

SelenioFlex Live Manager 2.1 Software

SelenioFlex Live Manager 2.1 Installation

System Requirements

SelenioFlex Live Manager Server

The SelenioFlex Live Manager Server's CPU is used most intensively for messaging between Encoders (resources).

Minimum system: Pentium D 3GHz or equivalent, 1 GB RAM.

A multi-core CPU and/or faster CPU is recommended for SelenioFlex Live Manager solutions where you expect to manage many Encoders (more than 10).

Supported Operating Systems

Windows 7 or Windows 2008 Server, 32-bit and 64-bit

Server 2008

For Server 2008 you must install the "Desktop Experience" option.

Set the Processor Scheduling to "Programs" to improve performance.

- Right click on "My Computer" and select Properties.
- Click on "Advanced system settings".
- In the Performance section click the Settings button.
- Click the Advanced tab.
- In "Processor scheduling" set "Adjust for best performance of" to "Programs".

UAC (user account control) for Windows 7 and Server 2008

Disable the UAC (user account control) before installing the Stream software (including drivers for the DRC Stream hardware). Keep the UAC off when using the Stream software.

SelenioFlex Live Encoding Systems

These encoders are shipped as fully configured encoding systems. The capabilities of each system will depend on the model that was ordered.

Encoding Systems running Stream Software

The number of real-time streams that can be encoded at one time will vary based on your host system's CPU speed, the number of CPU cores, and the codec(s) that you plan to use. Note that some codecs can use multiple cores efficiently, while others cannot. Check with Imagine Communications Support if you have a question about real-time performance with a particular codec.

Licensing for version 2

YOU MUST REGISTER YOUR PRODUCT TO UNLOCK THE FEATURES.

The SelenioFlex Live Manager 2 Server uses the Imagine Communications License Server for authorization. You must obtain an Imagine Communications HASP before to use the License Server. Use the HASP ID to register the SelenioFlex Live Manager Server, and to receive your license package.

Each Imagine Communications Encoding system also requires its own license to run. Please refer to the encoding product's User's Guide and contact Imagine Communications Technical Support for more information about registering your Encoding System and obtaining the required licenses.

Installation

Please see the [SelenioFlex Live Manager User's Guide](#) for full installation instructions.

Before Running the SelenioFlex Live Manager Installer

Install the Imagine Communications License Server and load your license package.

If you do not plan to use the default PostgreSQL 9 database, then install the database you do plan to use before you run the SelenioFlex Live Manager installer.

Firewalls:

Recommended: Turn firewalls off on systems that are being used for SelenioFlex Live Manager Server and Encoders. If this is not possible, then please refer to the Network Ports section of the SelenioFlex Live Manager User's Guide for a full list of the ports that are used by SelenioFlex Live Manager services.

Note that some antivirus software blocks the ports that are used by SelenioFlex Live Manager. Issues have been reported when using ESST Nod32, and other antivirus software may have the same issue. This is not an issue when using Microsoft Security Essentials.

Upgrading

You must uninstall any previously installed version prior to running the installer for the updated version; for Windows 7 use Control Panel > Programs and Features. Upgrade all components (server, agent, console) to the same version.

A database backup is highly recommended prior to upgrading; downgrading is not possible without a database backup.

The embedded Hypersonic database used in earlier versions is no longer supported. If you previously used Hypersonic you must use a new database when you update to SFX-LM.

If you previously used PostgreSQL 8 and you plan to use the default PostgreSQL 9 database that is included with the SelenioFlex Live Manager installer, then first change the port that is being used by PostgreSQL 8 from the default port (5432) to a different port. That way the PostgreSQL 9 database that will be installed can use the default port, making setup and subsequent upgrades simpler.

Stream Encoders that use the Flux hardware: You will have to accept the Imagine Communications "certificate" when you install the Flux driver. In order to do that you must initially install it locally (that is, you cannot use the Agent's remote software upgrade feature). To make it unnecessary to do a local install in future, check the "Always trust software from Imagine Communications Corporation" box before clicking the Install button.

If you have a resource which includes one of the early Flux boards, revision 1 or 2, then you will need to power cycle the system after an update that includes a board firmware update. If that is the case the update must be done locally on each system, as a reboot will not be sufficient to reprogram the board. If you have a Flux board revision 3 or later then this will not be necessary.

SelenioFlex Live Manager 2.1 Change History

Broadcast Manager 2.0.0.b18 to SelenioFlex Live Manager 2.1.0.28

SelenioFlex Live Manager is the new name for the Broadcast Manager product.

Online/Available SelenioFlex Live resources can now use input Network Monitoring even when the encoding project is not running.

Added an Output tab which shows a text-based list of the Output status for all SelenioFlex resources.

Increased a timeout value. Increasing this value prevents complicated projects with a long stop time from failing.

Broadcast Manager 1.6.b16 to 2.0.0.b18

Broadcast Manager 2.0 uses the Imagine Communications License Server for authorization. You must have a Imagine Communications HASP in order to use the License Server.

Broadcast Manager 2.0 supports the new SelenioFlex Live encoding systems, while continuing to support non-SFX-Live encoding systems.

Console Interface Changes:

- The tabs in the interface can be modified (show, hide, move) by right clicking in the tab area. The tabs can be locked, so that they are not moved or closed accidentally.
- Some features that were previously only available as a separate dialog from the menu are now available as part of the tabbed interface.

Supported Database Changes:

- Added support for PostgreSQL 9, and included that database installation and configuration in the Transcode Manager installer.
- Added support for Oracle 11g.
- Added support for Microsoft SQL Server 2008 and 2012.
- Hypersonic is no longer supported. There is a data migration feature included in TM that can migrate data from Hypersonic to one of the other supported databases.
- Database settings can be exported to a file (from the Console use Server > Export Settings) and that file can be imported to restore database settings (from the Console use Server > Import Settings).

Removed from Broadcast Manager Version 2.0:

- The web-start Console is no longer supported, and the Apache Tomcat 6 option has been removed from the installer. When running Broadcast Manager 2.0 you can run unlimited regular Console applications.
- The Hypersonic database is no longer supported (see the database section above).
- Functions that are only used by Transcode Manager have been removed from the Broadcast Manager installer and Console.

The configuration settings are now located in a new folder. Previously they were located in:

C:\Program Files\Imagine Communications\Media Manager\conf\

For Broadcast Manager 2 they are now located in:

C:\Program Data\Imagine Communications\Broadcast Manager\conf\

Broadcast Manager 1.6.b11 to 1.6.b16

On some systems there was an issue when trying to authorize the software using a HASP. This has been resolved with an update to the drauthkey.dll which is installed by Media Manager.

When Media Manager starts a task the server waits for 60 seconds for the task's project to start, and if it does not start within this timeout the task fails and it is assigned to another resource. If the project is able to start after that timeout then Transcode Manager will report a "Discovered Running" task, and this can cause problems with failover or with output files overwriting each other (if a non-unique output name was used). This "project start timeout" is now configurable. Setting the timeout to a higher value for very complex projects (with long startup times) or for networks under heavy loads (resulting in slower response times) will eliminate this problem.

To configure the timeout value edit the following file in a text editor such as Notepad:

C:\Program Files\Imagine Communications\Media Manager\conf\global.custom.properties

And add this line:

mm.resource.task.default.timeout.seconds=

The value is in seconds and the default is 60 seconds. A Media Manager server restart is required for the new timeout value to take effect.

Modified the license handling for Live IP resources so that systems which include both "Live Stream IP" and "Live Stream H/W" resources on the same host system are handled correctly.

Broadcast Manager 1.5.b13 to 1.6.b11

The Agent software upgrade feature will now work on systems running Windows XP Professional, Windows 7, Windows 2003 Server and Windows 2008 Server. (Previously it only worked on Windows XP.)

Removed the case sensitivity from Media Manager LDAP queries.

Made a change to the Oracle database table so that it no longer is using a reserved word, as that was causing jobs to fail. (This problem only existed in version 1.5. It did not exist in previous versions.)

Broadcast Manager Features

Added options for the broadcast monitoring (on the Network Monitor tab) for multicast and unicast setups. This option requires Stream 3.6 or higher.

Created a new resource role, Live Stream IP, specifically for handling resources that are using a live IP input.

When scheduling a task for a resource which uses an IP Source the task includes options for configuring the Transport Stream Input.

Groups can be created with the Live Stream IP role.

In the Resources tab, a new column option was added for "Monitor Unicast Port". This can be used during setup for installations where a firewall is enabled, and therefore the port information is needed in order to determine which ports need to be opened.

Broadcast Manager Bug fixes

When monitoring a broadcast job on the Network Monitor tab in the Console, when the job fails over the monitoring now correctly switches over to the active encoder. (Previously the monitoring was stuck on the original, failed encoder, even after the backup had successfully taken over.) This is fixed for Standby Failover and Router Failover. It is not fixed for Active Failover.

When scheduling a broadcast job with a Flux board, in the scheduled Task dialog when the "Source Profile – From Project" option is selected the name of the source profile file should now be shown.

Fixed: When scheduling a broadcast job with a Flux board, in the scheduled Task dialog when the "Source Profile – Local File at Resource" option is selected an "audio mismatch" warning is triggered and the project will fail to launch with the following error "Exception: Unable to set Live Source Profile, project file is not configured properly".

Broadcast Manager 1.4.b16 to 1.5.b13

- Dark gray for Console and Agent Monitor is now the default
 - Ability to install/uninstall 'other' software packages on the agents using the Console's remote Software Upgrade feature. This is required when installing the Imagine Communications SxS package and the Flux drivers (for Stream 3.3). **KNOWN LIMITATIONS:**
 - (i) The Console's remote Software Upgrade feature only works on systems running Windows XP.
 - (ii) The initial Flux driver install must be done locally in order to accept the Imagine Communications certificate.
 - Asset support. An asset is an xml metadata file along with the media files and other associated files that are reference by the metadata file.
 - Added SNMP_Monitoring_in_Media_Manager.pdf file in the Media Manager docs folder.
 - Scheduled project tasks are now started in "Prepared" mode 15 seconds prior to the job start time. This allows the job to start without delay at the scheduled start time. This feature requires Stream 3.3.0 b13 or higher. (The "pre-role" time of 15 seconds is configurable with server parameter "mm.scheduled.job.prerole.millis")
- Router support:
- Add support for Evertz Router Control
 - Add support for Nevion Router Control
 - The router input can now be specified on a scheduled job.
- Scheduling now uses individual H:M:S fields
 - Scheduling calendar: Increased max zoom in schedule calendar
 - Scheduling calendar: View now auto-scrolls with time
 - Scheduled jobs sometimes stopped a few seconds late. This has been fixed.

Broadcast Manager 1.4.b14 to 1.4.b16

Bug Fixes for Transcode Manager only, no Broadcast Manager changes

Broadcast Manager 1.3.b14 to 1.4.b14

New Features

- Media Manager communication ports are now constant; this is required for firewall traversal
- Remote upgrades of Stream and Media Manager Agent software using Media Manager Console
- SNMP Monitoring of the Media Manager Server
- MM Console can be launched using a Java Web Start page (that is, use a browser to connect to MM server); to support this feature a Tomcat service has been integrated in the installer
- User security - Added support for locally managed users (in Media Manager database) and for LDAP authentication providers; 4 levels of user permission are available; this is an addition to the base-level single username/password available in version 1.3.
- A new "look-and-feel" option is available for the Media Manager Console application. The new look is predominantly dark gray (as opposed to the default light gray look). If you would like to use this option please contact Imagine Communications Support.

Bug Fixes

- Added an Alert for scheduled tasks that never run
- Added an alert when a SFX-LM router fails to switch a router
- Fixed a slow memory leak in the Console
- Agent and Server will now re-register in case of RMI restart; this will allow the system to recover from a registry restart
- Using a new Stream state for post encode processing; shown in MM UI as "Busy (post-processing)".
- Broadcast Manager can use an override setting for the default max. number of failovers. To set the override, in C:\Program Files\Imagine Communications\Media Manager\conf\global.custom.properties add a line with mm.max.short.term.failovers = the number of failovers, eg. for 100:
mm.max.short.term.failovers=100
- Scheduled jobs purge too early; default changed from 3 to 10 days; also no longer purge a running job
- Improved use of new Stream Kill. Now Fail Resource tasks and Kill encoder take advantage of it.
- SFX-LM fallback to primary now kills the stream instead of stopping it (hence, it won't stop the players).
- RMI registry service is now installed by Media Manager too (not just Stream).

Broadcast Manager 1.2.b17 to 1.3.b14

New Features

- Server/Console security option added. When enabled a Username and Password is required before you can use the Console to connect to the Server. The Config Wizard is used to enable and assign the username and password.
- Resources Tab - Added Resource ID and Device ID as hidden columns for getting the IDs in bulk.
- Added user defined Logos for Resources (mainly used for Live Streaming)
- Added a clock display to the Console application (mainly used for Live Streaming)

- Broadcast Manager can now control a video router to assign inputs to encoders and can use the router to re-assign an input to a failover encoder as required.
- Schedule tab – Added the ability to edit tasks in the calendar display by dragging scheduled tasks, copying, etc.
- Schedule tab – Added a video tool tip option which shows you a video thumbnail of live streams when you hover your cursor over a currently running task.
- Live monitoring of video added to the Network Monitor tab of the Console. Requires Stream 2.5 or higher at the encoders.
- Support for monitoring of VU Meters in the Network Monitor tab of the Console. Requires Stream 2.6 or higher at the encoders.
- Added scripting support for scheduled jobs.

Bug Fixes

- Changed the Schedule tab's Pause button to Disable/Resume and added ToolTip
- Improved WatchFolder pre-lock file processing; file must 'stable' for at least 5 seconds (no mod time, or size changes)
- Added resource name to Job failover event, so that when a failover attempt fails you know where it tried.
- Fixed an issue where Oracle deadlocks in Broadcast Manager during Grid Control (added FK indexes on Scheduled Job)
- Broadcast Manager now prevents a task schedule with a negative duration.
- When you attempt to delete a scheduled task that is currently running Broadcast Manager will now present a warning dialog and stop the running task before deleting the task.
- You can now manually type in a schedule date/time for tasks (as opposed to just using arrow keys)

Broadcast Manager 1.1.b39 to 1.2.b17

New Features

- Agent Monitor - New application installed on agent machines (resources) shows the status of the local system
- Improved handling of server managed files
- Added server side validation ensuring files are readable
- Prevent duplicate filenames (labels) of the same type (e.g., Project)
- Warn about duplicate entries with the same full path
- Warn if not using UNC path. Added Console preference to disable warning.
- Database indexes are now managed by Media Manager; external scripts do not need to be applied
- Alert: Added alert for RESOURCE_HUNG
- Alert: Added server warning if message processing queue gets too large
- Can now Open, Copy Path, and Edit from file snapshot dropdowns
- Console Preferences added; support for changing Search Max Hits
- Added ability to automatically purge older records from database; number of days configured in Console (Server/Options); for newly created databases the default is 180 days
- Implemented database garbage collection algorithm
- Added warning windows when you use the Console to connect to a Server that is either unlicensed or has a license that is set to expire on a specific date. If the Server has a license that will expire, the license expiration date will be shown next to server name on main Console window.
- Schedule now supports a new graphical Calendar view
- Interface and functional improvements in the Scheduled Tasks components
- Scheduled 'Run Project' can now specify a source profile
- Scheduled 'Run Project' can now specify the duration of the project run

Web Service API

- Implemented Web Service API for Broadcast Manager
- Implemented Web Service API for Transcode Manager
- Documented Web Service API and provided sample code (Visual Studio)

Bug Fixes

- Authorization bits updated; Newer versions of Stream can be used, but the new DRAuthKey.dll must be installed if older versions of Stream are used (2.3 or earlier).
- Increased database connection pool helper threads
- Database connection pool maximum size increased to 8
- Fixed database connection pool settings to eliminate potential Oracle deadlock warnings
- Updated Oracle's JDBC driver from 10.2.0.1 -> 10.2.0.3 for their deadlock fixes

Imagine Communications SelenioFlex Live Manager 2.1

- Config Wizard now automatically increases windows heap space to handle a larger number of encoders (Transcode Engines or Stream Encoders) running on the same system; previous limit was 7 instances on one system.
- Config Wizard - Fixed problem when granting the "Log on as Service Right" to services
- Fixed Agent recovery from a crashed and restarted Stream-server
- Enabled RMI timeouts to handle bad socket closures
- Fixed transcode tasks failing at server startup when a resource appears healthy but agent is not present
- Added error panel when unable to open a file from Console
- Updated hsqldb (Hypersonic) to v1.8.0.8; This should fix a rare hard shutdown database issue

Known Limitations

SelenioFlex Live Manager System / SelenioFlex Live Manager Console

- The SelenioFlex Live Manager "Monitor Streams" mode (where each live resource displays a thumbnail and audio VU meters) will not display VU meters for non-SFX-Live encoders that use a "group profile" in the project.
- The Video Tooltip option has been removed from the Schedule tab for version 2.0.0.
- If the Console is on a different subnet than the encoders, then in order to use Network Monitoring in "Monitor Streams" mode you will need to set up unicast monitoring. This is set in the using the main menu of the Console. From the menu select Server > Options, go to the Monitoring Prefs tab, and add the Console IP Address. The monitoring thumbnails/VU meters will be shown after the encode restarts.
- Network monitoring only displays thumbnails/VU meters when the encode is running. That is, if the encoding is currently stopped, you will not see a preview of the input.

Stream Encoder Systems

- The Agent Monitor that is installed on Stream encoding systems will not be able to communicate with the resources until after you have updated the DRC Services and re-started the services. This is true after any installation or update, including after using the Config Wizard for the initial installation.
- Stream Encoders that use the Flux hardware: You will have to accept the Imagine Communications "certificate" when you install the Flux driver. In order to do that you must initially install it locally (that is, you cannot use the Agent's remote software upgrade feature). To make it unnecessary to do a local install in future, check the "Always trust software from Imagine Communications Corporation" box before clicking the Install button.
- If you have a Stream resource which includes one of the early Flux boards, revision 1 or 2, then you will need to power cycle the system after an update that includes a board firmware update. If that is the case the update must be done locally on each system, as a reboot will not be sufficient to reprogram the board. If you have a Flux board revision 3 or later then this will not be necessary.
- If a resource has dual NIC's (Network Interface Controllers) enabled then the resource may display the "failed" status unless the user sets the specific IP address in the config wizard under "system settings".
- When StreamZ Live IP is used with SelenioFlex Live Manager, then for failover you must use a one to one backup scheme (where each primary encoder has a single assigned backup encoder). That is, you cannot set up a pool of primary encoders and a pool of backup encoders as you can when using SDI inputs with a video router.