Trapeze
WEBSTREAMER

History and New Features

Onstream Systems

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INTRODUCTION

Trapeze Webstreamer is Onstream's breakthrough server side software which is designed to enable users to work 'in-house' on their files across the Internet. It lets you browse your document files over the web as if they were in your own hands.

The Trapeze Online™ **Trapeze Webstreamer**™, makes document image retrieval very fast and very easy. It utilises:

- Byte-serving technology for retrieving individual pages from Multi-page files.
- Unique bookmarking technology.
- Unique ability to transmit selected areas from large images.
- Image erosion technology allowing users to browse and identify images more quickly than other Web systems.
- The world's most advanced hands-on files viewers for document management systems. Trapeze Online™ now gives the ability to clients of bureaux and imaging houses to work 'in-house' on their files across the Internet.
- Your existing database - Oracle / Access / SQL server and your existing image store.

This document outlines the change history of Trapeze Webstreamer and gives a description of new features as they have been developed over the versions and also gives you a brief description as to how you can see these unique features in action.

CHANGE HISTORY AND NEW FEATURES

Trapeze Webstreamer 2.3

Changes
Trapeze Webstreamer 2.3 has been modified to allow Trapeze Vault 3.0 (Vault Online) to operate (enhancement to allow new values for standard data providers).

Trapeze Webstreamer 2.2

Changes
Trapeze Webstreamer 2.2 has been modified to allow Trapeze Vault 2.2 (Vault Online) to operate.

Trapeze Webstreamer 2.1

Changes
Web Zoom has been implemented.
Data Provider override parameters have been implemented.
The JPEG functionality has been improved in performance, especially when opening large jpeg images.
The ability to save a copy of an image locally has been implemented.
Can add a Command Line Parameter using the Administration Utility to any Adapter i.e. Data Provider, Access Controller or Biller.

Features

Web Zoom
When an OTTP reference containing one or more large images is opened, bookmarks and thumbnails are displayed. When a large-image page is selected for display, a low-resolution preview of the image is sent from the Webstreamer server and displayed.
Webstreamer then sends “tiles”, each a full resolution version of a region of the image.
The Trapeze client requests the visible tiles first so that as the user displays a particular region of interest in the magnifier or the main window, the tiles for that region are sent first. As the user zooms and pans further regions are sent, once the region of interest is complete non-visible tiles are sent as a background activity (using a left-to-right, top-to-bottom order, as in western text).

The effect is that the user initially sees a low-resolution image that progressively becomes clearer, tile-by-tile. The low resolution is most noticeable when a small region is viewed at a high zoom factor but this is also the case where the benefits will be greatest because the smallest fraction of the original image is required.

Once the entire full-resolution image has been sent, the image will be indistinguishable from one downloaded using existing Webstreamer functionality.

The Data Provider Override Parameters allows the user to set the configurations for Web Zoom using the Administration Utility.

Printing
When choosing to print the user is offered the option of printing immediately (with some parts of the image at low resolution) or printing only once the entire region to be printed is available at full resolution. If the deferred printing is chosen then no further user interaction is required to complete the print job, i.e. all dialogs are displayed when the printing is requested. The user can continue to view images; tiles are downloaded for printing at a lower printing than the tiles for display. This applies to printing the whole page or a selected region.

Saving a copy of an image locally
This function can be configured using the Administration utility. When set to allow local save, the user can save a copy of the image to the local machine.

Command Line Parameter
Configuring Webstreamer to use an Adapter program written in Java requires a command line parameter to the Adapter executable program. The Java runtime engine is run with the Java byte code for the Adapter specified as a parameter. This is only available for ".exe" Adapter programs. Enter any Command Line Parameters that will be used with this adapter program.

StandardSingleFileDLL, StandardMultiFileEXE, StandardMultiFileDLL, StandardSingleFileEXE

All the standard data providers have been enhanced to offer the Web Zoom functionality.

The performance of opening JPEG images has been improved.

StandardBillingDLL, StandardBillingEXE
All the standard billers have been enhanced to offer the Web Zoom billing functionality.

Demonstrations - Trapeze Webstreamer 2.1

Web Zoom
The Web Zoom functionality of Webstreamer can be demonstrated using the sample website which is installed with Trapeze Webstreamer. The documents in this web page use the StandardSingleFileDll and Standard Multi File Dll data providers.

To Configure Webstreamer

To ensure that Web Zoom is demonstrated at its full potential, configure Webstreamer as follows:

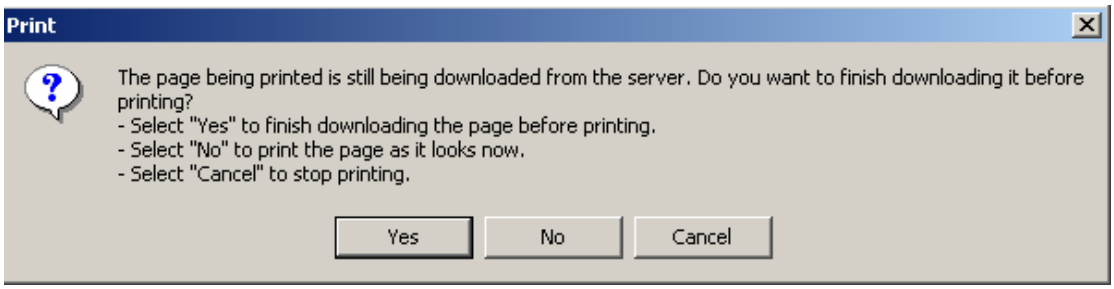
1. Open the Administration Utility from Start\Programs\Onstream Trapeze Webstreamer\Administration Utility.
2. Click on the Data Provider node in the left hand pane.
3. In the right hand pane configure both the StandardSingleFileDLL and StandardMultiFileDll by double clicking on each on to display the Properties dialog.
4. Click on the Web Zoom tab and tick the Enable Web Zoom and Override Preview Settings checkboxes if not already ticked.
5. In the Colour Images Colours drop down list choose 16 Colour Greyscale. This will be the number of colours in the preview image and will best display the Web Zoom functions to the end user.
6. Click on OK.
7. Start Webstreamer
8. Open the Sample website from Start\Programs\Onstream Trapeze Webstreamer\Sample Website and click on either of Web Zoom demo documents.

Note: For the Single TIFF File document, draft images are also available. To be able to retrieve the full image,right click on the image and choose “View Full Image”. The preview image will then be displayed

When the image opens, a grayscale preview image, will be delivered by Webstreamer. This will progressively become clearer as the full resolution is delivered tile by tile.

Zooming in on an area of the image will result in the full resolution of that area being delivered before any other. You will see this more clearly if you change the magnification back to Fit To Window again.

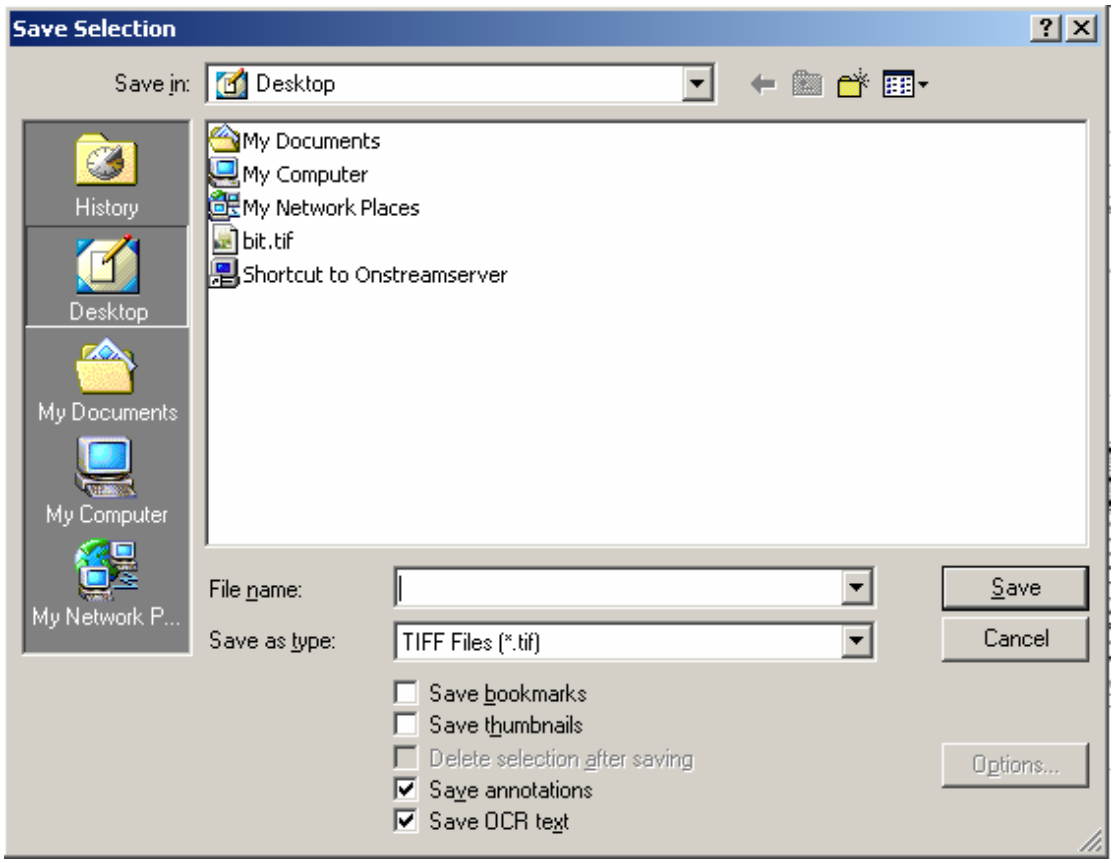
It is possible to print an image which is not at full resolution yet. Right clicking on the image and selecting Print Page will display the usual printing dialogs. When Print is selected, the user will be asked if they wish to print the image as it is, or when the image is at full resolution or Cancel.



Clicking on Yes will print the page out after the image has finished downloading and the image is at full resolution.
Clicking on No will print the page out as it is and the printed page will not be at full resolution.
Clicking on Cancel will cancel the printing process.

Allow Local Save
To be able to save a document locally:

1. Open the Administration Utility from Start\Programs\Onstream Trapeze Webstreamer \ Administration Utility.
2. Click on the Data Provider node in the left hand pane.
3. In the right hand pane configure both the StandardSingleFileDLL and StandardMultiFileDll by double clicking on each on to display the Properties dialog.
4. Click on the Advanced tab and tick the Allow Local Save check box.
5. Click on OK and start Webstreamer.
6. Open any of the documents on the Sample website.
7. Right on the image that you wish to save locally and choose Save Page.
8. On the Save Selection dialog which will be displayed, there will be the options of saving bookmarks, thumbnails, annotations, and OCR text.



9. Name the image and click on Save.

Note: It is also possible to select an area of an image and save it locally by choosing Save after right clicking on the selection.

Trapeze Webstreamer 2.0

Changes

The Trapeze Webstreamer Administrator has been updated to a Microsoft Management Console (MMC).
Actions have been renamed to Data Providers.
The documentation was updated to reflect the name changes.

Features

Extended Draft Images

The Draft Image functionality has been enhanced with new commands allowing the draft images to be permanently saved for repeated use. The Server Integration Protocol was enhanced with the GetDraftImage and NotifyDraftImage commands to provide this functionality.

The ability to specify the number of colours, level of greyscale and quality of draft images has been added.

Extended Thumbnails

The generation of thumbnails was enhanced in a similar manner to allow the thumbnails to be permanently saved for repeated use. The Server Integration Protocol was enhanced with the GetThumbnail and NotifyThumbnail commands to provide this functionality.

The ability to specify the number of colours, level of greyscale, size and quality of thumbnails has been added. The user can also specify an area of the original image to be displayed as the thumbnail for that image.

Disabling Adapters

If a Data Provider, Biller or Access Controller fails at startup time, the Data Provider, Biller or Access Controller is marked as disabled. Trapeze Webstreamer will continue and start servicing requests. If a disabled Data Provider, Biller or Access Controller is required to satisfy a request then an appropriate error message is returned to the user.

StandardSingleFileDLL, StandardMultiFileEXE, StandardMultiFileDLL, StandardSingleFileEXE

All the standard actions have been enhanced to offer the enhanced Draft Image and Thumbnail functionality.

Sample Web Site

The initial page (default.html) of the sample web site has been updated

Trapeze Webstreamer 1.7

Changes

This is the first multi-platform capable release of Trapeze Webstreamer. Trapeze Webstreamer 1.7 is released on the Windows and Linux platforms.

The draft image factor parameter was added to the action OPEN command in the Server Protocol.

Features

Trapeze Webstreamer now supports the viewing of JPEG files.

StandardSingleFileDLL, StandardMultiFileEXE, StandardMultiFileDLL, StandardSingleFileEXE

Support was added for the draft image factor parameter of the OPEN command

Trapeze Webstreamer 1.61

Highwire 1.61 changed it's name to Trapeze Webstreamer, TrapezePro changed it's name to Trapeze Desktop and TrapezePro™ Java® Technology Edition changed it's name to Trapeze Desktop Java® Technology Edition in February 2002.

Highwire 1.6

Features

Highwire Server
The server now supports secure communications between the server and a client.

The server accepts an expiry date and an expiry message from an action when initialising the action. The message will be logged and displayed on the console.

Highwire Administration Utility
The utility allows the configuration of the secure communications.

Highwire Server Monitor Utility
The server monitor will display the following colums:

- Client Type
  The type of client, either TrapezePro or Trapeze
- Client Version
  The version of the client.
- Encryption Style
  This is the style of encryption used between the client and server.
- Encryption Algorithm
  This is the strength of the encryption algorithm

The performance of the Server Monitor has been greatly improved.

Corrections included in this Release
The Highwire server closes all files before sending the document close command to an action.

Highwire 1.5

Changes

The optionalfeatures parameter was added to the INIT command in the ServerProtocol.

The TERM command was added to the Server Protocol.

Several parameters allowing the configuration of the look of the client were added to the Action Protocol. For more details refer to the Open command in the Highwire Image Server Interface Specification.

The billing protocol was enhanced in functionality adding the QueryOpenReference, QueryGetPage and ChargeableActivityCheck. For more details refer to the Highwire Image Server Interface Specification.

Features

Highwire Server

Windows NT Authentication

The server now supports user authentication using the Windows NT authentication method. When appropriately configured, access to reference files are made with the usercode of the Highwire client allowing the use of the Windows NT security system.

No Operation Timeout

The server will request that a client periodically perform some activity. This allows the server to determine whether a client has aborted the connection without informing the Highwire server.

Authentication Token Time Out

The server will now automatically disconnect a session if no activity has occurred with a timeout period. The timeout period is configured with the Highwire Administration Utility

Connection Speed Width

The server can be configured to limit the speed that data will be sent to a client. This allows load balancing to be performed on a server that has many active client connections.

Draft Images

Draft images can now be generated and returned to clients. This allows a much smaller image to be transferred to improve the network performance when searching for a particular image.

Thumbnail Generation

The thumbnails that are returned to the client can be automatically generated at the size requested by the client. For more details refer to the Open command in the Highwire Image Server Interface Specification.

Licensing

The server now requires a machine specific license.

Highwire Administration Utility

The Highwire Administration utility has been changed to behave like a typical configuration tool. Any changes are not applied until the OK or APPLY buttons are pressed.

The size of the dialogs has been changed to make sure that they are entirely visible on any size screen. This has resulted in the splitting of server global parameter configuration into Server Properties and Server Logging sections.

A licensing configuration dialog has been created. The configuration is validated for consistency before saving the changes

TrapezePro™ Java® Technology Edition
This is a completely new Highwire client. It is still under active development. Version 1.0 Beta 7 has been included in this release of the Highwire Server.

StandardAuthDLL, StandardAuthEXE
Support was added for the TERM command

StandardSingleFileDLL, StandardMultiFileEXE, StandardMultiFileDLL, StandardSingleFileEXE
Support was added for the TERM command.

Support was added for the parameters affecting the look of the Highwire Client.

StandardBillingDLL, StandardBillingEXE
Support was added for the TERM command

Sample Web Site
The initial page (default.asp) now attempts to determine the version of TrapezePro installed and whether it is able to access documents over the web.

Highwire 1.4

Changes

The Highwire Server now fully supports both executable and dll mechanisms.

The Sample code now includes the following mechanisms:

- StandardAuthExe
- StandardAuthDLL
- StandardBillingExe
- StandardBillingDLL
- StandardMultiFileExe
- StandardMultiFileDLL
- StandardSingleFileExe
- StandardSingleFileDLL

The sample web site has been redesigned for simplicity.

Executable Billing and Action mechanisms can be pooled for improved performance. Once an instance of a mechanism has been started, it is kept running in its initialised state to avoid the redundant stopping and starting of an instance of the mechanism.

References will not be saved back to the repository if an error has occurred such that the reference data cannot be guaranteed to be valid.

Features

Billing

The billing protocol and associated features has been implemented. This function enables the tracking of Highwire usage and record invoicing information. Access to pages of references can be billed per page and per reference. The ability exists to send a text message that the user may see as part of the billing cycle.

Corrections included in this Release

The server could create and not delete a temporary file when a user performed multiple saves without closing the reference. Over time the temporary file area would fill up with old files. The temporary files are now deleted.

The Highwire Server would write incorrect files under some circumstances when using external annotations and/or bookmarks. The files are now written correctly.

Under some circumstances, the server would crash in the process of shutting down. This would not be detected when the server was running as a service but would be when run as a console process. This error has been corrected.

Highwire 1.34

Changes

The Highwire Server displays its version upon startup

The log level of some messages were changed from informational to debug

Previous versions did not save existing thumbnail images when changes where made to annotations. Thumbnails are now correctly retained.

The server would crash dereferencing a NULL pointer when a client performed multiple saves when changing a page.

Highwire 1.33

Change

The server was instrumented to log timing information when opening a reference.

Highwire 1.32

The reference title parameter was added to the action open command.

The log level of some messages was changed from informational to debug.

Messages were not being logged correctly. This correction results more messages being logged.

A memory leak in the reference mapping was corrected.

Error messages indicating the reason were returned to the client when access was denied while opening a reference.

Highwire 1.31

The server could crash when parsing a syntactically incorrect ottp reference. This was corrected

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Highwire 1.2

The book marks unavailable parameter was introduced in the action open command.