:\temp\sample.swf&pages=1,5,7>

Example 4:

To get total pages in sample.doc:

<http://localhost:18680/convert2swf?source=c:\temp\sample.doc&totalpages>

Example 5:

To get fast page count in sample.doc:

<http://localhost:18680/convert2swf?source=c:\temp\sample.doc&fastpgcnt>

fastpgcnt – gets total pages in the document quickly but might not be as accurate as totalpages

Example 6:

To convert sample.doc to sample.swf with http_port set to 1111 and SSL enabled:

<https://localhost:1111/convert2swf?source=c:\temp\sample.doc&pages=1>

Example 7:

To create a thumbnail of page 1 of sample.doc:

<http://localhost:18680/convert2swf?source=c:\temp\sample.doc&thumbnail=100x100&pages=1>

Example 8:

To create a thumbnail of all pages of sample.doc:

<http://localhost:18680/convert2swf?source=c:\temp\sample.doc&thumbnail=100x150>

Setup proxy service on port other than 18680

Open C://Prizm/conf/proxyserverconfiguration.config and change proxy_port

After changing the http_port, restart the proxyserver by using following commands

```
cd C://Prizm/scripts
proxyserver.sh stop
proxyserver.sh start
```

Setup proxy service to run on SSL https

Following steps have to be done to achieve this:

1) Modify proxyserver_jar.properties

```
Stop proxyserver
cd C://Prizm/scripts
proxyserver.sh stop
```

```
cd C://Prizm/config
Open proxyserverconfiguration.config
set http_ssl_enabled=true
```

2) Modify web.xml (Tomcat / JBoss Application - WAR, EAR)
(Only Applicable if you are using WAR or EAR provided in Sample Code)
(Ignore this step if you are not using the provided sample code WAR or EAR)
<param-name>proxyserver</param-name>
<param-value>https://localhost:18680</param-value>

3) Start the proxyserver
cd C://Prizm/scripts
proxyserver.sh start

Check logs at C://Prizm/convert2swf/logs/proxyserver.log

SSL mode is denoted in proxyserver.log at initialization phase, e.g.:

```
INFO | jvm 1 | 2009/09/10 08:00:26 | http server ssl enabled : true
INFO | jvm 1 | 2009/09/10 08:00:26 | http server ssl keystore : C:/Program
Files/proxyserver/bin/proxyserver_ssc.jks
INFO | jvm 1 | 2009/09/10 08:00:26 | http server ssl password : *****
:
INFO | jvm 1 | 2009/09/10 08:00:38 | [ info ] [https-server] starting...
INFO | jvm 1 | 2009/09/10 08:00:38 | [ info ] [https-server] adding to the pool: worker-0
INFO | jvm 1 | 2009/09/10 08:00:39 | [ info ] [https-server] binded to: ssl
socket,host=localhost,port=18680
```

and with each client request, e.g.:

```
INFO | jvm 1 | 2009/09/10 08:00:56 | [ info ] [https-server] [worker-0] handling client request
```

Doing Conversions in SSL Mode

Specify proxyserver parameter

Calling convert2swfclient.jar has to contain proxyserver parameter that specifies the https protocol, host and port, e.g.:

```
java -jar convert2swfclient.jar proxyserver=https://localhost:18680 source=sample.doc
```

or

When using proxyserver conver2swf service

<https://localhost:18680/convert2swf?source=c:\temp\sample.doc&pages=1>

What is proxyserver_ssc.jks?

This file is so called "keystore". It is necessary for SSL handshake phase and data encryption. proxyserver_ssc.jks contains self-signed certificate that is intended to be used in trusted environments (difficult to tamper), such as localhost or intranets.

To print the content of the keystore you may use following command:

```
"Java/jdk1.6.0_16/bin/keytool" -list -v -keystore C://Prizm/convert2swf/bin/proxyserver_ssc.jks
```

-storepass "password"

Integration with Your Application

Prizm Content Connect supports real time processing of documents and can be integrated with your existing applications.

After you have installed Prizm Content Connect, insert the following files into your code for complete integration:

Viewer File

This is the file which calls the Viewer.swf and passes the document location along with the Viewer display properties.

Viewer.swf file

This is the file containing the logic for viewing the documents. Viewer.swf makes AJAX calls to the Conversion File mentioned below.

settings.xml file

settings.xml file is used by Viewer.swf and conversion file name.

For asp.net sample code, settings.xml would look like this:

```
<settings>  
<conversionFileURL>  
convert.aspx</conversionFileURL>  
</settings>
```

For classic asp sample code, settings.xml would look like this:

```
<settings>  
<conversionFileURL>  
convertdocument.asp</conversionFileURL>  
</settings>
```

Index File (index.aspx)

Calls Viewer.swf and passes Sample.doc filename

Sample.doc

The document to be converted

convertpage.aspx

Returns the converted .png

gettotalpagecount.aspx

Returns the total page count of the document

Conversion File (convertdocument.asp)

Conversion file is called from Viewer.swf and performs the actual conversion.

Conversion file accepts the document as a form POST parameter and returns the generated SWF file name.

Arguments: *fileName*

Returns: *generatedfile.swf as binary*

You can call convert2swf from within your application code by applying:

```
'Get the document name from Viewer.swf
Dim document As String
document = "Sample.doc"

**Location of temp cache directory on computer**
Dim documentLocation As String
documentLocation = "C:\Project\"

' Complete Document Path
Dim OriginalDocument As String = documentLocation & document

'Get install location from session. Install location is where convert2swf is located
Dim installLocation As String
installLocation = "C:\Prizm\"

Dim tempLocation As String
tempLocation = "C:\tempcache\"

'Location for convert2swf and other dependent files.
Dim convert2swfLocation As String
convert2swfLocation = installLocation & "convert2swfclient.jar"

'Generate a unique name
Dim s As String = Now.ToString()
Dim UniqueFileName As String
UniqueFileName = Second(s) & Minute(s) & Weekday(s) & Month(s) & Year(s) & Hour(s) &
Session.SessionID

'Create swf file names
Dim SWFFile As String
SWFFile = UniqueFileName & ".swf"

'Specify locations where final swf file will be stored
Dim targetSwfLocation As String
targetSwfLocation = tempLocation & SWFFile

Dim cmdDOS As Object
Dim WshShell As Object
Dim fso As Object

'Make sure the original file exists

fso = CreateObject("scripting.filesystemobject")
If fso.FileExists(OriginalDocument) Then
' Call CONVERT2SWF Service

Dim serviceurl As String
Dim writer As New StringWriter

serviceurl = "http://localhost:18680/convert2swf?singlefile=1&source=" +
HttpUtility.UrlEncode(OriginalDocument) + "&target=" +
```

```

HttpUtility.UrlEncode(targetSwfLocation)

Dim request As HttpWebRequest = HttpWebRequest.Create(serviceurl)
request.Method = WebRequestMethods.Http.Get
Dim serviceresponse As HttpWebResponse = request.GetResponse()
Dim reader As New StreamReader(serviceresponse.GetResponseStream())
Dim tmp As String = reader.ReadToEnd()
serviceresponse.Close()

' Return the requested file
response.ContentType = "application/swf"
response.AppendHeader("Content-Disposition", "inline; filename=" + SWFFile)
response.TransmitFile(targetSwfLocation)
response.End()

Else

Response.Write("Error")
End If

```

Required Variables

document	Name of document to be viewed
pagecountLink	Link of the file which returns the page count of the document. Arguments Passed to pagecountLink: document
conversionLink	Link of the file which performs the conversion and returns png file to viewer. Arguments Passed to conversionLink: document

Page Count Calculation File (pagecountLink)

Page Count Calculation File is called from the viewer and returns the page count of the document.

Conversion file accepts the document as a **GET parameter** and returns the page count.

Arguments: *document*

Returns: *page count*

```

'Get the document name from Viewer.swf
Dim document As String
document = Request.QueryString("document")

**Location of temp cache directory on computer**
Dim documentLocation As String = "c:\Project\"

' Complete Document Path
Dim OriginalDocument As String = documentLocation & document

Dim fso As Object

'Make sure the original file exists
fso = CreateObject("scripting.filesystemobject")

```

```

If fso.FileExists(OriginalDocument) Then
    ' Call CONVERT2SWF Service
    Dim serviceurl As String
    Dim writer As New StringWriter
    serviceurl = "http://localhost:18680/convert2swf?singlefile=1&source=" + HttpUtility.UrlEncode(OriginalDocument)
+ "&totalpages"
    Dim request As HttpWebRequest = HttpWebRequest.Create(serviceurl)
    request.Method = WebRequestMethods.Http.Get
    Dim serviceresponse As HttpWebResponse = request.GetResponse()
    Dim reader As New StreamReader(serviceresponse.GetResponseStream())
    Dim tmp As String = reader.ReadToEnd()
    serviceresponse.Close()

    Response.Write(tmp)

Else
    Response.Write("Error")
End If

```

Conversion File (conversionLink)

Conversion file is called from the viewer, performs the actual conversion and returns the .png file.

Conversion file accepts the document & pageNumber as a **GET parameter** and returns generated .png file.

Arguments: *document, pageNumber*

Returns: *PNG file*

```

'Get the document name from Viewer
Dim document As String
document = Request.QueryString("document")

'Get the page number from Viewer
Dim pageNumber As String
pageNumber = Request.QueryString("Page")

**Location of temp cache directory on computer**
Dim documentLocation As String = Session("documentLocation")
'documentLocation = "C:\tempcache\"
' Complete Document Path
Dim OriginalDocument As String = documentLocation & document

'Create swf file names
Dim PNGFile As String
PNGFile = document & "_" & pageNumber & ".png"

'Specify locations where final png file will be stored
Dim targetPngLocation As String
targetPngLocation = documentLocation & PNGFile

Dim fso As Object
'Make sure the original file exists
fso = CreateObject("scripting.filesystemobject")
If fso.FileExists(OriginalDocument) Then
    'Check if swf file is in cache
    If fso.FileExists(targetPngLocation) Then
    Else
        ' Call CONVERT2SWF Service
        Dim serviceurl As String
        serviceurl = "http://localhost:18680/convert2swf?pages=" & pageNumber & "&source=" & OriginalDocument &

```

```

"&target=" & targetPngLocation
Dim request As HttpWebRequest = HttpWebRequest.Create(serviceurl)
request.Method = WebRequestMethods.Http.Get
Dim serviceresponse As HttpWebResponse = request.GetResponse()
Dim reader As New StreamReader(serviceresponse.GetResponseStream())
Dim tmp As String = reader.ReadToEnd()
serviceresponse.Close()
End If
Response.Buffer = True
Response.AddHeader("Cache-Control", "no-cache, no-store, must-revalidate")
Response.ContentType = "application/png"
Response.AppendHeader("Content-Disposition", "inline; filename=" + PNGFile)
Response.Charset = "UTF-8"
Response.TransmitFile(targetPngLocation)
Response.End()
Else
End If

```

Optional Variables

Name	Description	Default Value	Values
save	Turn save button on/off	Yes	Yes/No
saveLink	Works in conjunction with save button. Save button when clicked opens saveLink	Yes	Link to original document Example: http://www.testsite.com/documents/sample.pdf
print	Turn print button on/off	Yes	Yes/No
zoom	Turn zoom slider on/off	Yes	Yes/No
fitPage	Turn fitPage button on/off	Yes	Yes/No
rotate	Turn rotate button on/off	Yes	Yes/No
navigation	Turn navigation buttons on/off	Yes	Yes/No
fullscreen	Turn fullscreen button on/off	Yes	Yes/No

Customizing the viewer

Prizm Content Connect is fully customizable. Your custom code simply needs to appear as 'FlashVars' param variables so that it can be passed to the Flash file at run time.

There are several ways to embed Flash into a web page. Here are some examples:

1) Basic Embed using Embed & Object Tags (using AC_RunActiveContent.js)

http://kb2.adobe.com/cps/127/tn_12701.html

2) Using SWF Objects

<http://code.google.com/p/swfobject/>

3) Using JQuery SWF Object Plugin

<http://jquery.thewikies.com/swfobject/>

Given below is an example with code showing SWF Objects.

```
<script src="swfobject.2.2.js" language="javascript"></script>
<script type="text/javascript">
var params = {
wmode: 'opaque',
scale: 'noscale',
allowFullScreen: true,
allowScriptAccess: 'always',
bgcolor: '#ffffff'
};
var attributes = {
id: 'viewer',
name: 'viewer'
};
var flashvars = {
documentname: '<%=document %>',
saveDocumentLocation: 'savedocument.aspx'
};
swfobject.embedSWF("Viewer.swf?<%=Now & Rnd() %>", "documentviewer", "620", "800", "10.0.0",
false, flashvars, params, attributes);
</script>
<noscript>
Javascript needs to be enabled to view the document in viewer.
</noscript>
<div id="documentviewer"></div>
```

Flash Document Variables

Name	Description	Default Value	Values
startPage	Page which should load when viewer opens	1 (Required)	1 to any. Cannot have value as 0 or any alphanumeric digits or negative numbers.
navButton	Display Previous Next Buttons along with Current & Total Page Numbers	Yes	Yes/No
zoomButton	Displays Zoom In, Zoom Out buttons along with Zoom Slider.	Yes	Yes/No
saveButton	Displays Document Save button and points to the link mentioned in saveDocumentLocation		Yes/No When clicked opens the original document in new target window.
saveDocument	Displays Document Save button and points to the link mentioned in saveDocumentLocation		Yes/No When clicked opens the original document in new target window. saveButton & saveDocument are same and serve the same purpose. Use either one of them.
saveDocumentLocation	Works with saveButton and points to original document or any other document rendition (such as pdf)		Link to the Original Document or pdf format of Original Document Example: http://www.testsite.com/documents/originaldoc.doc
printButton	Display Document Print Button	Yes	Yes/No
rotationButton	Display Page Rotation Button	No	Yes/No
fittoWidthButton	Displays Fit to Width Button	Yes	Yes/No
fullscreenButton	Displays Full Screen Button allowing the users to view the documents in full screen mode	Yes	Yes/No
copyTextButton	Adds a copy to clipboard functionality on mouse right click	Yes	Yes/No
colorToolBar	Changes the background color of the toolbar	Default	Hex Code Value of the Colors
pagesToPreload	Pages that should be preloaded in buffer before Viewer starts displaying the documents	5 (Default)	1 to 5. Cannot have value as 0 or any alphanumeric digits or negative numbers.
tooltips	Show different language tooltip. (Refer to Localization of Viewer Chapter in this document for details)		xml document
settingsxml	Path to settings.xml		Use this only when you cannot put settings.xml in same folder as Viewer.swf or Viewer.swf cannot find settings.xml Settingsxml=temp/settings.xml
conversionLink	Path to conversion file url in the settings.xml		Use this only when you cannot put settings.xml in same folder as Viewer.swf or Viewer.swf cannot find settings.xml conversionLink= =http://website/convert.aspx
keyboardButtons	Turn off all keyboard buttons. Keyboard buttons can be used to navigate the viewer.	Yes	keyboardButtons=No Turns off keyboard buttons and only mouse actions will be used.
mouseWheel	Turn off the mouse wheel. Mouse wheel is used to scroll	Yes	Yes/No mouseWheel=No turns off the mouse

	the pages in viewer		wheel.
printQuality	Enhances the quality of the document when printed	Low	high/low printQuality=high allows printing high quality prints.
printAlternateMethod	Allows to set print areas differently	false	printAlternateMethod=true allows printing using a different algorithm. Recommended is false
toolbar	Turns the toolbar off. Hides the toolbar completely. All events and other variables continue to work	Yes	Yes/No Toolbar=No will hide the toolar.

Custom Buttons Variables

Name	Description	Default Value	Values
customButton1Image	Graphics image that will be displayed as button		Any graphic image of type jpg, gif, png, bmp. Should not be greater than 20x20 pixel size Should be in same directory as swf file
customButton1Url	Link to the file that will be opened when user clicks on button		Link to any file on local or remote server. Example : http://www.yahoo.com
customButton1Target	Target location when button is clicked		_blank/_top _blank opens the link in new window on button click _top opens the link in same window of viewer on button click
customButton2Image	Graphics image that will be displayed as button		Any graphic image of type jpg, gif, png, bmp. Should not be greater than 20x20 pixel size Should be in same directory as swf file
customButton2Url	Link to the file that will be opened when user clicks on button		Link to any file on local or remote server. Example : http://www.yahoo.com
customButton2Target	Target location when button is clicked		_blank/_top _blank opens the link in new window on button click _top opens the link in same window of viewer on button click
customButton3Image	Graphics image that will be displayed as button		Any graphic image of type jpg, gif, png, bmp. Should not be greater than 20x20 pixel size Should be in same directory as swf file
customButton3Url	Link to the file that will be opened when user clicks on button		Link to any file on local or remote server. Example : http://www.yahoo.com
customButton3Target	Target location when button is clicked		_blank/_top _blank opens the link in new window on button click _top opens the link in same window of viewer on button click

Search Variables

Name	Description	Default Value	Values
searchEnabled	Enable or Disable the document search	Yes (Enabled)	Yes/No Yes= Enabled No = Disabled
searchHighlightMode	Highlight all search keywords in document when searched or highlight just first one and show a option to jump to next keyword in document	HighlightModeSingle	HighlightModeSingle / HighlightModeAll HighlightModeAll- disables the option to jump to next search keywords and will highlight all search keywords.
searchQueryDelimiter	Used for multiple search keywords		Can be any special character like or \$ or # or * or @ or !. Avoid using & or % as special character
searchQuery	Load viewer with search keywords highlighted		Can be any keywords in the document.
highlightkeywordsxml	Load viewer with search terms from the xml file		highlightkeywordsxml=highlightkeyword.xml
searchPanel	Hides the search panel	Yes	Yes/No searchPanel=No

Example 1: Loading Viewer with first "Magic" search keyword pre-highlighted. User can jump to next "Magic" keyword in document

Search Variables: searchEnabled=Yes& searchHighlightMode= HighlightModeSingle& searchQuery=Magic

Example 2: Loading Viewer with all "Magic" search keywords pre-highlighted

Search Variables: searchEnabled=Yes& searchHighlightMode= HighlightModeAll& searchQuery=Magic

Example 3: Loading Viewer with all "Magic" and "States" search keywords pre-highlighted

Search Variables: searchEnabled=Yes&searchHighlightMode= HighlightModeAll& searchQueryDelimiter =|& searchQuery=Magic|States

Example 4: Loading Viewer with "Magic" and "United" search keywords pre-highlighted. User can jump through the highlighted keywords in the document

Search Variables: searchEnabled=Yes& searchHighlightMode= HighlightModeSingle& & searchQueryDelimiter =|searchQuery= Magic|United

Example 5: Disable search

Search Variables: searchEnabled=No& searchHighlightMode= HighlightModeSingle& & searchQueryDelimiter =|searchQuery= Magic|United

When searchEnabled is set to No, all other variables are ignored.

Example 6: Load search from xml

Search Variables: highlightkeywordsxml=highlightkeyword.xml

Highlightkeywordsxml syntax

```
<pages>
<page>
<pagenumber>3</pagenumber>
<keyword>and</keyword>
<occurrence>all</occurrence>
</page>
<page>
<pagenumber>4</pagenumber>
<keyword>or</keyword>
<occurrence>2</occurrence>
</page>
<page>
<pagenumber>4</pagenumber>
<keyword>advisory</keyword>
<occurrence>1</occurrence>
</page>
<page>
<pagenumber>1</pagenumber>
<keyword>Influenza</keyword>
<occurrence>1</occurrence>
</page>
<page>
<pagenumber>5</pagenumber>
<keyword>Avian</keyword>
<occurrence>1</occurrence>
</page>
</pages>
```

Here are some ways to switch various buttons on and off:

Name	Description	Default Value	Values
save	Turn save button on/off	Yes	Yes/No
saveLink	Works in conjunction with save button. Save button when clicked opens saveLink	Yes	Link to original document Example: http://www.testsite.com/documents/sample.pdf
print	Turn print button on/off	Yes	Yes/No
zoom	Turn zoom slider on/off	Yes	Yes/No
fitPage	Turn fitPage button on/off	Yes	Yes/No
rotate	Turn rotate button on/off	Yes	Yes/No
navigation	Turn navigation buttons on/off	Yes	Yes/No
fullscreen	Turn fullscreen button on/off	Yes	Yes/No

JavaScript events to and from the Viewer

Prizm Content Connect is built in such a way that it can be truly integrated and embedded into your application. Events are JavaScript AJAX calls that the Viewer can generate when certain actions occur. Developers can also send JavaScript AJAX events to the Viewer from their code and have the Viewer perform certain actions without reloading the whole page.

Sending events to the Viewer

To send events to the viewer, follow these steps:

1. Pass a FlashVar to Viewer.swf to indicate you will be sending events to Viewer

```
sendViewerEvents=Yes
```

2. Add the following code to the page where you call Viewer.swf:

```
<script language="JavaScript">
function getFlashMovie(movieName) {
var isIE = navigator.appName.indexOf("Microsoft") != -1;
return (isIE ? window[movieName] : document[movieName]);
}
function callViewerFunction(str,arg) {
getFlashMovie("Viewer").sendTextToFlash(str,arg);
}
</script>

<table border="0" cellpadding="0" cellspacing="0" style="border-collapse: collapse"
bordercolor="#111111" width="100%">
<tr>
<td ><a href=javascript:callViewerFunction("SearchResultMoveNext")>Next Search
Result</a></td>
<td ><a href=javascript:callViewerFunction("SearchResultMovePrevious")>Prev Search
Result</a></td>
<td ><a href=javascript:callViewerFunction("SelectText")>SelectText</a></td>
<td ><a href=javascript:callViewerFunction("PrintRange", "1,2")>Print Range</a></td>
<td ><a href=javascript:callViewerFunction("getTotalPages",0)>getTotalPages</a></td>
<td ><a href=javascript:callViewerFunction("Previous",0)>Previous</a></td>
<td ><a href=javascript:callViewerFunction("ZoomTo",200)>Zoom Value</a></td>
<td ><a href=javascript:callViewerFunction("ZoomIn",0)>ZoomIn</a></td>
<td ><a href=javascript:callViewerFunction("ZoomOut",0)>ZoomOut</a></td>
<td ><a href=javascript:callViewerFunction("FitWidth",0)>FitWidth</a></td>
<td ><a href=javascript:callViewerFunction("MoveDown",0)>MoveDown</a></td>
<td ><a href=javascript:callViewerFunction("MoveUp",0)>MoveUp</a></td>
<td ><a href=javascript:callViewerFunction("MoveLeft",0)>MoveLeft</a></td>
<td ><a href=javascript:callViewerFunction("MoveRight",0)>MoveRight</a></td>
<td ><a href=javascript:callViewerFunction("RotateTo",-90)>RotateTo</a></td>
<td ><a href=javascript:callViewerFunction("Rotate",0)>Rotate</a></td>
<td ><a href=javascript:callViewerFunction("Print",0)>Print</a></td>
<td ><a href=javascript:callViewerFunction("PrintAll",0)>Print All</a></td>
<td ><a href=javascript:callViewerFunction("MovetoPage", "4")>Move to Page 4</a></td>
</tr>
</table>
```

- The `sendTextToFlash` function is used to interact with the viewer.
2 arguments are required: `Command:String` and `Argument:String` or `Number`

Argument is 0 in all cases except:

For Command `MovetoPage` where argument is `pageNumber`

For Command `Search` where argument is `String` (the text to be searched)

The following events can be sent:

Event	Details
Next	Move to next page
Previous	Move to previous page
ZoomIn	Zoom In on the document
ZoomOut	Zoom Out on document
ZoomTo	Zoom to a certain specified size
FitToWidth	Set Zoom=100%
MoveDown	Move the page down
MoveUp	Move the page up
MoveLeft	Move the page left
MoveRight	Move the page right
Print	Print the document. Opens print dialog.
PrintAll	Print all pages in the document. Does not open the print dialog.
PrintRange	Print specific pages in document. Does not open the print dialog.
Rotate	Rotate the document by 90 degree
MovetoPage	Move to a specific page in document and pass page number
Search	Start search of the string
SearchResultMoveNext	Move to next search highlighted result
SearchResultMovePrevious	Move to previous search highlighted result
SelectText	Turn on the text selector
getTotalPages	Return total pages in document. Calls <code>viewerTotalPages(page)</code> event

Receiving events from the Viewer

The Viewer can send events when certain actions are performed.

To receive events follow these steps:

- Pass a `FlashVar` to `Viewer.swf` to indicate you will be sending events to Viewer

`getViewerEvents=Yes`

- Add the JavaScript code in your page as shown below:

```
<script language="javascript">
function viewerOnDocumentRotate(document)
{
alert(document+" Rotated");
}

```

```

function viewerOnSelectText(textSelected)
{
alert("User Copied the text out of document"+ textSelected);
}
</script>

```

The following events are sent by Viewer.swf:

Event	Details
viewerOnDocumentZoom(documentname, zoom)	Zoom was pressed. Returns document name & zoom size
viewerOnDocumentScroll(documentname)	Document was scrolled
viewerOnDocumentLoad(documentname)	Document was loaded in the viewer
viewerOnDocumentDownload(documentname)	Document was downloaded/Save button was pressed
viewerOnDocumentRotate(documentname)	Document was rotated by 90 degree
viewerOnDocumentPrint(documentname)	Print button was clicked
viewerOnDocumentPrintCancel(documentname)	Cancel for Print was clicked
viewerOnDocumentFullScreen(documentname)	Document was viewed in Full Screen Mode
viewerOnSelectText(string)	Highlighted text was copied by the user
viewerOnDocumentError(errorcode)	An error occurred
viewerOnDocumentSearch(textToSearch)	A search was performed (also passed the search keyword)
viewerCurrentPage(page)	Returns the page of the document being viewed
viewerTotalPages(page)	Returns the total pages in the document

Generating Thumbnails

Prizm Content Connect has a built-in script to generate thumbnail images of the various pages of documents. These thumbnails can be displayed as .swf image files in the default AJAX-based Viewer client, or as .png image files in the Zero Footprint Client, Mobile Client, and various other applications.

For creating a batch process or other custom application, thumbnails can be generated using `convert2swfclient` or by using the Webservice.

Generating thumbnails using `convert2swfclient`

Example 1:

To create a thumbnail of page 1 of `sample.tiff`:

```
java -jar convert2swfclient.jar source=sample.tiff thumbnail=100x100 pages=1
```

Example 2:

To create a thumbnail of all pages of `sample.tiff`:

```
java -jar convert2swfclient.jar source=sample.tiff thumbnail=100x100
```

Generating thumbnails using the Webservice

Example 1:

To create a thumbnail of page 1 of `sample.tiff`:

<http://localhost:18680/convert2swf?source=c:/temp/sample.tiff&thumbnail=100x100&pages=1>

Example 2:

To create a thumbnail of all pages of `sample.tiff`:

```
java -jar convert2swfclient.jar source=sample.tiff thumbnail=100x150
```

<http://localhost:18680/convert2swf?source=c:/temp/sample.tiff&thumbnail=100x150>

Localizing the Viewer

To localize Prizm Content Connect, simply pass a Flash Variable with the location of the XML file containing the language translations.

For example, to display Hindi Language, simply pass the FlashVar as

```
tooltips=hindi.xml
```

Where arabic.xml is the following .xml file residing at same location as Viewer.swf

```
<tooltips>
<PreviousPage>पिछले पृष्ठ</PreviousPage>
<CurrentPage>वर्तमान पृष्ठ</CurrentPage>
<TotalPages>कुल पृष्ठ</TotalPages>
<NextPage>अगले पृष्ठ</NextPage>
<ZoomIn>ज़ूम दस्तावेज में</ZoomIn>
<ZoomOut>ज़ूम आउट दस्तावेज</ZoomOut>
<FitToWidth>फिट दस्तावेज़ चौड़ाई</FitToWidth>
<Rotate>घुमाएँ</Rotate>
<ZoomSlider>ज़ूम स्लाइडर</ZoomSlider>
<CurrentZoom>वर्तमान ज़ूम</CurrentZoom>
<TextToSearch>पाठ को खोजें</TextToSearch>
<SearchTextBox>पाठ को खोजें</SearchTextBox>
<StartSearch>शुरू खोज</StartSearch>
<SearchResults>खोज परिणाम</SearchResults>
<PreviousSearchResult>पिछले खोज परिणाम</PreviousSearchResult>
<NextSearchResult>अगले खोज परिणाम</NextSearchResult>
<CloseSearch>बंद खोज</CloseSearch>
<SelectText>पाठ का चयन करें</SelectText>
<PrintDocument>प्रिंट दस्तावेज</PrintDocument>
<ConfirmPrintDocument>प्रिंट दस्तावेज</ConfirmPrintDocument>
<CancelPrintDocument>रद्द दस्तावेज़ प्रिंट</CancelPrintDocument>
<FullScreen>पूर्ण स्क्रीन</FullScreen>
<fullscreenNoticeText>आप पूर्ण स्क्रीन मोड में प्रवेश किया है। कृपया ध्यान दें कि कुंजीपटल नियंत्रण करते हुए इस मोड में
उपलब्ध नहीं हैं।</fullscreenNoticeText>
<fullscreenNoticeSupressCheckbox>यह चेतावनी फिर से न दिखाएँ </fullscreenNoticeSupressCheckbox>
<fullscreenNoticeOKButton>ठीक है</fullscreenNoticeOKButton>
</tooltips>
```

Image Conversion

Prizm Content Connect has a built-in script to generate images (.jpeg, .png, .tiff or .bmp) of various pages of documents. These images can be displayed within a Prizm Content Connect viewer client, or used to create applications like a thin client viewer or mobile viewer.

Related arguments include

source: the source file for conversion

target: the target folder and target file. Target can be image (.jpeg, .png, .tiff or .bmp)

dpi: specifies depth per index ratio of output .swf and image files

Generating images using convert2swfclient

Example 1:

To create a .png image of page 1 of sample.doc:

```
java -jar convert2swfclient.jar source=sample.doc target=sample.png pages=1
```

To create a .bmp image of page 1 of sample.doc:

```
java -jar convert2swfclient.jar source=sample.doc target=sample.bmp pages=1
```

Example 2:

To create a .png image of all pages of sample.doc:

```
java -jar convert2swfclient.jar source=sample.doc target=sample.png
```

To create a .tiff image of all pages of sample.doc:

```
java -jar convert2swfclient.jar source=sample.doc target=sample.tiff
```

Generating images using Webservice

Example 1:

To create a .png image of page 1 of sample.doc:

```
http://localhost:18680/convert2swf?  
source=C:\temp\sample.doc&target=C:\temp\samplecode\sample.png&pa  
ges=1
```

To create a .bmp image of page 1 of sample.doc: [http://localhost:18680/convert2swf?
source=C:\temp\samplecode\sample.doc&target=C:\temp\sample.bmp&pa
ges=1](http://localhost:18680/convert2swf?source=C:\temp\samplecode\sample.doc&target=C:\temp\sample.bmp&pages=1)

Example 2:

To create a .png image of all pages of sample.doc:

```
http://localhost:18680/convert2swf?  
source=C:\temp\samplecode\sample.doc&target=C:\temp\sample.png
```

To create a .tiff image of all pages of sample.doc: [http://localhost:18680/convert2swf?
source=C:\temp\samplecode\sample.doc&target=C:\temp\sample.tiff](http://localhost:18680/convert2swf?source=C:\temp\samplecode\sample.doc&target=C:\temp\sample.tiff)

Text Extraction

Prizm Content Connect has a built-in script to extract text from any type of document.

Related arguments include:

source: the source file for conversion
target: the target folder and target file

Extracting text using convert2swfclient

Example 1:

To extract text of all pages of sample.doc and place in same directory as source:
java -jar convert2swfclient.jar source=sample.doc target=sample.txt

Example 2:

To extract text of page 1 of sample.doc and place in same directory as source:
java -jar convert2swfclient.jar source=sample.doc target=sample.txt pages=1

Example 3:

To extract text of page 1 of sample.doc and place in a different directory:
java -jar convert2swfclient.jar source=sample.doc target=c:\test\sample.txt pages=1

Extracting text using Webservice

Example 1:

To extract text of all pages of sample.doc and place in same directory as source:
<http://localhost:18680/convert2swf?source=c:\temp\sample.doc&target=c:\temp\sample.txt>

Example 2:

To extract text of page 1 of sample.doc and place in same directory as source:
<http://localhost:18680/convert2swf?source=c:\temp\sample.doc&target=c:\temp\sample.txt&pages=1>

Example 3:

To extract text of page 1 of sample.doc and place in a different directory:
<http://localhost:18680/convert2swf?source=c:\temp\sample.doc&target=c:\otherfolder\sample.txt&pages=1>

Client Side Flash Detection

Prizm Content Connect requires the client browser to have Flash Player version 9 plugin installed, as a minimum. This chapter provides instructions for detecting the installed version of Flash Player using Client-Side Scripting.

This method uses JavaScript to check for the existence of a Netscape plug-in or an ActiveX control, and provides the logic for either displaying Flash content or initiating an installation of the correct player version. Use script-based detection when deploying Flash content to modern browsers and operating systems. Script-based detection can determine version and configuration information from end users' computers and browsers, undetectable by other methods.

Client-side detection method sample files

<http://www.adobe.com/devnet/flashplayer/articles/swfobject.html>

Here is an example of detecting flash version using JavaScript SWF Object:

```
<script src="swfobject.2.2.js" language="javascript"></script>
<script type="text/javascript">
var playerVersion = swfobject.getFlashPlayerVersion();
var output = "You have Flash player " + playerVersion.major + "." + playerVersion.minor + "." +
playerVersion.release + " installed"; alert(output);
</script>
```

```
<script type="text/javascript">
var params = {
wmode: 'opaque',
scale: 'noscale',
allowFullScreen: true,
allowScriptAccess: 'always',
bgcolor: '#ffffff'
};
var attributes = {
id: 'viewer',
name: 'viewer'
};
var flashvars = {
documentname: '<%=document %>',
saveDocumentLocation: 'savedocument.aspx'
};
swfobject.embedSWF("Viewer.swf?<%=Now & Rnd() %>", "documentviewer", "620", "800",
"10.0.0", false, flashvars, params, attributes);
</script>
<noscript>
Javascript needs to be enabled to view the document in viewer.
</noscript>
<div id="documentviewer"></div>
```

Error Codes & Exception Handling

Prizm Content Connect can throw exceptions at two different levels – Viewer & Convert2SWF.jar

Viewer Error Codes

Error Code	Description of Error
10000	Document could not be loaded. Please specify the 'documentname' variable in your html code
10001	Settings XML File Not Found. Make sure settings.xml file exists in same location as viewer.png
10002	Input Output Fast Page Count Error. getFastPageCount file not found or contains error
10003	Security Fast Page Count Error. getFastPageCount file not accessible
10004	This document has only n pages. Wrong start page given
10005	Input Output Total Pages Error. getTotalPages file not found or contains error
10006	Security Total Pages Error. getTotalPages file not accessible
10007	Internal Argument Error
10008	Container Security Error
10009	External interface not available
10010	Input Output Page Conversion Error. Conversion file not found or contains error
10011	Security Page Conversion Error. Conversion file not accessible
10012	Input Output Page Load Error. Generated png file on server not accessible or cannot be loaded
10013	Security Fast Page Load Error. Generated png file on server not accessible
99999	Unknown Error

Convert2SWF Error & Exception Codes

FlexiDocException signals that some exception has occurred in OpenOffice.org background process:

```
public FlexiDocException(java.lang.String message,
                        int errorId,
                        java.lang.Exception runtimeException)
```

Constructs a new FlexiDocException with a message, error id, and Exception object.

Parameters:

Message: a string containing the error message

errorId: a number containing error id

runtimeException: an Exception object to be stored inside new FlexiDocException object

Exception Summary
ERROR_CALC_SHEET - an error has occurred manipulating a document in calc (201)
ERROR_CONNECTION_INIT - error while connection initialization (1)
ERROR_CONVERT_INIT - error while conversion initialization (2)
ERROR_EXCEPTION - reserved for general exception (9999)
ERROR_OK - no error (0)
ERROR_WRITER_IMAGE - an error has occurred manipulating an image in writer (103)
ERROR_WRITER_OPENDOC - an error has occurred while opening document in writer(101)
ERROR_WRITER_SAVEDOC - an error has occurred while saving document in writer (102)

Fine Tuning Prizm Content Connect

Prizm Services creates a proxy which handles document conversions and provides load balancing by using various ports on the machine. The program proxy server is required to be running for convert2swf utility to run. This service is installed and started during the installation process.

The proxy server will need be fine-tuned based on the load you are expecting on your server. By default proxy server runs as a service on port 18580 and uses several ports. You can add more ports as your server load increases.

The proxy server can be started from the command line using the following syntax:

```
java -jar bin\convert2swf.jar proxyconfig=conf/ proxyserver_jar.properties
```

run_proxy script can be also be used to start the proxy directly from the command line

proxyserver_jar.properties contains the parameters and port information needed for the proxy server to run

jrunner.properties contains the proxy server setup information

convert2swf_proxy.properties & jrunner.properties are located in \conf directory.

To set up the service manually or to start the service manually you can use the included utilities. These utilities reside in C:\Prizm\scripts.

Script	Description
install-service	Install the Prizm Services
start-service	Start the Prizm Services
stop-service	Stop the Prizm Services
remove-service	Remove the Prizm Services

proxyserver_jar.properties

convert2swf proxy needs proxyserver_jar.properties to run and you can change the proxy server configuration by changing the parameters in proxyserver_jar.properties file.

Parameter	Value
http_host	HTTP server listen host or IP (host for Webservice)
http_port	HTTP server listen port
http_workers_ini	HTTP server initial number of workers
http_workers_max	HTTP server maximum number of workers
http_socket_timeout	HTTP server socket timeout
http_response_timeout	HTTP server response timeout
proxy_host	Proxy listen host or IP
proxy_port	Proxy listen port
ooo_installation	Location where open office is located in installation directory (C:\Prizm\App\openoffice)
Customerid	Registration info
Regkey	Registration Key
proxy_host	Location where proxy server is running. Default Value is Localhost
work_directory	work directory (contains proxy workers user profiles and temporary files) Default Value is ..\work
ooo_worker_host	OpenOffice.org workers base host or IP

	Default Value is localhost
ooo_instances	Number of OpenOffice.org instances (workers) to be started Each worker listens on ooo_base_host:[ooo_base_port+instance_number], where instance_number = {0, 1, ..., (ooo_instances-1)} ooo_instances=2 You can start more instances based on load over your server. Each instance on average requires about 150MB dedicated RAM to run. Default value is 2
ooo_startup_delay	Number of seconds to wait for a worker instance to start. This parameter is important during startup. If any instance,of a worker thread does not respond within this interval such situation is treated as 'fatal error' and the proxyserver exits. Default value is 60
ooo_usage_count	Number of 'uses' after which worker instance will be restarted once the worker thread hits this limit the threads are restarted. Default value is 20
ooo_usage_count_rand	Random attribute for usage count to avoid load peaks after certain point of time Default value is 5
sleeping_delay	Number of seconds how long the proxy should put worker in 'sleeping mode' before it will be assigned another task (helps garbage collector) Default value is 2
shutdown_delay	Number of seconds how long the proxy should wait for the shutdown of a worker thread Default value is 1
worker_timeout	Number of seconds how long the single worker thread is allowed to run Default value is 300
log_level	Logging levels NONE shows no output at all ERROR shows only errors and fatal errors INFO shows information messages WARNING shows warnings DEBUG shows debugging information (very verbose!) Default Value is INFO <i>Logs are created under log directory</i>
jvm_daily_restart	JVM daily auto restart schedule for cleaning and Garbage Collection Set this to time during the day when you get low traffic Default Value is 6AM - 6:00 You can also specify multiple values 6:00,11:00,22:00

jranner.properties

jranner.properties contains the Prizm Services installation & startup parameters.

Parameter	Default Value
jranner.java.command	Java Application. (Do not change this) java
jranner.java.mainclass	Java Main class. (Do not change this) com.ilfiron.JRunner
jranner.java.classpath.1	Add class path elements as needed starting from 1(Do not change this) proxyserver.jar
jranner.working.dir	working directory that is used after the jranner is initialized(Do not change this) ./
jranner.app.parameter.1	Application parameters. Add parameters as needed starting from 1(Do not change this) proxyconfig=../conf/proxyserver_jar.properties
jranner.java.initmemory	Initial Java Heap Size (in MB) Default Value is 30
jranner.java.maxmemory	Maximum Java Heap Size (in MB) Default Value is 1024
jranner.shutdown.timeout	Maximum timeout to wait for the process shutdown Default Value is 120
jranner.jvm_exit.timeout	Maximum timeout to wait for JVM to shutdown Default Value is 120
jranner.console.format	Logging Properties Format of output for the CONSOLE. The format consists of the tokens 'L' for log level 'P' for prefix 'D' for thread

	<p>'T' for time 'Z' for millisecond time 'M' for message</p> <p>If the format contains these values then it will be included in the format. The order of the tokens does not affect the way the log appears, but the 'M' token should usually be placed last as it is the only column without a uniform width. If the property is missing or commented out, then the default value 'LPTM' will be used.</p> <p>Setting the property to a blank value will cause file logging to be disabled. Default value LPZM <i>Log are created under logs directory</i></p>
jranner.console.loglevel	<p>The Valid log levels are:</p> <ul style="list-style-type: none"> NONE - no output messages at all FATAL - show fatal error messages only ERROR - show all error messages STATUS - show all state changes INFO - shows all JVM output and informative messages DEBUG - shows detailed debug information <p>The default value is INFO <i>Log are created under logs directory</i></p>
jranner.logfile	<p>Log file to use for jRunner output logging. Either relative to jranner.working.dir or full path. Default Value is ../logs/proxyserver.log</p>
jranner.logfile.maxsize	<p>Maximum size that the log file will be allowed to grow to before the log is rolled. Size is specified in bytes. The default value of 0, disables log rolling. May abbreviate with the 'k' (kb) or 'm' (mb) suffix. For example: 10m = 10 megabytes. Default Value is 0</p>
jranner.logfile.maxfiles	<p>Maximum number of rolled log files which will be allowed before old files are deleted. The default value of 0 implies no limit.</p>
jranner.syslog.loglevel	<p>Log Level for sys/event log output. Default value is NONE</p>
jranner.console.title	<p>Title to use when running as a console Default value 'Convert2SWF Proxy Server Console'</p>
jranner.ntservice.name	<p>Name of the service Convert2SWFSvc</p>
	<p>Display name of the service jranner.ntservice.displayname=Prizm Service</p>
jranner.ntservice.description	<p>Description of the service Run Convert2SWF Proxy Server Service helper for converting documents to PNG format</p>
jranner.ntservice.dependency.1	<p>Service dependencies. Add dependencies as needed starting from 1 Default Value is blank</p>
jranner.ntservice.starttype	<p>Mode in which the service is installed. AUTO_START or DEMAND_START AUTO_START</p>
jranner.ntservice.interactive	<p>Allow the service to interact with the desktop. Default value is false</p>

Troubleshooting

Why does installation fail during setting up or starting services?

This happens because you do not have Administrator rights on the machine to install the software properly. Be sure you are logged in as Administrator.

How do I login as Administrator on Windows Vista?

Unlike previous versions of Windows, there are differences in Vista between accounts with "computer administrator" privileges and the Administrator account. For instance, the Administrator account does not have User Account Control enabled.

You won't find the Administrator account in the User Accounts Control Panel. But the MMC-based Computer Management section of the Administrative Tools Control Panel does give you access to the Administrator account. By default, the account is disabled, but you can enable it there.

You may be thinking that all you need to do is enable the Administrator account, restart Windows and then log into the Administrator account. But there's actually an added step: you have to not only enable the Administrator account, but you also have to disable all other accounts with computer-administrator privileges.

Why does a DEMO watermark appear on my documents?

A DEMO watermark is added to documents in evaluation or trial license.
Installation Fails During Setting up or Starting Services

This happens because you do not have Administrator rights on the machine to install the software properly. Be sure you are logged in as Administrator.

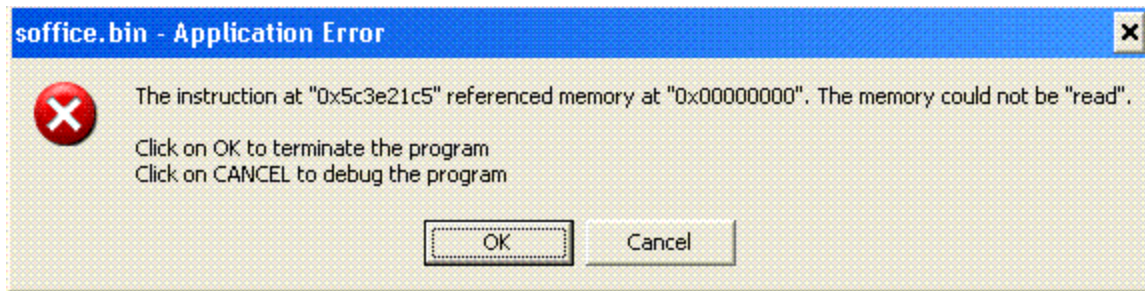
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I get this error when running the convert2swf:



This error can occur for several reasons, but one of the primary reasons is that your server does not have enough memory available to run conversion threads. Reduce the number of conversions threads or it is time to increase server RAM. *Refer to Fine Tuning Prizm Content Connect Chapter for details.*

I keep getting Error: 10012. Input Output Page Load Error

This happens when IIS is not able to stream the converted SWF back to the page. This specifically occurs due to the param useUnsafeHeaderParsing in web.config. Make sure that the parameter is set to true.

```
<settings>
<httpWebRequest useUnsafeHeaderParsing="true" />
</settings>
```

If you still find this as an issue, set this parameter to True programmatically in your code. You will need to make this change in convert.aspx if you are using the sample code.

.net VB Code

```
Add a reference in the project to System.Configuration.
Imports System.Reflection
Dim a As New System.Net.Configuration.SettingsSection
Dim aNetAssembly As System.Reflection.Assembly = Assembly.GetAssembly(a.GetType)
Dim aSettingsType As Type = aNetAssembly.GetType("System.Net.Configuration.SettingsSectionInternal")
Dim args As Object()
Dim anInstance As Object = aSettingsType.InvokeMember("Section", BindingFlags.Static Or
BindingFlags.GetProperty Or BindingFlags.NonPublic, Nothing, Nothing, args)
Dim aUseUnsafeHeaderParsing As FieldInfo = aSettingsType.GetField("useUnsafeHeaderParsing",
BindingFlags.NonPublic Or BindingFlags.Instance)
aUseUnsafeHeaderParsing.SetValue(anInstance, True)
```

.net VC++ code

(Add System.Configuration as a reference to your project.)

```
public static bool SetAllowUnsafeHeaderParsing()
{
//Get the assembly that contains the internal class
Assembly aNetAssembly = Assembly.GetAssembly(typeof(System.Net.Configuration.SettingsSection));
if (aNetAssembly != null)
{
//Use the assembly in order to get the internal type for the internal class
Type aSettingsType = aNetAssembly.GetType("System.Net.Configuration.SettingsSectionInternal");
if (aSettingsType != null)
{
//Use the internal static property to get an instance of the internal settings class.
//If the static instance isn't created already the property will create it for us.
object anInstance = aSettingsType.InvokeMember("Section", BindingFlags.Static | BindingFlags.GetProperty |
BindingFlags.NonPublic, null, null, new object[] { });
if (anInstance != null)
{
//Locate the private bool field that tells the framework is unsafe header parsing should be allowed or not
FieldInfo aUseUnsafeHeaderParsing = aSettingsType.GetField("useUnsafeHeaderParsing",
BindingFlags.NonPublic | BindingFlags.Instance);
if (aUseUnsafeHeaderParsing != null)
{
aUseUnsafeHeaderParsing.SetValue(anInstance, true);
return true;
}
}
}
}
return false;}
}
```

Resizing the viewer height/width dynamically using JavaScript

Javascript calls can dynamically resize the viewer as required

```
function resetviewersize(){
var flash = document.getElementById("Viewer");

flash.setAttribute("width","1610");
flash.setAttribute("height","1147");

}
```

Setting height/width of viewer to height/width of browser:

```
var viewportwidth;
var viewportheight;
// the more standards compliant browsers (mozilla/netscape/opera/IE7) use window.innerWidth and window.innerHeight
if (typeof window.innerWidth != 'undefined')
{
viewportwidth = window.innerWidth,
viewportheight = window.innerHeight
}
// IE6 in standards compliant mode (i.e. with a valid doctype as the first line in the document)
else if (typeof document.documentElement != 'undefined'
&& typeof document.documentElement.clientWidth !=
'undefined' && document.documentElement.clientWidth != 0)
{
viewportwidth = document.documentElement.clientWidth,
viewportheight = document.documentElement.clientHeight
}
// older versions of IE
else
{
viewportwidth = document.getElementsByTagName("body")[0].clientWidth,
viewportheight = document.getElementsByTagName("body")[0].clientHeight
}
// Adding adjust 50 pixels to fit to all browsers
// You can adjust this as required
viewportwidth =viewportwidth -50;
viewportheight =viewportheight -50;
document.write('
Your viewport width is '+viewportwidth+'x'+viewportheight+'
');
```

How to prevent caching of .png on end user browser:

You can set cache=no when you stream your .png to viewer after conversion in your convertPage.aspx or convert.php

ASP.NET Code

```
Response.Buffer = TRUE
MovieName ="convertedfile.png"
PNGFile = Server.MapPath(PNGName)
Set objFSO = Server.CreateObject("Scripting.FileSystemObject")
Response.Buffer = False
Response.ContentType = "application/png"
Response.AddHeader "content-disposition", "inline;filename=" + PNGName
Response.CharSet = "UTF-8"
Response.Expires = 0
Response.CacheControl="private"
Response.ExpiresAbsolute=#January 2, 1981 00:00:00#
Response.AddHeader "Pragma", "no-cache"
Response.AddHeader "Cache-Control", "no-cache, no-store, must-revalidate"
Set objFile = objFSO.GetFile(PNGFile)
Set objStream = Server.CreateObject("ADODB.Stream")
objStream.Open
objStream.Type = 1
objStream.LoadFromFile(PNGFile)
Response.BinaryWrite(objStream.Read)
objStream.Close
Set objStream = Nothing
Set objFile = Nothing
Response.Flush()
Response.Close()
```

PHP Code

```
$filename = "test_cache.png";
header('Content-type: application/x-shockwave-flash');

header("Expires: Thu, 01 Jan 1970 00:00:00 GMT, -1 ");
header("Cache-Control: no-cache, no-store, must-revalidate");
header("Pragma: no-cache");
```

```
$content = file_get_contents($filename);
echo$content;
```

Setting firewall settings in proxyserver.config

If you are running proxyserver behind a firewall on machine or LAN, you can set the firewall in proxyserver

For Java JAR deployments, you can simply do this:
Specify proxy in convert2swf.war

In web.xml you may also specify the HTTP / HTTPS proxy as follows:

```
<context-param>
<description>http and https proxy host:port</description>
<param-name>httpProxy</param-name>
<param-value></param-value>
</context-param>
<context-param>
<description>http and https proxy user</description>
<param-name>httpProxyUser</param-name>
<param-value></param-value>
</context-param>
<context-param>
<description>http and https proxy password</description>
<param-name>httpProxyPassword</param-name>
<param-value></param-value>
</context-param>
```

Please find the nodes above in web.xml that is distributed with the package.

Specifying proxy for jrunner / proxyserver environment
Open jrunner.properties and add following at the end of the config file

```
jrunner.java.additional.1=-Dhttp.proxyHost=YOUR_HOST
jrunner.java.additional.2=-Dhttp.proxyPort=YOUR_PORT
jrunner.java.additional.3=-Dhttp.proxyUsername=YOUR_USER_NAME
jrunner.java.additional.4=-Dhttp.proxyPassword=YOUR_PASSWORD
```

Viewer flickers in IE on load

This is due to the fact that browsers at times cannot clear the cache automatically.

Add a random variable with Viewer, so that it does not load the older file from cache and loads it fresh every time.

<%= time() %> or <?php echo time ?> should be passed to the Viewer.