

Navori QL Support Manual

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Navori QL Digital Signage Software Platform

Support and Troubleshooting Documentation

Version: 1.0.0.19

Document Revision Date: March 19, 2011

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Navori QL Version Updates

Version 1.0.0.19

Release date: March 19, 2012

New! Navori Trigger SDK

The Navori Trigger Software Development Kit features a DLL file and technical documentation.

Users can develop their own triggers and interface with the Navori QL software using Microsoft Visual Basic, c# or Visual C++.

With this SDK, any third party application installed on the Navori QL Player PC can retrieve information from the Player's database and eventually trigger the playback of any preloaded content and playlists.

In addition, this third party application will be able to trigger an IP TV stream which is not currently referenced in the Navori QL Player database.

New Software Features

Player's Screen Real Time Monitoring

QL Manager Users are now able to monitor the status of their screen network in real-time.

First, system integrators and technical users must create or use a third party application designed to communicate with external devices like flat panel display screens via RS232. Navori QL Player v.19 is compatible with any such application capable of editing an XML file stored on the Player PC in real-time. The XML file has 3 values and when the file is edited, it will be synchronized in real time with the QL Manager dashboard so end-users are always kept informed on the exact status of their screens as well as the Player itself.

Media file attachments

Navori QL v.19 lets users attach up to 8 files to each media content. When updates are sent to the Players, all media and attachment files will be uploaded.

For example, a user can now send a Flash SWF file with links to external files like videos, images or XML data/ When the Players are updated, all content will be distributed to each Player.

QL Manager multilingual interface

QL Manager's user interface is now available in French, German, Arabic, Spanish and Portuguese. Users simply select the language of their choice in the selection box on the login page.

In regards to RSS data feeds, the text scrolling and display durations will adapt automatically for non-Roman characters such as Chinese and Arabic.

Automated email alert notification system updates

The automated email alert notification system has now been updated and supports both http and https SMTP email servers.

All alerts can generate automated notifications that will be sent by email to the designated user according to his or her alert and event profile.

RSS/XML feeds with image links now supported

Live data feeds that contain links to images are now supported in the Data Feed Manager. Simply add the column that contains the links to images then use it in the template or ticker. Navori QL will scale and display the graphic in the corresponding zone on screen.

Template Designer updates

- The Template Designer now supports shapes (just like the Ticker Designer). You can create and position geometric shapes (rectangles, ovals) on their own layers with transparency.
- You can display fully synchronized data from multiple feeds in the same Template.

- You can now rotate any object in a template. This applies to graphical shapes and data feeds.
- You are now able to enter a font size directly instead of using the pull down selection.
- There are two new TV-like transition effects available.

New Media Properties

- There are 5 new professional transition effects for images. The new effects are: zoom out, wipe, slide-in. Transparency is supported and transition effect speed is fully controllable.
- Multicast streaming video feeds are supported on a private LAN without the need to install the Elecard codec.
- Multicast and unicast live video streams are now supported for Axis branded web cams.

QL Manager Interface enhancements

- Users can now copy and paste templates and tickers in the Content Library.
- Playlists now support content multi-selections.
- Playlist properties include a new option: random playback of Playlist content.

Scheduling enhancements

- You are now able to duplicate a complete day's time slots via copy/paste.
- You are now able to duplicate a period of several days for long periods via a simplified process.

Version 1.0.0.18

Release date: December 12, 2011

New! Support for video streams and IPTV

Play back content from any video streaming source like IPTV. Support for MMS feeds is included with the QL software and does not require any additional plug-in.

Support any type of video streams that can be played with WMP, with or without codecs. (UDP, RTP, RTSP, HTTP)

Port ranges now supported for user login IP restrictions

Navori QL now supports the use of Port ranges when assigning IP restrictions for user logins. This is especially interesting for corporate environments.

Administrators can now assign IP restrictions using "wildcards mask". For example: 258.22.*.*

This functionality is used when you create or edit a user account and assign one or more IP restrictions.

Automated alert emails

Navori QL can now send out email alerts to one or more users based on their profile. The system uses your existing SMTP server to send out email alerts.

The system is designed in such a way that alerts are only sent once so there are no repeating emails that could trigger SPAM filters.

Media RSS feeds are now supported

Navori QL now supports the management and display of media items (pictures, bitmaps) via the data feed manager. Users can now display images from a RSS feed in a template or ticker.

Images will be displayed in a zone and re-sized as necessary. The original image's aspect will be retained and you can also apply transition effects such as fades between images in a feed.

Navori QL now lets users assign local and global Playlists

This latest version lets users create and share playlists between levels. For example, you can create a global playlist at the top level and sub-group users will be able to use that playlists in their schedules.

Changes made to higher level playlists will flow down to any sub-group that have scheduled these playlists. A visual indicator will inform the user when a playlist is inherited from a higher level.

Group/Sub-Group tree in Player window

Modifying the Group/Sub-Group/Player structure would cause the Server to create virtual folders names "Temp". This has been corrected in the new version.

Deleting a user in the User Domain window

Administrators were not able to delete user accounts the in the User Domain Window. Once a user account was created, it was not possible to delete it. This issue has been corrected.

Playlist window

In certain instances, the order of the media items in a Playlist could change from the order that was originally set by the user when the window was refreshed. This issue has been corrected.

QL Manager connections

In certain cases, QL Manager could randomly lose its connection with the QL Server. This issue has been corrected.

Flash media

When a user adds Flash media where the duration is less than 10 frames or 2 seconds, QL will automatically override the duration and set it to 7 seconds.

French keyboard issue

Users with a French keyboard configuration would have their numbers disabled in QL Manager. Users with other keyboards were not affected. This issue has been corrected.

Location specific content in a playlist

When a user programmed a playlist zone in a template and the playlist contained location specific content, this content was ignored at playback. This issue has been corrected.

Transferring multiple media items into a playlist (via multi-select)

When a user transferred multiple media items into a playlist using multi-select, the order of the items would be reversed. This issue has been corrected.

Version: 1.0.0.17

Release Date: September 1, 2011

New QL Server Installer and Upgrader

Built to radically simplify the installation process. Someone with even limited technical knowledge can execute through the installation process in mere minutes.

As a reminder, QL Server is compatible with Windows Server 2008 (or R2) and Windows 7.

Manager Login Page

The login page is now available as an HTML formatted document.

- Can be easily integrated with an existing Web Page as part of an extranet.
- Can be easily re-branded by integrating the credentials portion into a login page of your own (../navorimanager/login.aspx).

Media Library

TV Tuner add-on.

Compliant with any Happauge TV-Tuner card running win-TV version 7.0.29160.

Runs Analog, DVB-C, DVB-T (SD or HD when applicable).

TV feed content is handled like any other type of content.

Full screen playback or within a template.

Channel selection has been significantly simplified.

The player scans for all channels available using its TV Tuner hardware.

The channels list is sent to the server.

It is then available for easy selection through the Manager.

This process allows for selecting the same TV network (e.g. BBC or CNN) for players in different regions, despite their channel selection differences.

To create a TV Tuner feed, in your content Right Click > New > TV feed.

Media Playback General Settings

New defined parameters for Content Managers:

- Minimal Media Duration.
- Maximal FPS (Frames Per Second).
- Maximal Bit Rate.

Prevents addition of defect or unfit content (e.g. playing a 60fps HD video on minimal hardware).

By default, they will be set to ensure proper playback on hardware meeting the minimal requirements.

To change these settings, go to MENU > Server > Properties > Content Profile, logged in as Administrator.

URL-Type Media

You can now add media content hosted directly on a Web Server, by providing its direct URL.

Hosted content can be replaced or modified without any manipulation inside QL Manager.

MP3 Audio Files

You can now upload MP3 encoded audio files.

Playing this content as part of a template is recommended.

If played as a stand-alone content, QL Player will display a black screen.

Template Thumbnail

- If a background image is set to a template, it will be displayed as the template's thumbnail in the Manager.
- If no background is selected, the original Template icon will be displayed.

Player-specific Content

Reminder: Up to 8 generic content items can be selected to play in a playlist, each of which can be defined specifically to each player.

You can now add URL content as a player-specific content item.

Flash with ActionScript and a predefined timeline

Some Flash files using ActionScript code nonetheless have a specific set duration.

To play this kind of content, the Content Properties had (in previous versions) to be set with the Override option in order to play correctly.

Will now play correctly without the Override option.

Flash files without a specific duration still need to use the Override option in order to manually define a duration.

Template Designer

Default background color: Black.

Last used font style and attributes kept in memory.

Will be selected by default upon creating new zones or templates.

Default template size is defined using the current group's largest player resolution.

Hide Ticker option now available for templates.

Text zones now take Carriage Returns (new lines) into account.

Content overlays (e.g. text) can be placed on top of media content zones.

Validation preventing addition of template-containing playlists, as a media zone inside a template.

Improved template layers synchronization: 1/30th of a second.

Example: 2 videos in different zones playing content relevant to each other will be in sync.

Bug fix: Text overlays sometimes disappeared in specific situations.

Bug fix: Memory leaks and Z-coordinates in some text layers.

New feature: Datagrid

Another option to display Feed content (XML/RSS or Server feed), table-style.

Use examples: Pricing list, Menu boards, Airport flights.

Ticker Designer

Transparent background by default, Adobe Photoshop-style.

Manual duration can be set, for the case no feed content is displayed.

Last font style and attributes kept in memory, selected by default upon creating new content.

Just like the template, the group's largest player resolution is taken into account to set the default size.

A ticker larger than the player's screen size will now display. Ticker may need to be truncated to fit the screen.

Bug fix: Memory leaks and Z-coordinates in some text layers.

Data Feed Manager

Complex URLs are now supported. e.g. URLs with long parameter strings.

Added RSS feeds compatibility: Google, Yahoo, Fox News.

Added compatibility: Redirected feeds.

Definable data feed Refresh Rate (HH:MM:SS).

Definable reference field (leading refresh and synchronization between fields).

e.g. in a typical RSS title/description, description field is the reference because it is typically the biggest content container.

No longer necessary to add a Feed Effect.

Playlists

Properties: Name displayed as the window title.

Bug fix: Download error when sending playlists with more than 50 distinct content items.

Priority is now given to the Schedule by default (instead of Media).

New playlist content menu item: Delete All.

Bug fix: Playlist order vs. Playback order did not match in some cases.

Event Alerts

Alerts and Events real-time monitoring.

Alert: Player activity and function during defined operation hours (set in Player Technical Profile).

Data feed availability.

Content playback errors.

No content scheduled.

Available Hard Drive space.

RAM use; Handles; GDI threads.
Currently playing playlist.
Event:

- New program reception.
- Content expiration.
- Manager-requested Content validation.
- Screen shutdown and restart.

Found under the Player window's Monitoring section.

Updated in real-time, synchronized to all logged-in users.

Players can be filtered by Status, Download progress, Current Playlist name.

Notification criteria are defined in Alerts and Events profiles, and assigned to each manager user.

Notification or not can be set for each type of alert or event.

Playback Reporting

Reporting export in Excel / CSV formats: Display duration in seconds instead of milliseconds.

ENTER key launches Search.

Bug fix: Number of playbacks.

New column: Total duration (Impressions * Durations).

Player Update

Deferred update: Player will remain connected, but will download schedule and content updates only at a defined time.

Default date set to the next day.

New Category or String search feature.

- String search includes all strings within Player Properties
- Search results completely expands hierarchy tree and automatically selects all resulting players, ready to be updated

Download status now displays total download size for the current update

Server Properties

License Information: Possibility to change the Navori account to which the license is assigned.

Player Technical Profile

Content Quota for each player (optional).

Expired Media purge.

Software Update: ASAP (As Soon As Possible) option.

Bug fix: New profile display in list.

Bandwidth Measurements.

Organic consumption (basic, without additional user-triggered network activity) for continual 24/7 function for a total of 31 days.

Less than 500Mb bandwidth consumed by each player.

User Management Area

User Search feature: Name or E-mail.

Display filter for Groups and Sub-groups.

Compatibility with Remote Control software

Most software deactivate DirectX during Remote Session.

QL Player now automatically ensures refresh and proper playback after such events.

No more need to send a new Update to the affected Player.

For LogMeIn users, it is recommended to disable Hardware Acceleration.

LogMeIn Computer > Settings > General > Use Hardware Acceleration (un-select).

Support and troubleshooting

This section covers Navori QL support options, troubleshooting tips and procedures, frequently asked questions.

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Getting help

Navori customers are asked to open a support ticket on the extranet (www.navori.com) whenever they require assistance with their software application or service.

Login using your Navori extranet account and open a new support ticket. Include as much details, screen shots and useful information as possible to ensure a quick and accurate response.

Should you require any direct assistance, we ask you send your request for remote assistance session via support ticket and please provide two dates and times at which we can reach you and include your local time zone.

Navori support personnel will respond via email or by phone within 24 hours (weekdays).

For more information, contact your local Navori partner or visit www.navori.com

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QL Player troubleshooting steps

This section covers the most common QL Player issues and provides step-by-step instructions to resolve them.

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Content playback related issues

If the player only shows some of the currently scheduled content:

- Check the content's validity period has not expired (if set).
- [Check the alert logs.](#)
 - Open a new support ticket and include the exact message in the alert logs or screen shot of the alert log table.
- If video content, test the file outside on Navori QL. Open the file in **Windows Media Player** and see if it plays properly.
 - Open a new support ticket and include a screen shot of the file properties in **Windows Media Player** and also include a screen shot of the **Content Properties** Window (QL Manager).

If the player does not display any content from the most recent update:

- Check if the Player PCs date and time is properly set. If not correct and re-test.
- If date and time is accurate and still no content displayed, look in **Windows Task Manager** to see if the QL Conductor service is running.
- If QL Conductor service is running, re-start the QL Engine.

If the issue is still not resolved...

- [Activate the detailed QL Conductor logs](#) and open a new support ticket. Don't forget to include (upload) the contents of the QL Player database folder. We suggest you zip the entire player database folder and upload it with your ticket. Do not include your media files as they are not required.

If the player has problems displaying content (some or all content):

- Test the file outside on Navori QL. Open the file in **Windows Media Player** and see if it plays properly.
 - Open a new support ticket and include a screen shot of the file properties in **Windows Media Player** and also include a screen shot of the **Content Properties** Window (QL Manager).

If the issue is with the duration of the content (wrong playback duration):

- If the issue is with video, image (bitmap) or HTML content, check the content's **Media Properties > Playback** tab > **Start on frame/end settings** to make sure they are correct. Adjust if necessary. Test.
- If the issue is with Flash SWF content that uses ActionScript, open the content's **Media Properties > General** tab and select **Override**. Enter the exact duration instead of using the one that was detected. Test.
- If the issue is with Flash SWF content that does not use ActionScript (frame based animation), open the content's **Media Properties > Playback** tab > **Start on frame/end** settings to make sure they are correct.

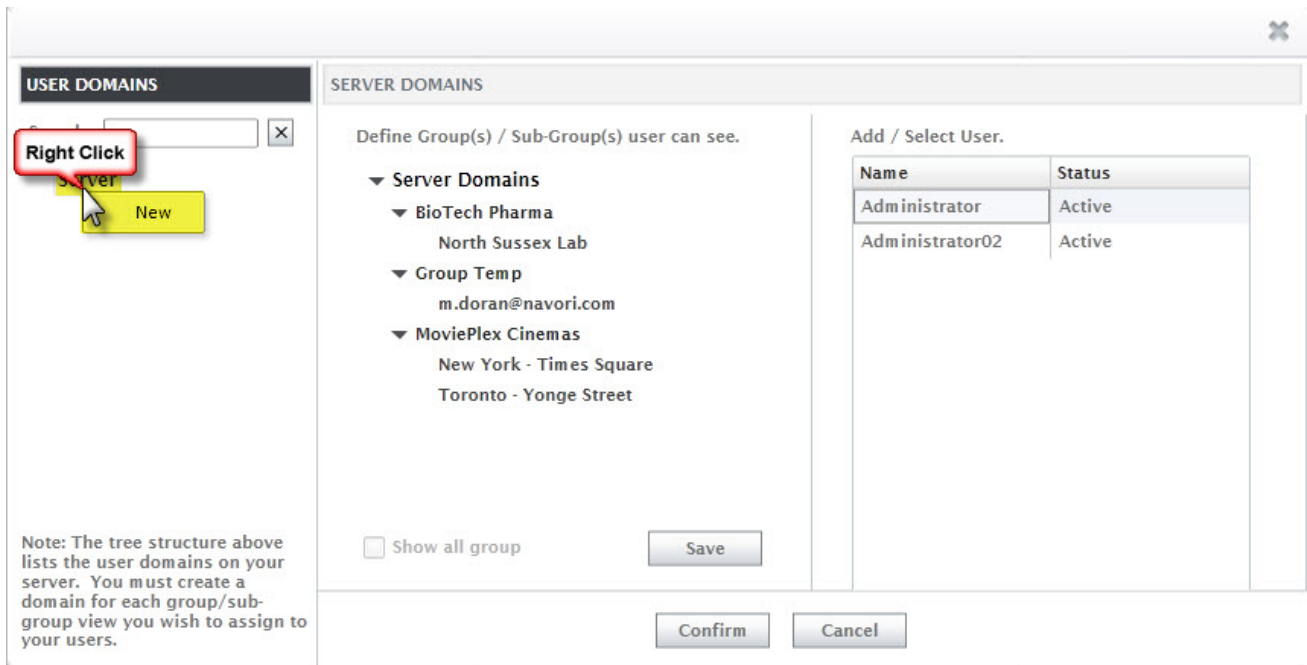
Adjust if necessary. Test.

If the issue is with the Player showing a black screen when you attempt to display a HTML content or displays Flash content as a black square in a HTML page:

- Go to the Player PC and exit the QL Player application.
- Locate the Navori QL Player application folder and open the following file in Windows Notepad: **NavoriQLEngine.exe.config**
- Add the following entry in the config file: **<add key="HtmlDwmManagement" value="true" />**
- Save the file and relaunch the QLEngine application so the new values are taken into account.

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Player reliability issues



If the player crashes or displays a black (blank) screen:

- Test the player for [memory leaks](#).
- If you detect a memory leak, the issue is at the content level. Depending on the file type, see if you can optimize the content to ensure better, more reliable playback.
- If there is no memory leak detected, issue is with the operating system (Windows) or related to hardware. You may need to perform a full OS re-installation and replace hardware components to isolate the exact cause of the issue.

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Server connection issues

If the player has difficulty connecting with the server:

- Check the player's status in QL Manager (**Player** window > select **Players** to check then click **Monitoring** tab to see details).
 - If the player status is **blue** or **yellow** and the Download Status column shows **Done** proceed as follows:
 - Restart QL Engine on the player (either through rebooting the PC or via the Windows **Task Manager**).
 - [Activate the detailed QL Conductor logs.](#)
 - Collect the [Event and Alert](#) information.
 - If issue continues, open a new support ticket and attach all collected data for Navori technicians.
 - If the player status is **red**, proceed as follows:
 - On the QL Player PC, confirm the QL Conductor service is running.
 - [Activate the detailed QL Conductor logs.](#)
 - Reboot the PC and let it run for at least 10 minutes.
 - Collect the QL Conductor logs. Open a new support ticket and attach all collected data for Navori technicians.
 - If the player is behind a proxy server and has difficulty connecting with the server, proceed as follows:
 - Testing access to the Navori QL Web Service:
 1. Enter the following URL:
http://[IP or DNS address of your QL Server]/NavoriService/NavoriService.svc
 2. If a web page appears with a request to create a service, Player is communicating properly with QL Server.
If you do not see this message, Player is not communicating with QL Server and you must check your settings.
 - **PLEASE NOTE:** The procedures that are described on this page may require information about your proxy server that can only be provided by your system administrator.

Because of this, you may need to contact your system administrator before you can proceed.

Configuring Internet Explorer 9 to connect via a proxy server

1. Open Internet Explorer by clicking the **Start** button . In the search box, type **Internet Explorer**, and then, in the list of results, click **Internet Explorer**.
2. Click the **Tools** button , and then click **Internet options**.
3. Click the **Connections** tab, and then click **LAN settings**.
4. Select the **Use a proxy server for your LAN** check box.

5. In the **Address** box, type the address of the proxy server.
6. In the **Port** box, type the port number.

If your network requires separate proxy addresses and port numbers for different services, such as HTTP, HTTPS, or FTP, click the **Advanced** button, and then type the individual proxy server addresses and port numbers to use.

7. When you're finished making changes, click **OK**, and then click **OK** again.

If you follow the steps to change proxy server settings and still find that the address you type for a new proxy server isn't remembered, here are some things to check:

- If you're entering a Uniform Resource Locator (URL) or Internet address for the proxy server, be sure you're using slashes (/) rather than backslashes (\) when typing the address. For example, type `http://servername` rather than `http:\\servername`.
- If you're entering a universal naming convention (UNC) or local network address for the proxy server, make sure you're using backslashes (\) rather than slashes (/). For example, type `\\servername` rather than `//servername`.

QL Player troubleshooting procedures

List of troubleshooting procedures:

- [PPL01 - Activate and collect detailed QL Conductor log files](#)
- [PPL02 - Activate and collect detailed QL Engine log files](#)
- [PPL03 - Memory leak test](#)
- [PPL04 - Content testing procedures](#)
- [PPL05 - TV Tuner troubleshooting](#)
- [PPL06 - Capturing and extracting alerts or events from QL Manager](#)
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- [PPL15 - HTML content not refreshing on QL Player](#)
- [PPL16 - Correcting issues caused by running QL Player in a "regular user" session](#)

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How to capture screen shots

Many of the following procedures require users to record screen information (screen shots).

Here are some basic steps you can take to take a snapshot of your screen so you can transmit the information to Navori Technical Support for follow up.

Using Microsoft Windows built-in screen capture capabilities:

- Locate the **Print Screen** button on your keyboard. The **Print Screen** button may be labeled **Prt Sc**, **Prnt Scrn**, **Print Scrn**, or something similar.
On most PC keyboards the button is usually found next to the **F12** and **Scroll Lock** keys. On laptop keyboards, you may need to press the **Fn** or **Function** key to access **Print Screen**.
- To take a screen shot of the entire screen, with all windows, press **Print Screen** alone. To take a screen shot of the currently selected window, hold down the **Alt** key and press **Print Screen**.
This will store your screen shot in **Windows Clipboard** and from there you can past the image in any compatible application.
- Open **Microsoft Paint** (or any other similar bitmap editing application). To open **Paint**, open the **Start** menu, click on **All Programs**, click on **Accessories**, and then click on **Paint**.
- Paste the screen shot. Select the **Rectangular Select** tool in Paint. Right-click on the canvas and select **Paste**. Your screen shot will then be pasted onto the canvas.
NOTE: You can also hold down **Ctrl** and press **V** to paste. On Windows XP and earlier, you can open the **Edit** menu and select **Paste** to paste the image.
- Save the screen shot. Click on **File**, then select **Save As...** (Windows XP and earlier), or click on the menu button (the blue button beside the **Home** button) and select **Save As** (Windows Vista and later).
Type in a file name and change the **Save as type:** field if desired.

Using the Microsoft Snipping Tool method:

- The **Snipping Tool** method works with all Windows Vista versions except Windows Vista Starter and Windows Vista Home Basic, and with Windows 7 Home Premium, Windows 7 Professional, and Windows 7 Ultimate.
For other versions of Windows, use the Print Screen method detailed above.

NOTE: The Snipping Tool is only found in Windows 7 Home Premium, Professional, and Ultimate, and in all Windows Vista versions except Starter and Home Basic. If you don't have the snipping tool, use the Print Screen method instead.

- For step-by-step instructions on how to use the Snipping Tool, visit:
<http://www.wikihow.com/Take-a-Screenshot-in-Microsoft-Windows>

Commercial screen capture tools:

There are many commercial screen capture tools you can download or purchase. Here are a couple of the more popular tools available:

- [Snag It](#) from Techsmith. PC and Mac versions available.
- [Jing](#) from Techsmith. This is an on-line service with a free option.

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PPL01 - Activate and collect detailed QL Conductor log files

- On the Player PC, shut down (terminate) the **Navori QL Guard** and **Navori QL Conductor** services via the Windows Task Manager.
- Drill down to the following folder: **C:\Program Files (x86)\Navori\Navori QL Player** and locate this file: **NavoriQLConductor.ini**
- Open the file in Microsoft Notepad and change the entry so it reads as follows:
[NavoriQLConductor]
debug_level=DEBUG
- Save the file and reboot the PC. Let the Player run until the problem reoccurs.
- Locate and copy the following files: **navori_ql_conductor*.log** and **NavoriQLConductor.ini**
- Write down the exact time when the problem occurred.

Make a copy of the NavoriConductor.ini file and zip/compress it with the log the file. Open a new support ticket and send the zip file to Navori as an attachment.

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PPL02 - Activate and collect detailed QL Engine log files

- Exit QL Engine (to do so when Player is running click **Alt-Tab** then select **Exit Player**).
- Drill down to the following folder: **C:\Program Files (x86)\Navori\Navori QL Player**.
- Locate the file called NavoriQLEngine.exe.config and open it in Microsoft Notepad.
- In the file, locate the following entry and make the appropriate changes:

```
<configuration>\<appSettings>  
<add key="log_level" value="3" />
```
- Save the file, re-launch Navori Player and let it run until the problem reoccurs.
- Locate and copy the following files: navori_ql_engine*_.log (there will be more than one file so compress them all into a single .zip archive).
- Write down the exact time when the problem occurred.

Open a new support ticket and send the zip file to Navori as an attachment. Include all details such as exact time the problem(s) occurred in your ticket.

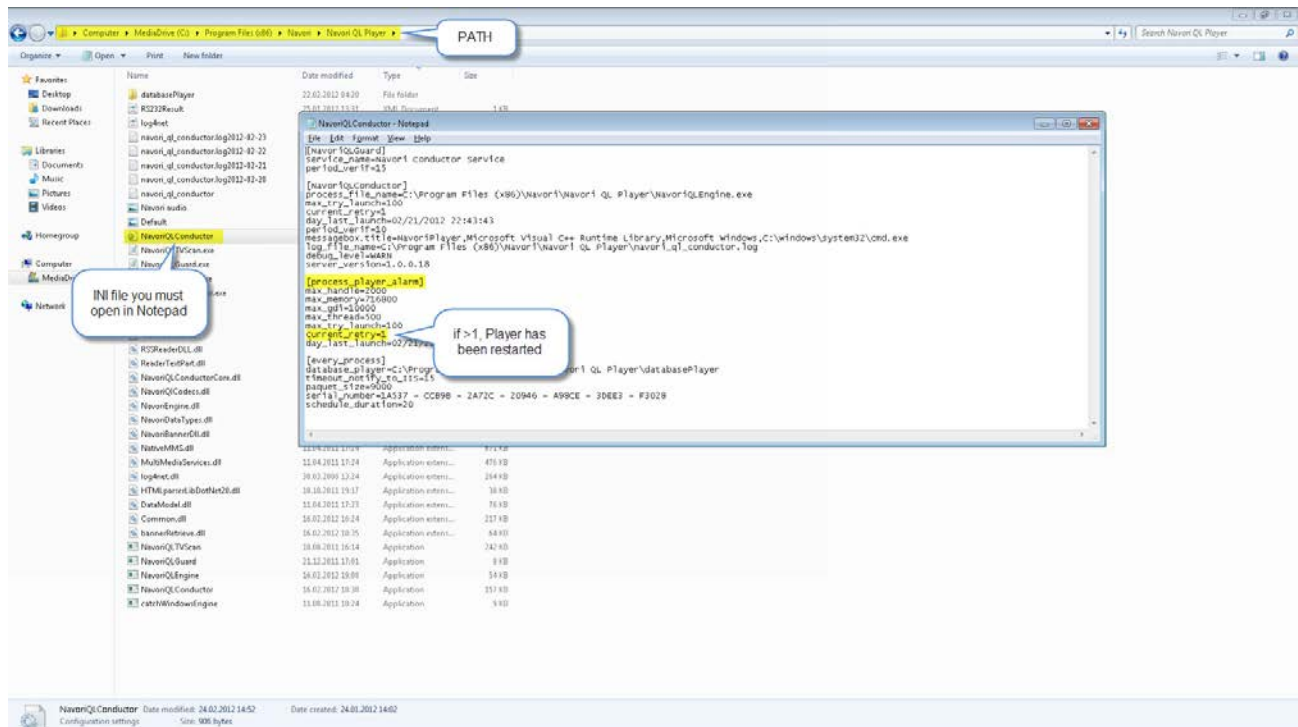
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PPL03 - Memory leak test

- On the Player PC, look under **C:\Program Files (x86)\Navori\Navori QL Player** (or in the folder where you installed the Navori QL Player software)
- Open the following file in Microsoft Notepad: NavoriQLConductor.ini
- Look for the following entry in the file:

```
[NavoriQLConductor]
current_retry=X
```

Any X value greater than 1 means the QL Player engine has been restarted indicating a possible memory leak.



To determine the cause of the leak, proceed as follows:

1. Download the following file on the Player PC:
<http://c712600.r0.cf2.rackcdn.com/NavoriResourceTracerTool.zip>
2. Extract and copy the contents of this file (NavoriResourceTracerTool.exe) into the folder where the QL Player software is installed and launch the application (it will run in background).
3. Launch Navori QL Player.
4. Login to QL Manager. Ensure your playlist is scheduled to run a minimum of 8 hours then push an update to the Player you wish to test.
5. Open a support ticket on the Navori extranet and report your findings.

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PPL04 - Content testing procedures

- Activate the QL Conductor logs (see [PPL01](#)).
- Download a video test pack via the following link: http://c712600.r0.cf2.rackcdn.com/Content_testing.zip
- Insert this content in a Playlist that you will send to the affected Player.
- Test and confirm if all the videos play. Take note of any clip that did not play and also check the CPU load during each clip.

Open a new support ticket and report your findings. Make sure you list the name of any clip that failed to play including the time and hour of the event. Include with your ticket the Navori Conductor and QL Engine log files. Compress the files into a single zip file and then attach it to your support ticket.

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PPL05 - TV Tuner troubleshooting

Navori QL Player is compatible with TV tuner cards from Hauppauge. The system works in tandem with Hauppauge's WinTV software to deliver high quality live TV to your screens.

To troubleshoot any live TV playback issue, please proceed as follows:

- The first step is to close the Navori QL Player application (if still running) and launch the WinTV software. Confirm that you can view live TV in the WinTV application.
- Next, download and install the Hauppauge SDK pack from this link: <http://c712600.r0.cf2.rackcdn.com/HauppaugeWinTVTest.zip>
- Play back the same TV channel using the Hauppauge SDK.

If you can display the live TV broadcast in both WinTV and the SDK application but not in Navori QL Player, open a new support ticket and report your findings.

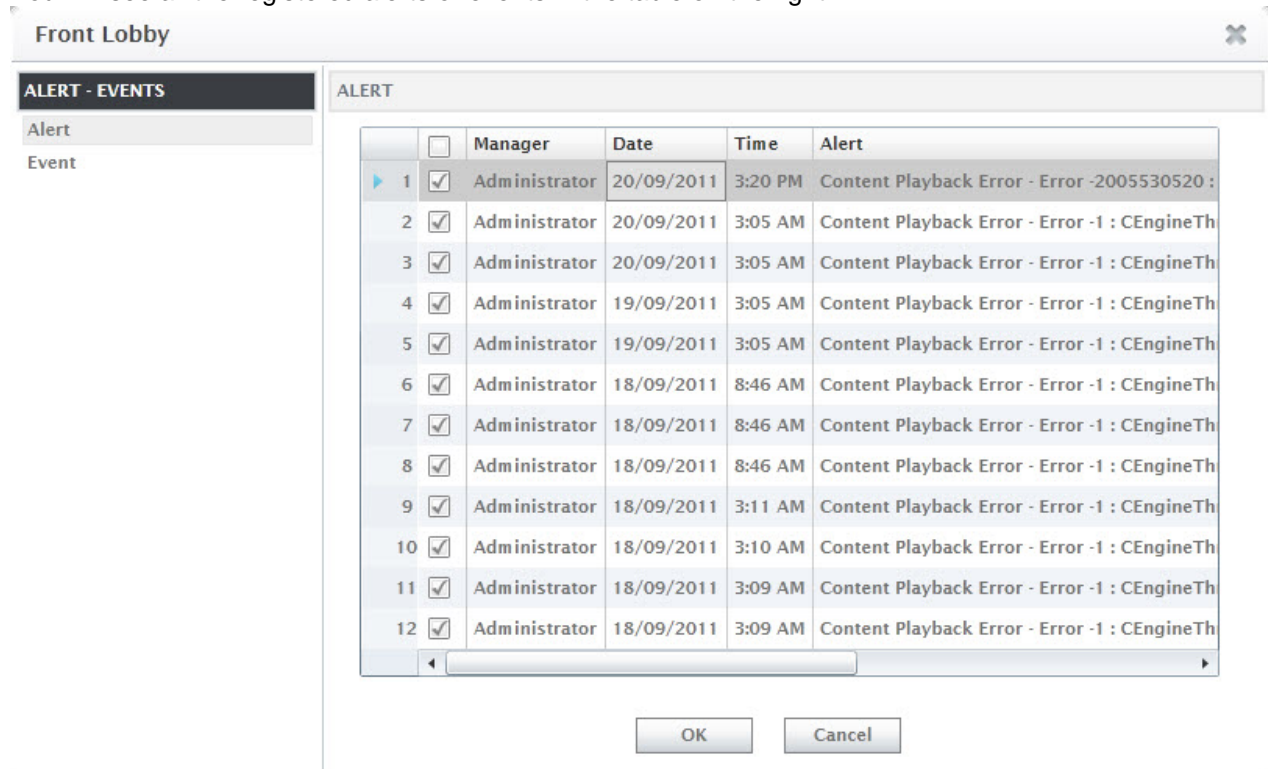
If possible also include a screen shot that illustrates the issue. Zip the file and include it with your support ticket.

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PPL06 - Capturing and extracting alerts or events from QL Manager

- Log in using the Navori QL Manager in your favorite web browser.
- Select the Player(s) for which you wish to extract the alerts.
- Click the **Monitoring** tab.
- In the monitoring pane (right side) click the line showing the status of the Player. A new window will open where you can look up all recorded alerts and events for the selected Player.
- To capture alerts, make sure the **Alert** tab on the left is selected. For events, select the **Event** tab.

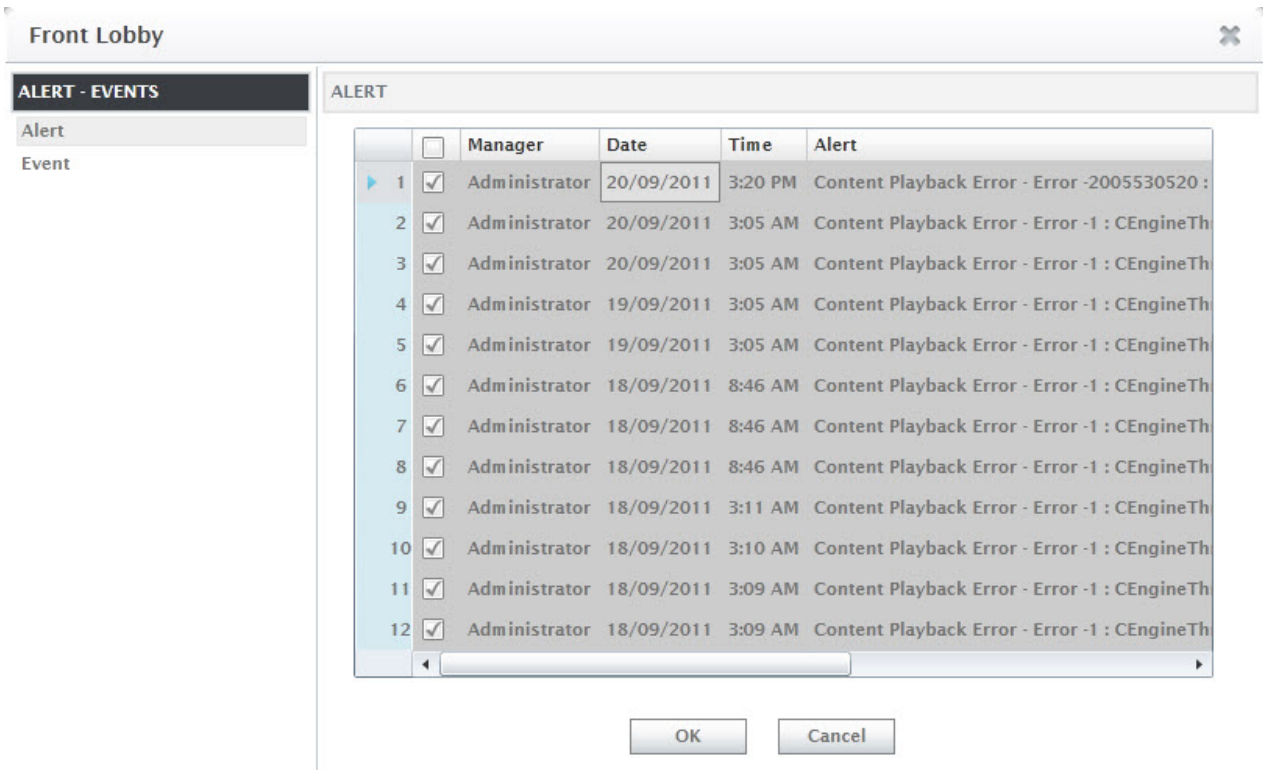
You will see all the registered alerts or events in the table on the right



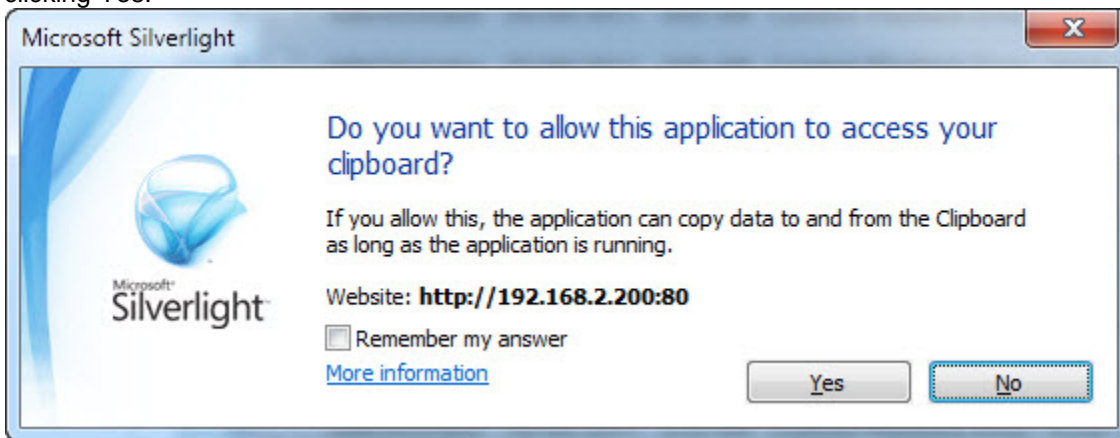
The screenshot shows a window titled "Front Lobby" with a close button in the top right corner. On the left side, there is a navigation pane with two tabs: "Alert" (selected) and "Event". The main area is titled "ALERT" and contains a table with the following columns: "Manager", "Date", "Time", and "Alert". The table lists 12 entries, all from the "Administrator" manager, with dates ranging from 18/09/2011 to 20/09/2011. The alert messages are "Content Playback Error - Error -2005530520 :" and "Content Playback Error - Error -1 : CEngineTh". Each row has a checkbox in the first column, all of which are checked. Below the table are "OK" and "Cancel" buttons.

	<input type="checkbox"/>	Manager	Date	Time	Alert
▶ 1	<input checked="" type="checkbox"/>	Administrator	20/09/2011	3:20 PM	Content Playback Error - Error -2005530520 :
2	<input checked="" type="checkbox"/>	Administrator	20/09/2011	3:05 AM	Content Playback Error - Error -1 : CEngineTh
3	<input checked="" type="checkbox"/>	Administrator	20/09/2011	3:05 AM	Content Playback Error - Error -1 : CEngineTh
4	<input checked="" type="checkbox"/>	Administrator	19/09/2011	3:05 AM	Content Playback Error - Error -1 : CEngineTh
5	<input checked="" type="checkbox"/>	Administrator	19/09/2011	3:05 AM	Content Playback Error - Error -1 : CEngineTh
6	<input checked="" type="checkbox"/>	Administrator	18/09/2011	8:46 AM	Content Playback Error - Error -1 : CEngineTh
7	<input checked="" type="checkbox"/>	Administrator	18/09/2011	8:46 AM	Content Playback Error - Error -1 : CEngineTh
8	<input checked="" type="checkbox"/>	Administrator	18/09/2011	8:46 AM	Content Playback Error - Error -1 : CEngineTh
9	<input checked="" type="checkbox"/>	Administrator	18/09/2011	3:11 AM	Content Playback Error - Error -1 : CEngineTh
10	<input checked="" type="checkbox"/>	Administrator	18/09/2011	3:10 AM	Content Playback Error - Error -1 : CEngineTh
11	<input checked="" type="checkbox"/>	Administrator	18/09/2011	3:09 AM	Content Playback Error - Error -1 : CEngineTh
12	<input checked="" type="checkbox"/>	Administrator	18/09/2011	3:09 AM	Content Playback Error - Error -1 : CEngineTh

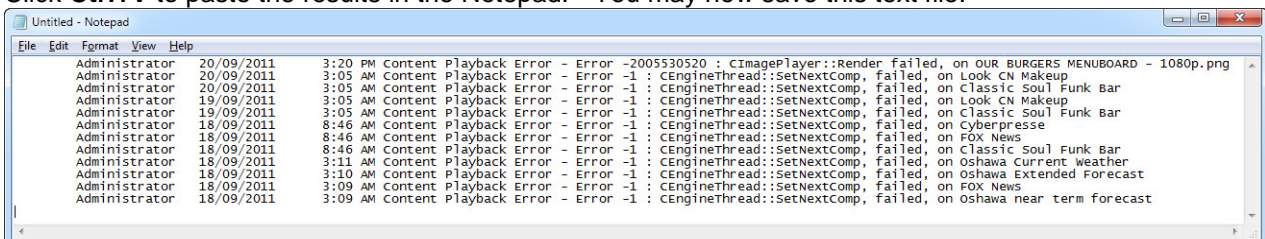
- Click anywhere in this list and then click **Ctrl+A** to select the entire list.



- Click **Ctrl+C** to copy the list to the **Windows Clipboard**. You may be presented with a Microsoft Silverlight window requiring you to confirm you wish to allow this process. Click **Yes**.
If you don't want to see this dialog box appear in the future, check off the "Remember my answer" box before clicking Yes.



- Open the **Windows Notepad**. Click anywhere inside the window.
- Click **Ctrl+V** to paste the results in the Notepad. You may now save this text file.



- Repeat as necessary.

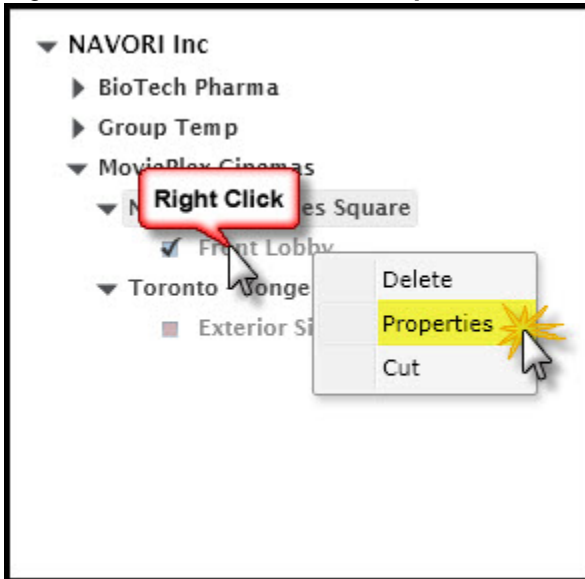
To send your alerts or events to Navori Technical Support, open a new support ticket and report your findings. Take all the text files that you saved and compress them into a single Zip file and then attach it to your support ticket.

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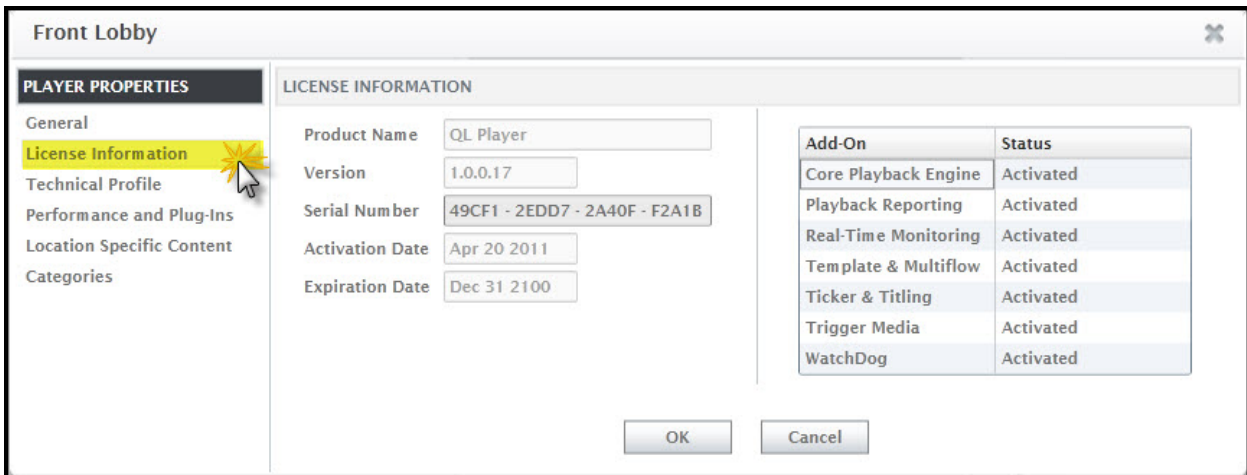
PPL07 - How to record and document a Player's technical specifications

You can record and document any Player's technical specifications by proceeding as follows:

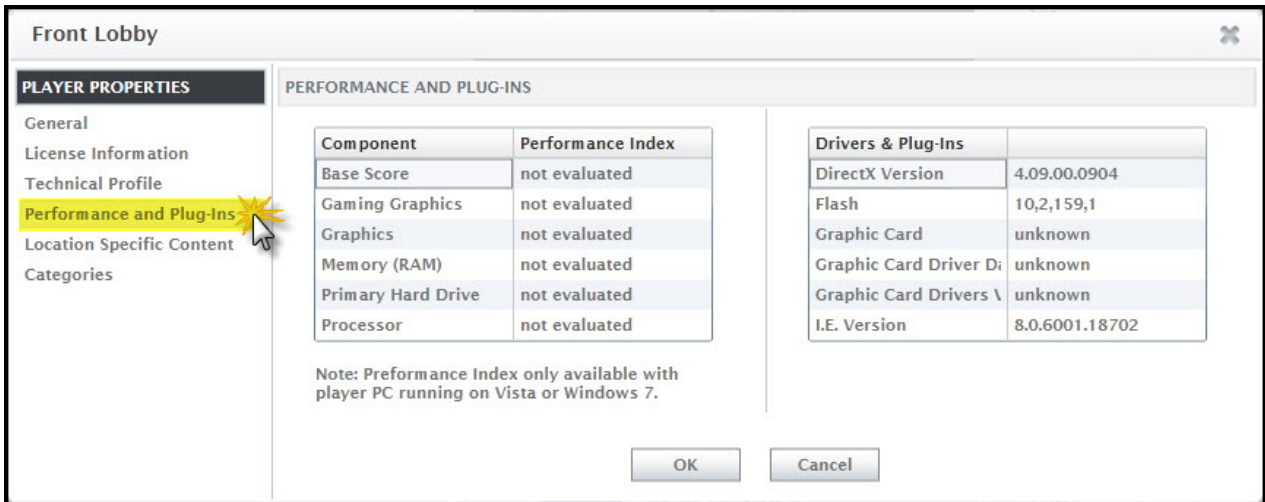
- Select the Player you would like to document.
- Right click its name and select **Properties**.



- Click the **License Information** tab on the left.



- Take a screen shot of this screen.
- Click the **Performance and Plug-ins** tab on the left.



- Take a screen shot of this screen.

To send your Player's technical specifications to Navori Technical Support, open a new support ticket and report your findings.

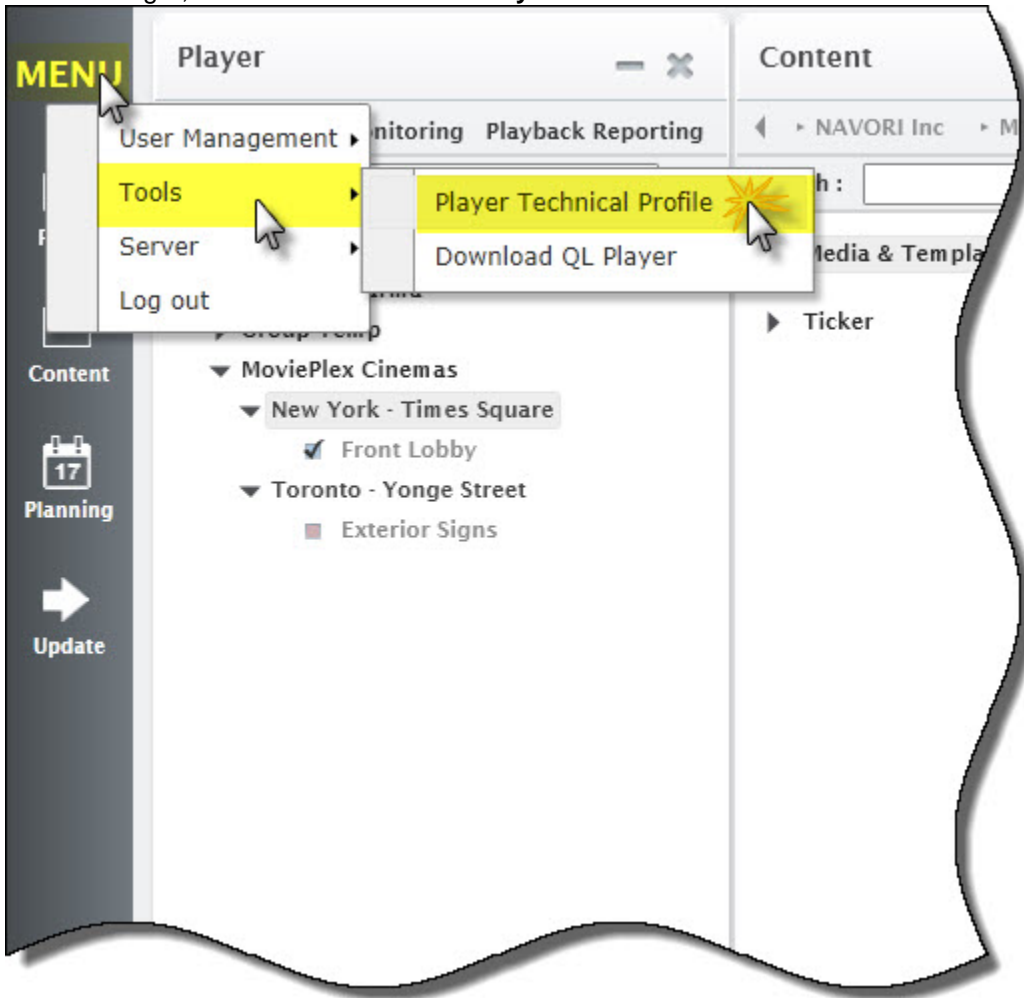
Take all the screen shots files that you saved and compress them into a single Zip file and then attach it to your support ticket.

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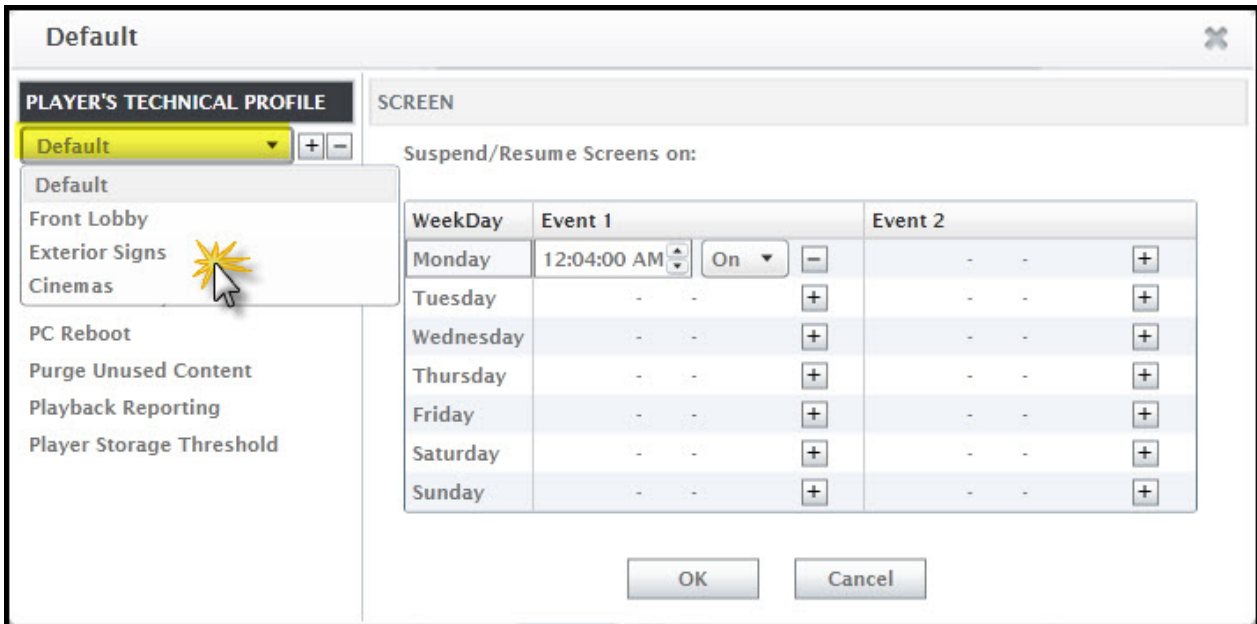
PPL08 - How to record and document a Player's technical profile

You can record and document any Player's technical profile by proceeding as follows:

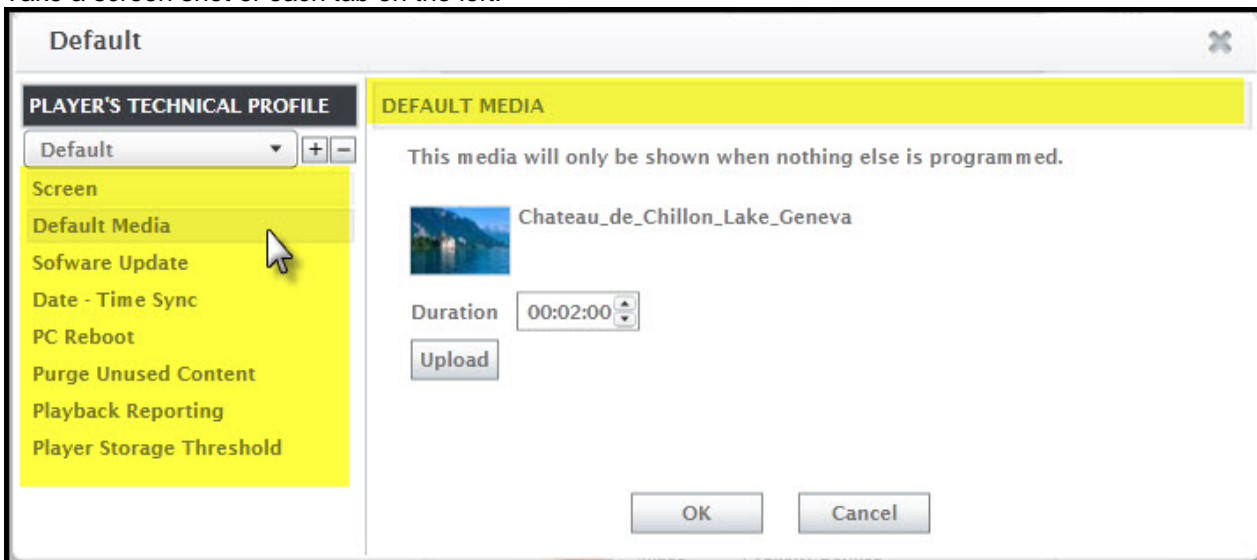
- In QL Manager, select **Menu > Tools > Player Technical Profile**.



- Select the profile of the Player you want to capture.



- Take a screen shot of each tab on the left.



- You should end up with 8 screen shots.

To send your Player's Technical Profile information to Navori Technical Support, open a new support ticket and report your findings.

Take all the screen shots files that you saved and compress them into a single Zip file and then attach it to your support ticket.

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PPL09 - Confirm all Navori QL modules are launched at boot up

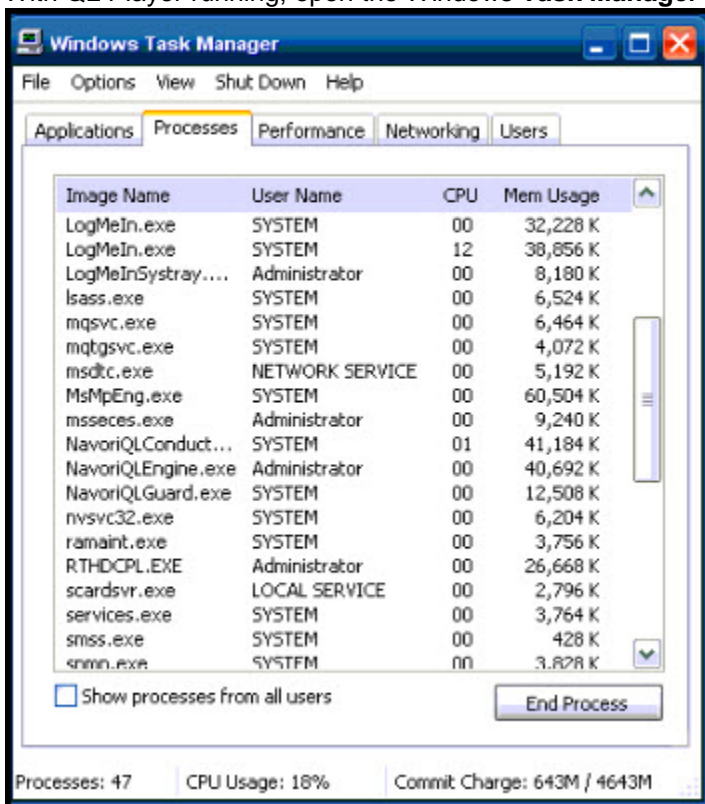
Navori QL Player is made up of 3 modules.

They are:

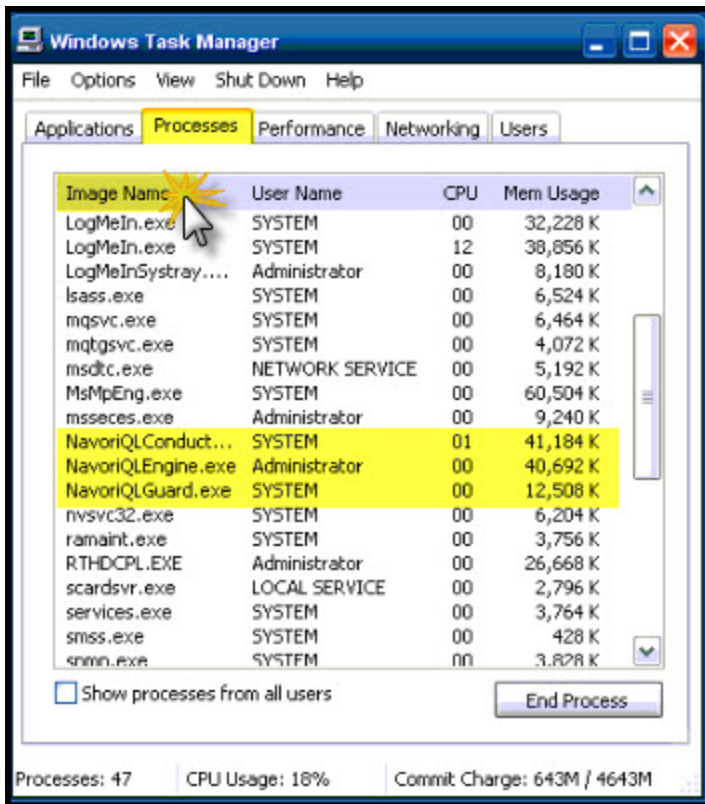
1. **Navori QL Engine:** This is the main QL Player module.
2. **Navori QL Conductor:** This service monitors the QL Engine and ensures it is always running.
3. **Navori QL Guard:** This service monitors QL Conductor and ensures it is always running.

To confirm all 3 modules are running on your Player PC, proceed as follows:

- With QL Player running, open the Windows **Task Manager** (by using Ctrl-Alt-Del for example).



- Select the **Processes** tab and then click the Image Name header to sort all processes alphabetically. Scroll down and you should see all 3 Navori services running in the list.



- For diagnostic purposes, we recommend you take a screen shot of the Processes tab to document the services running on this PC.

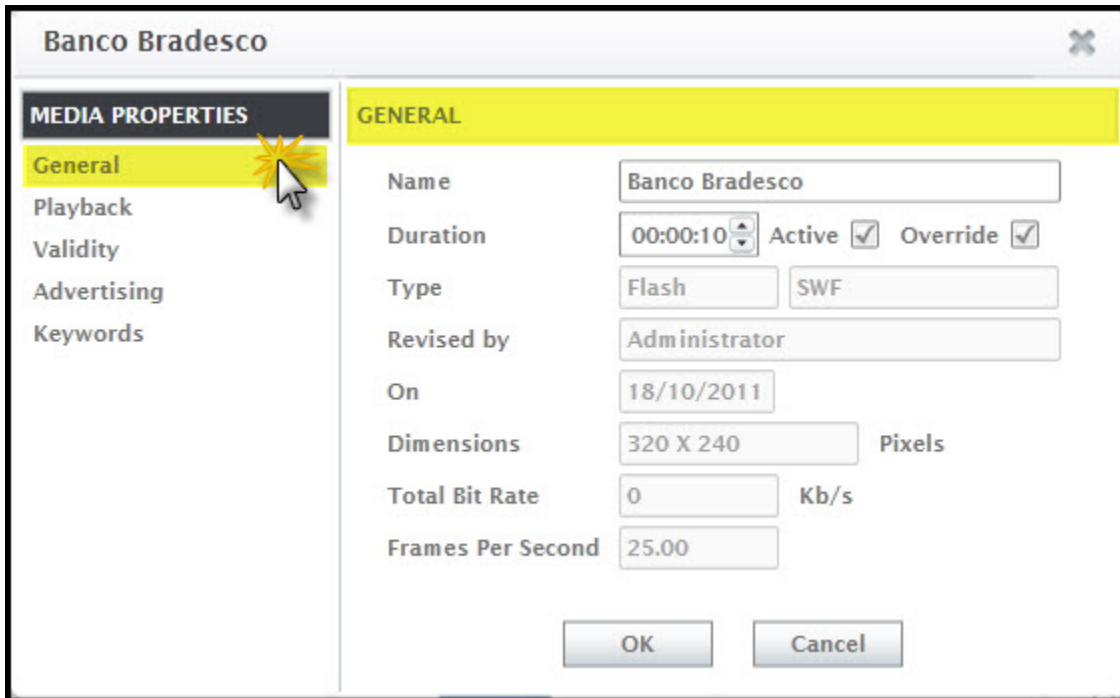
To send your screen shot to Navori Technical Support, open a new support ticket and report your findings. Take the screen shots files that you saved and compress it into a single Zip file and then attach it to your support ticket.

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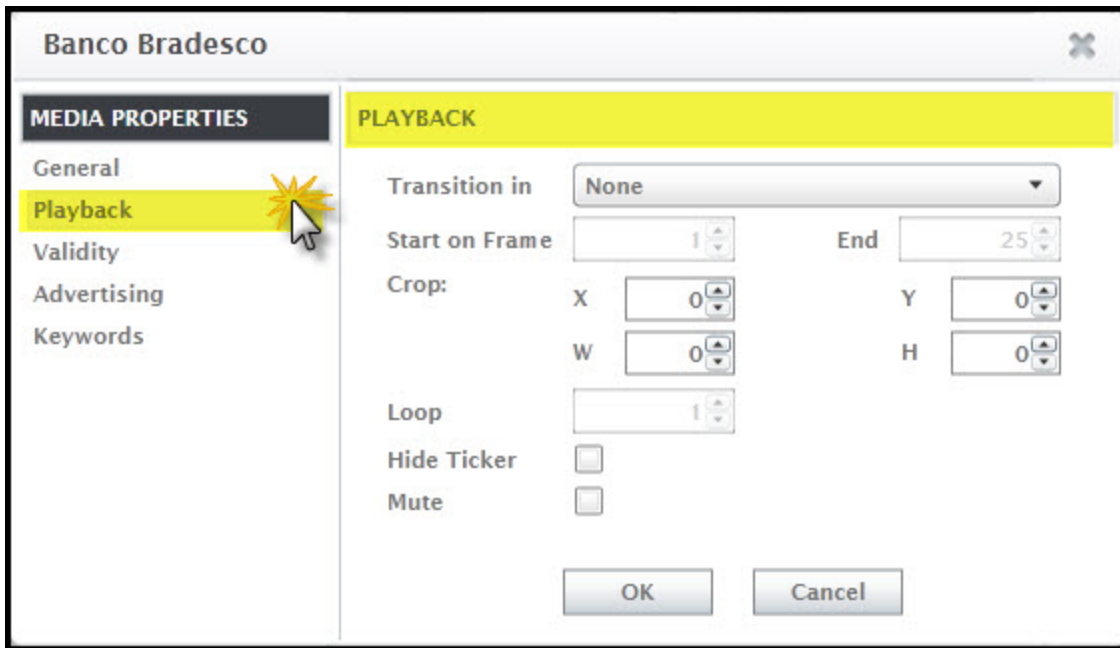
PPL10 - Capturing the properties of any media or content

To document the properties of any content on your QL Server, proceed as follows:

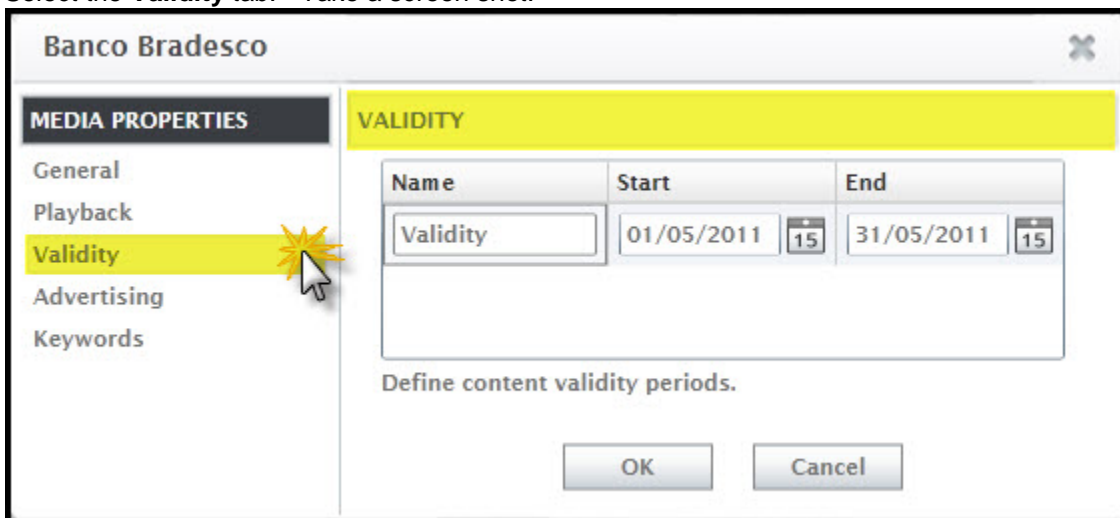
- Login to your QL Server via QL Manager.
- Select the content you wish to document the properties. Right-click its name and select **Properties**.
- The **Media Properties** window will open.
- Select the **General** tab. Take a screen shot.



- Select the **Playback** tab. Take a screen shot.



- Select the **Validity** tab. Take a screen shot.



To send your Media Property information to Navori Technical Support, open a new support ticket and report your findings.

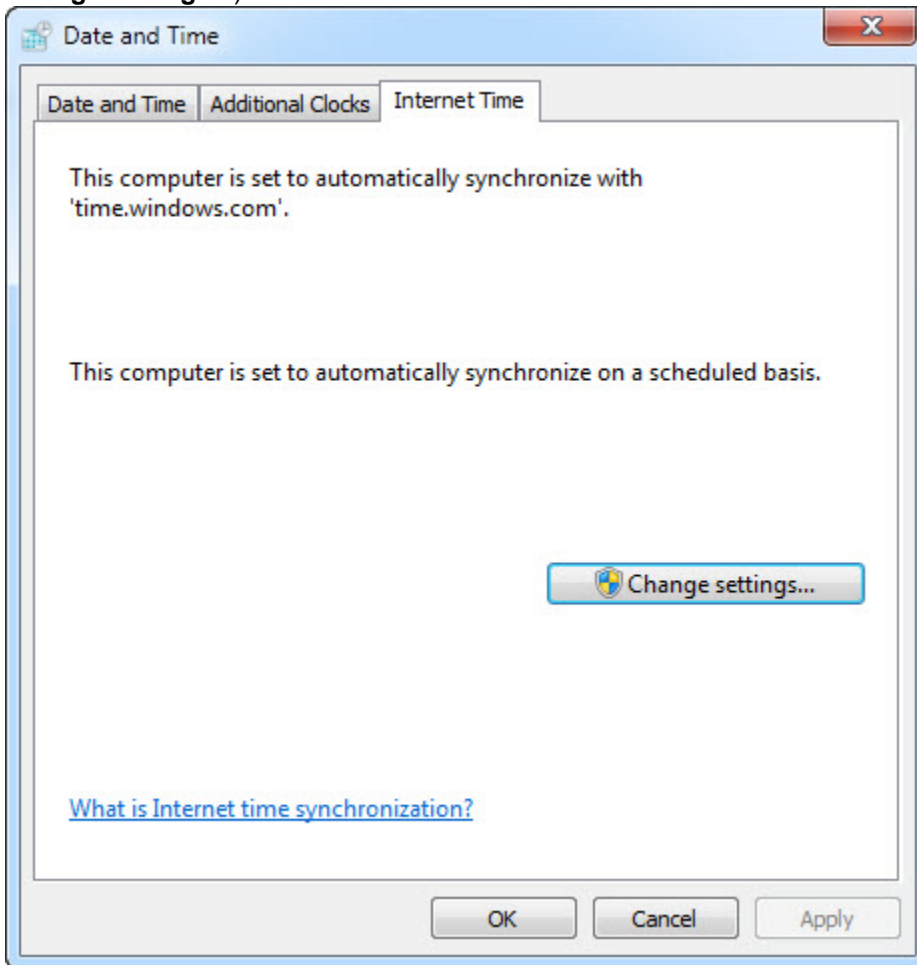
Take all the screen shots files that you saved and compress them into a single Zip file and then attach it to your support ticket.

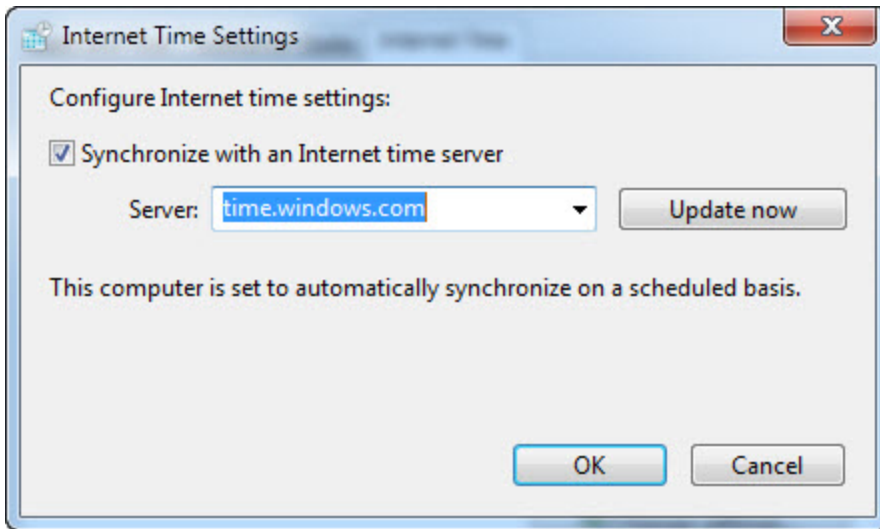
PPL11 - Confirming the Player PCs date and time

In order to function properly, it is critical that Player PCs be configured with the correct date and local time. Otherwise you may find that some content does not play when scheduled or not even play at all.

Here are the steps you should follow to confirm the Player PCs date:

- Open the Player PC's Windows Control Panel.
- Select **Date and Time > Internet Time > Synchronize with an Internet Time Server** (if already set, click **Change settings...**)





If the clock was set up properly according to the Player PCs local time and synchronization was also configured, open a new support ticket and report your findings to Navori Technical Support personnel.

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PPL12 - How to test the proper activation/deactivation of your Player screens

Download and launch the following screen test application from Navori:

<http://c712600.r0.cf2.rackcdn.com/setScreenOff.zip>

Open a new support ticket and report your findings to Navori Technical Support personnel.

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PPL13 - Testing Navori QL Server access from a QL Player

It is sometimes useful to test a Player's access to the QL Server.

To do so, please follow these steps:

1. On the Player PC, launch Internet Explorer.
2. Enter the following URL:
http://[IP or DNS address of your QL Server]/NavoriService/NavoriService.svc
3. If a web page appears with a request to create a service, Player is communicating properly with QL Server. If you do not see this message, Player is not communicating with QL Server and you must check your settings.

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PPL14 - Testing Player screen on/off command

Whenever you schedule the screen on/off period, QL Player turns off the video card's signal effectively forcing the screen into "sleep" mode.

In order for this to work properly, you must use screens that support this feature.

To test if your screen offers this feature, proceed as follows:

- In QL Manager, right click on the name of the player you wish to test.
- Select **Properties > Technical Profile**.
- Select **Change current player settings (Yes)**.
- Select the current day of the week and set a time to turn off the screen (ex: 5 minutes from now).
- Enter a time to turn on the screen 5 or 10 minutes later.
- Save your settings and update your player.

The screen should turn off and back on at the selected times.

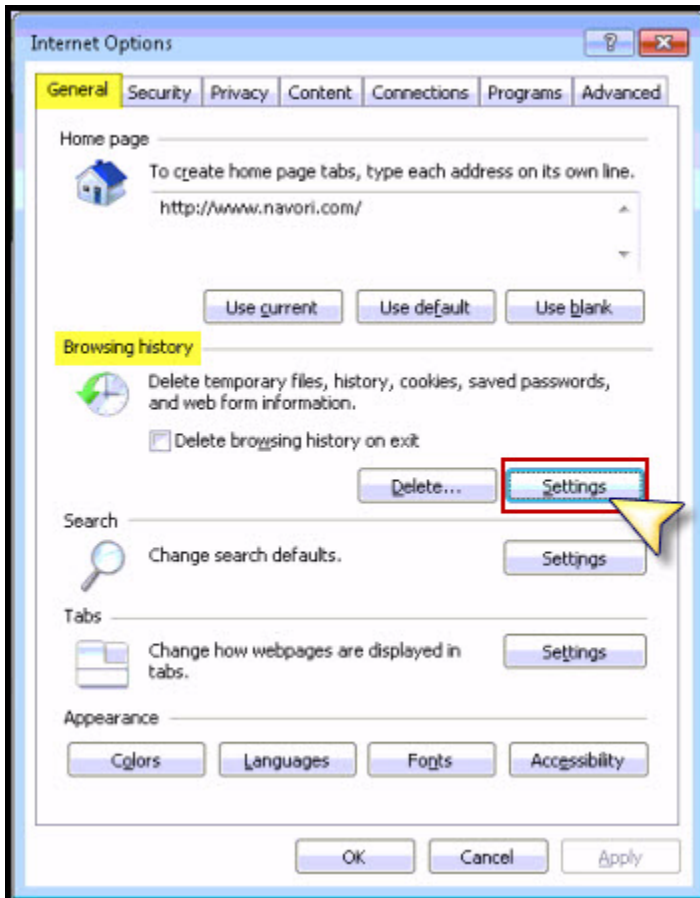
Once you have completed your test, don't forget to reset the **Change current player settings** to **(No)** so your original settings are restored.

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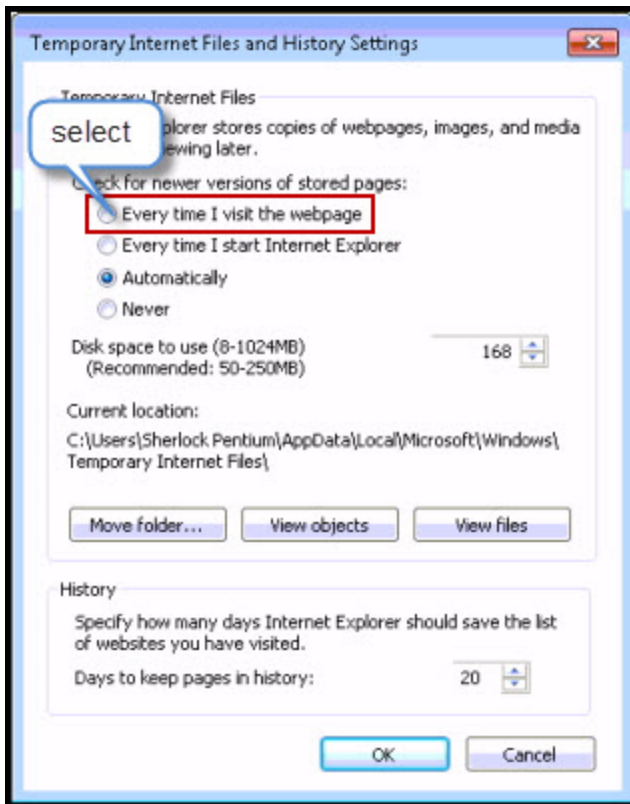
PPL15 - HTML content not refreshing on QL Player

If a HTML page fails to refresh each time it is displayed in QL Player, even if it has been assigned a short duration, you must modify the Internet Explorer "cache" settings (QL Player uses ActiveX in Internet Explorer).

- On the QL Player PC, exit the player application and launch Internet Explorer.
- Select **Tools (Alt-X) > Internet Options > General > Browsing History**
- Under Browsing History, click **Settings**



- Change the current setting from **Automatically** to **Every time I visit the webpage**.



- Click **OK** to confirm your settings. Close Internet Explorer and either reboot the PC or re-launch QL Player.

This will re-initialize Internet Explorer's cache each time you load a web page in QL Player.

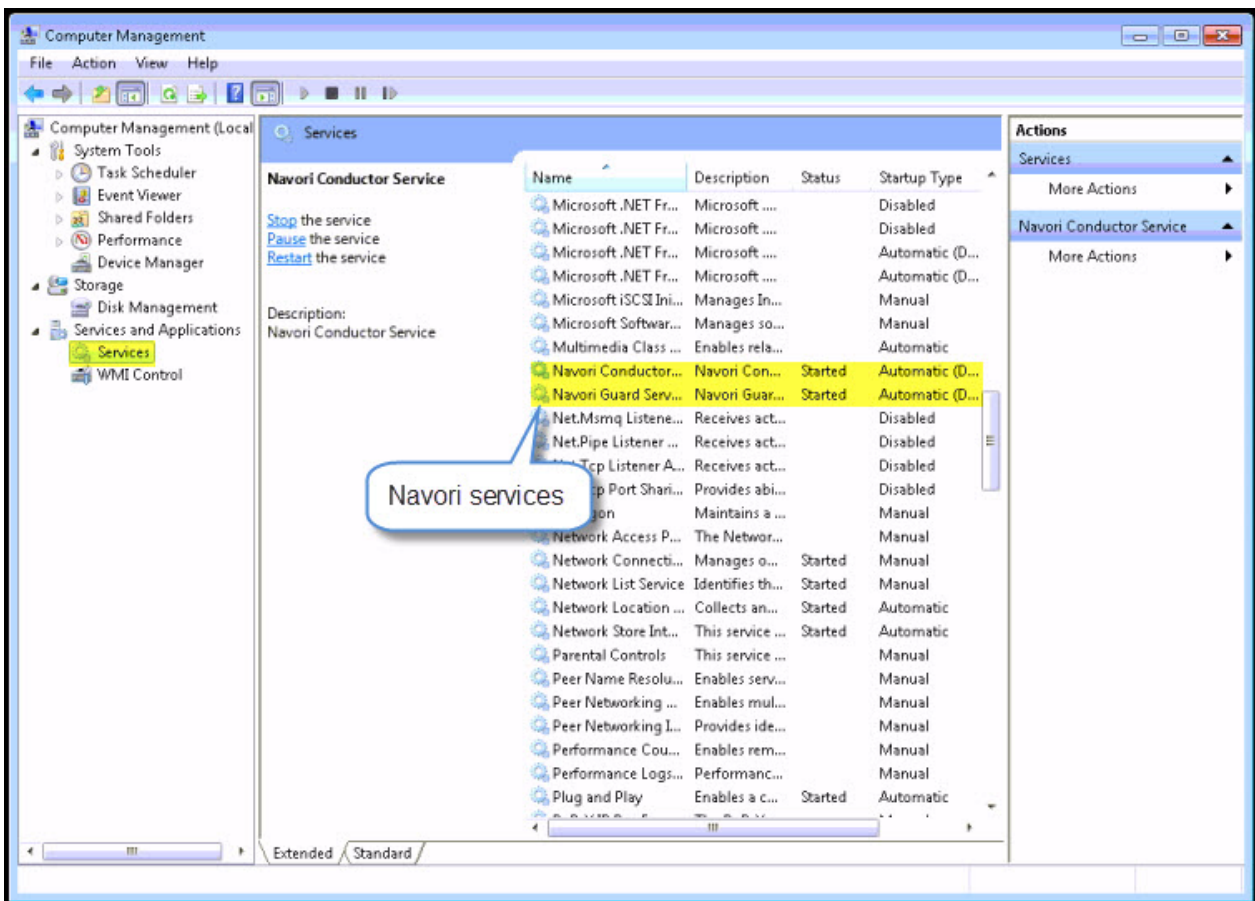
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PPL16 - Correcting issues caused by running QL Player in a "regular user" session

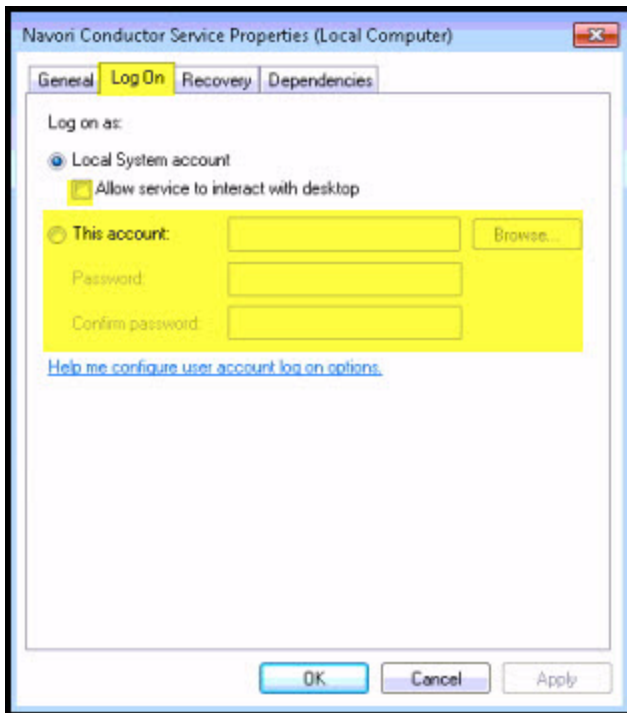
The QL Player application must always be installed under a user account with full Administrative rights. This ensures the application is properly installed. However, even though the installation was made under an account with Administrative rights, it is still possible to launch the QL Player application under an account that insufficient rights (operating under a regular user session). When this occurs, QL Player may function erratically. For example, QL Player may not have sufficient rights to write log files and the application may also crash because it cannot write to the hard drive.

The solution is to assign Administrative rights to the Navori **Guard** and **Conductor** services. To do so, you must access the Windows Services and proceed as follows:

- Click **Start**.
- Right-click **Computer**. Select **Manage**. The **Computer Management** window will open.
- Under Services and **Applications** select **Services**. The list of all available Services will appear in the right pane.



- Locate the **Navori Conductor** service. Right click it and select **Properties**.
- Click the second tab marked **Log On**.
- Click **This account** and then enter the account name and password with Administrative rights that you want to use to ensure this service can operate with the necessary rights.



- You may also select the **Allow service to interact with desktop** if the previous step does not resolve the issue.

Once you have completed the steps above for the **Navori Conductor** service, repeat for the **Navori Guard** service.

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QL Server troubleshooting procedures

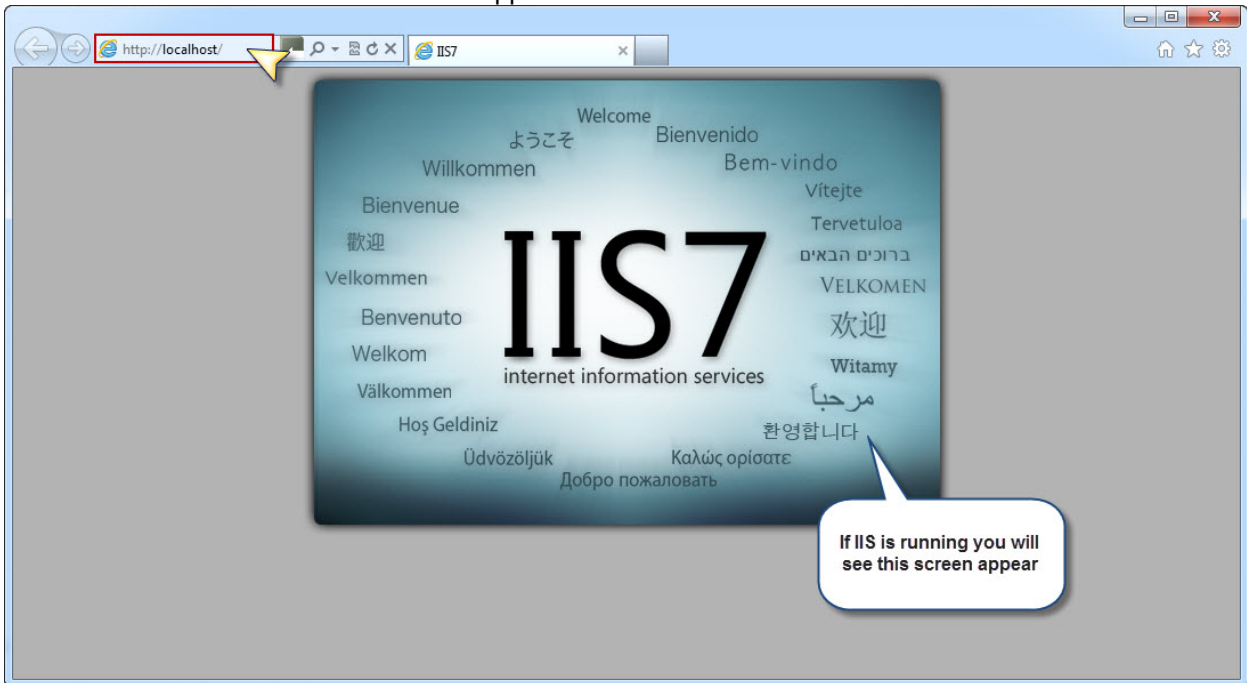
List of server troubleshooting procedures:

- [PSR01 - How to test and confirm Microsoft IIS Server is operational](#)
- [PSR02 - How to confirm that QL Manager's home page is accessible](#)
- [PSR03 - How to configure the Config Helper Proxy](#)
- [PSR04 - Testing the Config Helper Proxy settings](#)
- [PSR05 - Config Helper connection settings](#)
- [PSR06 - Config Helper database settings](#)
- [PSR07 - Config Helper Extranet](#)
- [PSR08 - Config Helper confirming Windows rights](#)
- [PSR09 - How to test the Navori SQL account](#)
- [PSR10 - Confirming Navori SQL account's rights over the master database \(pre-installation\)](#)
- [PSR11 - Confirming the SQL authentication connection mode is activated properly](#)
- [PSR12 - Microsoft Internet Explorer \(IE\) protected mode](#)
- [PSR13 - How to verify the size of the QL databases](#)
- [PSR14 - How to determine if Navori QL Server is activated](#)
- [PSR15 - How to confirm that SQL Server is accessible from the QL Server PC](#)
- [PSR16 - How to correct issues related to retrieving new Player licenses behind a proxy and firewall](#)

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PSR01 - How to test and confirm Microsoft IIS Server is operational

- On the QL Server PC, launch Internet Explorer.
- Type in the following URL: **http://localhost/**
- You should see the IIS welcome screen appear.



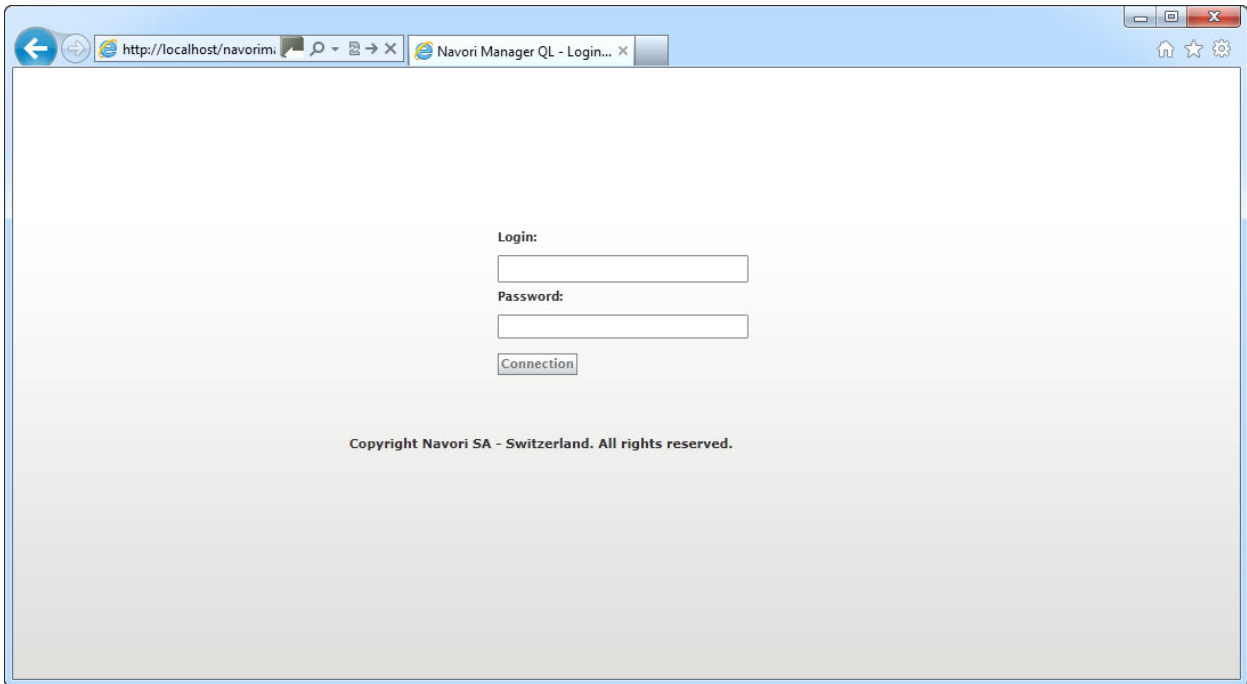
- Next, try and login to the server from another PC. If you are going to access the server from the Internet, use the public IP address. If you plan to access the server on a private LAN, enter the server's private IP address. You should be able to load the IIS welcome screen from either public or local IP.

If you do not see the IIS welcome screen, verify that IIS is installed and configured according to our instructions.

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PSR02 - How to confirm that QL Manager's home page is accessible

- On the QL Server PC, launch Internet Explorer.
- Type in the following URL: **http://localhost/navorimanager**
- You should see the Navori QL Manager home page appear.



If you do not see the Navori QL Manager home page, or if you see the home page but cannot log in (does not display the error: "Wrong Login Password") proceed as follows:

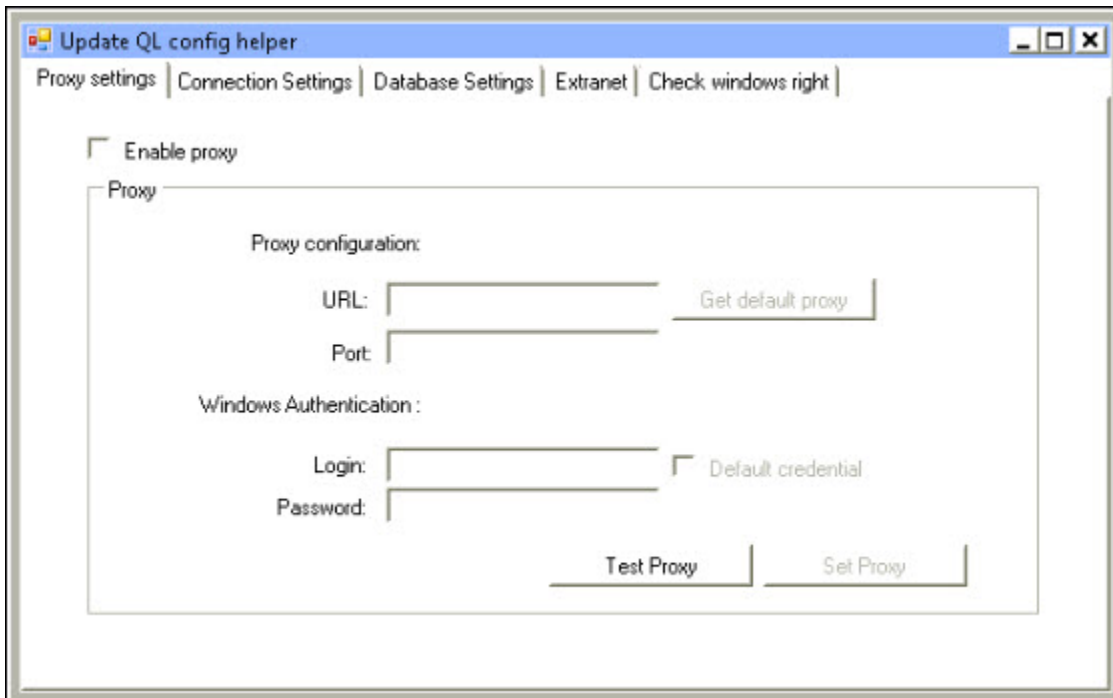
1. Launch the [Update Config Helper](#) and select the [Connection Settings](#) tab.
2. Locate the IP or DNS address assigned to Navori Web Services. Copy it to the Windows clipboard.
3. Launch Internet Explorer and paste the Navori Web Services URL, IP or DNS.
 - If the user can log in, they must use this URL or they must edit the Navori Web Services and Upload Folder values.
 - If the user still cannot log in then there is a problem with the server's activation. Consult [PSR 16](#).

PLEASE NOTE! This test will also confirm if QL Server's URL is properly configured.

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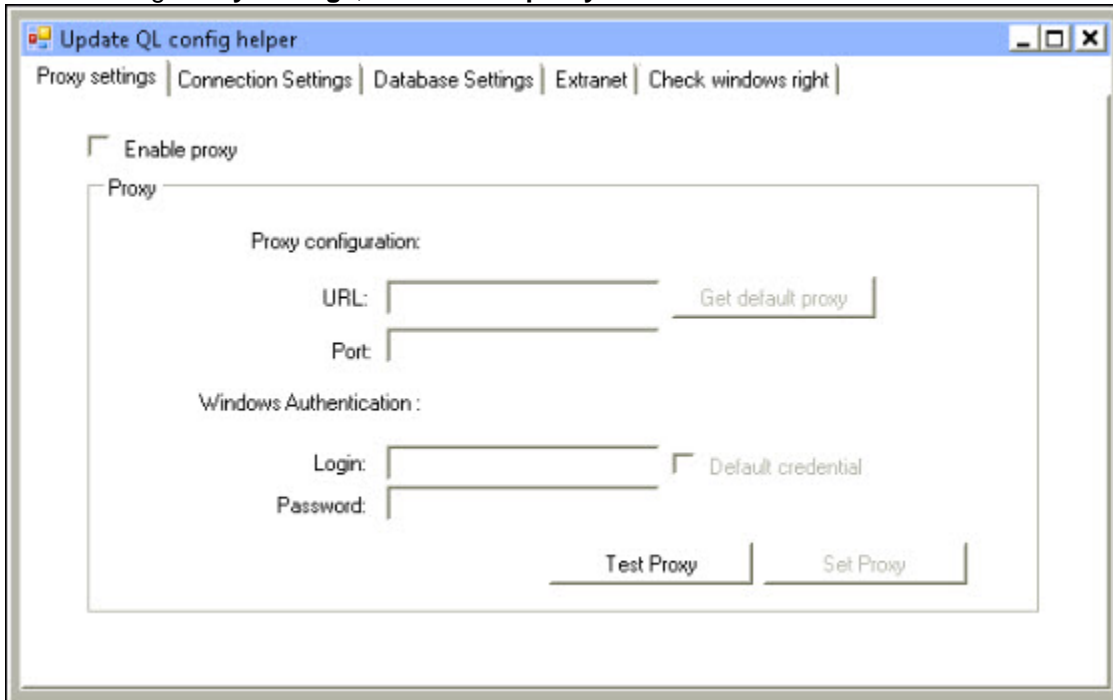
PSR03 - How to configure the Config Helper Proxy

- On the QL Server PC, look in the application installation folder. By default, this will be: **C:\Program Files (x86)\Navori\Navori QL Server Installation Package**.
- Locate and launch **NavoriQLConfigHelper** (note, there is a XML configuration file and the executable so make sure you double click on the executable file).
- Under the tag **Proxy settings**, click **Enable proxy** and then fill in the fields.



PSR04 - Testing the Config Helper Proxy settings

- On the QL Server PC, look in the application installation folder. By default, this will be: **C:\Program Files (x86)\Navori\Navori QL Server Installation Package**.
- Locate and launch **NavoriQLConfigHelper** (note, there is a XML configuration file and the executable so make sure you double click on the executable file).
- Under the tag **Proxy settings**, click **Enable proxy** and then fill in the fields below.



The screenshot shows a window titled "Update QL config helper" with a menu bar containing "Proxy settings", "Connection Settings", "Database Settings", "Extranet", and "Check windows right". The "Proxy settings" tab is active. It features a checkbox labeled "Enable proxy" which is checked. Below this is a "Proxy" section with a "Proxy configuration:" label. It includes input fields for "URL:" and "Port:", with a "Get default proxy" button next to the URL field. Underneath is a "Windows Authentication:" section with input fields for "Login:" and "Password:", and a "Default credential" checkbox. At the bottom of the form are two buttons: "Test Proxy" and "Set Proxy".

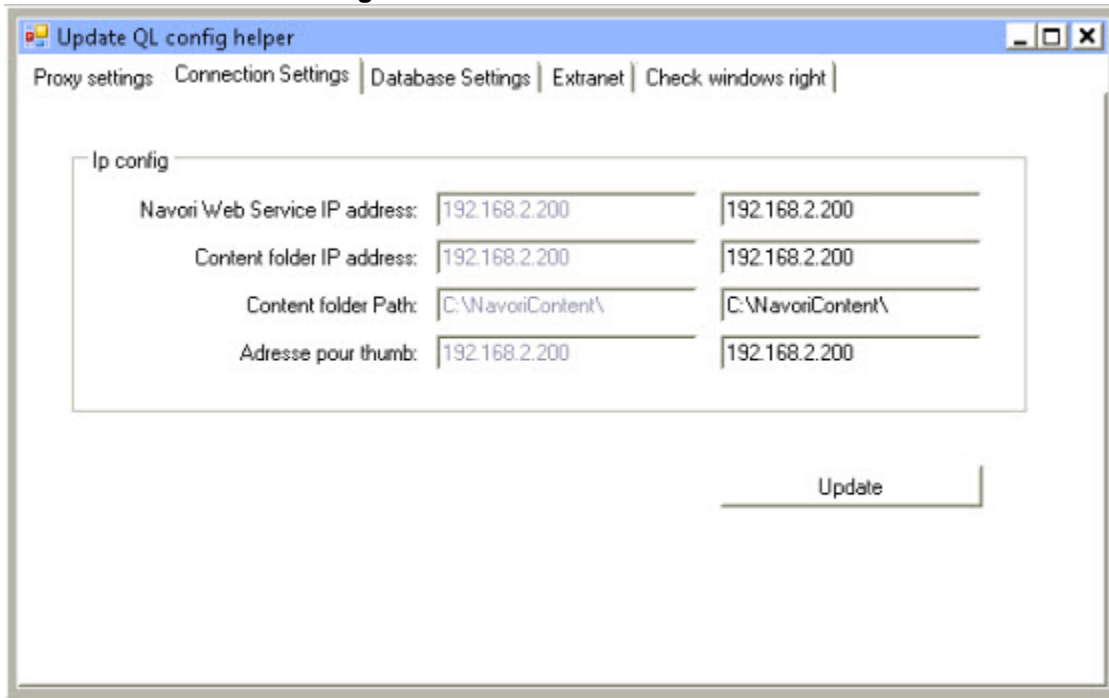
- Once you have entered your proxy settings, click the **Test Proxy** button.

If you get an error after clicking the test button, take a screen shot and save the file. Open a new support ticket and report your findings.

Take the screen shot file that you saved previously, compress it into a single Zip file and then attach it to your support ticket.

PSR05 - Config Helper connection settings

- On the QL Server PC, look in the application installation folder. By default, this will be: **C:\Program Files (x86)\Navori\Navori QL Server Installation Package**.
- Locate and launch **NavoriQLConfigHelper** (note, there is a XML configuration file and the executable so make sure you double click on the executable file).
- Select the **Connection Settings** tab.



- The Navori web service IP address and content folder IP address can be either an IP or a DNS, however, this address must be the same as the URL your users enter to connect via QL Manager. Looking at the example above, the Navori QL Manager login URL will be an IP-based login: **http://192.168.2.200/navorimanager**. (NOTE: this is just an example, use your own server's IP address).
- After you have entered all the information, click **Update** to connect and validate your settings.

If you get an error after clicking the **Update** button, take a screen shot and save the file. Open a new support ticket and report your findings.

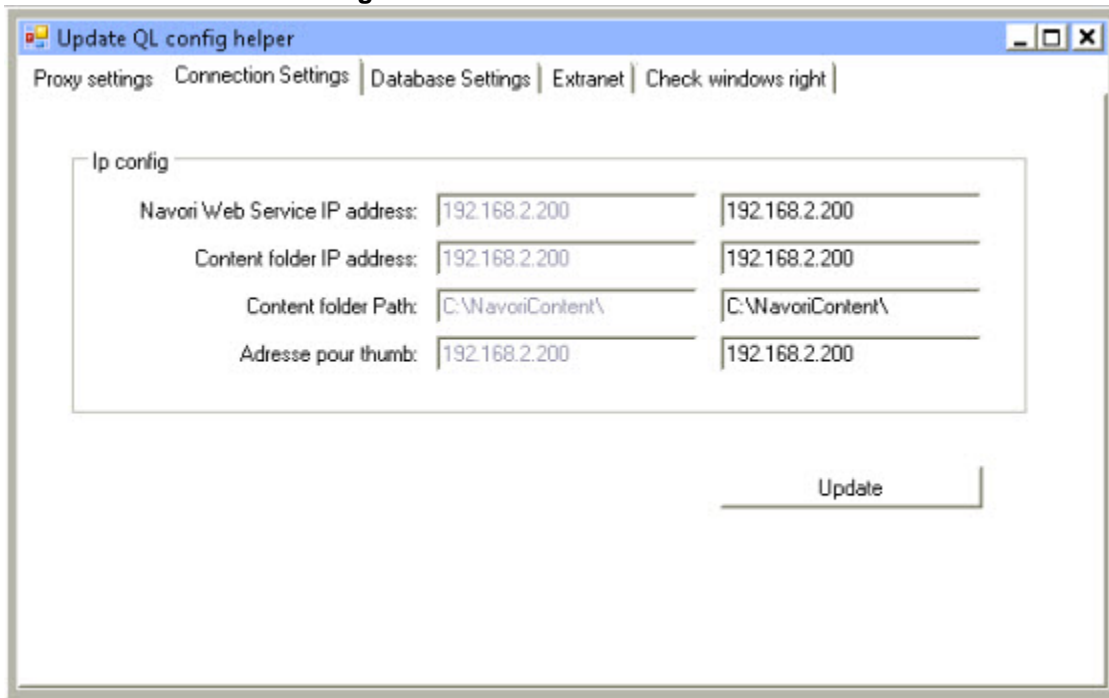
Take the screen shot file that you saved previously, compress it into a single Zip file and then attach it to your support ticket.

ALTERNATE TESTING PROCEDURE

If you want to test if the connection settings on your local LAN, you can enter "localhost" instead of an IP address for all 3 IP fields. If you can connect while configured in localhost mode on your LAN then this indicates a possible issue with incoming connections. Check your firewall, Internet router and IIS settings.

HOW TO CONNECT IN FAILSAFE MODE

- Launch **NavoriQLConfigHelper**.
- Select the **Connection Settings** tab.



- Set all the IP addresses to **localhost**.
- Try to connect again. If you are unable to connect, it means your server activation has failed. If you are able to connect with the server configured in localhost setting and not when configured with an IP address or DNS, confirm you are using the proper IP address or DNS.

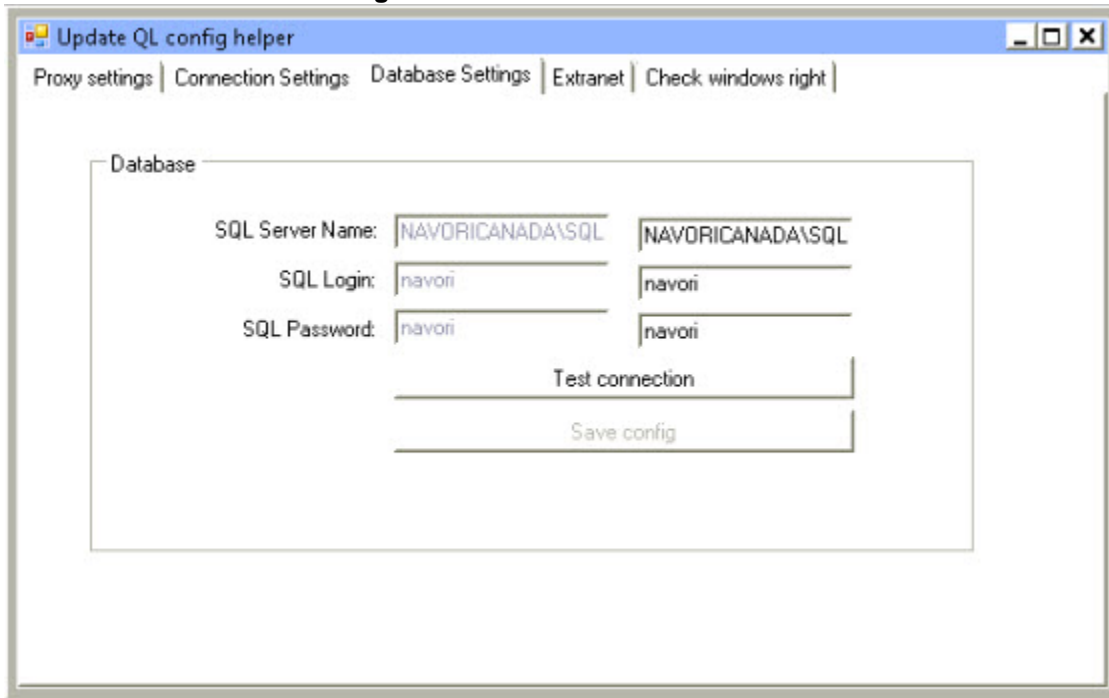
If you are unable to resolve the issue after following these steps and see any error, take a screen shot and save the file. Open a new support ticket and report your findings.

Take the screen shot file that you saved previously, compress it into a single Zip file and then attach it to your support ticket.

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PSR06 - Config Helper database settings

- On the QL Server PC, look in the application installation folder. By default, this will be: **C:\Program Files (x86)\Navori\Navori QL Server Installation Package**.
- Locate and launch **NavoriQLConfigHelper** (note, there is a XML configuration file and the executable so make sure you double click on the executable file).
- Select the tab **Database Settings**.



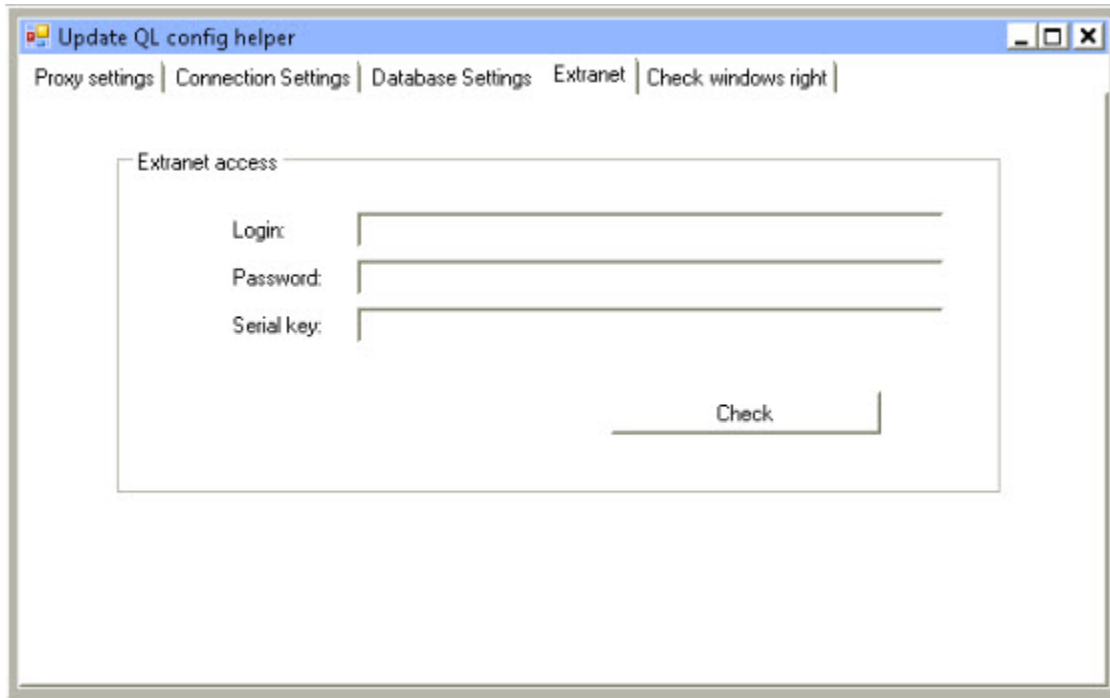
- Enter the **SQL Server Name**, **login name** and **password**.
- Click **Test connection**.

If you get an error after clicking the **Test connection** button, take a screen shot and save the file. Open a new support ticket and report your findings.

Take the screen shot file that you saved previously, compress it into a single Zip file and then attach it to your support ticket.

PSR07 - Config Helper Extranet

- On the QL Server PC, look in the application installation folder. By default, this will be: **C:\Program Files (x86)\Navori\Navori QL Server Installation Package**.
- Locate and launch **NavoriQLConfigHelper** (note, there is a XML configuration file and the executable so make sure you double click on the executable file).
- Select the tab **Extranet**.



- Enter your Navori Extranet account **login name**, **password** and your Navori QL Server **Serial number**.
- Click **Check**.

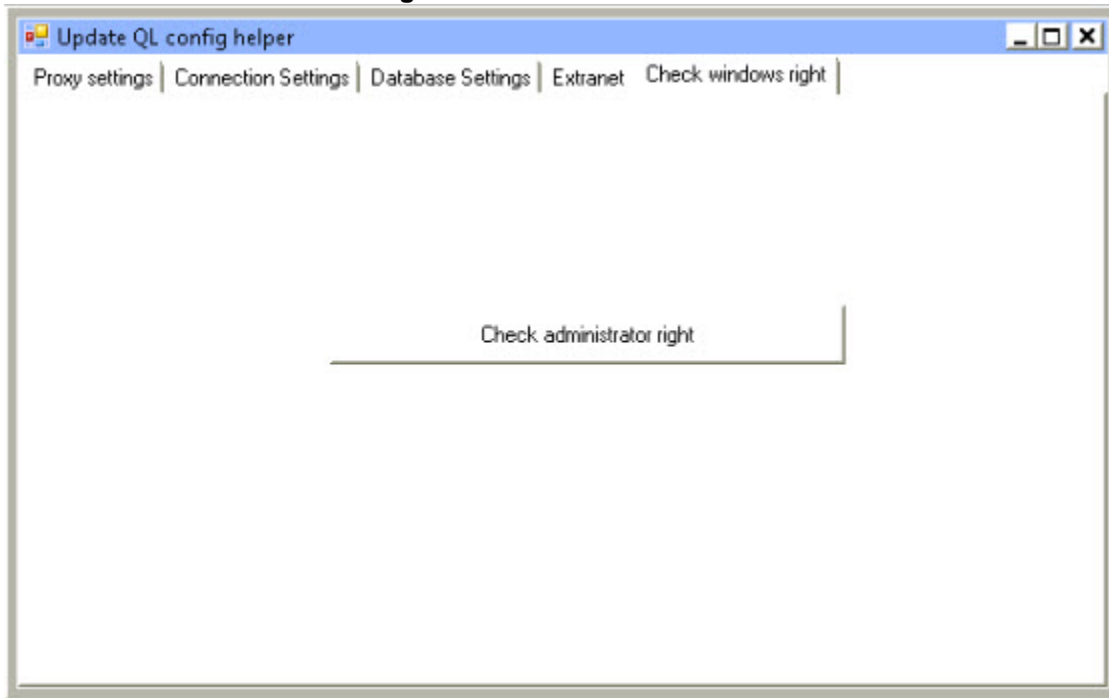
If you get the following error after clicking the **Test connection** button: **License status 2. Warning, License Status Cannot be Determined!**, take a screen shot and save the file.

Open a new support ticket and report your findings. Take the screen shot file that you saved previously, compress it into a single Zip file and then attach it to your support ticket.

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PSR08 - Config Helper confirming Windows rights

- On the QL Server PC, look in the application installation folder. By default, this will be: **C:\Program Files (x86)\Navori\Navori QL Server Installation Package**.
- Locate and launch **NavoriQLConfigHelper** (note, there is a XML configuration file and the executable so make sure you double click on the executable file).
- Select the tab **Check windows rights**.



- Click **Check administrator rights**.

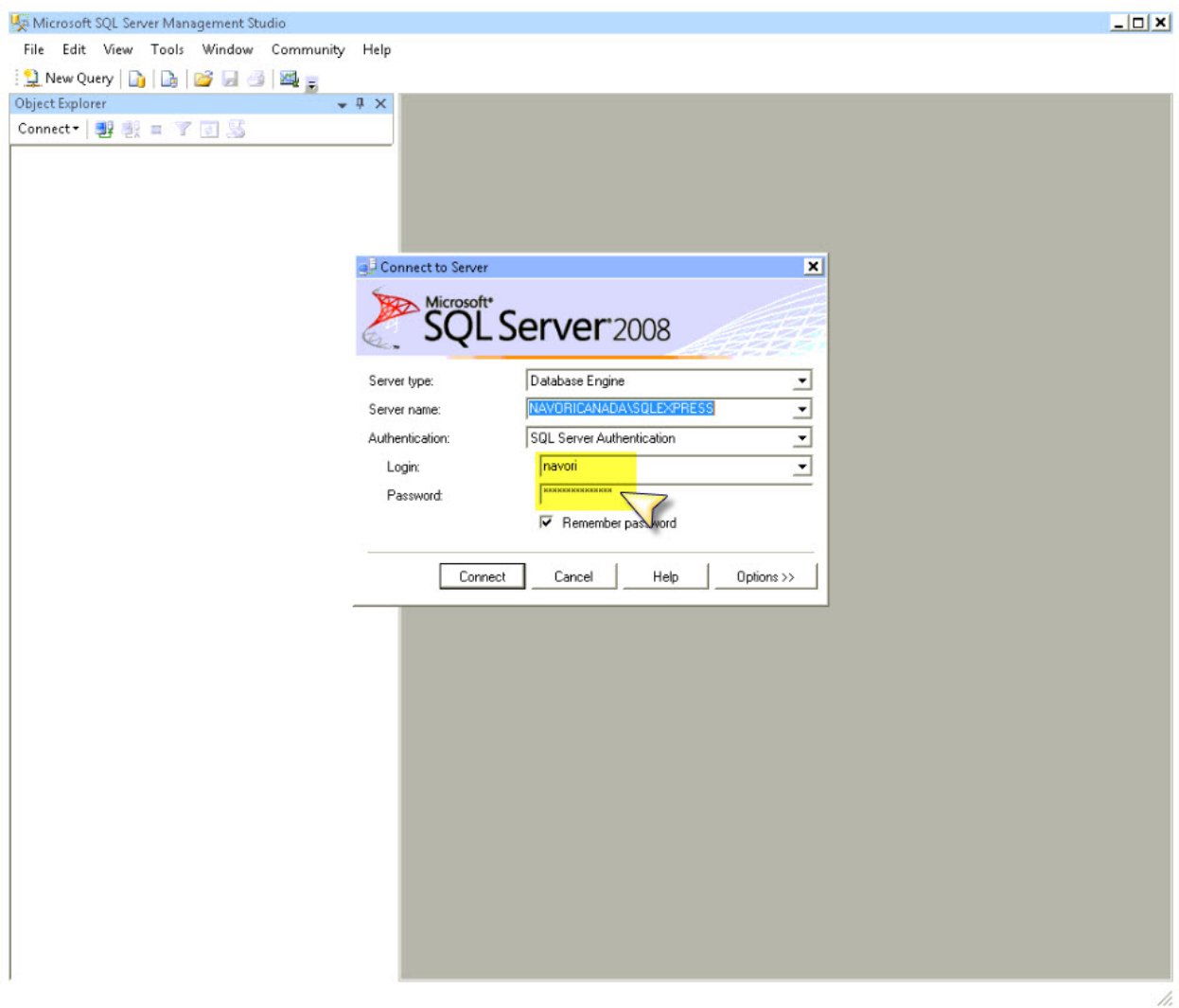
If you get an error after clicking the **Check administrator rights** button, take a screen shot and save the file. Open a new support ticket and report your findings.

Take the screen shot file that you saved previously, compress it into a single Zip file and then attach it to your support ticket.

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PSR09 - How to test the Navori SQL account

- Launch **SQL Server Management Studio**.
- Enter your **login name** and **password**.
- Click **Connect**.



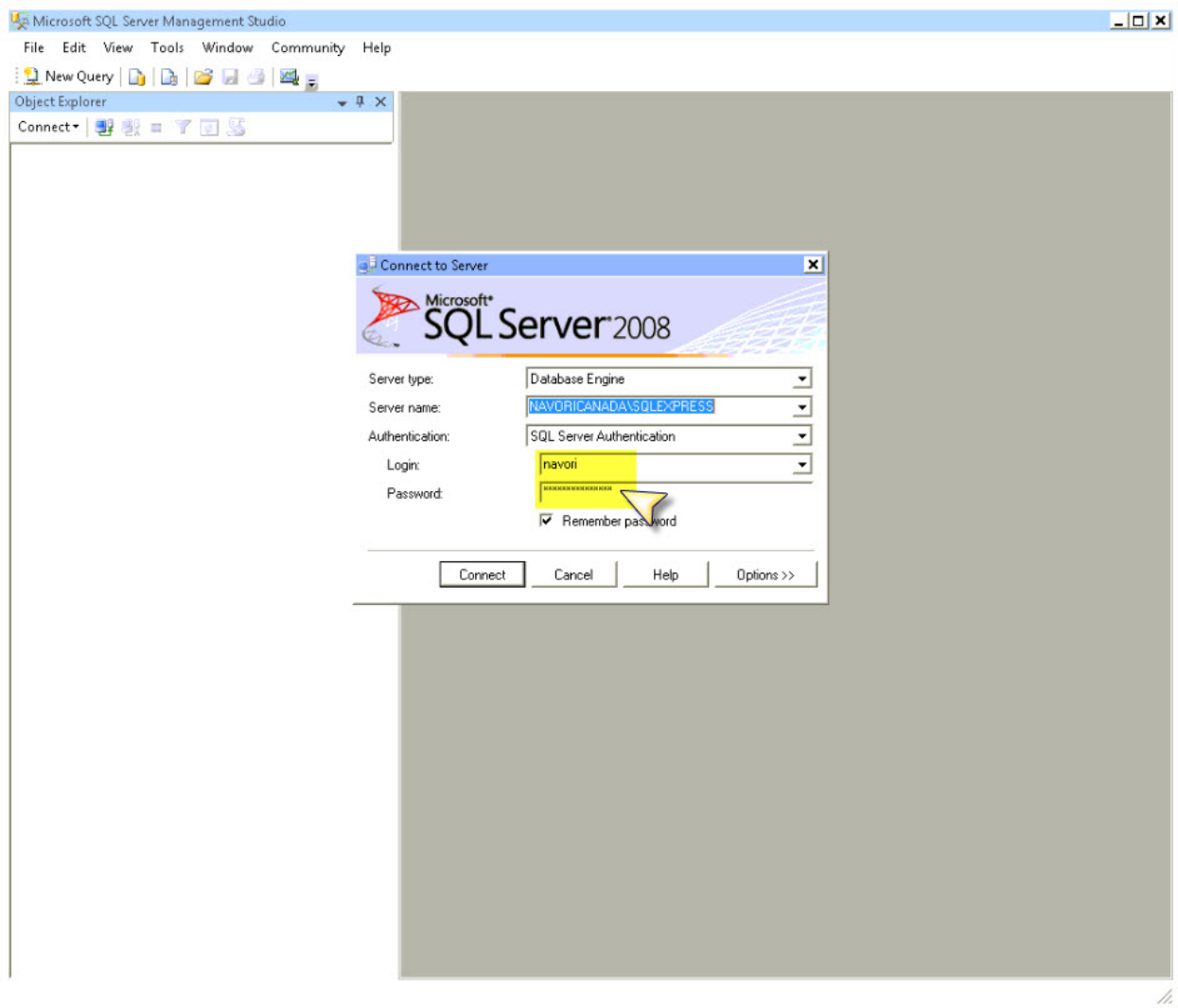
If you get an error after clicking the **Connect** button, take a screen shot and save the file. Open a new support ticket and report your findings.

Take the screen shot file that you saved previously, compress it into a single Zip file and then attach it to your support ticket.

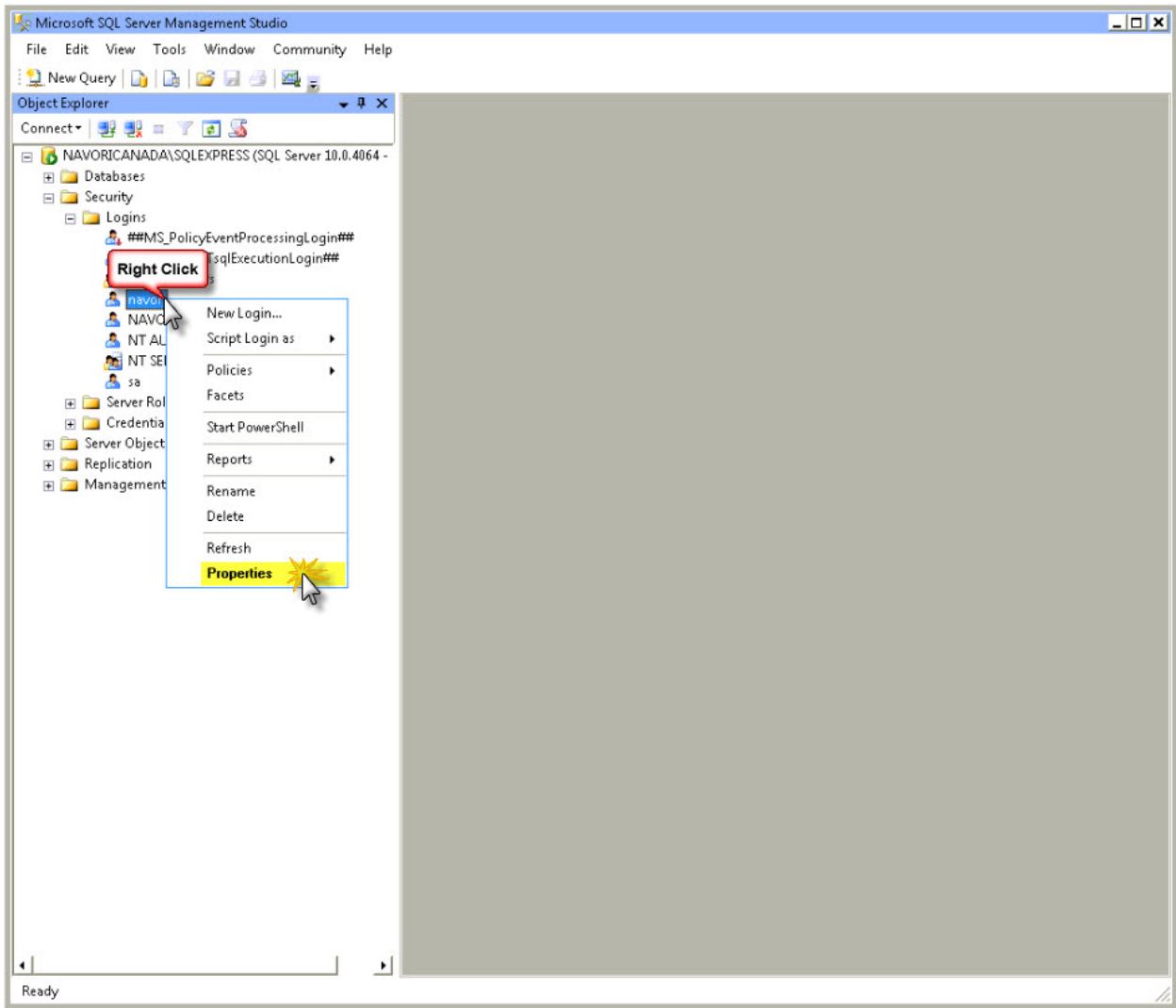
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PSR10 - Confirming Navori SQL account's rights over the master database (pre-installation)

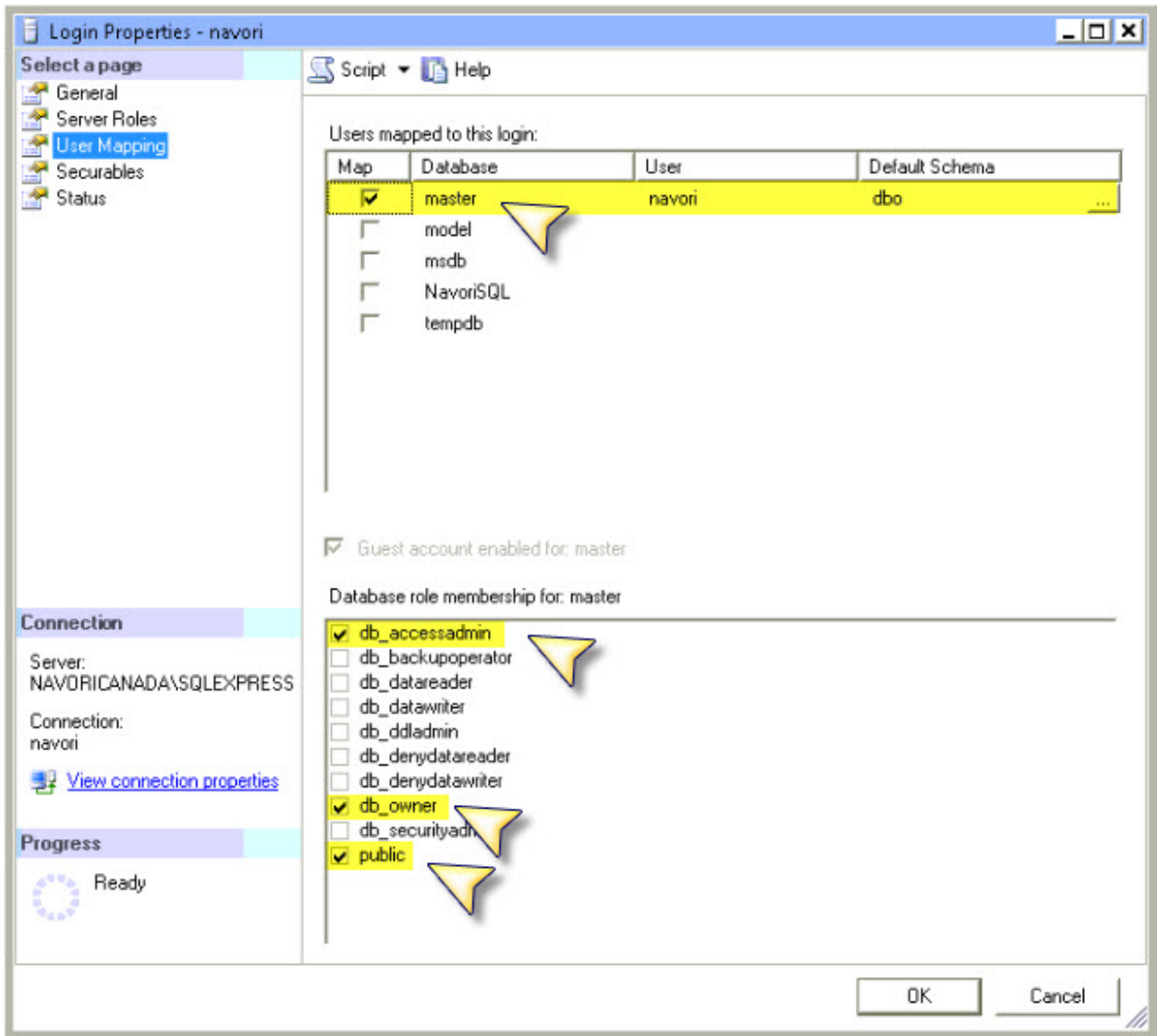
- Launch **SQL Server Management Studio**.
- Enter your **login name** and **password**.
- Click **Connect**.



- Locate the **navori** account under **Security > Logins** (we use navori by default but you can create a user with any name of your choosing) . Right-click the account name and select **Properties**.



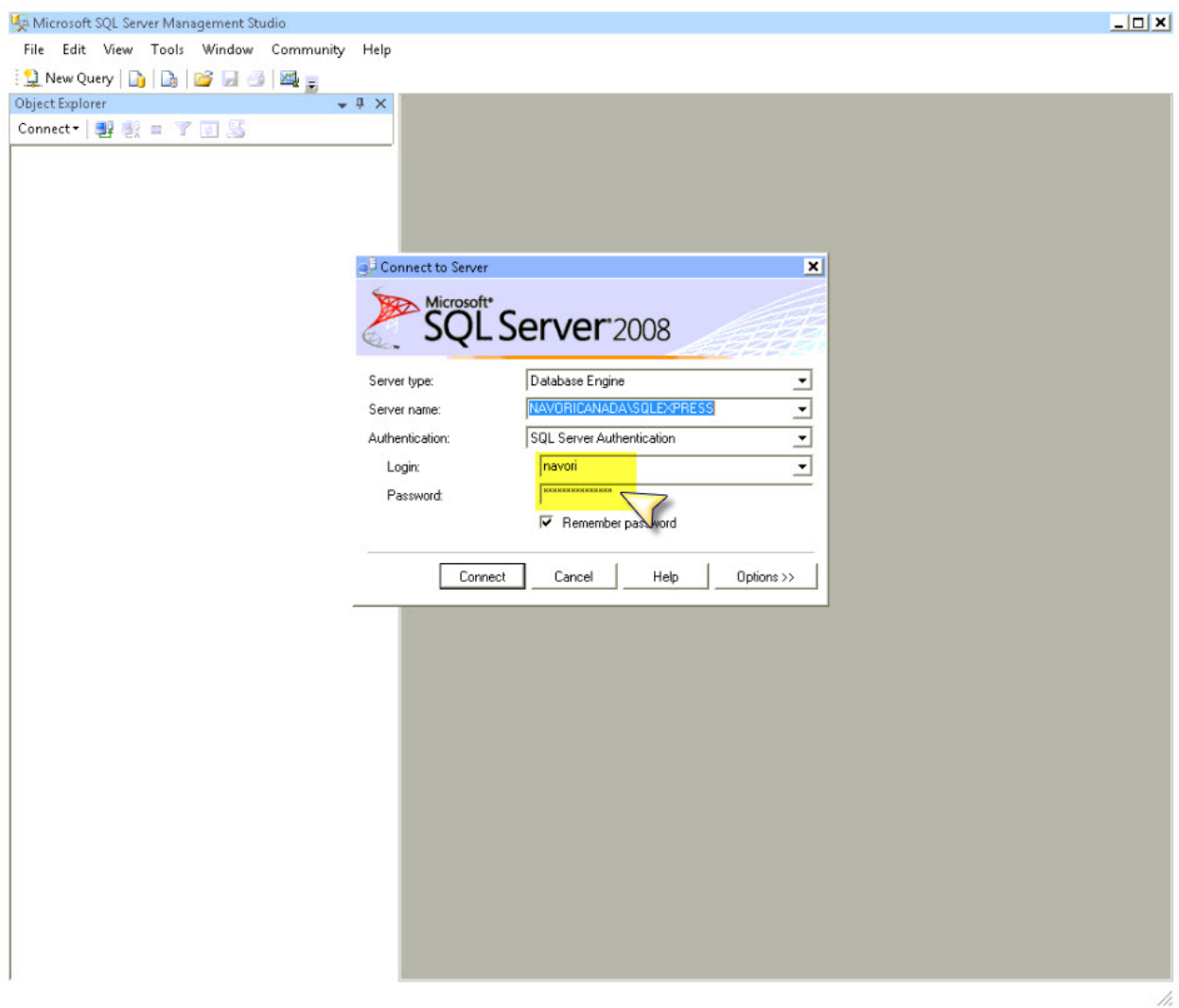
- Make sure that the **User Mapping** looks like the illustration below. **Map > master, User > navori, Default Schema > dbo.**
Next, make sure **Database role membership for: master = db_accessadmin, db_owner, public.**



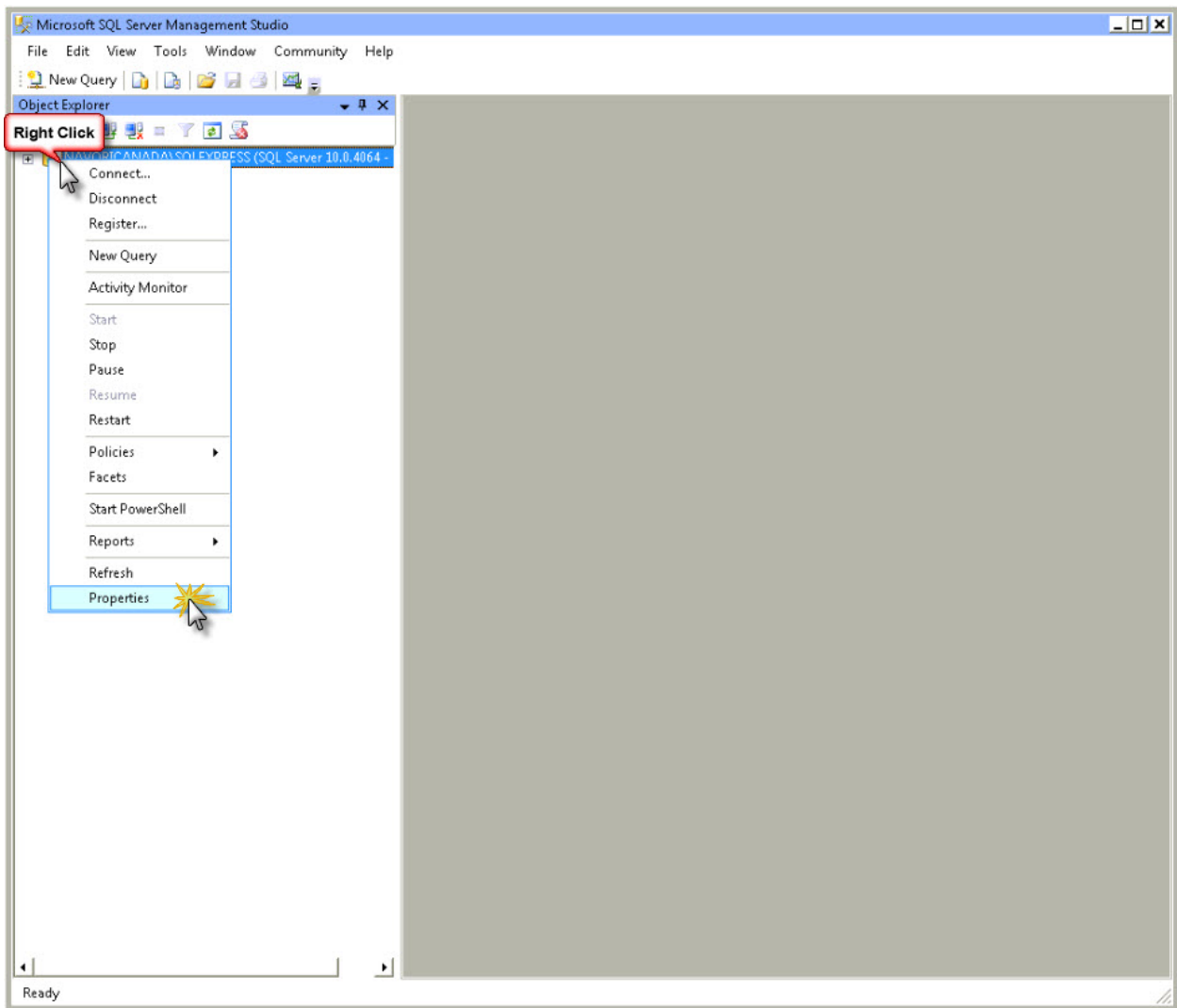
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PSR11 - Confirming the SQL authentication connection mode is activated properly

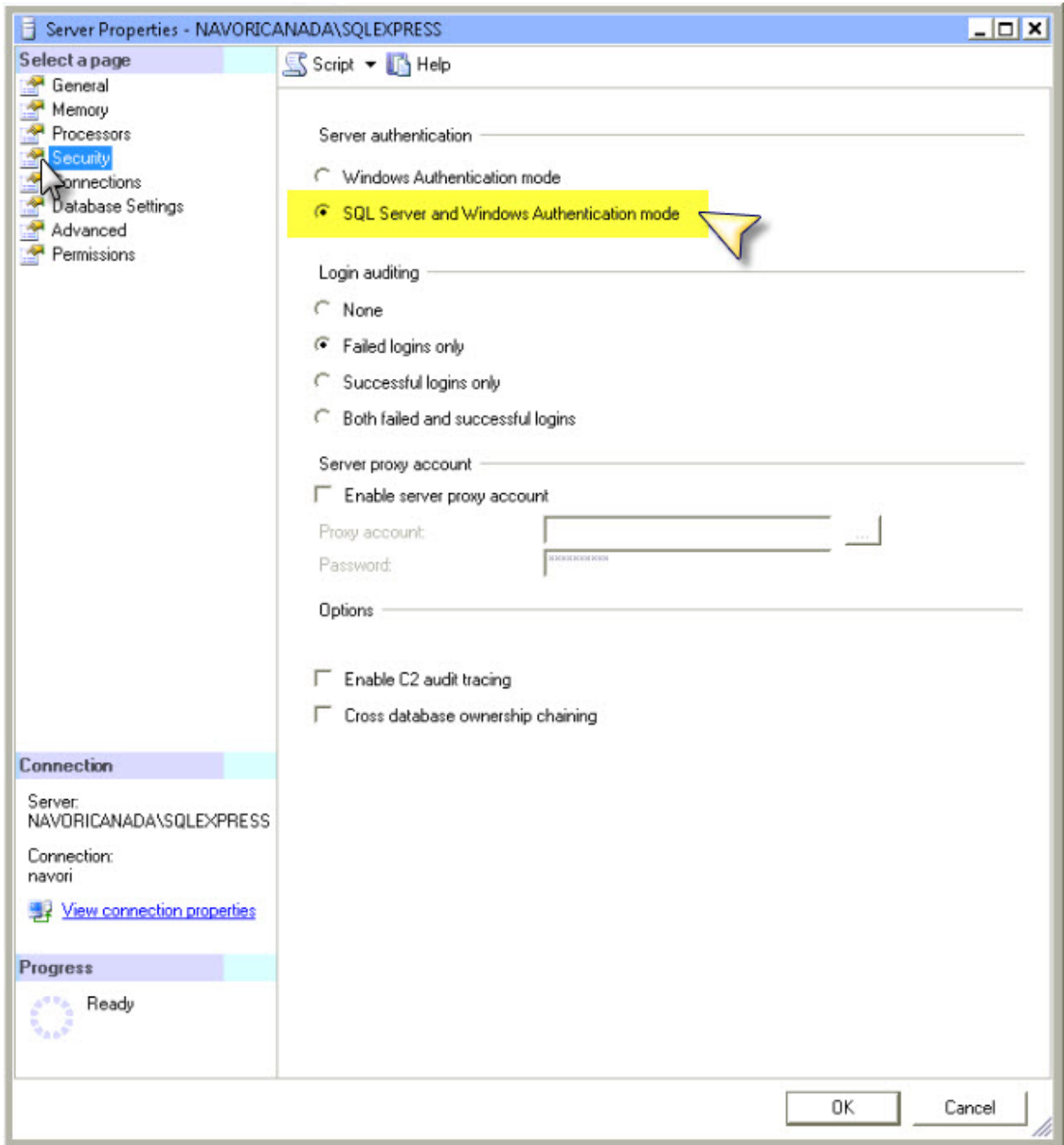
- Launch **SQL Server Management Studio**.
- Enter your **login name** and **password**.
- Click **Connect**.



- Right click on the root of the **Object Explorer** and select **Properties**.

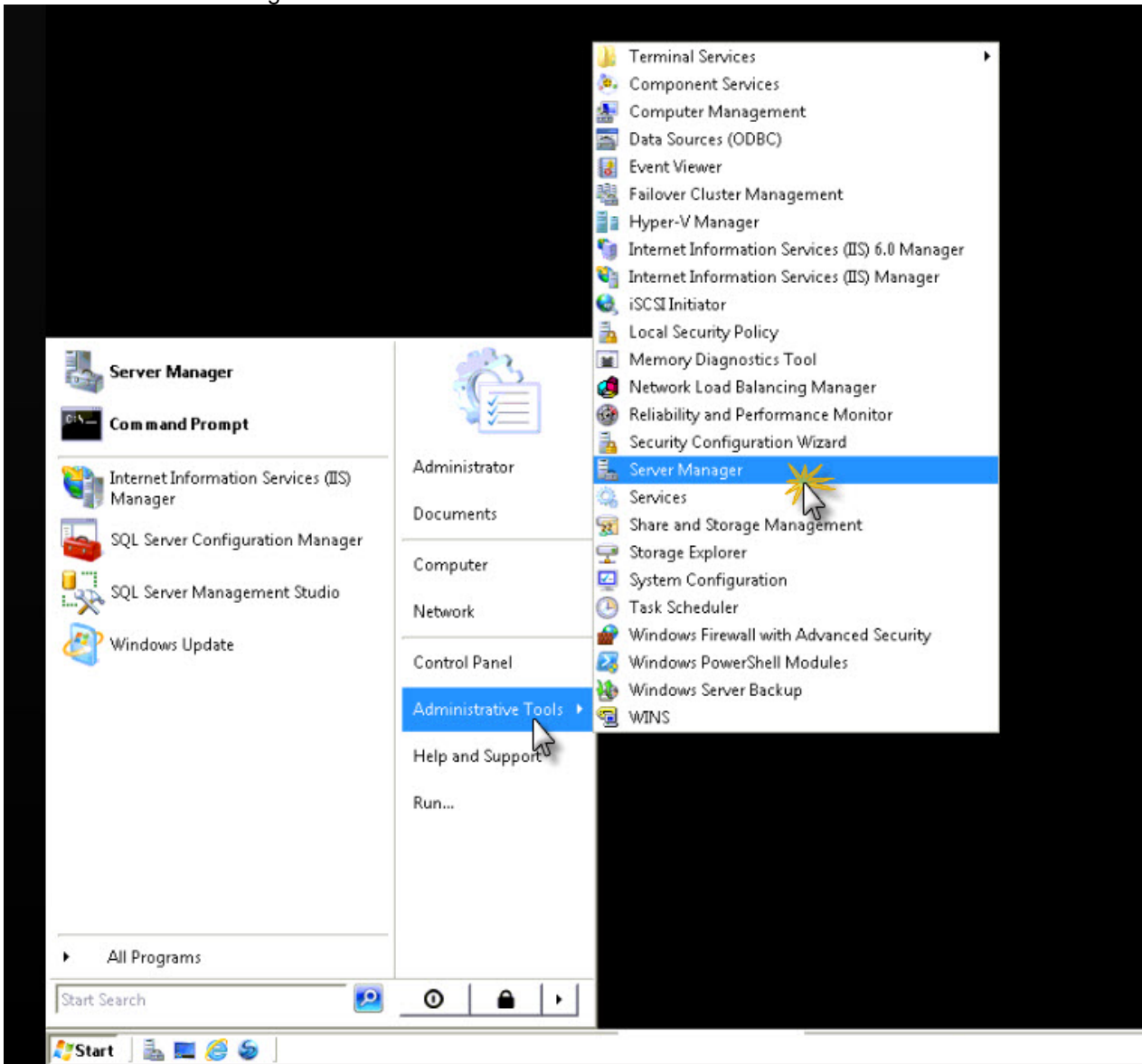


- Select **Security**. Make sure **SQL Server and Windows Authentication mode** has been selected. Click **OK** to confirm and close this window.

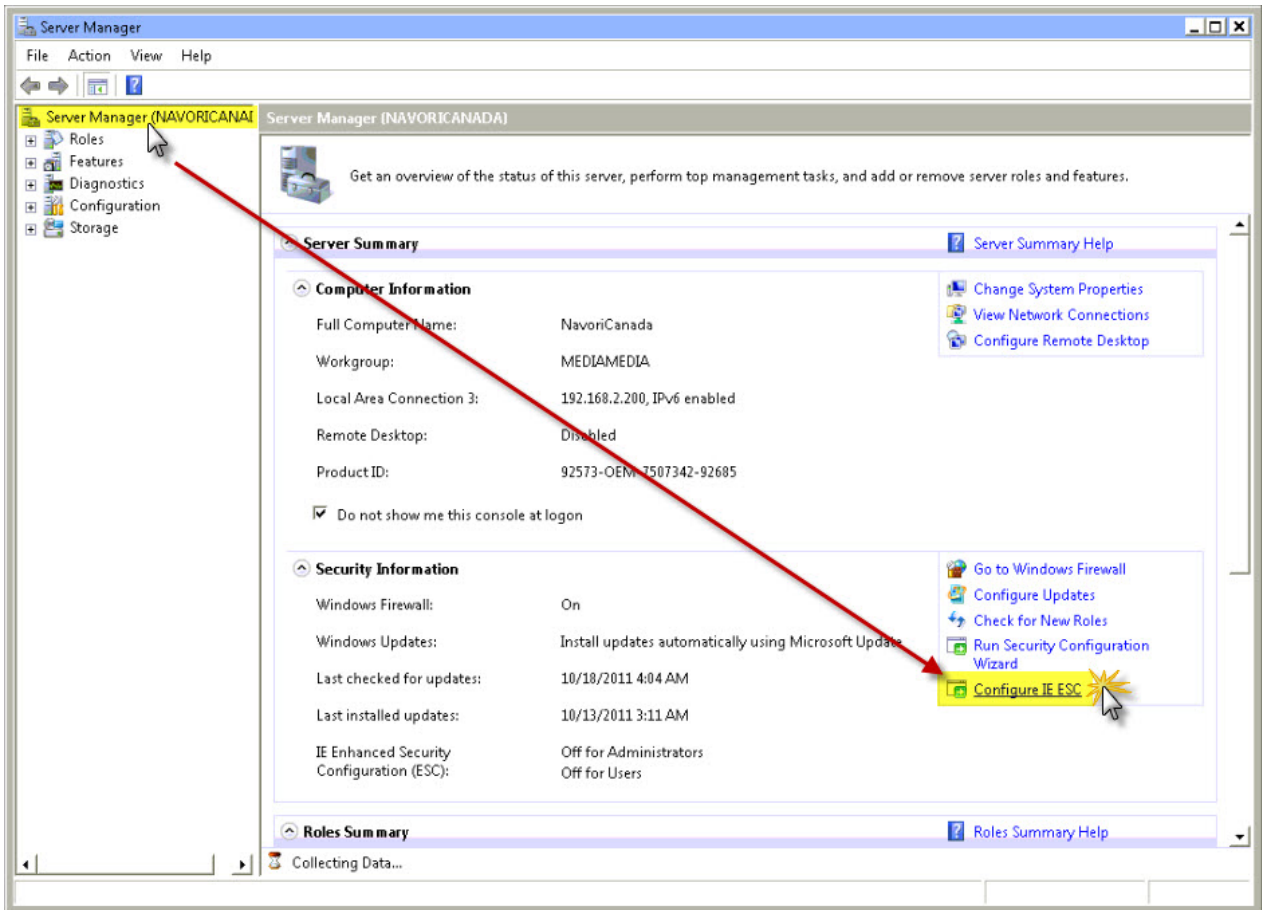


PSR12 - Microsoft Internet Explorer (IE) protected mode

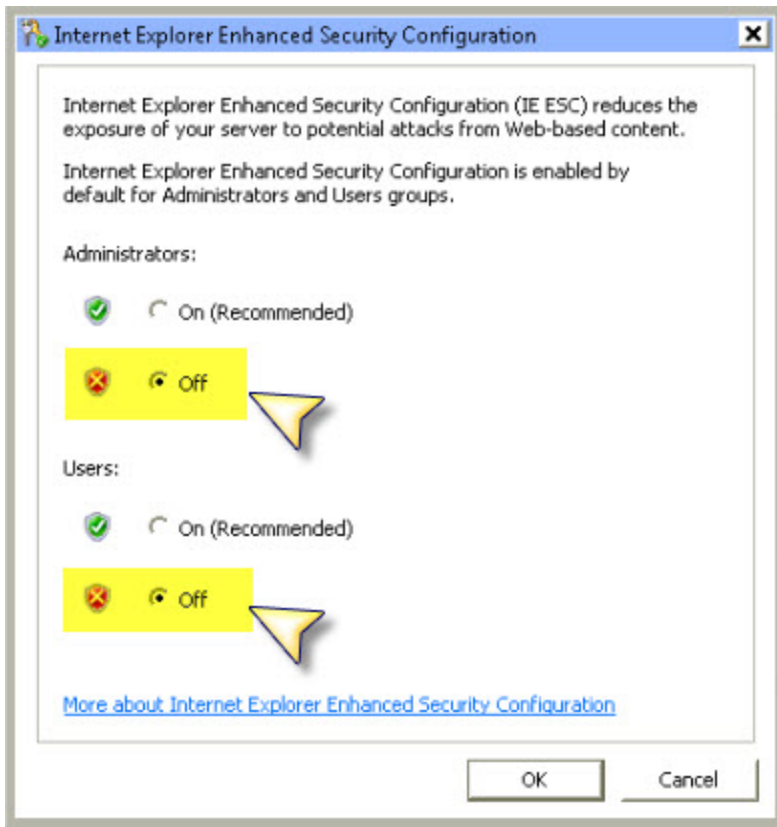
- Log in to your Navori QL Server PC.
- Launch the Server Manager.



- In the **Server Manager** window, click on the root (**Server Manager**) and then click **Configure IE ESC**.



- This will open the **Enhanced Security Configuration** window. Make sure **Administrators** and **Users** are set to **OFF**.



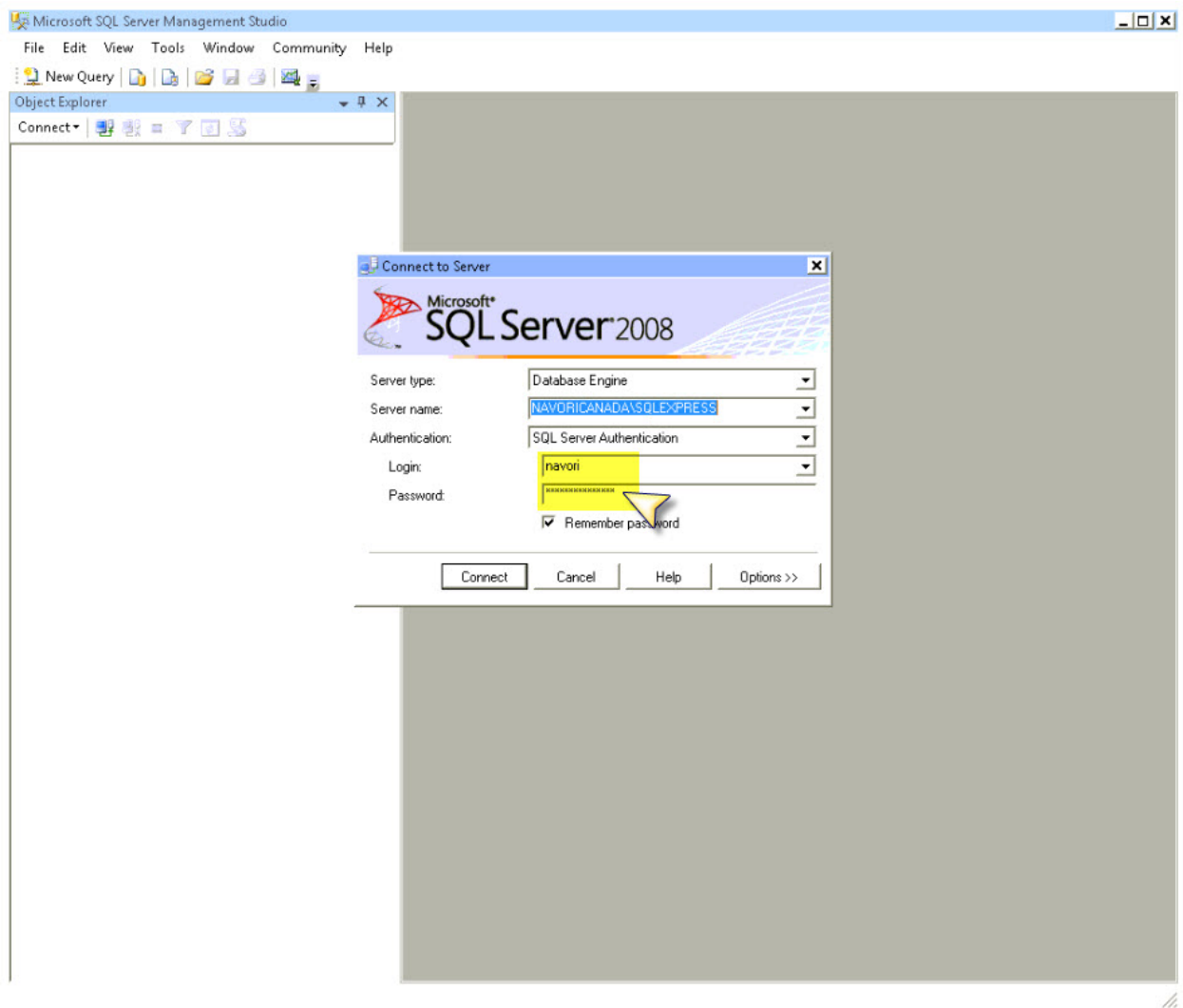
- Next, launch Microsoft **Internet Explorer** (IMPORTANT: use IE 32 bit, not the 64 bit version).
- Navigate to the Navori web site (www.navori.com). If necessary, install the Flash Active-X version so you can view the Navori home page correctly.

Take a screen shot of the Navori web site and save the file. Open a new support ticket and report your findings. Take the screen shot file that you saved previously, compress it into a single Zip file and then attach it to your support ticket.

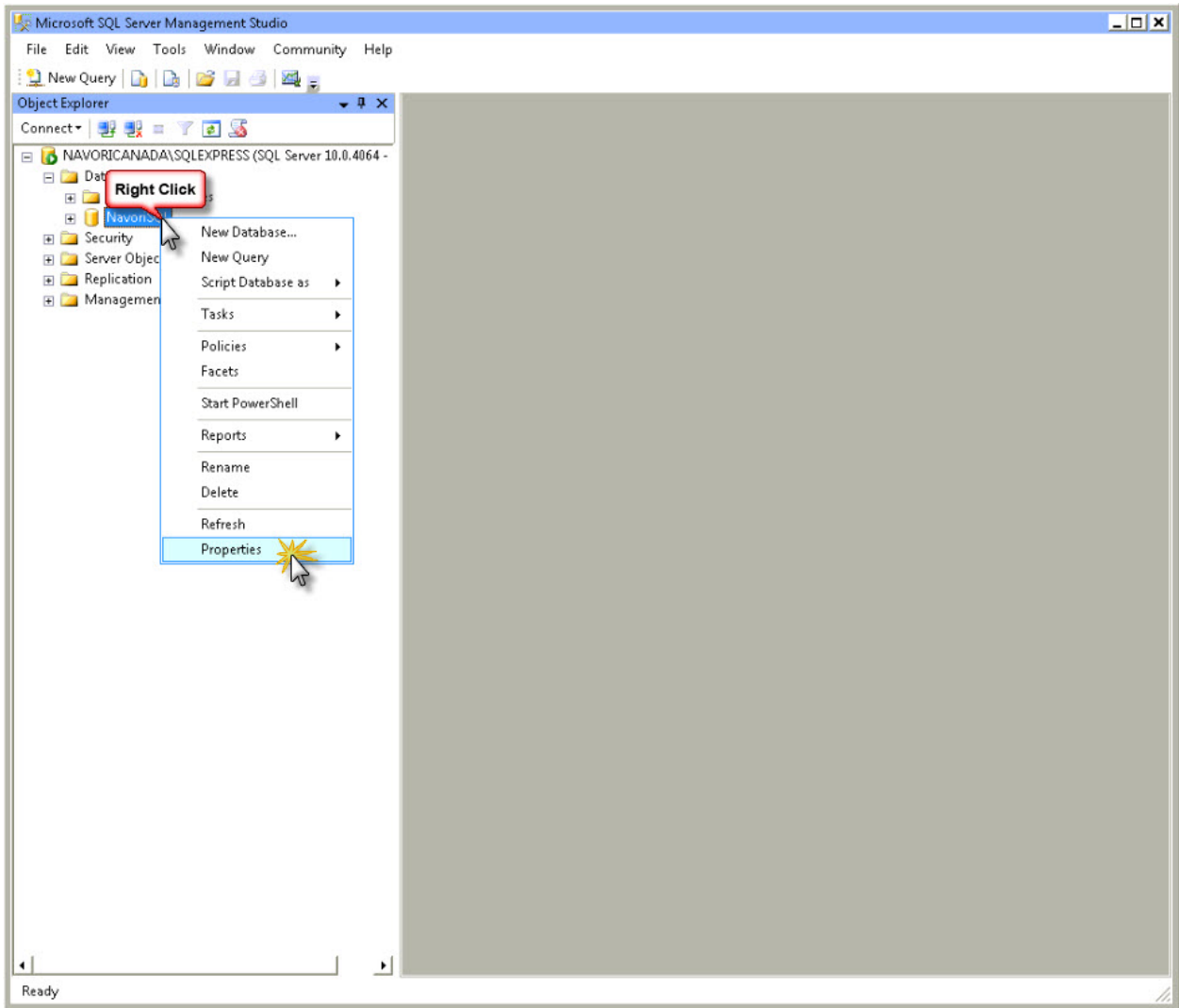
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PSR13 - How to verify the size of the QL databases

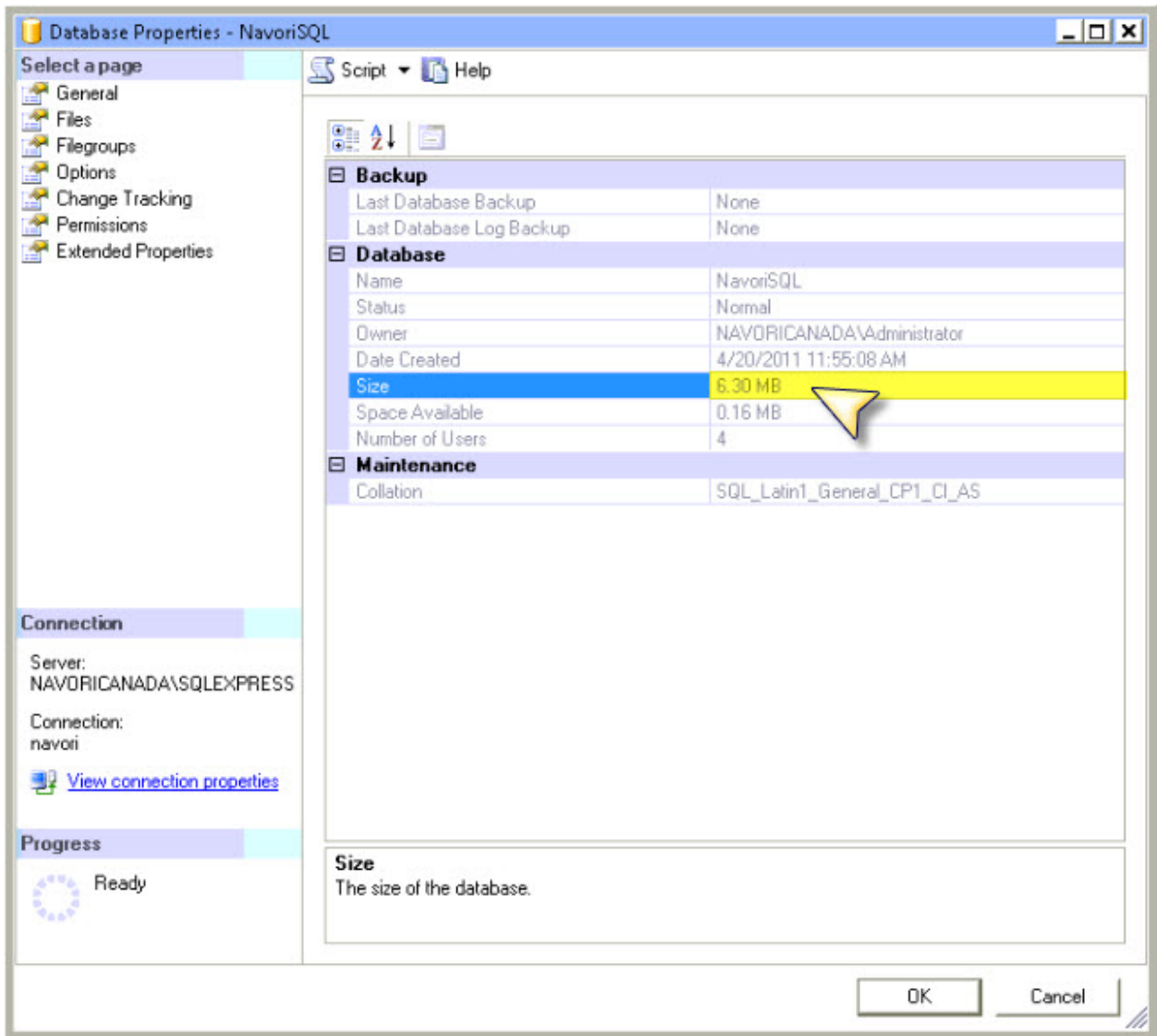
- To find out the exact size of your Navori QL databases, proceed as follows.
- Launch **SQL Server Management Studio**.
- Enter your **login name** and **password**.
- Click **Connect**.



- Locate the **Navori** QL database. Right-click on the database name and select **Properties**.



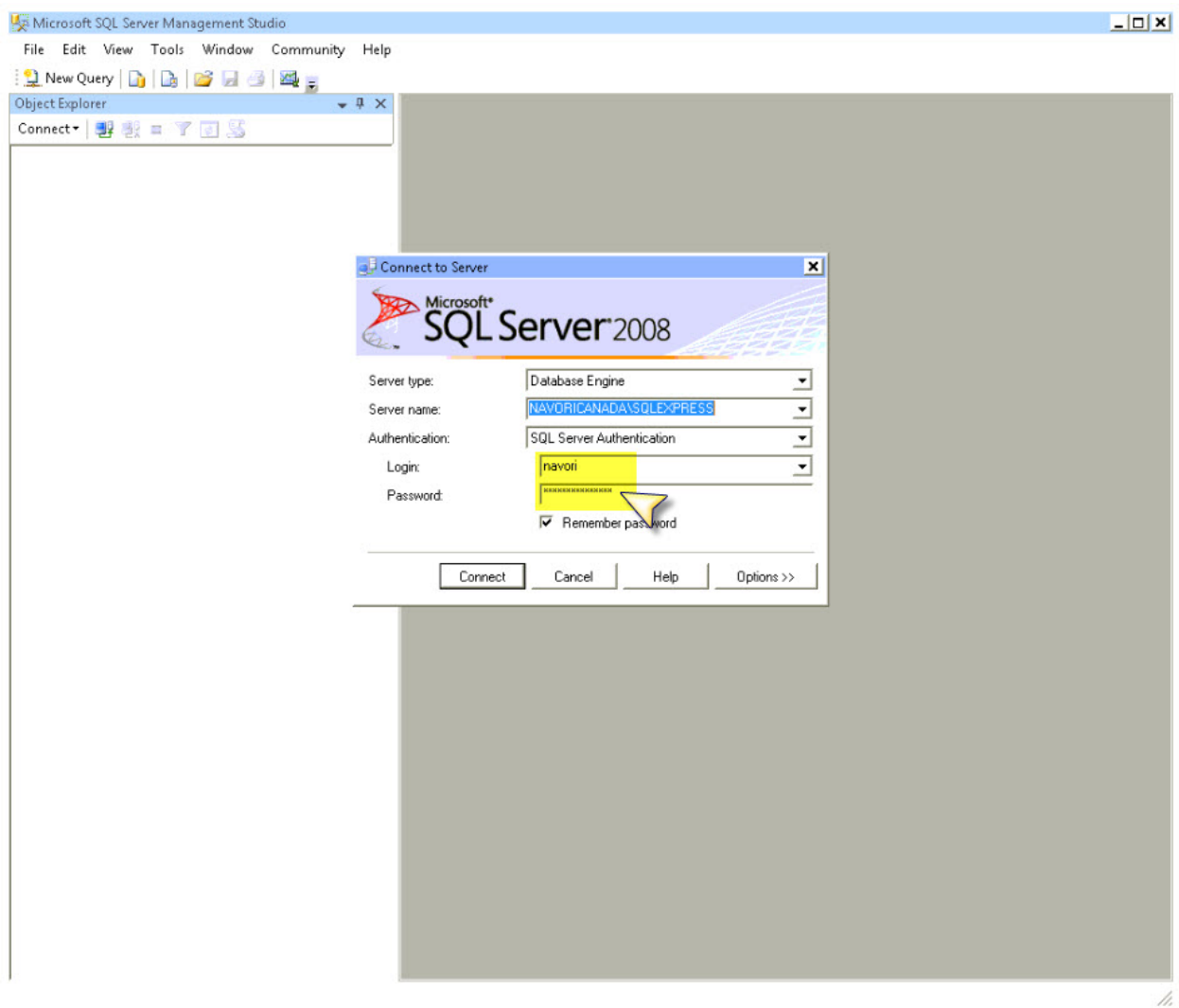
- Look up the database size in the table on the right.



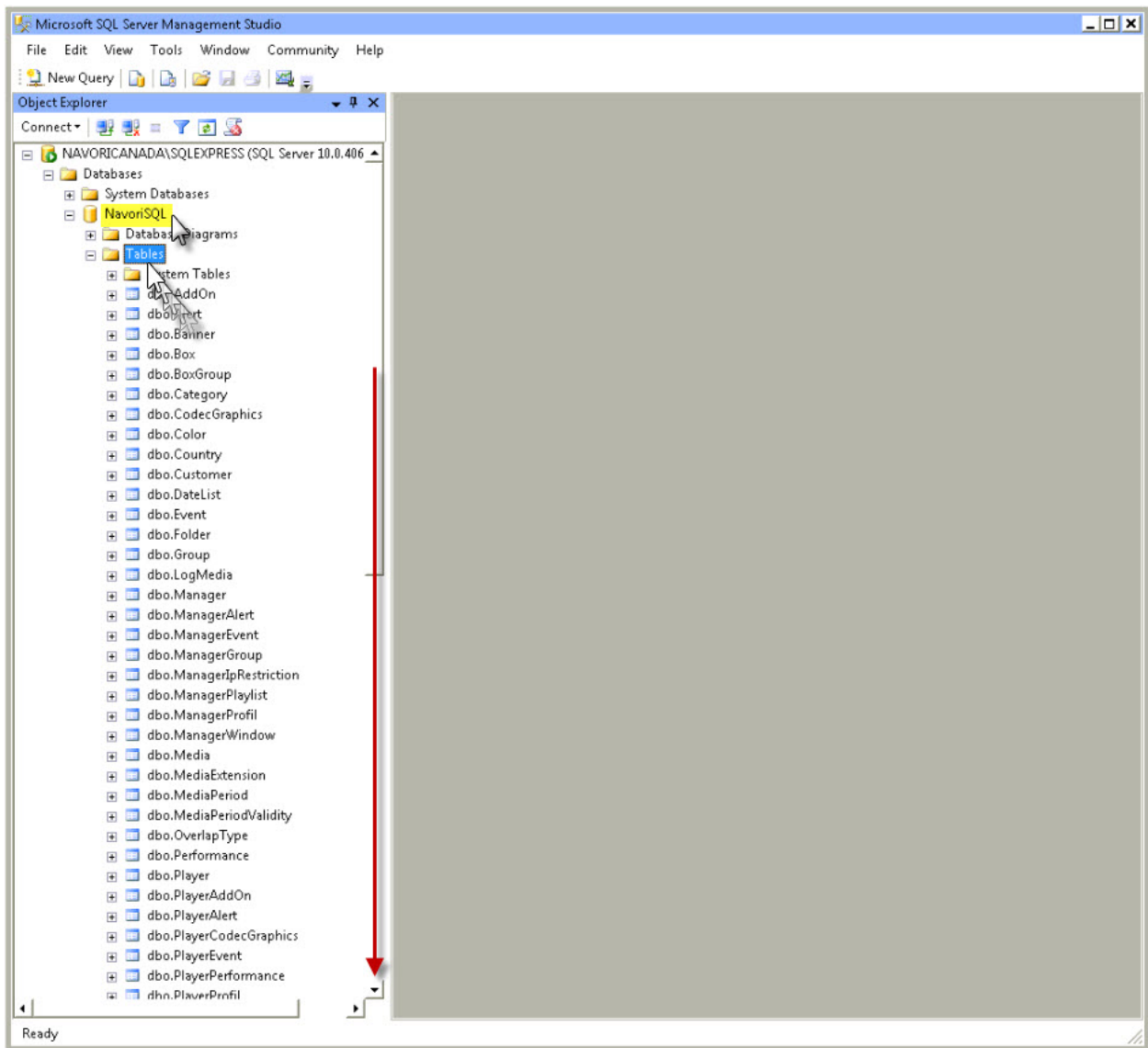
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PSR14 - How to determine if Navori QL Server is activated

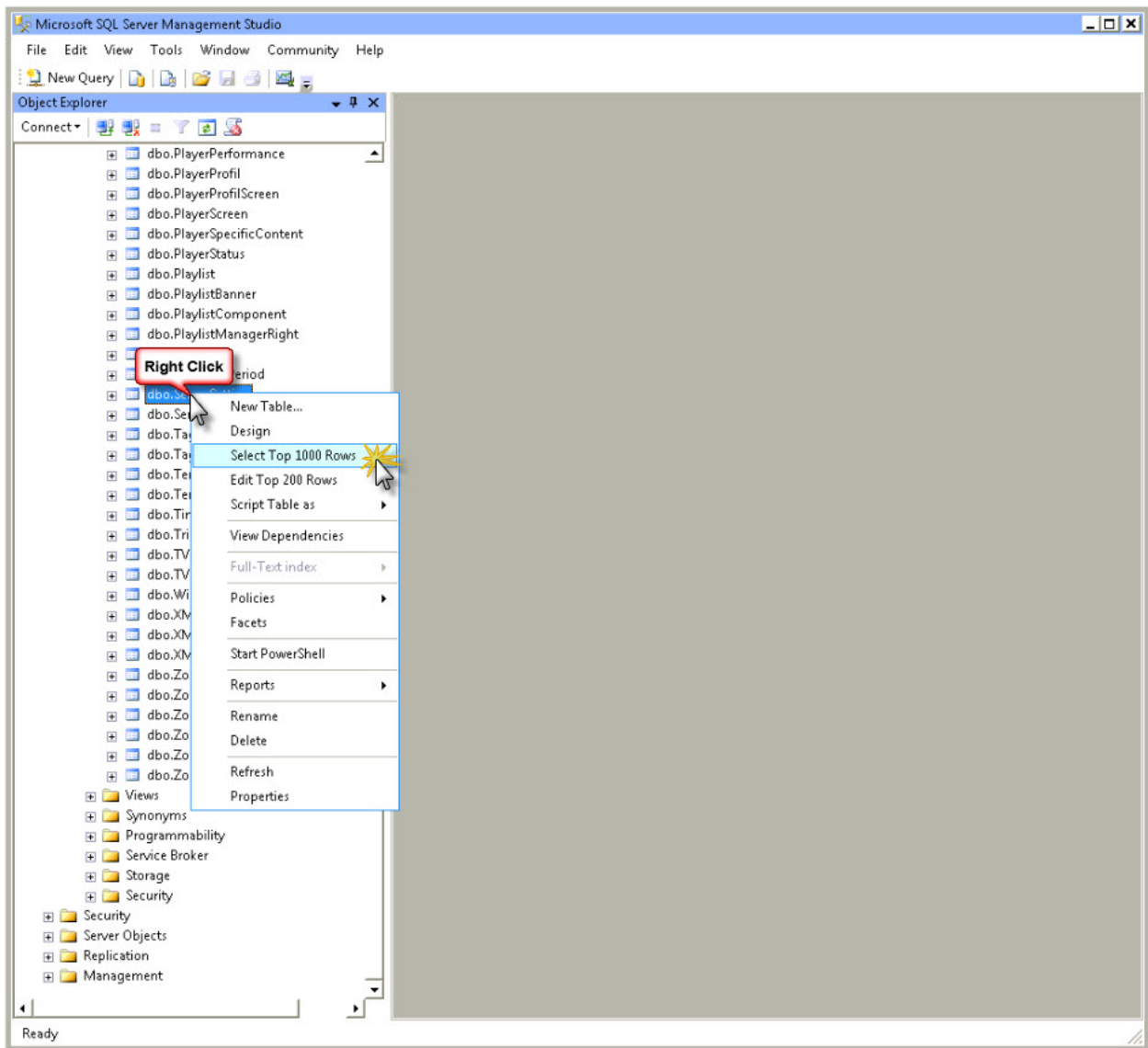
- Launch **SQL Server Management Studio**.
- Enter your **login name** and **password**.
- Click **Connect**.



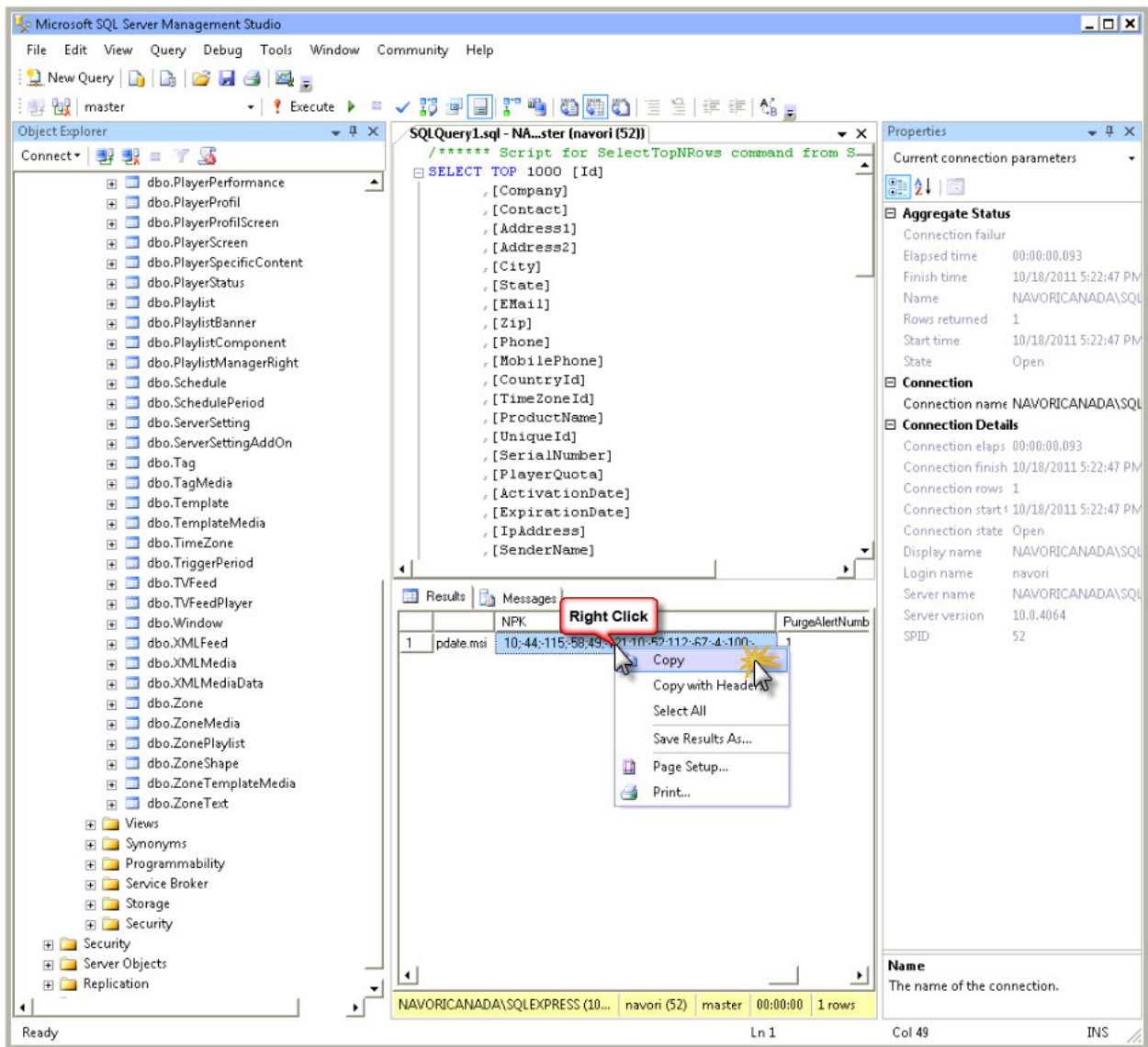
- Expand from the **root** > **Databases** > **NavoriSQL** > **Tables** then scroll down until you find **dbo.ServerSetting**.



- Right-click **dbo.ServerSetting** and click **Select Top 1000 Rows**.



- In the bottom pane on the right, scroll to the right until you see column **NPK**. Right-click in the **NPK** column and select **Copy**.



- Launch **Windows Notepad**. Paste the contents of the clipboard into Notepad and save the text file.

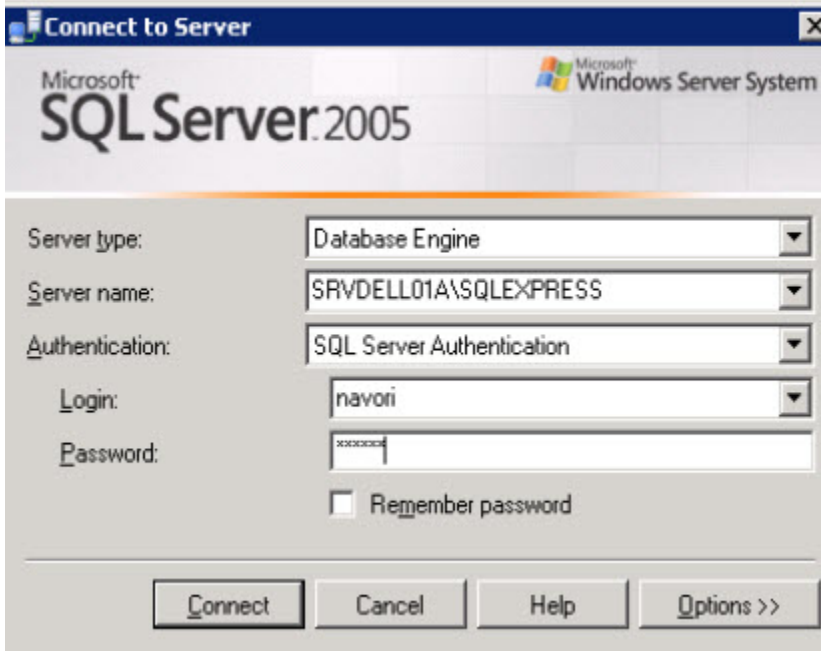
Open a new support ticket and upload your text file.

Alternately, if you see the NPK contains data similar to the above screen shot, open the table named **"dbo.Manager"** and confirm the fields **"Admin"** and **"Extranet User"** are present.

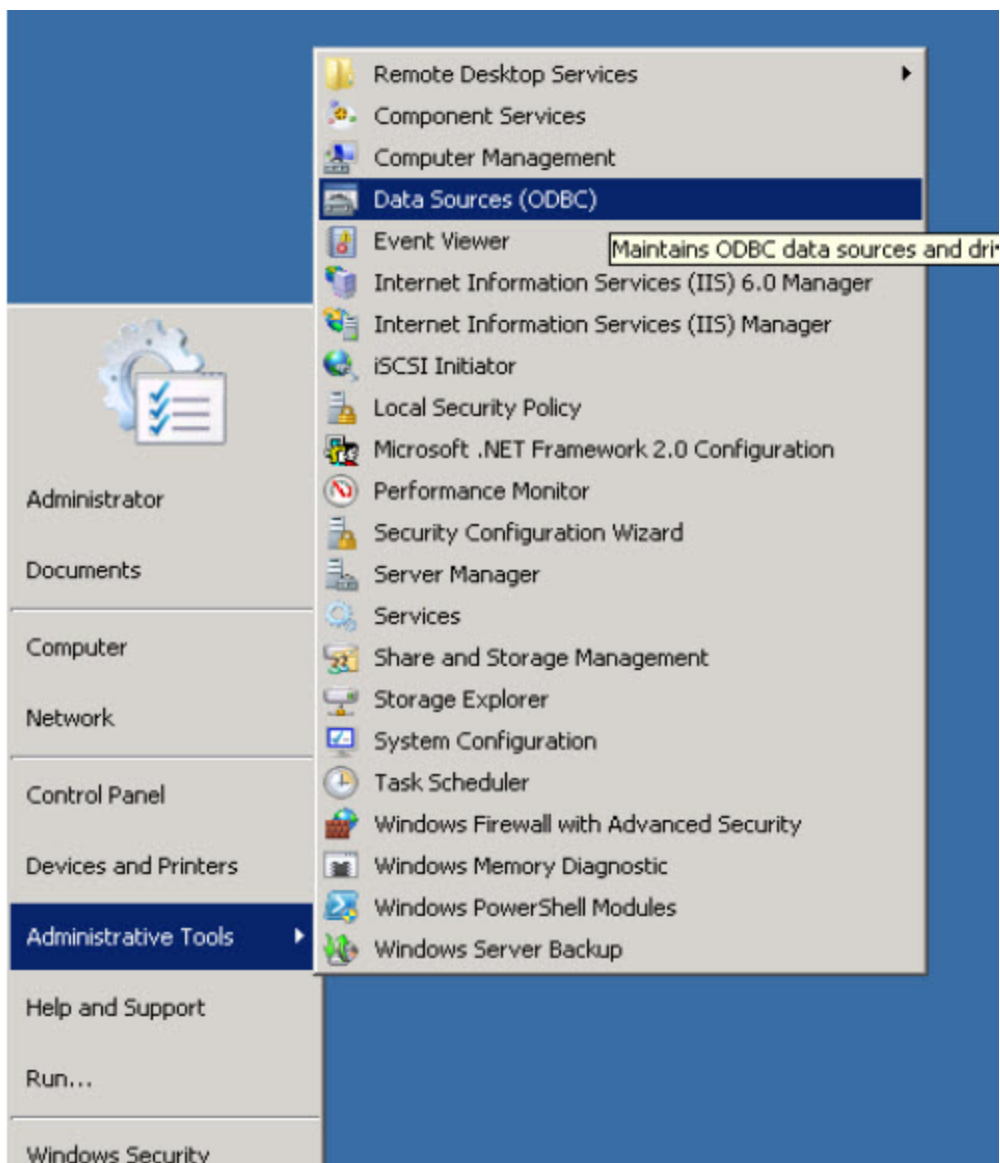
If you only find the **"Admin"** field then registration was not completed. Grab a screen shot and attach it to your support ticket.

PSR15 - How to confirm that SQL Server is accessible from the QL Server PC

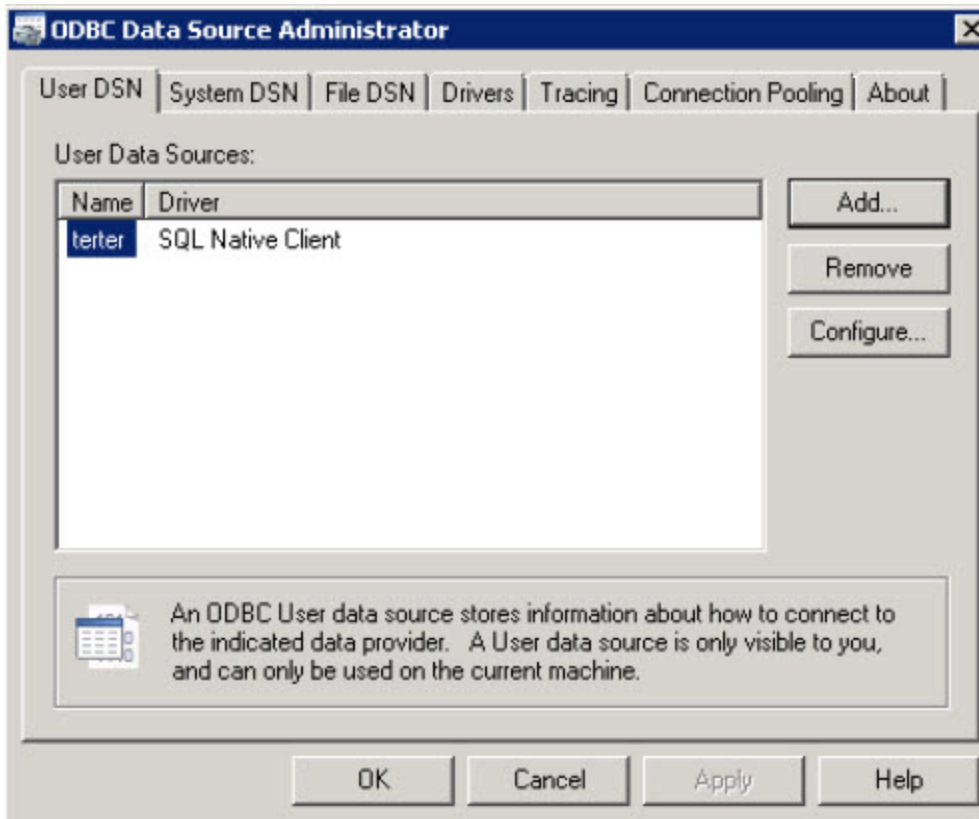
- Begin by launching **SQL Server Management Studio** so you can identify the SQL Server and instance Name. In this example we will be using Server Name = SRVDELL01A, Instance Name = SQLEXPRESS
- Log in using your Navori QL account.



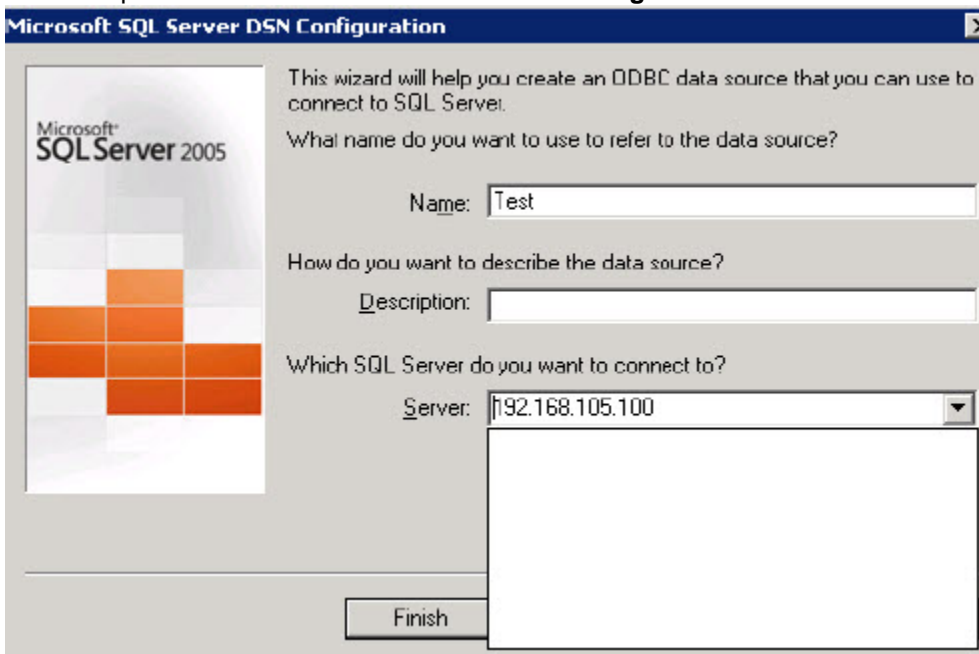
- Select **SQL Server Authentication**. Enter the SQL server login and password that you created for use with Navori QL Server.
- If are able to connect, move on to the next step, otherwise follow procedure [PSR 11](#) to test the Navori SQL account.
- If the SQL Database is not located on the same PC as Navori QL, you should follow these steps:
- Launch **Data Sources (ODBC)** from **Start > Administrative Tools** on your Server PC.



- This will open the **ODBC Data Source Administrator**. Select the **User DSN** tab. Click **Configure**.



- This will open the **Microsoft SQL Server DSN Configuration**.



- Select the SQL Server you wish to connect to. If your SQL database is hosted on another server PC, make sure that it is visible and that you can select it from the drop down field.

If this is not the case, consult your network administrator. Make sure that port 1443 has is open in your firewall configuration.

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PSR16 - How to correct issues related to retrieving new Player licenses behind a proxy and firewall

When dealing with tightly controlled networks that use highly secure proxy servers and firewalls, it is possible to encounter issues when attempting to add new Player licenses (when selecting Menu > Server > Update in the Navori QL Manager interface). This can happen even if there were no problems installing or configuring the Navori QL Server application.

When you encounter this situation, proceed as follows:

- First, you must use a Microsoft Windows user account that has full access to the Internet from behind your proxy server or firewall. You may need to contact someone in your organization to obtain this information, like someone from your IT group.
- Once you have retrieved this user account information, add it to your IIS7 application pool under "default Website". By default, the setting will show "localsystem" so you must change this to the correct user account. Note this can be the current Windows session user.

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FAQ - Frequently Asked Questions

In this section you will find a series of FAQs and suggestion to resolve common issues.

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Recommended Player PC video card for multi-screen use

Navori QL Player can display content on multiple monitors if the PC is equipped with a suitable multi-screen video card.

Here are some recommendations that will support up to 4 screens from a single PC.

Option #1

Hardware Manufacturer: **Nvidia**

Video Card Model: **Quadro Plex 7000**

Web site reference: <http://www.nvidia.com/object/product-quadroplex-7000-us.html>

NOTE:

If each screen is to be configured in full HD resolution (1080p), configure the Player PC with 8 Gb of RAM. 8 Gb of RAM should also be sufficient if the total resolution of all four screens = 1920 x 1080.

Option #2

Hardware Manufacturer: **AMD**

Video Card Model: **ATI FirePro V8800 2GB GDDR5 PCI-Express 2.1 x16 Quad Monitor Display Support**

Web site reference:

<http://www.amd.com/us/products/workstation/graphics/ati-firepro-3d/v8800/Pages/v8800.aspx>

<http://www.datapath.co.uk/products/graphic-cards/image4>

NOTE:

ATI video cards exhibit a small memory leak when playing back mp4 videos. However, this will not have any impact on playback for a period of 24 hours if the PC is configured with 8 Gb of RAM (we recommend an Intel Core i7 with at least 8 Gb of RAM installed to ensure reliable playback in this configuration)

Nvidia and ATI video cards are also offered in two and three output configuration.

Option #3

Hardware Manufacturer: **Datapath**

Video Card Model: **Image4**

Web site reference: <http://www.datapath.co.uk/products/graphic-cards/image4>

NOTE:

Datapath offers other models of professional grade multi-screen video cards. Some of these cards can also be combined to achieve very large video walls configurations (40 screens or more).

Also see our [additional information page](#) for useful configuration tips.

Consult your local Datapath dealer for more information.

For more information about multi-head video cards, contact your local PC hardware dealer or visit <http://www.multi-monitors.com/>

Additional information for Datapath Controller X4 users

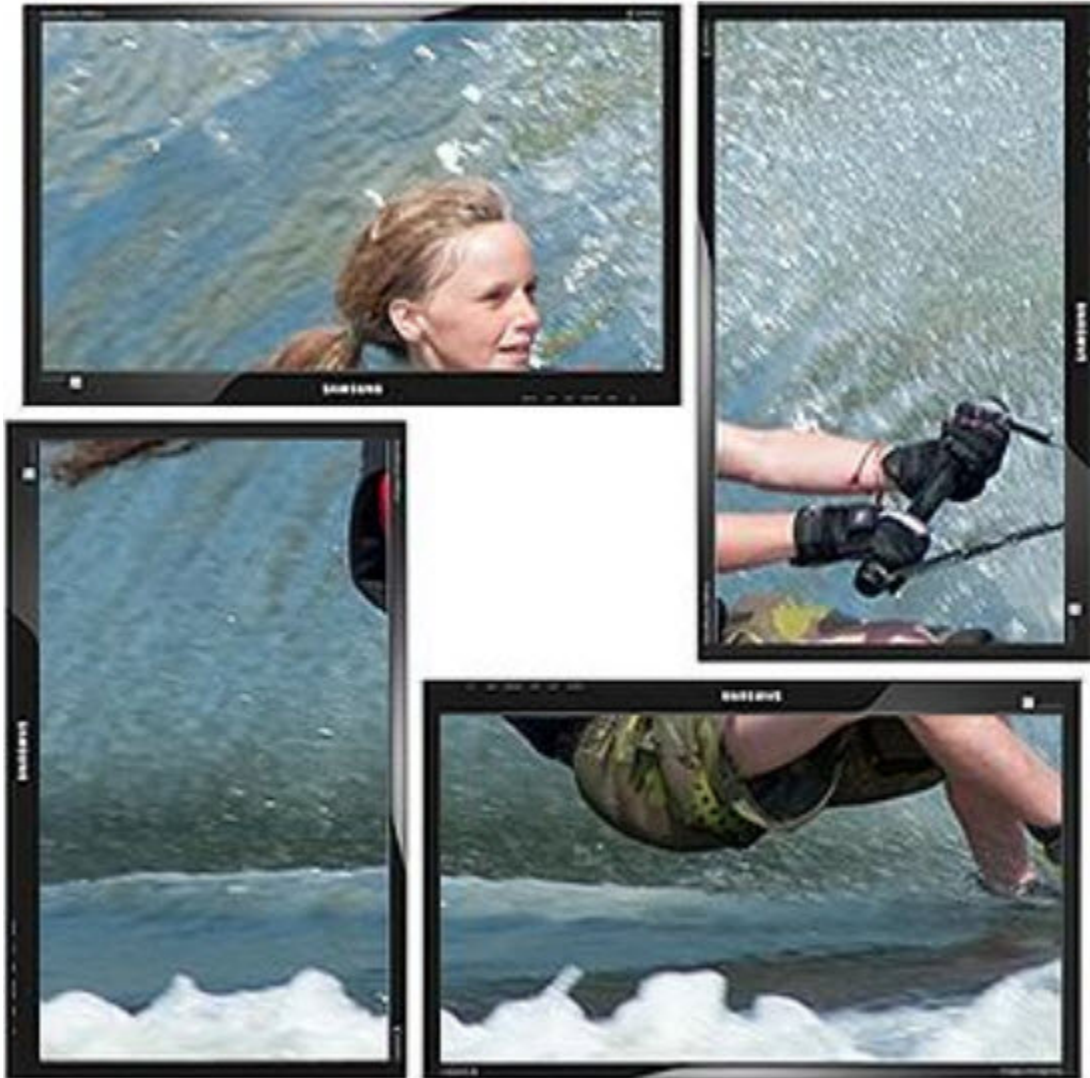
The Datapath Controller X4 can be used to display 4 screens in full HD resolution with Navori QL. However, to configure the Datapath Controller X4, you need an initial resolution of 3840x2160 at 60 Hz which is not possible through a single DVI output with most consumer grade video cards.

In order to make this work, we recommend you use the Datapath Controller X4 device with a PC that has its Windows desktop resolution set at a normal HD resolution (1920x1080) and then divide this image by 4 using the device. This will give you 4 screens with a lower resolution but this will suffice in most cases.

The real advantage in using the Datapath Controller X4 device is to manage special screen layouts. In other words, this device is best suited for sophisticated layout that cannot be achieved with traditional multi-head video cards.

Here are some examples:





Users who need to display all 4 screens in full HD resolution may be better served by a high-end quad-output video card.

Here is how you configure the Datapath Controller X4:

Configuring the x4

Factory Default Settings

The x4 stores a number of parameters to configure its operation. This allows it to operate stand alone in a very flexible manner. The configurations affect the input and output display modes as well as the required partitioning of the input image between monitors.

By default the x4 is configured as follows:

Input EDID Preferred Mode:	1920 x 1080 x 60Hz (SMPTE timings)
Output monitor mode:	Use Monitor Preferred Mode
	Default : 1920 x 1080 x 60Hz (SMPTE)

Cropping Mode: 2x2 equal split (960x540)
 No Rotation

The default settings are changed using the Windows® application provided, which can be run on any Windows® platform and connected to the x4 via the supplied USB cable. A description of the use of the application is provided in the x4 Control Application section.

The sections below describe the settings that are possible and why they may be needed. For details on how to program the x4 hardware with your desired configurations, please see the x4 Control Application section.

Configuring DVI Input resolution

Because the timings and resolution of the DVI input are set by the DVI source machine, the x4 can only configure this indirectly by presenting a programmable “Preferred Mode” as part of its EDID (Extended Display Identification Data).

Most graphics cards and HDMI appliances automatically select the “Preferred Mode” resolution and timings presented by the x4 EDID, but they may need to be forced to re-detect if the EDID contents are changed by the x4 application. This would typically be via a hot-plug event caused by disconnecting and reconnecting the DVI input cable.

The configuration application will allow readback of the resolution that is currently being detected, as well as the ability to read and write the internal EDID ROM.

Monitor Outputs

The x4 can be configured to read the corresponding EDID of each monitor that is connected and to drive out a signal that corresponds to the resolution, timings and mode (RGB or DVI) of the Preferred Mode. This is the factory default configuration.

Please note that when different monitors are attached to the four outputs, each may advertise a different Preferred Mode, therefore each output will be driven at a different mode.

Whenever the monitor EDID is used, the x4 will calculate the internal scale factors to ensure that the monitor (at whatever resolution it is being driven) will still display the correct proportion of the input image.

If an EDID cannot be read (for example if the monitor cable does not support the DDC signals required), there is a default mode that can be programmed into the x4’s memory. This is factory configured to 1080p.

In some cases it may be that the user requires a very specific output timing (for example when genlocking to the input) irrespective of the monitor EDIDs. In this case the x4 can be configured to always output the mode that has been programmed as the default mode.

Selecting the Regions to Be Displayed

Each output of the x4 can take its display data from any arbitrary rectangular region of the captured input image. The factory default for these cropping rectangles configures the four monitors to display a quarter of the input as a 2x2 array, and these proportions are maintained across different input resolutions.

For a 1080p input, this means that 960x540 pixels from the input image would be upsampled by a factor of 2 in each direction if the selected output resolution was 1080p.

However if the input resolution were to change to 1600x1200, then for the same output monitor the x4 would upscale from an 800x600 region and would reprogram its scale factors to 2.4 horizontally and 1.8 vertically to support the same 1080p monitor.

The cropping regions can be assigned arbitrarily and can overlap, the only restriction being that the resulting scale factor must be greater than 1.0 (ie 1:1 or upsampled) in either direction. As an example it is possible to use

the x4 to output four identical copies of the input signal (providing the resulting output timings remain within the capabilities of the single-link DVI outputs).

The regions of the input image to be displayed on a given output monitor can be programmed via USB by using the Datapath configuration application.

In order to support portrait orientation of monitors, the source data can be rotated by 90°, 180° or 270° as it is output to the monitor.

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How to setup your streaming server for Navori QL

Distribution methods

Video streams can be distributed using **unicast** or **multicast** methods.

In computer networking, multicast is the delivery of a message or information to a group of destination computers simultaneously in a single transmission from the source creating copies automatically in other network elements, such as routers, only when the topology of the network requires it.

Multicast distribution works over “**class D**” IP addresses ranging between **224.0.0.1** and **239.255.255.255**. This distribution method has the advantage of lessening the impact on available bandwidth but network switches and routers must be set up properly in order for multicast distribution to work. Unicast distribution works with “**class A, B or C**” IP addresses. This method sends the complete video stream from end to end to as many client PCs as required. Network routers and switches do not filter this content which makes content distribution over the Internet much easier to achieve. Unicast-based media servers open and provide a stream for each unique user. Multicast-based servers can support a larger audience by serving content simultaneously to multiple users.

How does Navori QL support streaming media?

The Navori software platform uses the **Windows Media Player** to play video streams. In order to display video streams that are compatible with Windows Media Player (and Navori QL), we recommend **Windows Media Services** which is a module available with **Windows Server 2008**. Windows Media Services lets you stream videos in the WMV format. Those who want to stream video content in multicast mode will need **Windows Server 2008 Enterprise Edition**.

This Windows video streaming solution lets users stream videos that can be displayed in Navori QL without any additional plug-in. In order to show real-time video streams (from a surveillance or Internet camera for example) you must first encode the video with Windows Media Encoder before streaming the content through Windows Media Services. Some IP camera manufacturers will provide a software driver that lets you capture the video content (notably the AXIS branded cameras) making the content compatible for streaming with Windows Media Encoder.

Special consideration for Axis IP camera users

Axis camera users must install a proprietary plug-in so QL Player can display their video feeds.

This plug-in is called **Axis Media Control** (the installer file is called: **AMC_Embedded_msi.msi**).

You can download the plug-in installer from this site: <http://www.axis.com/techsup/software/amc/software.php>

PLEASE NOTE! You will need to create a user account on the Axis web site before you can download the plug-in. Also note this plug-in is compatible with unicast and multicast feeds (on a LAN).

Windows Media Services generates a file called “**Advanced Stream Redirector** (or **.ASX**)”. This file contains all the information required for connecting to the video stream.

Files of these types are usually hosted on an internal web server that is accessible to all client PCs.

Typical ASX file addresses that Navori QL can access will look as follows:
<http://192.168.100.56:8080/filename.asx>.

References:

Here are some links to sites that further explain the Windows Media Services streaming method:

- **Microsoft Web Site:** [http://technet.microsoft.com/en-ca/library/cc753556\(WS.10\).aspx](http://technet.microsoft.com/en-ca/library/cc753556(WS.10).aspx)
- **Wikipedia entry on Windows Media Services:** http://en.wikipedia.org/wiki/Windows_Media_Services

- **AXIS Communication web site:** <http://www.axis.com/>
- **TrendNet IP Cameras:** <http://www.trendnet.com/products/default.asp?cat=48>

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How to set up a multicast TV server

Navori recommends the [HD HomeRun TECH](#) dual digital TV tuner to users who wish to distribute 2 live HD TV feeds on their enterprise LAN.

This third party hardware and software solution provides enterprise site-wide multicast live TV streaming.



This product ships with a proprietary codec that you must install on your Navori QL Player PCs.

Once the codec has been installed, QL Player will be able to play back multicast video streams from this device.

PLEASE NOTE! Support requests for this device should be directed to the hardware manufacturer.

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QL Player shows a black screen instead of rendering a video file (issue not related to a specific content)

In the event you have a Player PC that only displays a black screen we suggest you proceed as follows:

On the Navori QL Player PC, locate and edit the NavoriQLEngine.exe configuration file value shown below:

```
<add key="log_level" value="5" />
```

Re-launch Navori QL Player and leave it running until the problem reoccurs.

Open a new support ticket on the extranet and include: The date time the issue reoccurred and a copy of the Navori_ql_engine_date.txt

IMPORTANT: You must remember to return the log level value to 0 if you intent to use the player in production mode following this procedure.

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QL Player configuration file reference

Here is a list of all the Navori QL Player configuration files:

NavoriQLConductor.ini
NavoriQLConductor.exe.config
NavoriQLEngine.exe.config

You can also check the **Properties** of the **NavoriQLConductor.exe** file to confirm the currently installed Player version (e.g. 1.0.0.17).

Here is a list of the user modifiable values :

NavoriQLConductor.ini

[NavoriQLGuard]

- `period_verif` (seconds): Navori Guard's check frequency that the conductor is running (15 seconds by default)

[NavoriQLConductor]

- `max_try_launch`: Maximum number of times that the player can be relaunched in a 24h period
- `current_retry`: Player relaunch counter (until it reaches `max_try_launch` value)
- `day_last_launch`: Date and Time of last player launch
- `period_verif` (seconds): Navori Guard's check frequency that the QL Engine is running (10 seconds by default)
- `messagebox.title`: Error window titles that will be detected, closed and the player relaunched if necessary
- `log_file_name`: Log file name
- `debug level`: Information Level of Log file; INFO, DEBUG (max info), WARN, ERROR (concise, only ERROR messages)
- `server_version`: Version information sent to the server (checked at every execution of Navori Guard and every playlist start)

[process_player_alarm]: Thresholds that make the QL Engine restart if met

- `max_handle`: Maximum number of handles used before QL Engine is relaunched
- `current_retry`: Restart counter
- `max_memory`: Default allowed memory, can be raised for stronger machines to tweak performance
- `current_retry`: Player relaunch counter

[every_process]

- `database_player`: Player's Media Content storage directory
- `timeout_notify_toIIS`: Refresh/Communication rate with the server
- `paquet_size`: (DEPRECATED)
- `serial number`: player license serial number
- `schedule_duration`: number of days' schedule to download in one time

NavoriQLConductor.exe.config

The address attribute in the following line can be tested to validate if the Player machine can access the server :

- `<endpoint address="http://ADDRESS/NavoriService/NavoriService.svc/Player" >`

NavoriQLEngine.exe.config

`<appsettings>`

- `<add key="X" value="-1" />` : X position of the Engine window (-1 for Full Screen)
- `<add key="Y" value="-1" />` : Y position of the Engine window (-1 for Full Screen)
- `<add key="Width" value="-1" />` : Width of the Engine window (-1 for Full Screen)
- `<add key="Height" value="-1" />` : Height of the Engine window (-1 for Full Screen)
- `<add key="log_level" value="0" />` : Log information level (ONLY for Debugging purposes)
- `<add key="EnableResize" value="true">` : Can be changed to false to avoid Window Reduction on double-click

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Navori QL Spy - How to make QL Player co-exist with another application

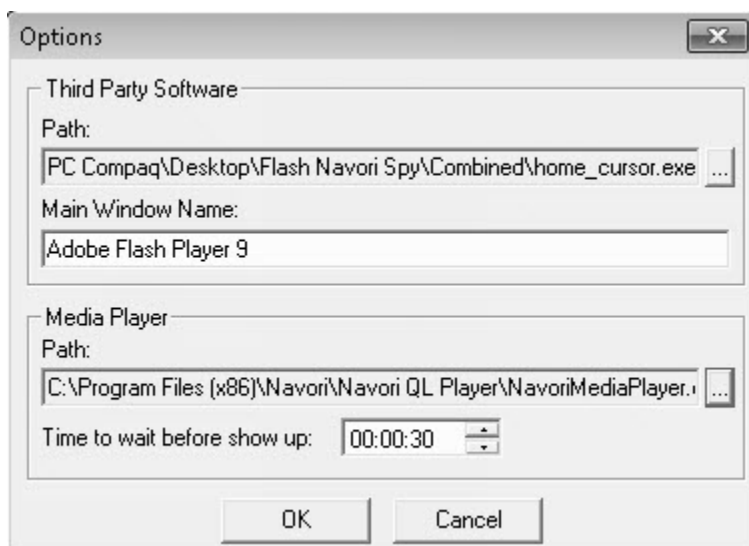
Navori QL Spy is a software module that lets the Navori QL Player behave like a "screen saver" application.

This add-on module is intended for interactive kiosk environments. When installed on a touch-screen enabled PC, Navori QL Player will run in the foreground until someone touches the screen. When the screen is touched, Navori QL Player will be minimized and another application will take over the screen (possibly a Web, Flash or other type of interactive program). If the screen is left untouched for any given period, Navori QL is returned back to full screen playback.

To install and configure Navori QL Spy, proceed as follows:

First, download the Navori QL Spy installer to your player PC from this link:
<http://c712600.r0.cf2.rackcdn.com/SpyQLW7.zip>

Next, decompress the ZIP file and run **NavoriMediaSpy2nd.exe**.



- In the **Third Party Software** field, enter the path and Windows name of your application.
- In the **Media Player** section, enter the path to the NavoriQLEngine.exe executable file.
- Set **Time to wait for user interaction** (time out) to the delay of your choice.
- Click **OK** to complete the setup.

IMPORTANT!!!

You must rename the QL Player Engine executable file from **QLEngine.exe** to **NavoriMediaPlayer.exe** as shown in the illustration above.

You must also edit the **QLConductor.ini** file and rename the line that refers to **QLEngine.exe** to **NavoriMediaPlayer.exe** and re-save the file otherwise the application will fail to launch. The QLConductor.ini file can be found in the Navori QL Player application folder.

With Navori QL Player running and no user activity the Player will run in the foreground.

If any mouse movement, touch-screen interaction or keyboard key-press is detected, your designated application will be switched to the foreground and NavoriQLEngine will be sent to the background.

When the timeout is reached without any user interaction, Navori QL Player will return to the foreground

automatically.

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How to set up a live TV Feed

Navori supports the Hauppauge TV tuner hardware exclusively. If you wish to display live TV/video feeds in Navori QL Player, you must purchase and install a Hauppauge TV Tuner (internal PC card or USB type tuners are both supported) for each Player PC. As part of the Hauppauge hardware installation process you will need to install the Hauppauge TV Tuner drivers and the [WinTV](#) software.

To find out more about Hauppauge TV Tuner hardware: [click here](#).

Requirements

You will need a TV Tuner device for each Player PC you wish to play live TV. In addition, you need to make sure that these Navori QL Players have the TV Tuner module activated as part of their license. If you are not certain your Navori QL Player includes the TV Tuner module, look up your QL Player License Information via QL Manager. Contact Navori if you have any questions or require additional licensing to support live TV.

Installation Instructions

To prepare your player PC for live TV playback, follow these steps:

- Install the TV tuner hardware on your Player PC in accordance with Hauppauge's instructions.
- Ensure the drivers and WinTV are installed.
- Launch WinTV. Open the **Options** menu and confirm **Hardware Acceleration** is enabled. If not, enable it.

Testing your hardware

To test your Player PC's performance when playing live TV, download and run the [Hauppauge test utility](#). You can run the test in full screen or in a window. See procedure [PPL08](#) for details.

Channel Scanning

Test your TV tuner by launching the WinTV software first and perform a channel scan. When WinTV has scanned and recorded each channel, test to make sure you can play live TV then shut down the application and launch the **NavoriQLTVScan.exe** executable from your Navori QL Player application folder.

This will pass along channel data to Navori QL Player which will in turn forward the information automatically to your Navori QL Server.

You must run the **NavoriQLTVScan.exe** program otherwise you will not be able to see the channel list in QL Manager when you add a new TV feed.

Setting up a TV channel for playback in Navori QL

You add and manage a live TV feed in Navori QL Manager just like any other content. Select the group or sub-group where your Player is located, then select the Content library window. Right-click in the Media and Template (or other folder of your choice) and select **New > TV Feed**. The Media Properties window will open. Select the channel you want to configure from the drop down list. This list will show all the TV channels reported by WinTV for all the Players in the currently selected group.

If you select a channel that is not available to your specific Player (perhaps it is not available to its physical location), the item will be skipped on that Player only.

How to disable Navori QL Player window reduction on a double-click

On the Player PC, locate the **NavoriQLEngine.config** file. The file is usually located under: **C:\Program Files (x86)\Navori\Navori QL Player\NavoriQLEngine.config**

- Open the file with Windows Notepad and locate the **<appSettings>** section.
- Add the following line: **<add key="EnableResize" value="false" />**

NOTE: This setting will only work with Navori QL Player version 1.0.0.17 or higher.

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Navori QL Player bandwidth usage

Base Bandwidth Usage for Navori QL Player

Base bandwidth usage by a Navori QL Player set to a default refresh rate of 15 seconds (includes activity from Real-Time Monitoring and Playback Reporting modules):

Bandwidth Consumption Rate: **0.586 Mb per hour.**

NOTE: This rate does not include data transfer during Player content updates and/or data download associated with showing URLs, or RSS/XML feeds.

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How to personalize the QL Manager home page

Administrators can personalize the QL Manager home page, for example to display their own logo.

Here are the steps involved:

First, you must locate and modify the following file: **login.aspx**

You will find this file in the **NavoriManager** folder, inside the **IIS7 root folder**. This file holds part of the HTML code.

You can modify the code but you must not change or delete the Silverlight object in the HTML tags.

Here is the Silverlight object that must not be modified:

```
<object data="data:application/x-silverlight-2," type="application/x-silverlight-2" width="251px"
height="162px">
    <param name="source" value="ClientBin/NavoriLogin.xap?ver='3'"/>
    <param name="onError" value="onSilverlightError" />
    <param name="background" value="Transparent" />
    <param name="minRuntimeVersion" value="4.0.50401.0" />
    <param name="autoUpgrade" value="true" />
        <param name="pluginbackground" value="Transparent" />
        <param name="windowless" value="true" />
    <a href="http://go.microsoft.com/fwlink/?LinkID=149156&v=4.0.50401.0"
style="text-decoration:none">
        
</object>
```

Once you have edited the **login.aspx** file, save and test it in your web browser.

How to transfer a QL Player license from one PC to another

- Record the serial number of the Player license you wish to transfer to Navori. To do so, proceed as follows:
 1. Login using QL Manager.
 2. In the Player window, right click on the name of the Player you wish to transfer the license.
 3. Select **Player Properties > License Information**.
 4. Copy the current serial number (**Ctrl+C** in Windows).
 5. Login to the Navori extranet. Open a new support ticket and paste the license number into the body of your message (**Ctrl+V** in Windows).
- Navori Tech Support will remove this serial number from your account and generate a new serial number for your license. You will receive notification with the new number by email.
- You must now update the information on your QL Server:
 1. Login to QL Manager.
 2. Select **Menu > Server > Update** (this is visible to the Navoi QL top level Administrator only). Next, you should log out and log back in to ensure the QL Manager shows the newly added Player licenses.
 3. Your new Player will appear in the Player window (it will be greyed out as it has not been activated yet).
 4. You will need to fill-out the information for this Player in the Player Properties. Select **Player Properties > License Information**.
 5. Copy the new serial number from Navori's email (**Ctrl+C** in Windows) and paste the number in the Serial Number field (**Ctrl+V** in Windows).
If you decide to type in the serial number, make sure you type it exactly as in the email including any spaces and dashes otherwise the number will be rejected.
 6. NOTE: The old Player reference will automatically be removed it is no longer active. It has been replaced by the new Player that was just created and activated.
- How to license the new Player PC:
 1. Install the QL Player software on your new PC.
 2. When prompted by the QL Player installer, copy the license number from Navori's email (**Ctrl+C** in Windows) and paste the number in the required field (**Ctrl+V** in Windows).

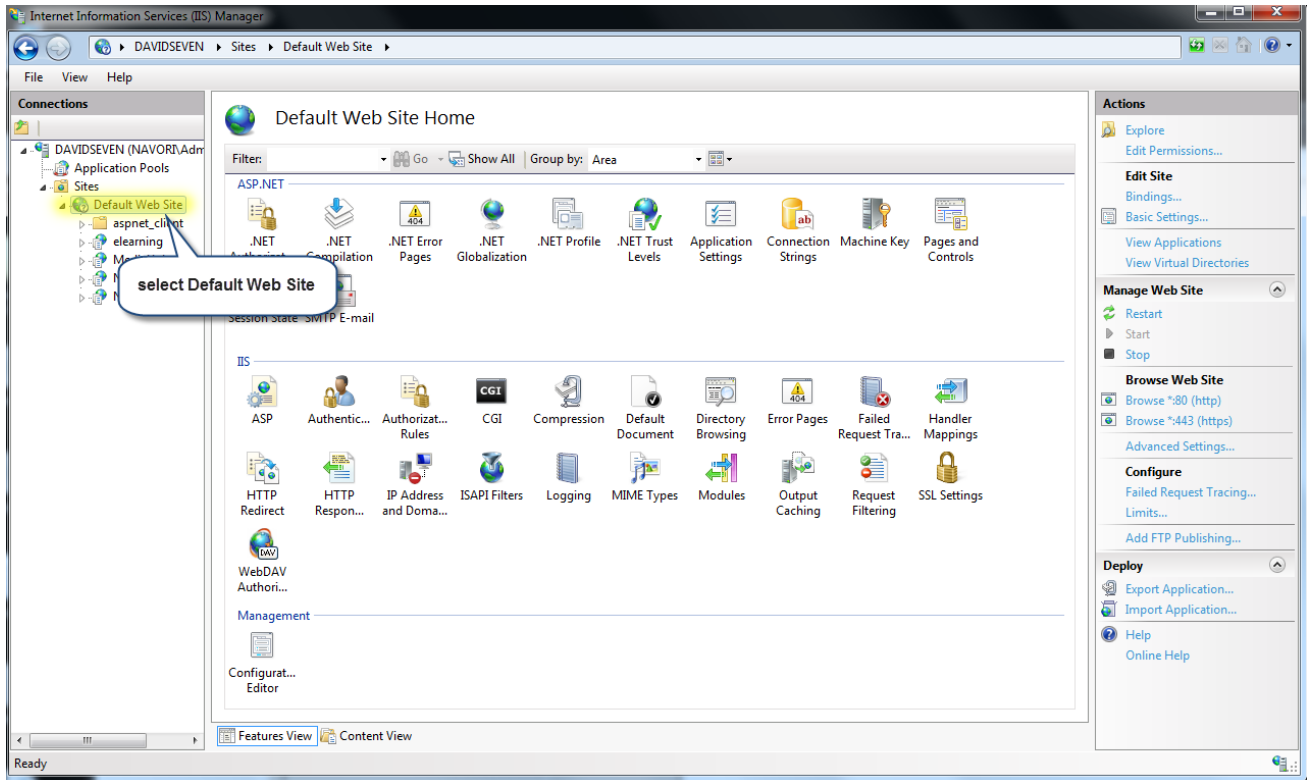
How to configure SSL for secure web connections (https)

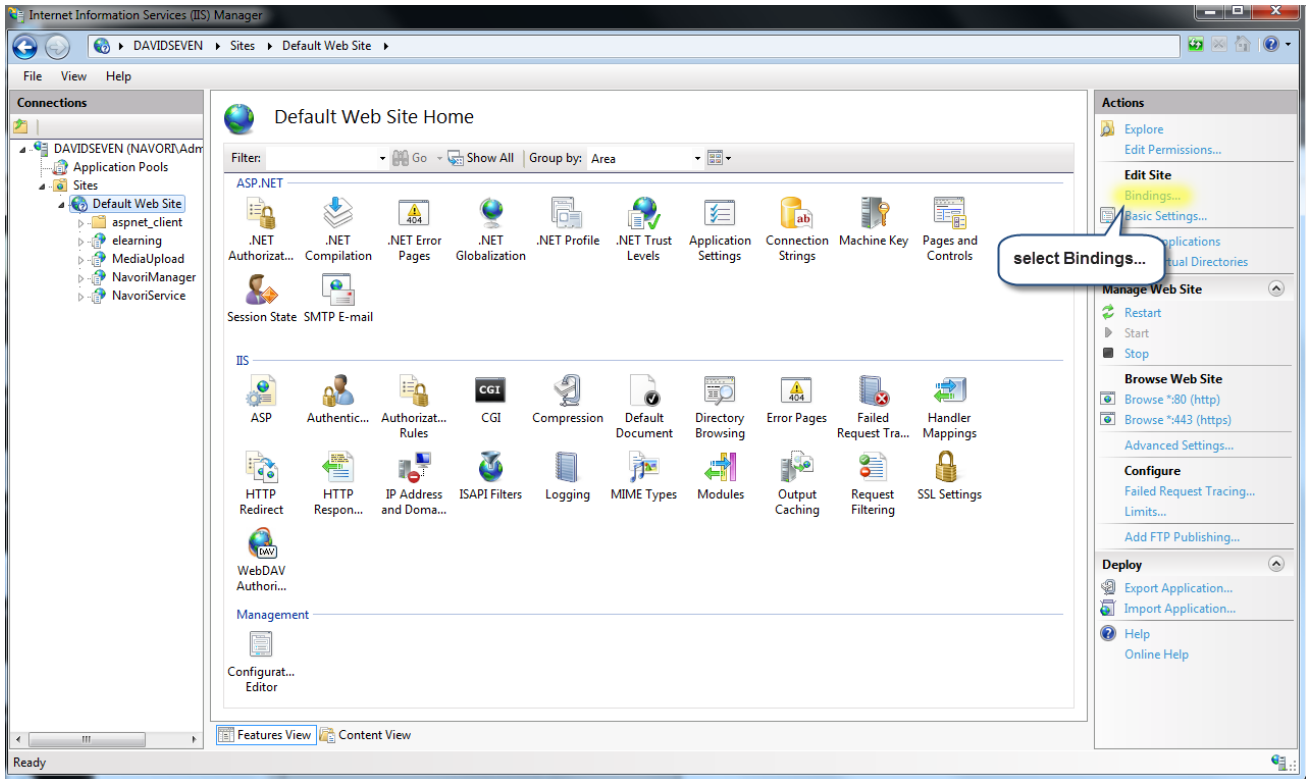
Here are the steps required to activate SSL in IIS to secure the connections between your QL Server and QL Manager users.

1. Create an SSL Binding

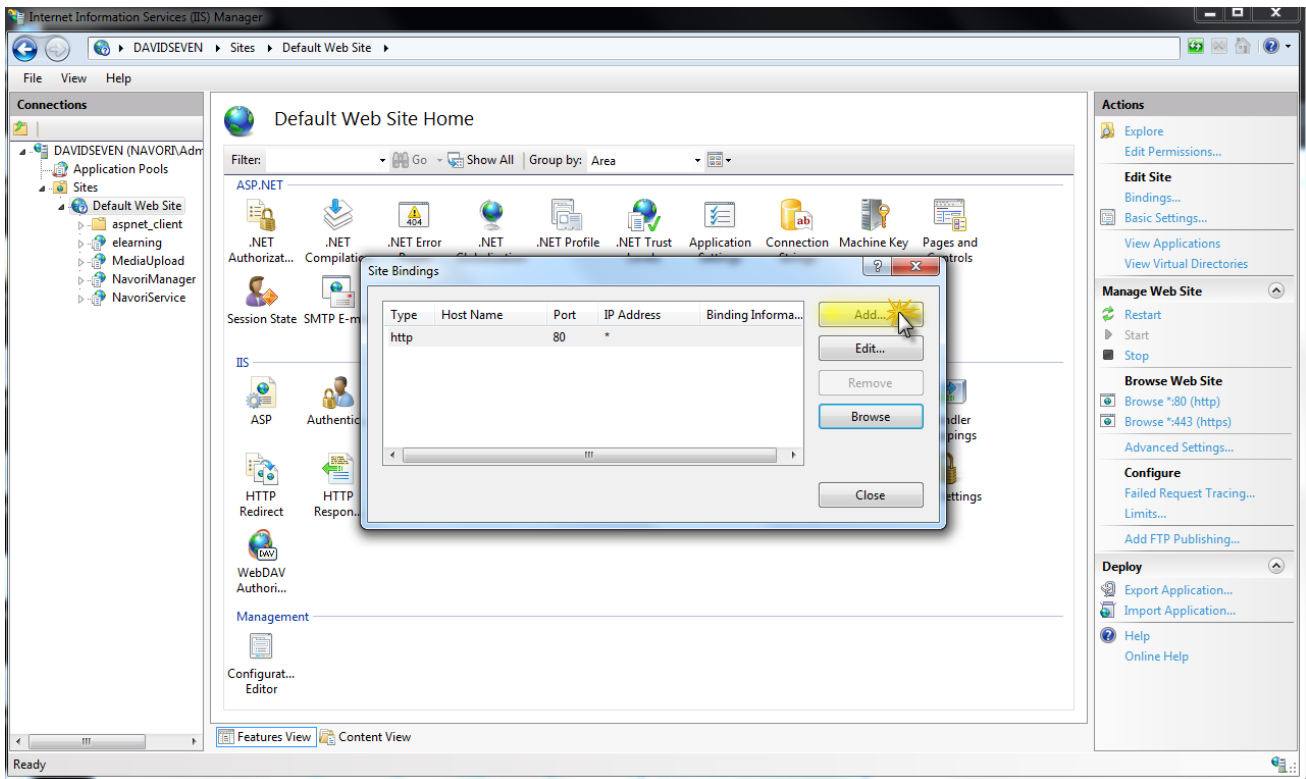
Select a site in the tree view and click **Bindings...** in the **Actions** pane. This will bring up the bindings editor where you can create, edit and delete bindings for your Web site.

Click **Add...** to add a new SSL binding to the site.

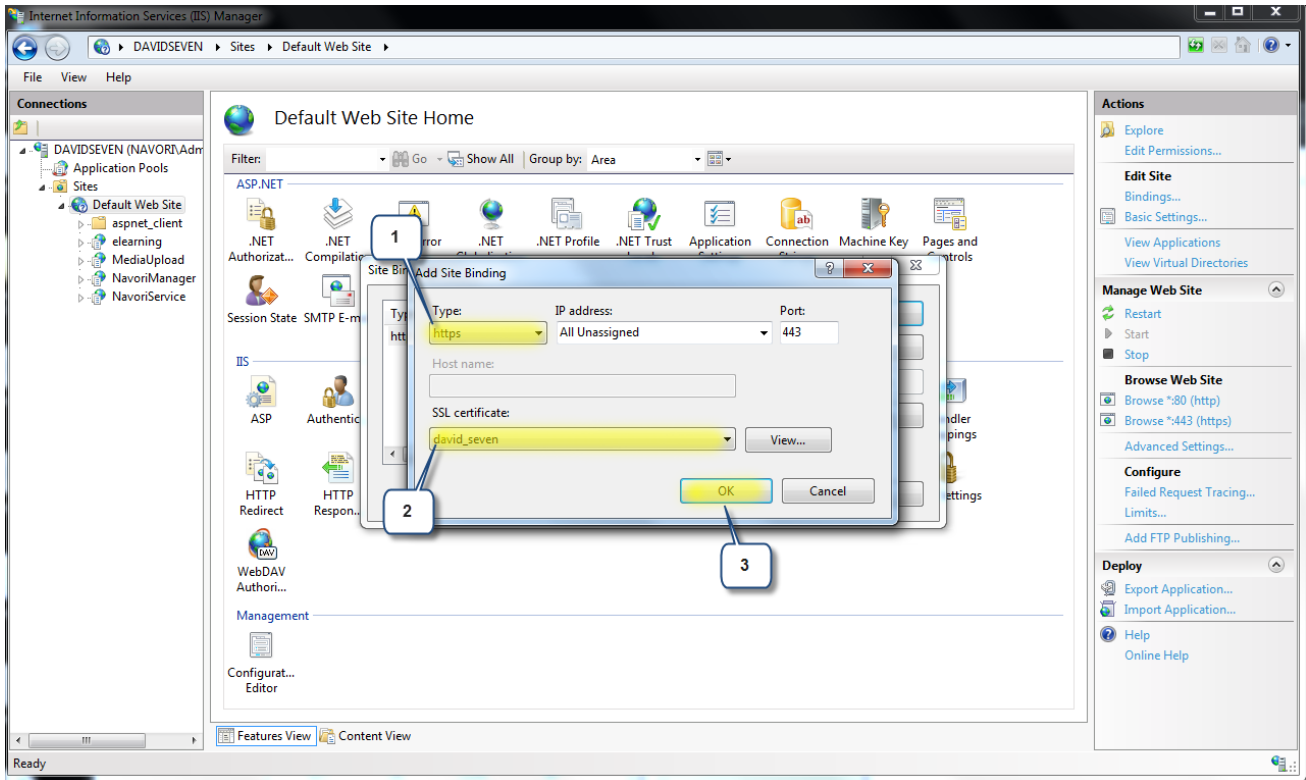




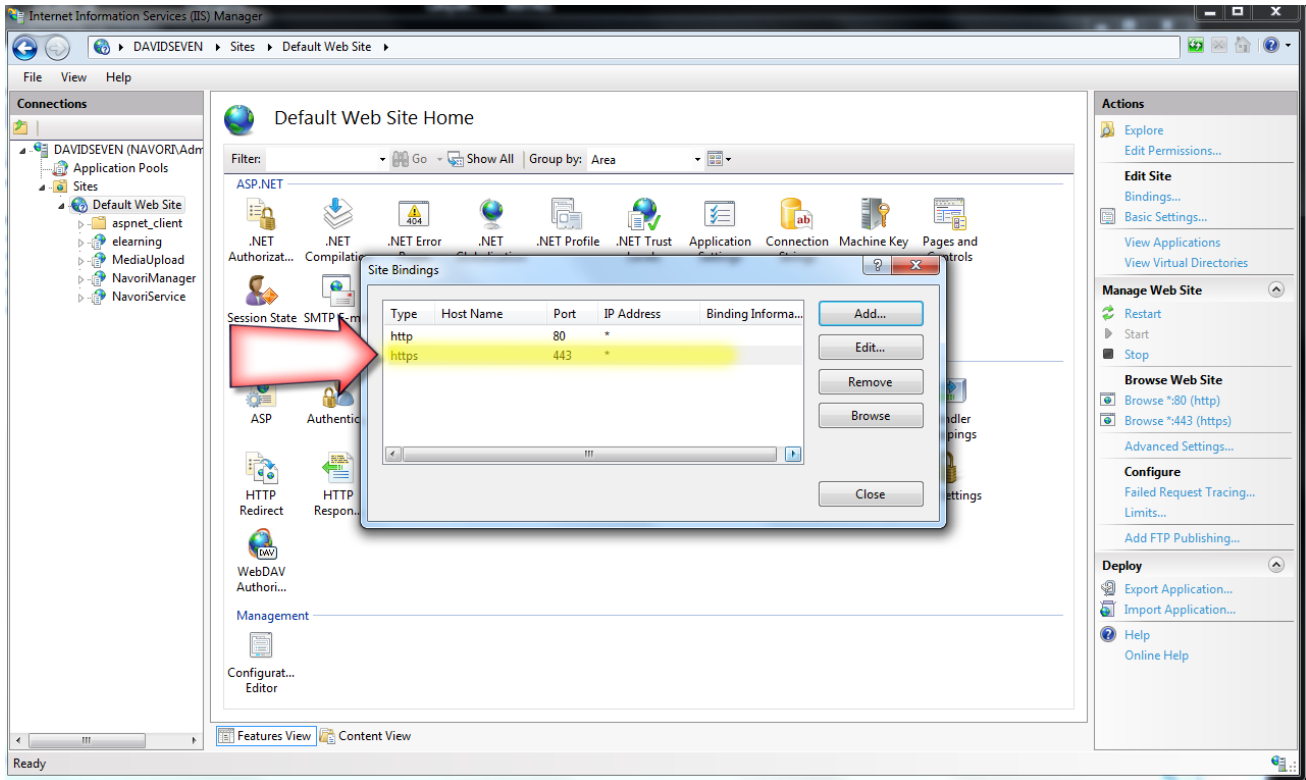
The default settings for a new binding will be set to **HTTP** on **port 80**.



1. Select **https** in the **Type** drop-down list.
2. Select the self-signed certificate you created in the previous section from the SSL Certificate drop-down list.
3. Click **OK** to confirm your settings.



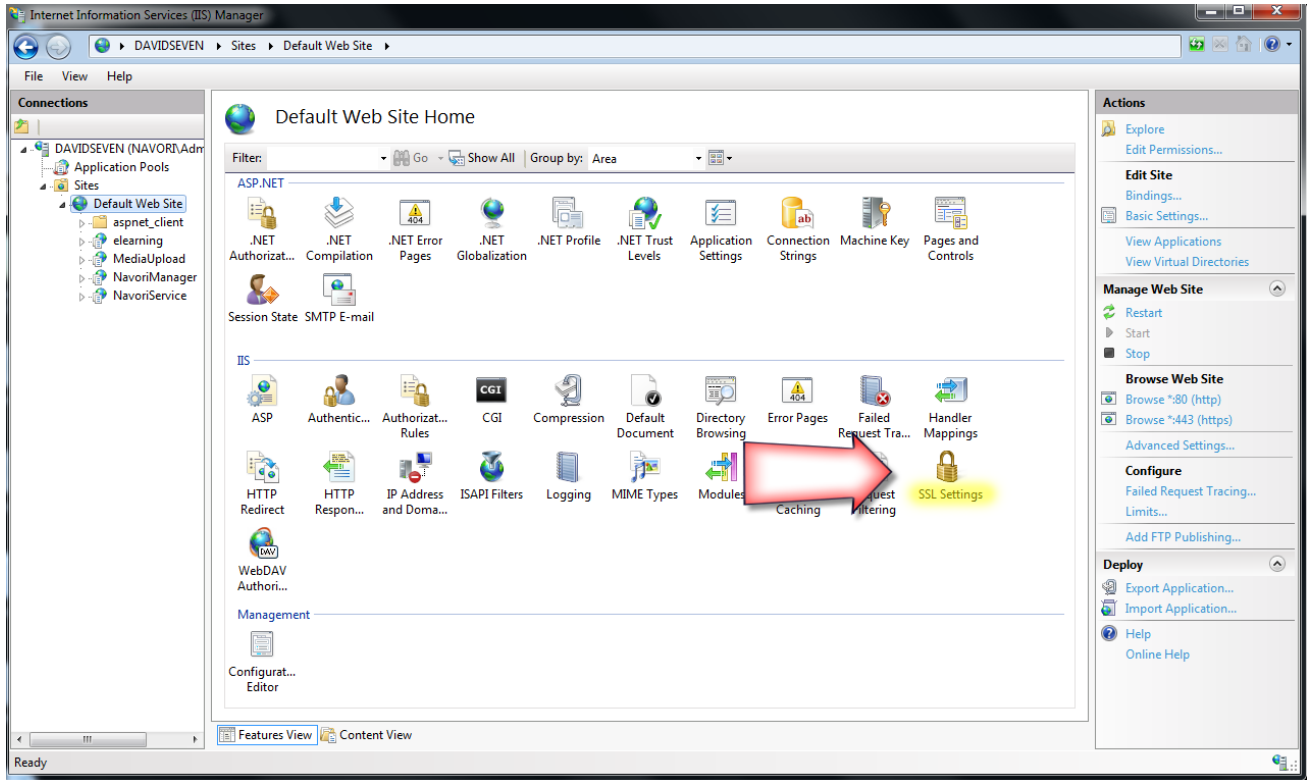
Now you have a new SSL binding on your site.
You should test to ensure you can access the secure connection.

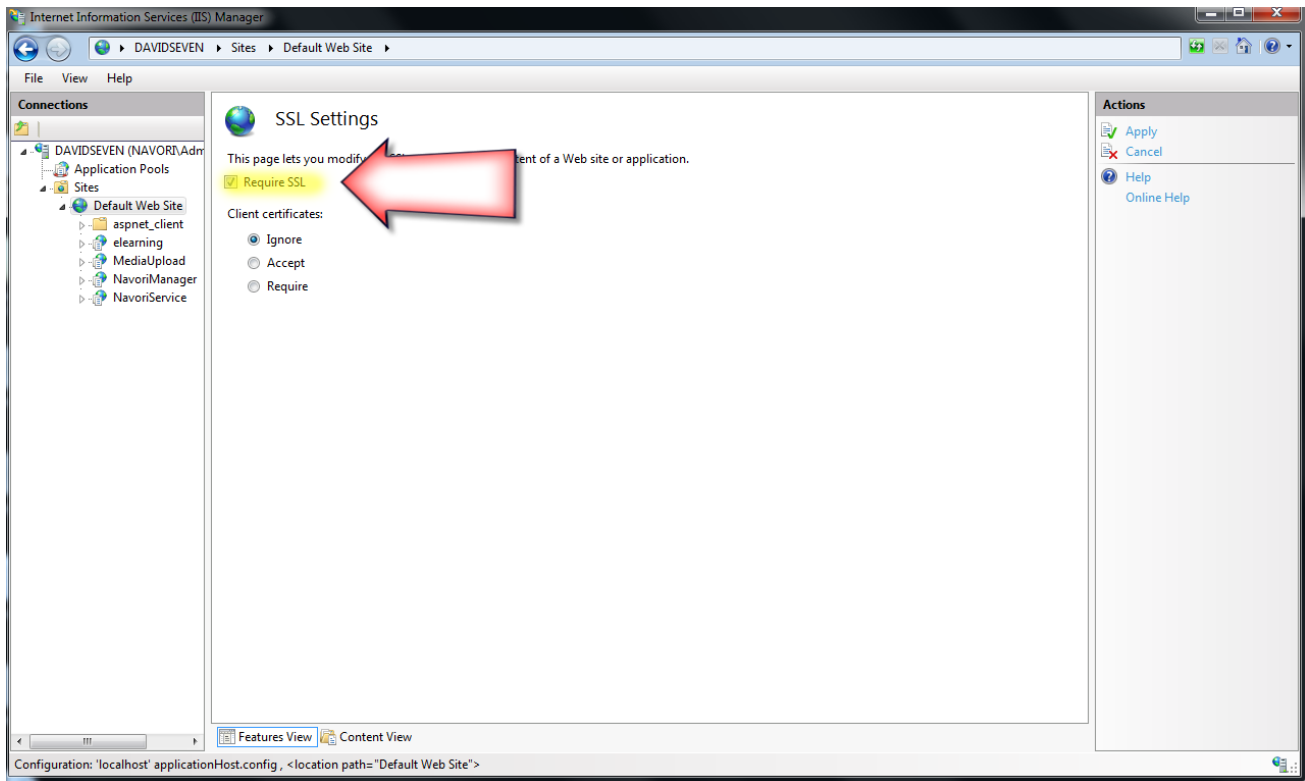


Configure SSL Settings

You must configure the SSL settings if you want your site to enforce SSL connections or if you want the site to interact in a specific way with client certificates.

Click the **site node** in the **tree view** to go back to the site's home page. Double-click the **SSL Settings** feature in the middle pane.





Changing the Web Configuration

We must now modify the web configuration manager settings for QL and QL Server.

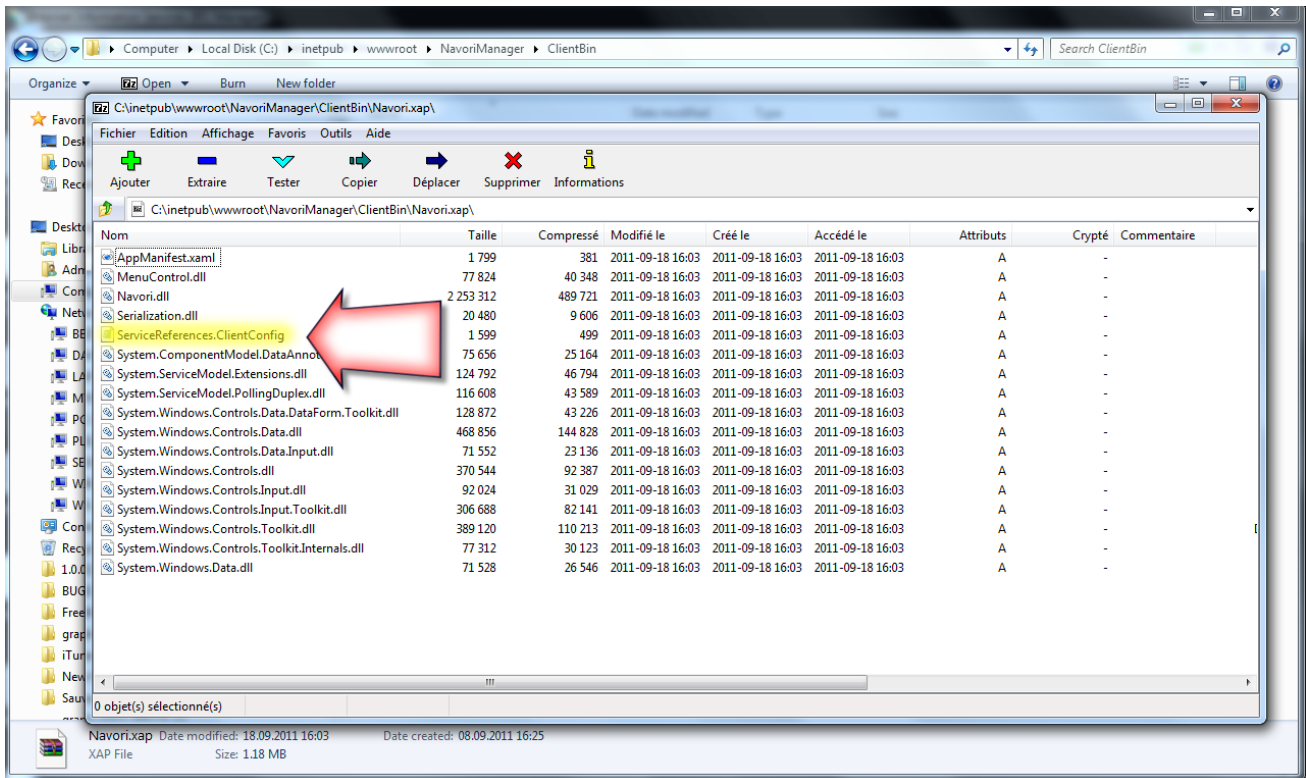
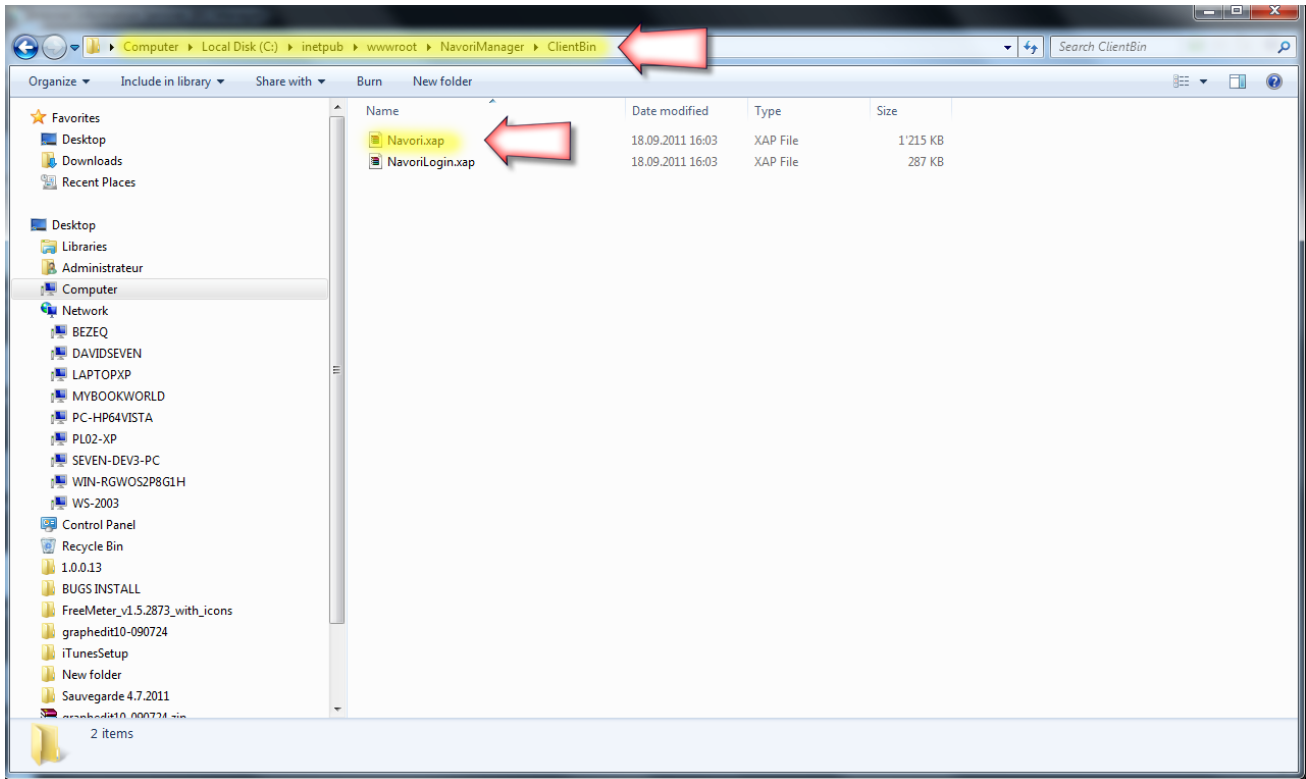
By default, the web configuration manager is set up for normal http communication mode and not for secure connections (https). To change these settings, we begin by modifying the web configuration files for QL Manager.

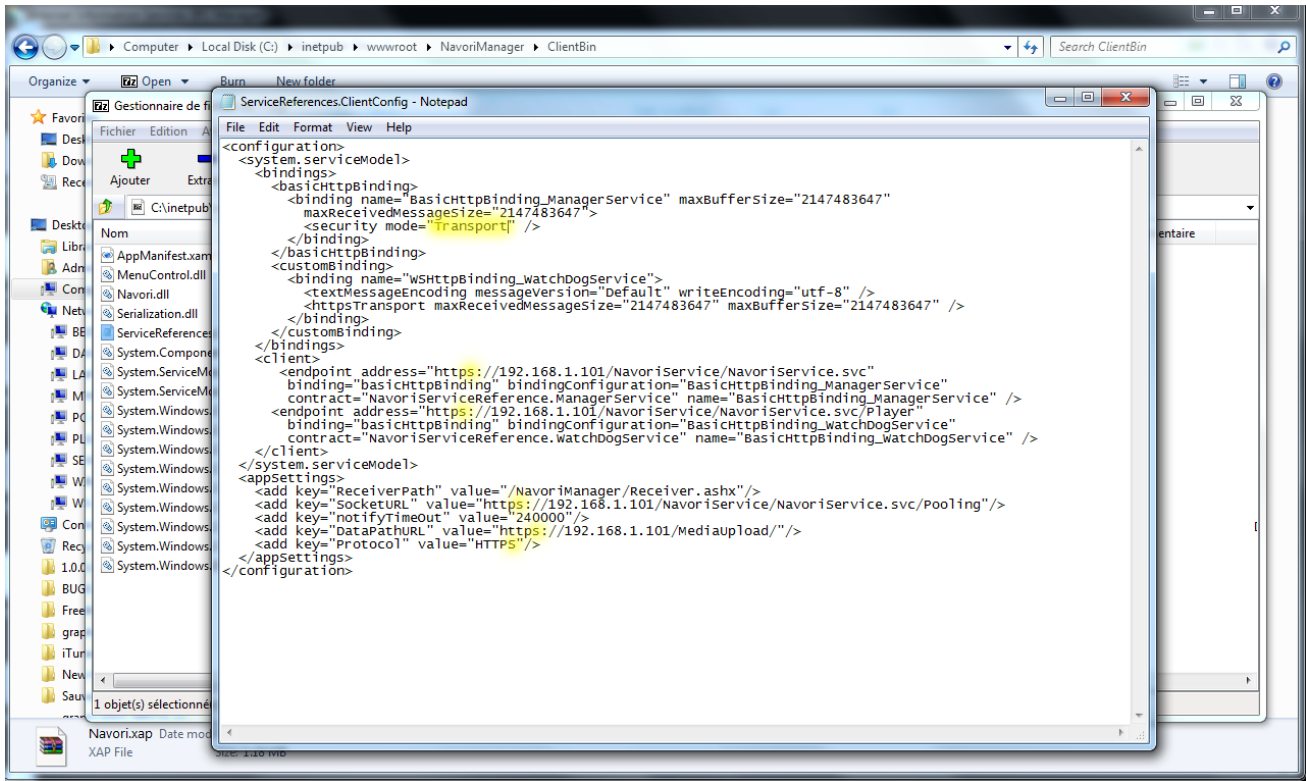
There are four files that you will need to modify.

- One file is located in the **Navori.xap** container. The file is called **ServiceReferences.ClientConfig**
- One file is located in the **NavoriLogin.xap** container. This file is also called **ServiceReferences.ClientConfig**
- One file is located in the **wwwroot\Navori** folder and it is called **web.config**
- One file is located in the **wwwroot\NavoriServices** folder. This file is also called **web.config**

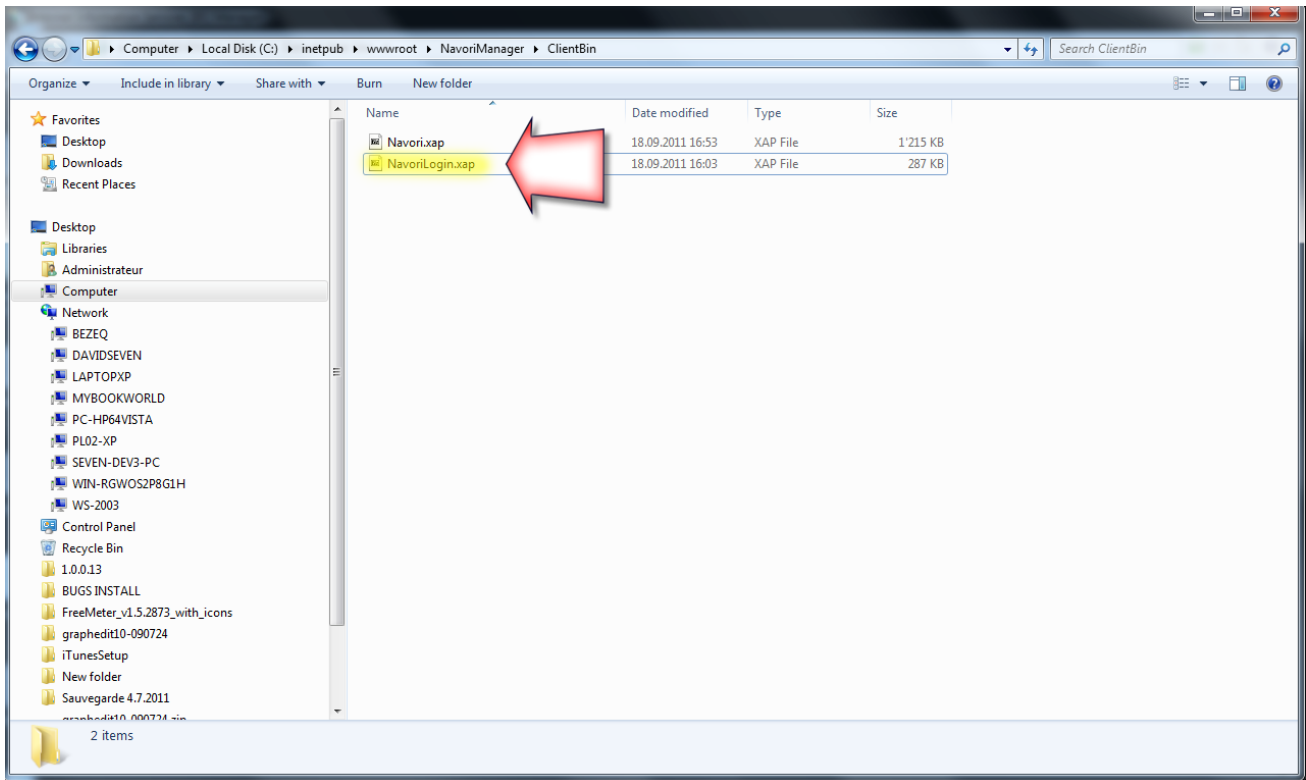
Here is how you modify the files.

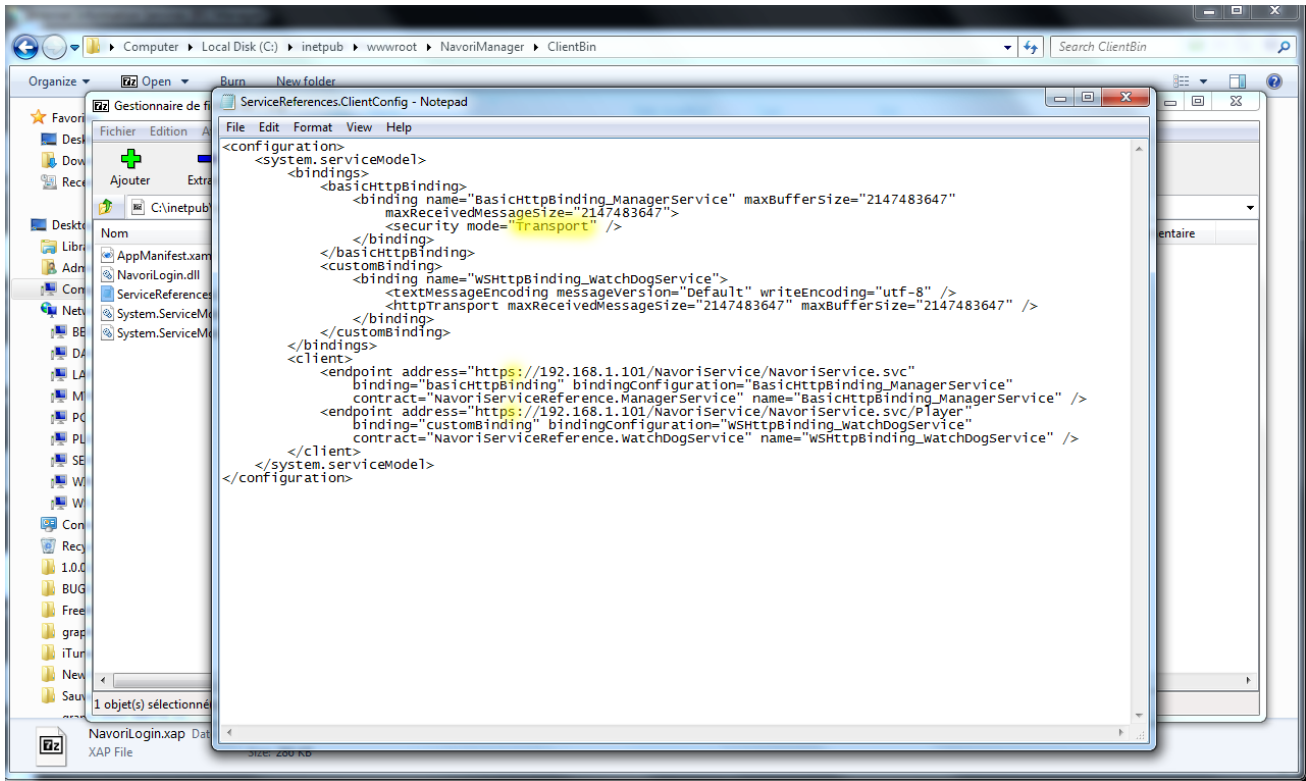
In the following steps we will add an "s" whenever there is a mention of "http" and change the mode in the **transport** setting to **none**.



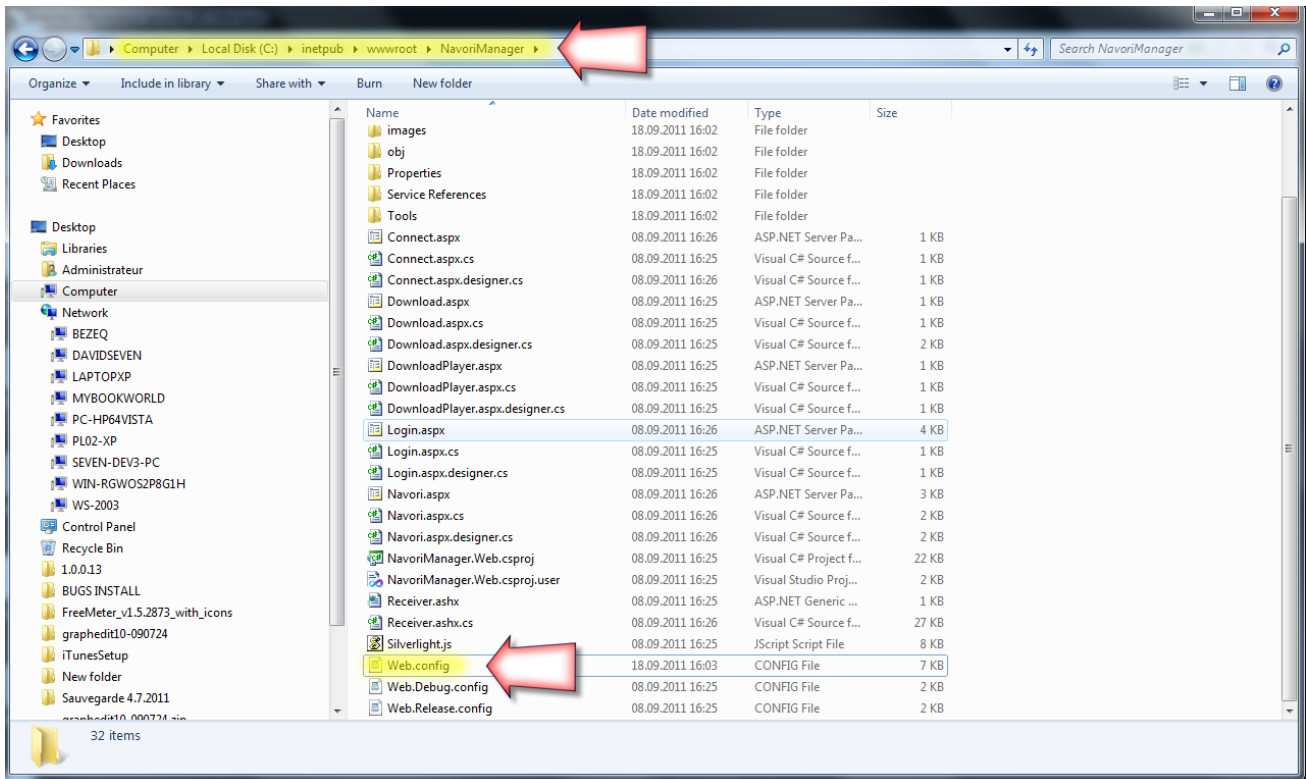


We will now perform the same modifications to the second web configuration file.





Next we edit the third and last configuration file.




```

useDefaultWebProxy="true">
<readerQuotas maxDepth="32" maxStringContentLength="8192" maxArrayLength="16384"
maxBytesPerRead="4096" maxNameTableCharCount="16384" />
<security mode="Transport">
<transport clientCredentialType="None" proxyCredentialType="None"
realm="" />
<message clientCredentialType="UserName" algorithmSuite="Default" />
</security>
</binding>
</basicHttpBinding>
<customBinding>
<binding name="PollingDuplexHttpBinding_ManagerDuplexService">
<!-- wsdl:Importer encountered unrecognized policy assertions in ServiceDescription 'http://tempuri
<!-- <wsdl:binding name="PollingDuplexHttpBinding_ManagerDuplexService" -->
<!-- <netdx:Duplex xmlns:netdx="http://schemas.microsoft.com/2008/04/netduplex"..><netdx:Dupl
<binaryMessageEncoding maxReadPoolSize="64" maxWritePoolSize="16"
maxSessionSize="2048">
<readerQuotas maxDepth="32" maxStringContentLength="8192" maxArrayLength="16384"
maxBytesPerRead="4096" maxNameTableCharCount="16384" />
</binaryMessageEncoding>
<httpTransport manualAddressing="false" maxBufferPoolSize="524288"
maxReceivedMessageSize="65536" allowCookies="false" authenticationScheme="Anonymous"
bypassProxyOnLocal="false" decompressionEnabled="true" hostNameComparisonMode="StrongWildcard"
keepAliveEnabled="true" maxBufferSize="65536" proxyAuthenticationScheme="Anonymous"
realm="" transferMode="Buffered" unsafeConnectionNTLMAuthentication="false"
useDefaultWebProxy="true" />
</binding>
</customBinding>
</wsHttpBinding>
<binding name="WSHttpBinding_watchDogService" closeTimeout="00:01:00"
openTimeout="00:01:00" receiveTimeout="00:10:00" sendTimeout="00:01:00"
bypassProxyOnLocal="false" transactionFlow="false" hostNameComparisonMode="StrongWildcard"
maxBufferPoolSize="524288" maxReceivedMessageSize="65536" messageEncoding="Text"
textEncoding="utf-8" useDefaultWebProxy="true" allowCookies="false">
<readerQuotas maxDepth="32" maxStringContentLength="8192" maxArrayLength="16384"
maxBytesPerRead="4096" maxNameTableCharCount="16384" />
<reliableSession ordered="true" inactivityTimeout="00:10:00"
enabled="false" />
<security mode="Transport">
<transport clientCredentialType="Windows" proxyCredentialType="None"
realm="" />
<message clientCredentialType="Windows" negotiateServiceCredential="true" />
</security>

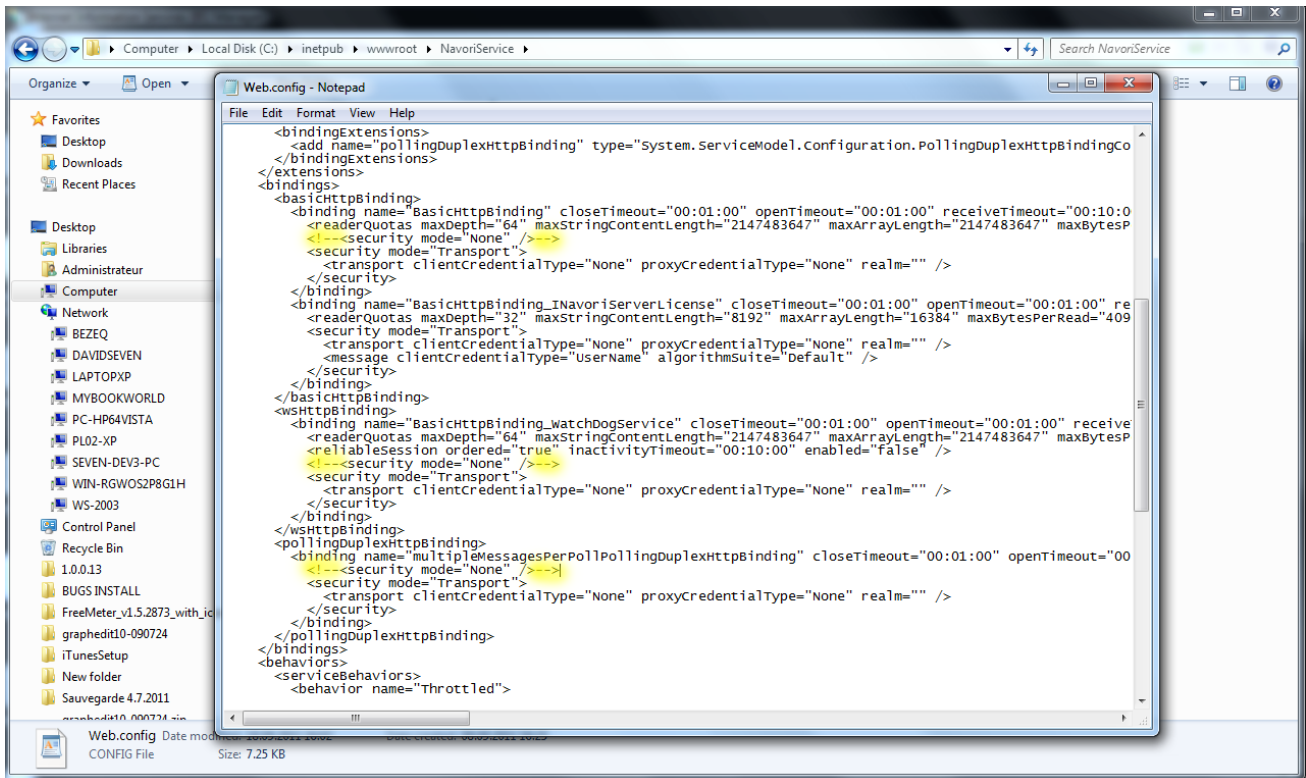
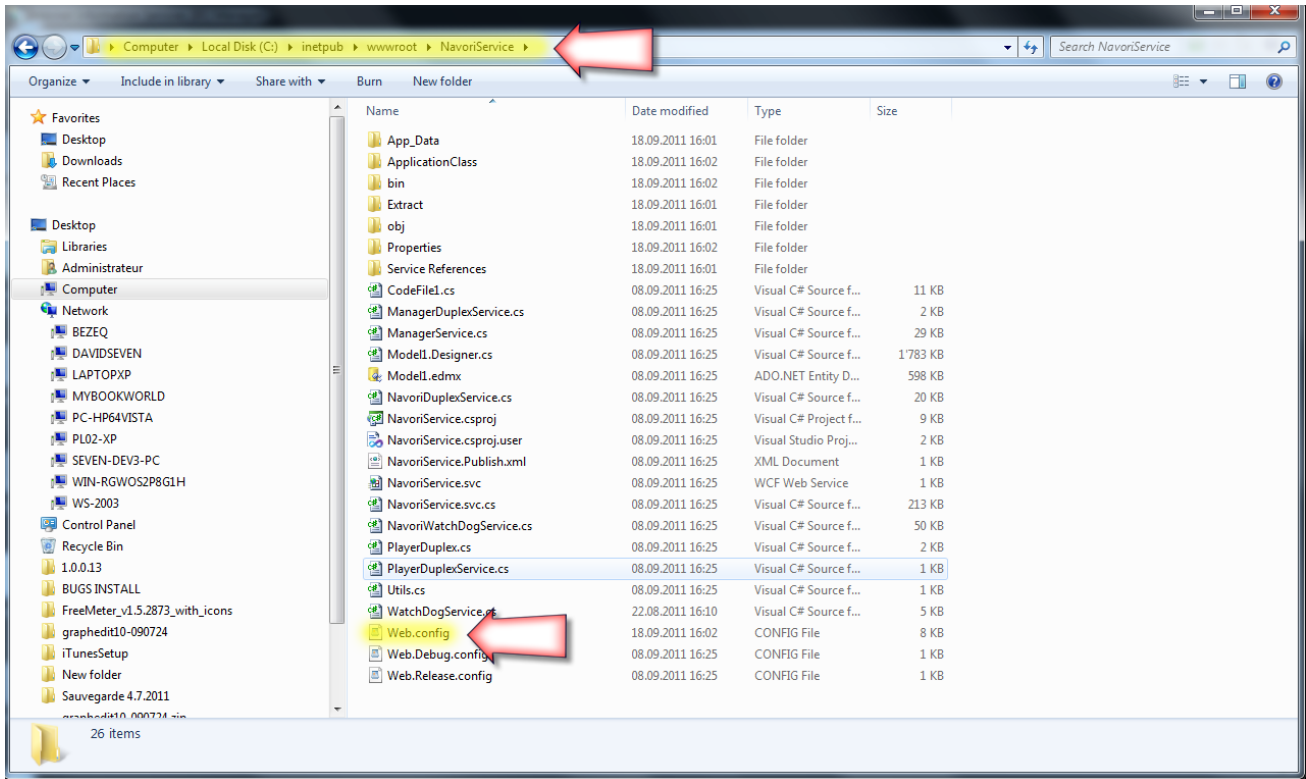
```

```

minLocalRequestFreeThreads="4"
appRequestQueueLimit="100" />
</system.web>
<appSettings>
<add key="dataPath" value="C:\inetpub\wwwroot\MediaUpload\" />
<add key="Login" value="Administrator" />
<add key="Password" value="1itt220i" />
<add key="Domain" value="" />
<add key="DataPathURL" value="https://192.168.1.101/MediaUpload/" />
<add key="useProxy" value="false" />
<add key="ProxyURL" value="." />
<add key="ProxyDefaultCredential" value="true" />
<add key="ProxyLogin" value="" />
<add key="ProxyPassword" value="" />
</appSettings>
<system.serviceModel>
<!-- Register the binding extension from the SDK. -->
<client>
<endpoint address="https://192.168.1.101/NavoriService/NavoriService.svc/Pooling"
binding="customBinding" bindingConfiguration="PollingDuplexHttpBinding_ManagerDuplexService"
contract="ServiceReference1.ManagerDuplexService" name="PollingDuplexHttpBinding_ManagerDuplexService" />
<endpoint address="https://192.168.1.101/NavoriService/NavoriService.svc"
binding="basicHttpBinding" bindingConfiguration="BasicHttpBinding_ManagerService"
contract="ServiceReference1.ManagerService" name="BasicHttpBinding_ManagerService" />
<endpoint address="https://192.168.1.101/NavoriService/NavoriService.svc/Player"
binding="wsHttpBinding" bindingConfiguration="WSHttpBinding_watchDogService"
contract="ServiceReference1.watchDogService" name="WSHttpBinding_watchDogService" />
</client>
<extensions>
<bindingExtensions>
<add name="pollingDuplexHttpBinding"
type="System.ServiceModel.Configuration.PollingDuplexHttpBindingCollectionElement,System.ServiceModel
</bindingExtensions>
</extensions>
<!-- create the polling duplex binding. -->
<bindings>
<basicHttpBinding>
<binding name="BasicHttpBinding_ManagerService" closeTimeout="00:01:00"
openTimeout="00:01:00" receiveTimeout="00:10:00" sendTimeout="00:01:00"

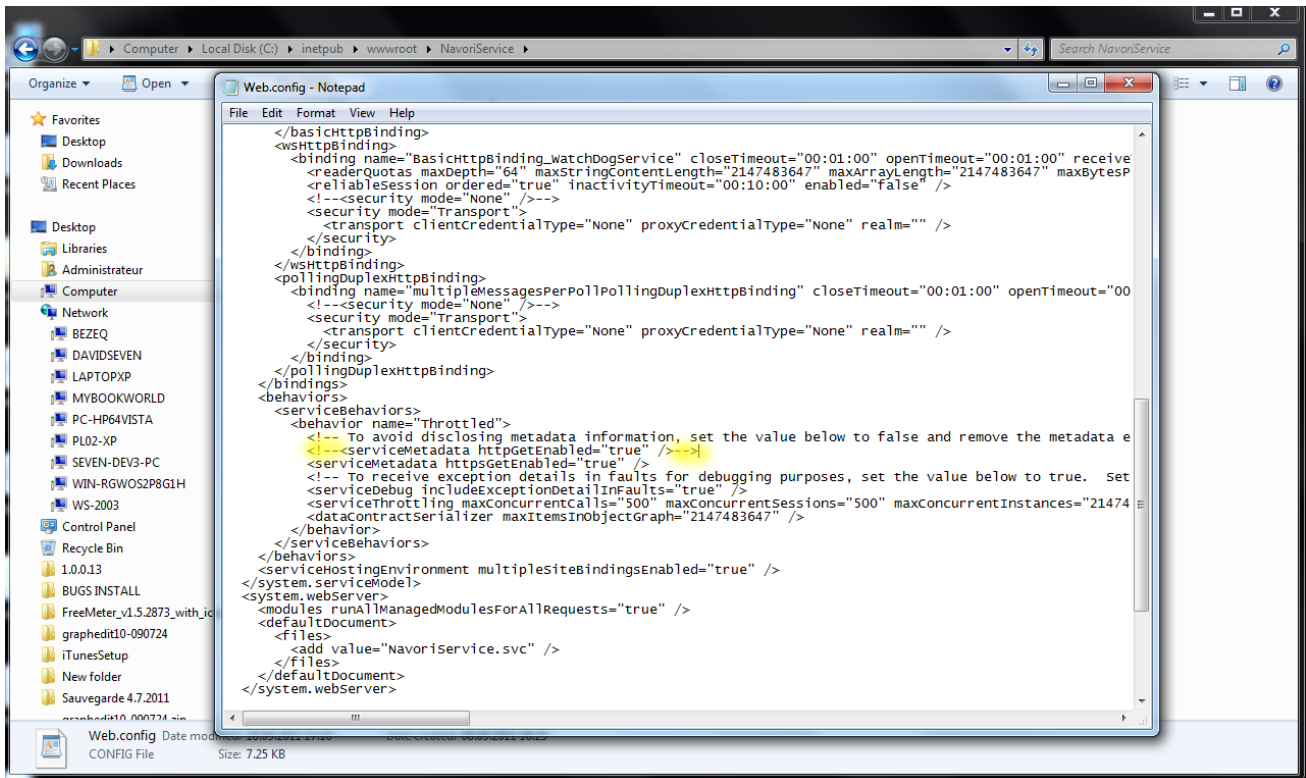
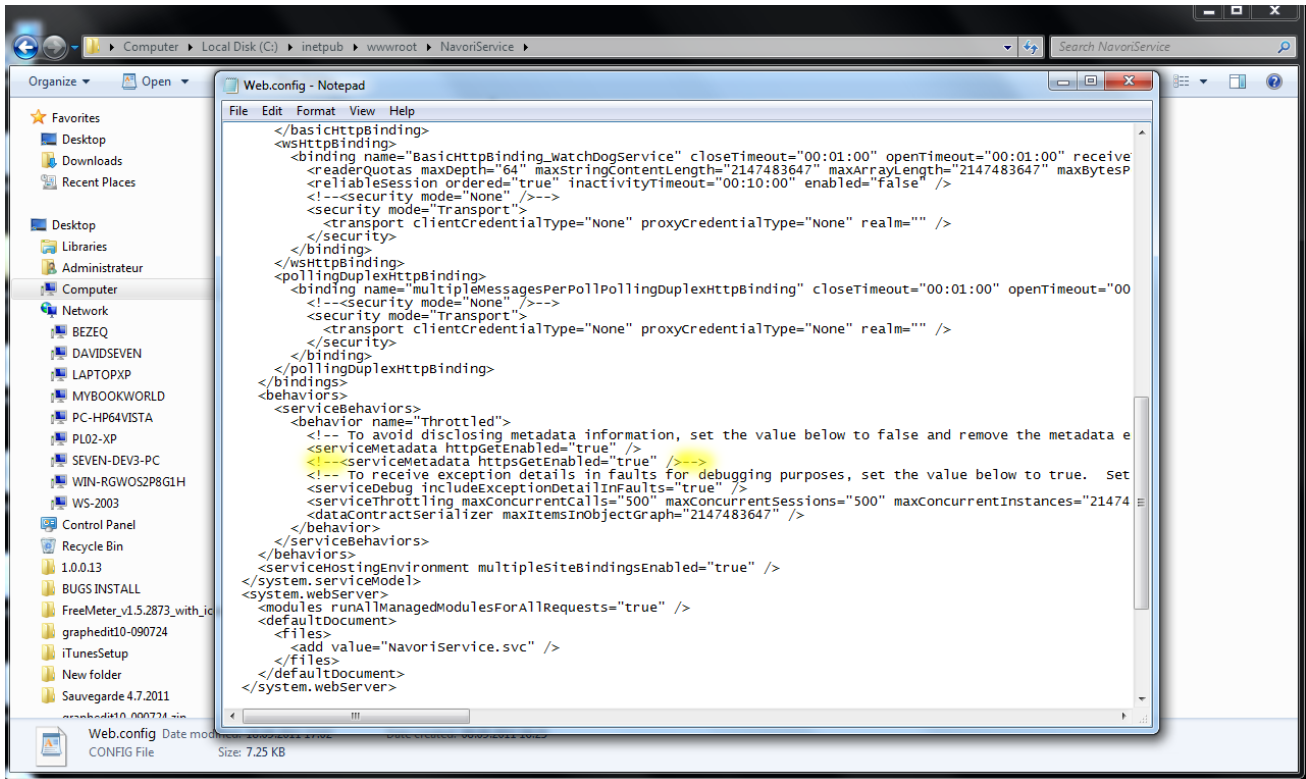
```

Next we modify QL Server's web configuration using the same technique.



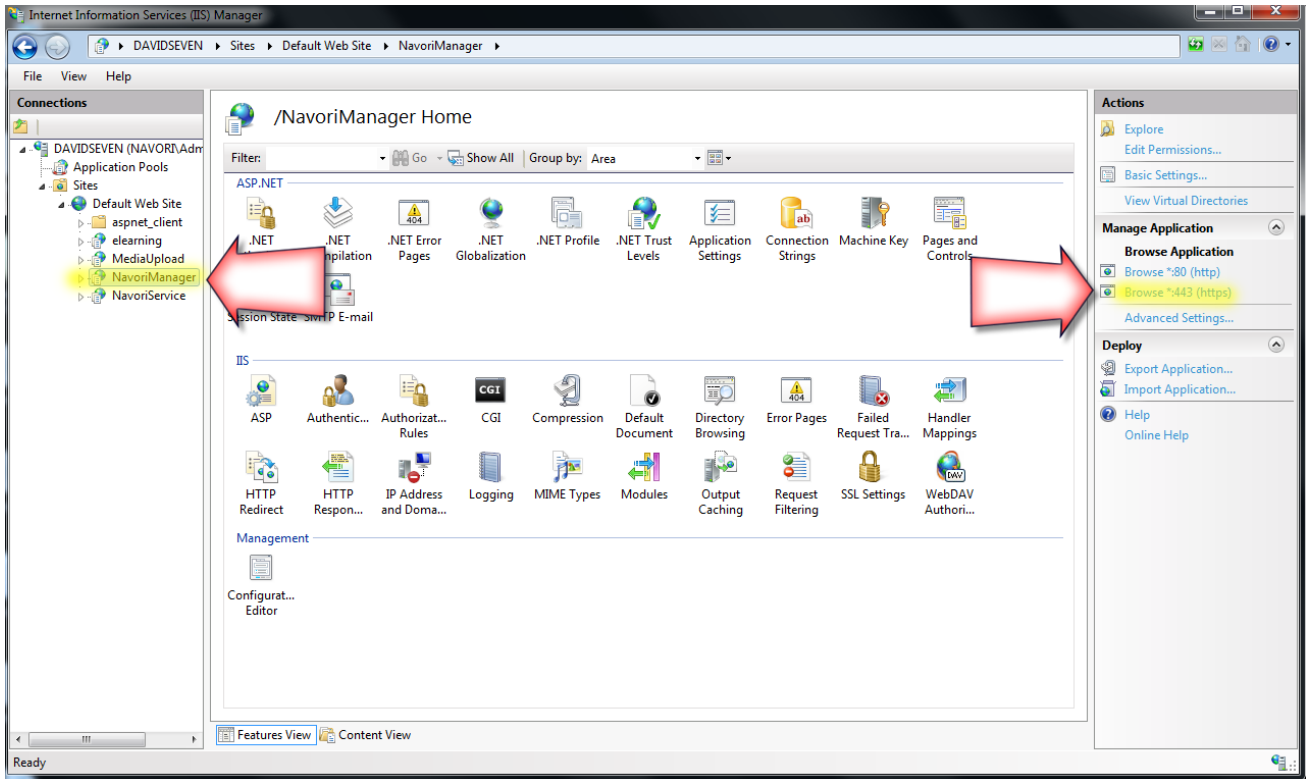
```
File Edit Format View Help
<bindingExtensions>
<add name="pollingduplexhttpbinding" type="System.ServiceModel.Configuration.PollingDuplexHttpBindingCo
</bindingExtensions>
</extensions>
<bindings>
<binding name="basichttpbinding" closeTimeout="00:01:00" openTimeout="00:01:00" receiveTimeout="00:10:0
<readerQuotas maxDepth="64" maxStringLength="2147483647" maxArrayLength="2147483647" maxBytesP
<security mode="None" />
<!-- security mode="Transport" -->
<transport clientCredentialType="None" proxyCredentialType="None" realm="" />
</security>
</binding>
<binding name="basichttpbinding_inavoriserverlicense" closeTimeout="00:01:00" openTimeout="00:01:00" re
<readerQuotas maxDepth="32" maxStringLength="8192" maxArrayLength="16384" maxBytesPerRead="409
<security mode="Transport" />
<transport clientCredentialType="None" proxyCredentialType="None" realm="" />
<message clientCredentialType="UserName" algorithmSuite="Default" />
</security>
</binding>
</basichttpbinding>
<wshttpbinding>
<binding name="BasicHttpBinding_WatchDogService" closeTimeout="00:01:00" openTimeout="00:01:00" receive
<readerQuotas maxDepth="64" maxStringLength="2147483647" maxArrayLength="2147483647" maxBytesP
<reliableSession ordered="true" inactivityTimeout="00:10:00" enabled="false" />
<security mode="None" />
<!-- security mode="Transport" -->
<transport clientCredentialType="None" proxyCredentialType="None" realm="" />
</security>
</binding>
</wshttpbinding>
<pollingduplexhttpbinding>
<binding name="multipleMessagesPerPollPollingDuplexHttpBinding" closeTimeout="00:01:00" openTimeout="00
<security mode="None" />
<!-- security mode="Transport" -->
<transport clientCredentialType="None" proxyCredentialType="None" realm="" />
</security>
</binding>
</pollingduplexhttpbinding>
</bindings>
<serviceBehaviors>
<serviceBehavior name="Throttled">
</serviceBehavior>
</serviceBehaviors>
</behaviors>
</configuration>
```

```
File Edit Format View Help
</security>
</binding>
</pollingduplexhttpbinding>
</bindings>
<behaviors>
<serviceBehaviors>
<serviceBehavior name="Throttled">
<!-- To avoid disclosing metadata information, set the value below to false and remove the metadata e
<serviceMetadata httpGetEnabled="true" />
<!-- serviceMetadata httpsGetEnabled="true" />
<!-- To receive exception details in faults for debugging purposes, set the value below to true. Set
<serviceDebug includeExceptionDetailInFaults="true" />
<serviceThrottling maxConcurrentCalls="500" maxConcurrentSessions="500" maxConcurrentInstances="2147
<dataContractSerializer maxItemsInObjectGraph="2147483647" />
</serviceBehavior>
</serviceBehaviors>
</behaviors>
<serviceHostingEnvironment multipleSiteBindingsEnabled="true" />
</system.serviceModel>
<system.webServer>
<modules runAllManagedModulesForAllRequests="true" />
<defaultDocument>
<files>
<add value="NavorService.svc" />
</files>
</defaultDocument>
</system.webServer>
</system.serviceModel>
<connectionStrings>
<add name="NavorISOLEntities" connectionString="metadata=res://*/Model1.csd|res://*/Model1.ssd|res://*/Model1
</connectionStrings>
</appSettings>
<add key="DataPathURL" value="https://192.168.1.101/Mediaupload/" />
<add key="NotifyTimer" value="600000" />
<add key="DataPath" value="c:\inetpub\wwwroot\Mediaupload\" />
<add key="MailQuota" value="10" />
<add key="MailProtocol" value="HTTPS" />
<add key="UseProxy" value="false" />
<add key="ProxyURL" value=":" />
<add key="ProxyDefaultCredential" value="true" />
<add key="ProxyLogin" value=":" />
<add key="ProxyPassword" value=":" />
</appSettings>
</configuration>
```



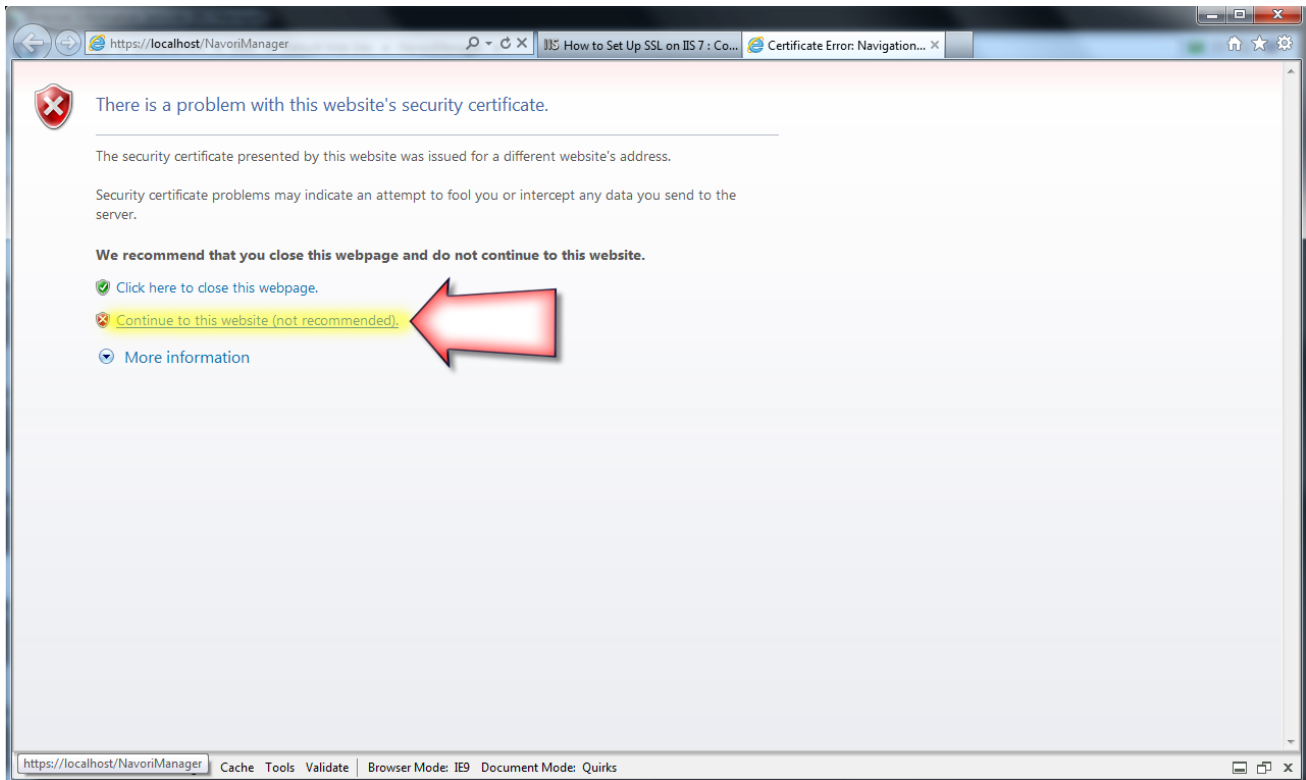
Test the SSL Binding

In the **Actions** pane, under **Browse Web Site**, click the link associated with the binding you just created.

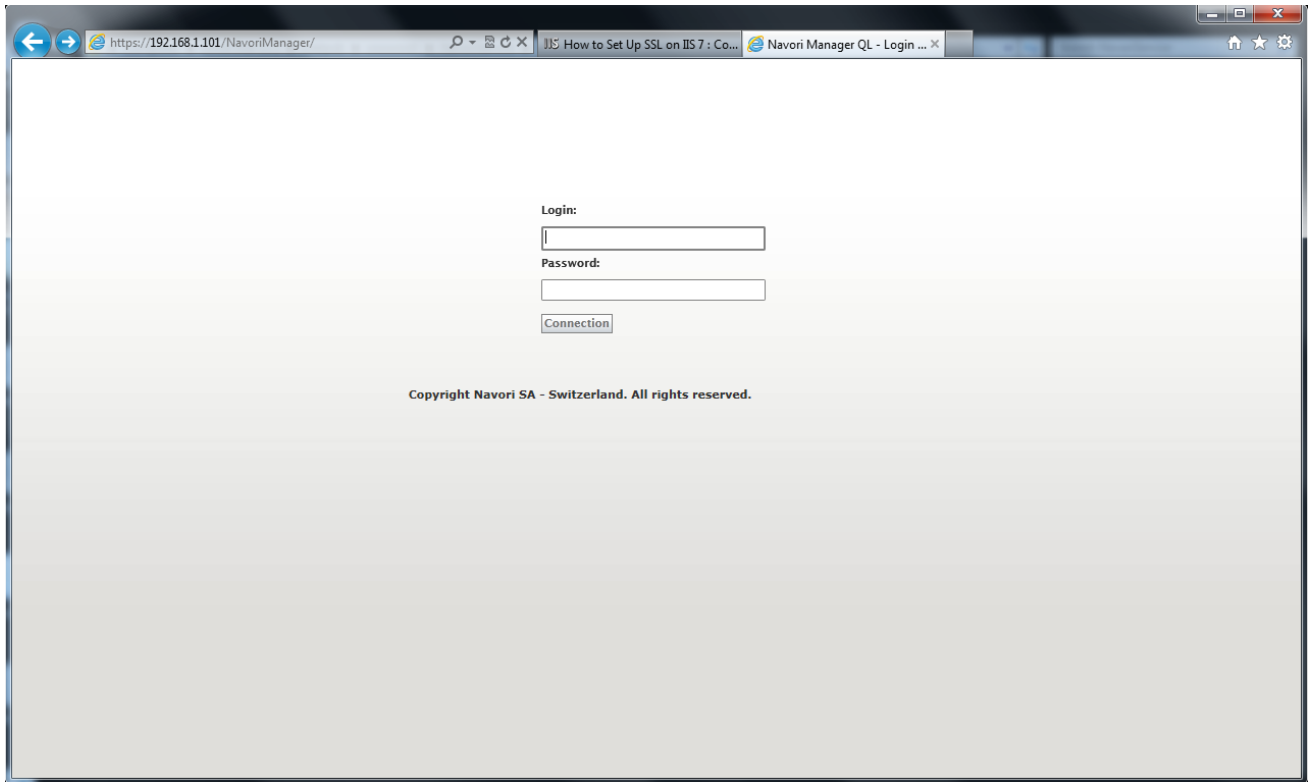


Your web browser will open and you will see a SSL warning.

Click **Continue to this website (not recommended)**.



Your QL Manager login page will then be displayed. Note the **https** prefix on the left of the URL.



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How to extract data from databases, Microsoft Excel or Exchange and display in Navori QL

In certain cases, users may need to extract data from various databases, Microsoft Excel or Microsoft Exchange and display this information in QL Player.

To easily integrate this type of live data, Navori recommends the following third party application: [Data Synchronization Studio 3.0](#) published by SIMEGO

Here is what the company says about their product:

Data Synchronization Studio is a powerful application for managing Data Import, Export and Transformation. Data Sync simplifies the process of Export and Import and empowers the user to make changes immediately see the results and fine tune the process all without system downtime.

Potential applications:

Any type of data feed converted at a preset interval into XML format such as hotel conference room management systems, displaying data extracted from a corporate database or Microsoft Excel worksheet file shared on a LAN.

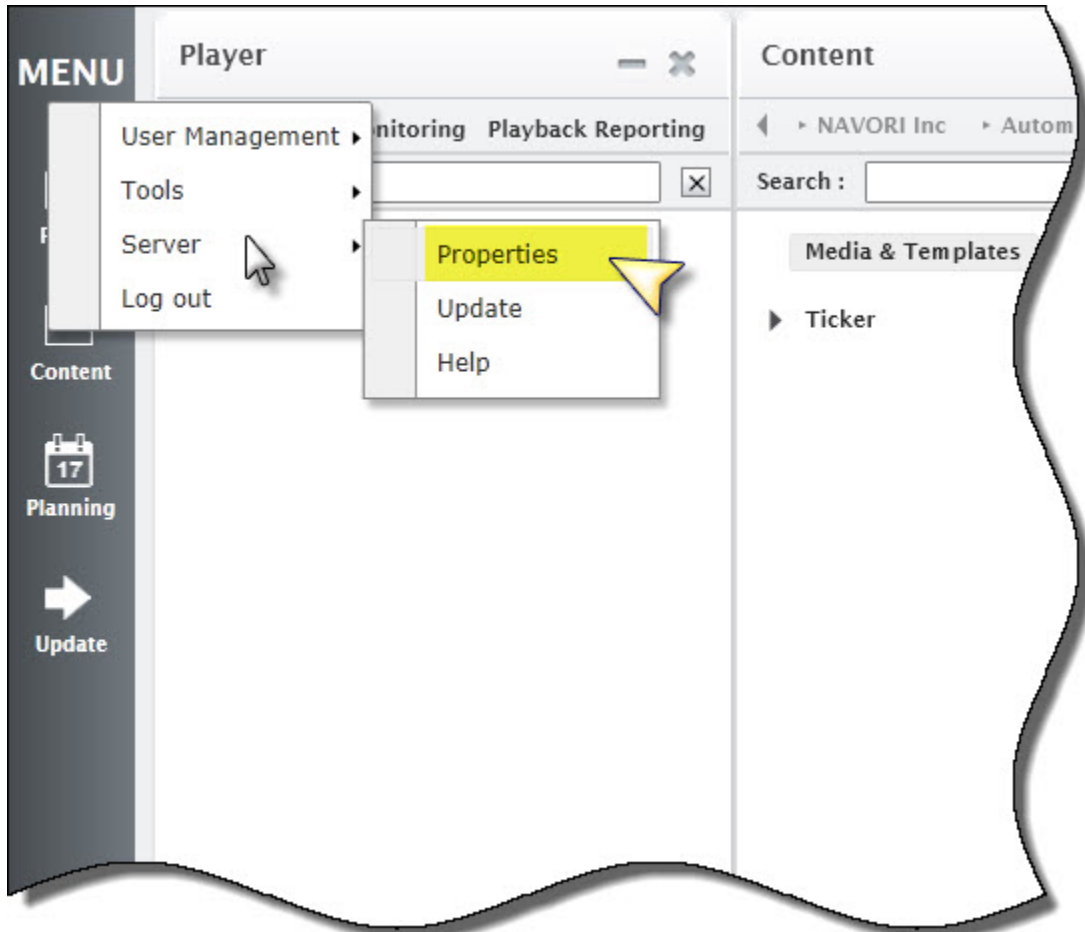
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How to configure your QL Server to use regular SMTP

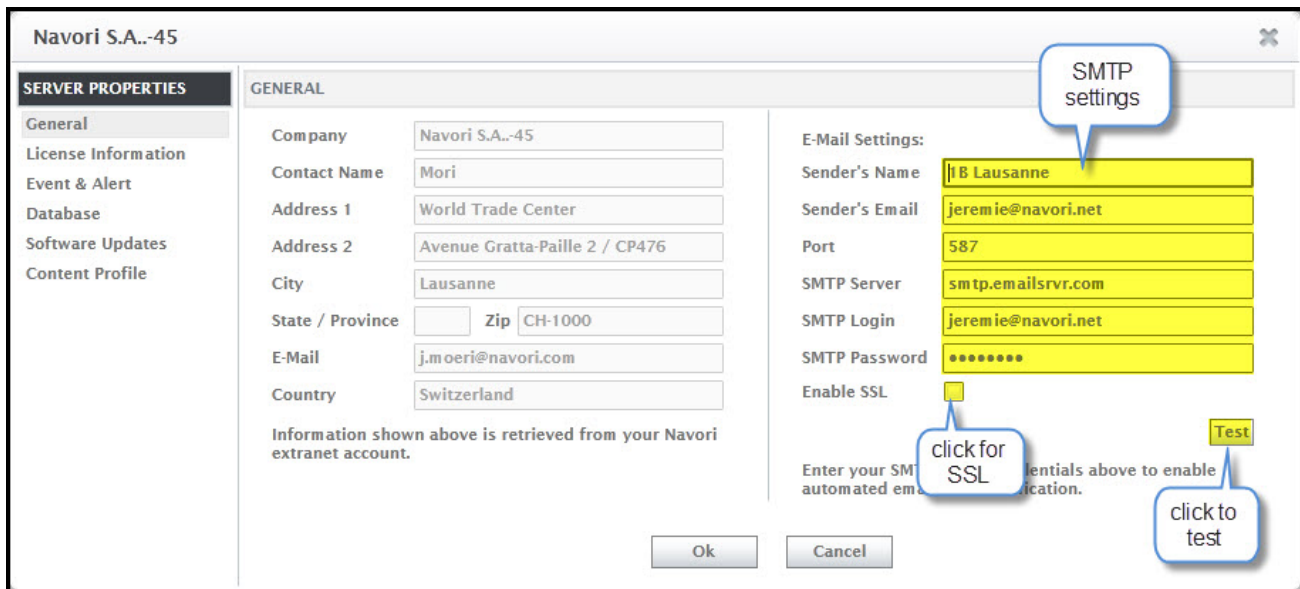
By default, Navori QL Server is configured to communicate over secure SMTP however it is possible to change this so it uses regular non-encrypted SMTP.

Your first step is to create an email account for QL Server's use on your SMTP server and record the account's login information.

Next, launch QL Manager and click on **Menu > Server > Properties**



The Server Properties window will open. Locate the E-Mail Settings section on the right side. Enter your SMTP server information in the appropriate fields.



Click **OK** to confirm your settings.

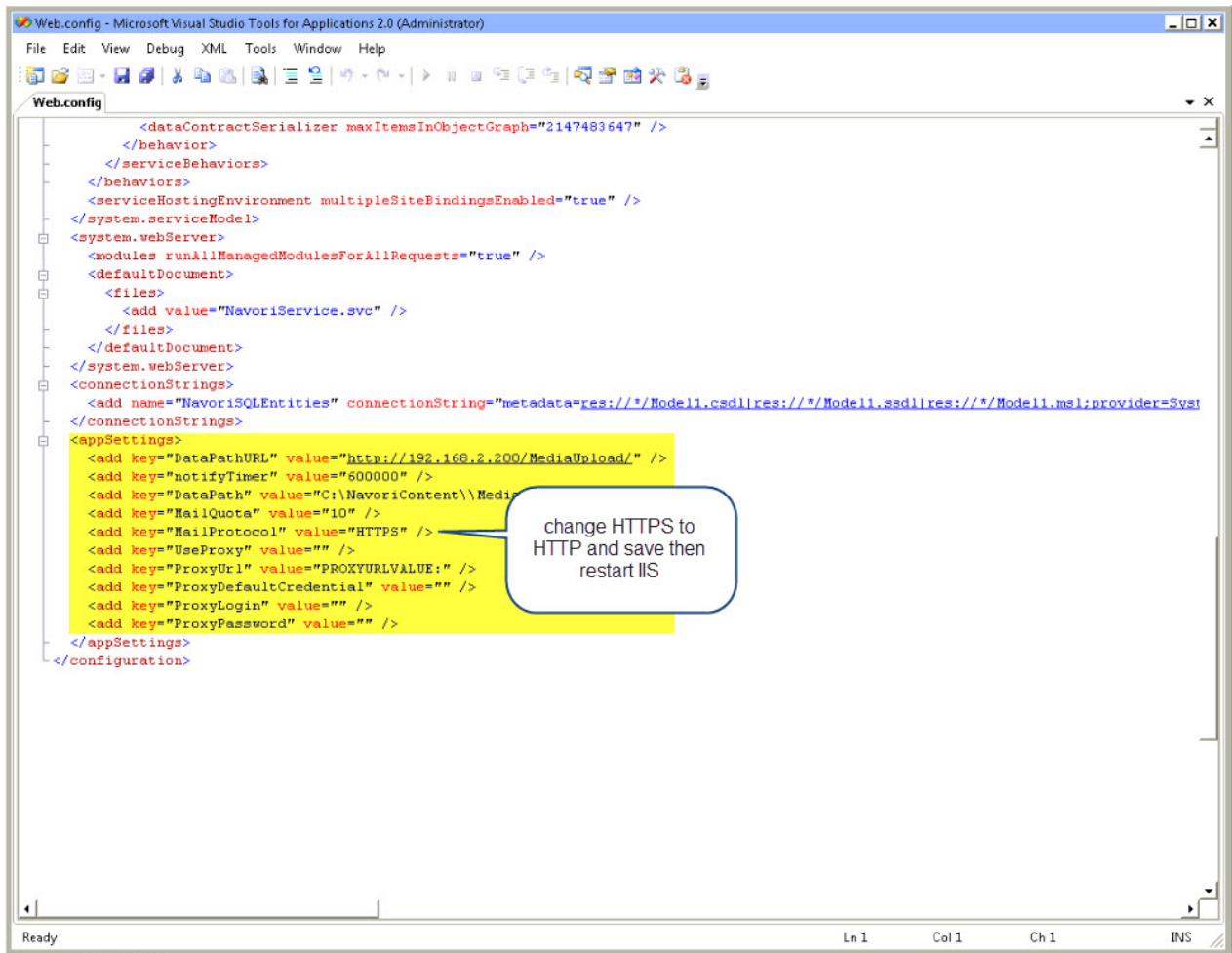
Next you will need to configure QL Server to communicate via a non-encrypted SMTP connection.

Proceed as follows:

1. Log in to your Navori QL Server PC and navigate to **C:\inetpub\wwwroot\NavoriService**
2. Locate the file called **web.config**
3. Change the following line in the **</connectionStrings>** section:

```
<add key="MailProtocol" value="HTTPS" />
```

Change HTTPS to HTTP, save the file and then re-start the IIS Service to ensure the new settings are applied..



```
<dataContractSerializer maxItemsInObjectGraph="2147483647" />
</behavior>
</serviceBehaviors>
</behaviors>
<serviceHostingEnvironment multipleSiteBindingsEnabled="true" />
</system.serviceModel>
<system.webServer>
  <modules runAllManagedModulesForAllRequests="true" />
  <defaultDocument>
    <files>
      <add value="NavoriService.svc" />
    </files>
  </defaultDocument>
</system.webServer>
<connectionStrings>
  <add name="NavoriSQLEntities" connectionString="metadata=res://*/Modell.csdl;res://*/Modell.ssdl;res://*/Modell.msl;provider=SysI
</connectionStrings>
<appSettings>
  <add key="DataPathURL" value="http://192.168.2.200/MediaUpload/" />
  <add key="notifyTimer" value="600000" />
  <add key="DataPath" value="C:\NavoriContent\Media" />
  <add key="MailQuota" value="10" />
  <add key="MailProtocol" value="HTTPS" />
  <add key="UseProxy" value="" />
  <add key="ProxyUri" value="PROXYURLVALUE:" />
  <add key="ProxyDefaultCredential" value="" />
  <add key="ProxyLogin" value="" />
  <add key="ProxyPassword" value="" />
</appSettings>
</configuration>
```

change HTTPS to HTTP and save then restart IIS

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How to redirect QL Manager to a different URL

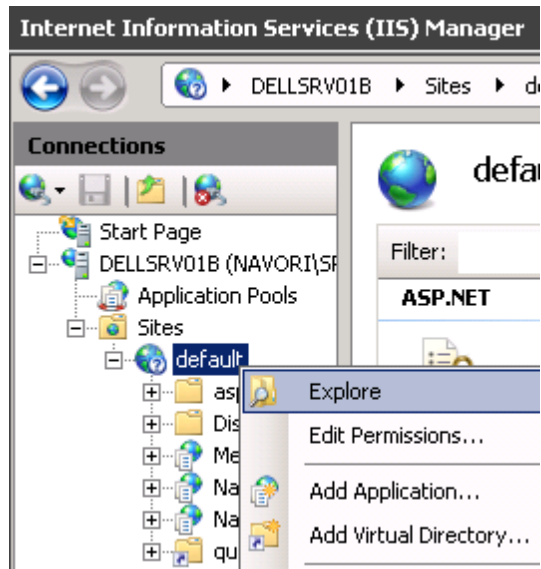
By default, you access Navori QL Manager via the following URL :

http://[IP or DNS address]/navorimanager

If you want to redirect users so they don't have to type in **/navorimanager**, proceed as follows:

In Windows Server, open the **Server Manager** and launch the **Microsoft IIS Manager**.

Select the **Default Site** then right-click and select **Explore**. This will open the site's root.



Next, open Windows Notepad and type in the following HTML code:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head><meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1" />
<meta http-equiv="refresh" content="0; URL=/NavoriManager/">
<title></title></head><body></body></html>
```

Save this file in the site's root under the name: **index.html** (by default this file is located in **C:\inetpub\wwwroot**)

This code will redirect the users to the QL Manager application without having them type in **/navorimanager**

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How to deal with QL Player installations where auto logins are not permitted

se.ini

In certain installations, auto logins are not permitted due to IT security policies.

Since QL Players reboot themselves automatically every day, this can lead to problems in these installations because there is no way to override this option in the application interface.

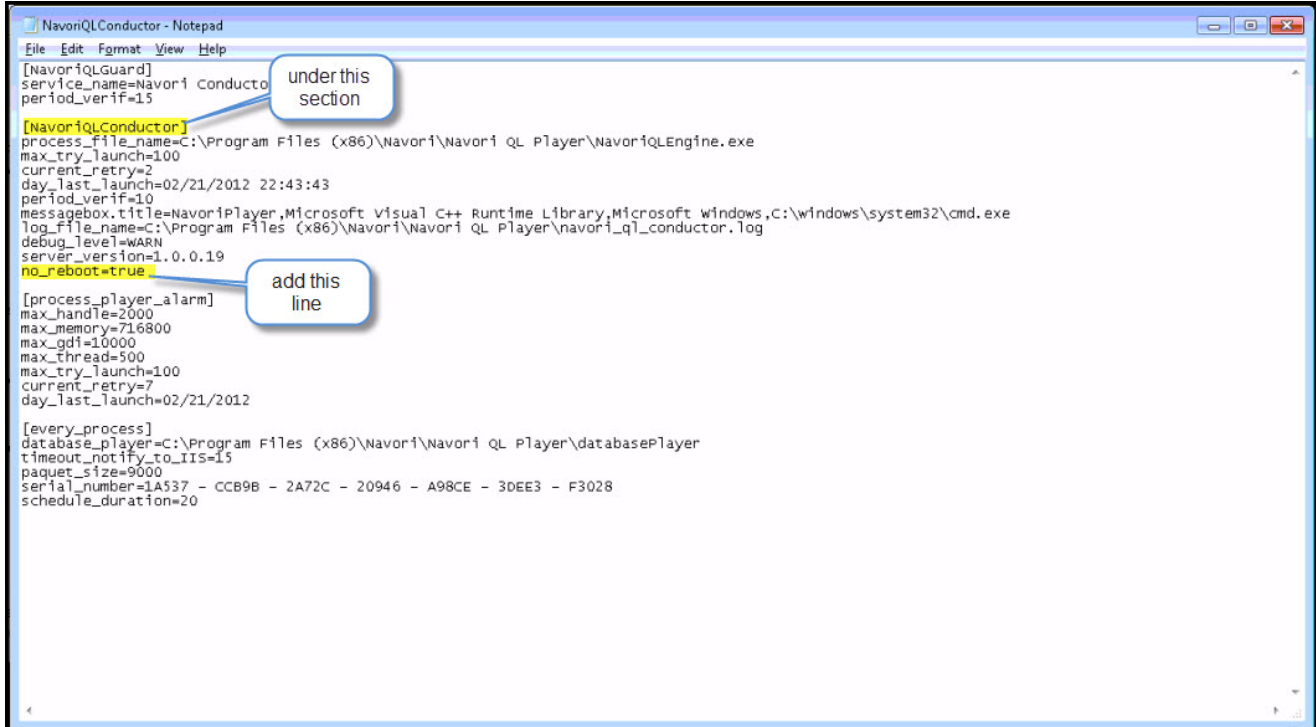
However, users facing this situation can modify a setting in the QL Conductor ini file that will modify the application's behavior so the PC does not reboot. With this setting modified, the QL Player application will be relaunched instead of rebooting the PC so there is no login required.

IMPORTANT: Proceeding with these modifications is unsupported and voids the software warranty. Navori will not respond to any request for support for any QL Player modified in this way.

Configuration steps:

- Exit the Navori QL Player application if it is still running (Alt+Tab > Exit).
- Locate the Navori QL Conductor configuration file on the Player PC.
- This file will be located by default under: **C:\Program Files (x86)\Navori\Navori QL Player**. The file is called: **NavoriQLConductor.ini**

Open the file in Microsoft Notepad and add the following entry under the **[NavoriQLConductor]** section:
no_reboot=true



```
NavoriQLConductor - Notepad
File Edit Format View Help
[NavoriQLGuard]
service_name=Navori Conductor
period_verify=15

[NavoriQLConductor]
process_file_name=C:\Program Files (x86)\Navori\Navori QL Player\NavoriQLEngine.exe
max_try_launch=100
current_retry=2
day_last_launch=02/21/2012 22:43:43
period_verify=10
messagebox_title=NavoriPlayer,Microsoft Visual C++ Runtime Library,Microsoft Windows,C:\windows\system32\cmd.exe
log_file_name=C:\Program Files (x86)\Navori\Navori QL Player\navori_ql_conductor.log
debug_level=WARN
server_version=1.0.0.19
no_reboot=true

[process_player_alarm]
max_handle=2000
max_memory=716800
max_gdi=10000
max_thread=500
max_try_launch=100
current_retry=7
day_last_launch=02/21/2012

[every_process]
database_player=C:\Program Files (x86)\Navori\Navori QL Player\databasePlayer
timeout_notify_to_IIS=15
paquet_size=9000
serial_number=1A537 - CCB9B - 2A72C - 20946 - A98CE - 3DEE3 - F3028
schedule_duration=20
```

- Save the file and re-launch Navori QL Player.

To deactivate this option, either change the value to **no_reboot=false** or remove the entry altogether and save the file.

Application error codes

In this section you will find information about application error codes to help you resolve common issues.

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Navori Conductor error codes

Here is a list of the error codes that can be generated by Navori Conductor:

Playback Error Code:

CONTENT_PLAYBACK_ERROR_CODE = 10401 (messages will vary depending on the type of error detected by the QL Player engine).

If the error is not related to content playback, see the following list of possible **Alert** and **Event** codes:

Alerts

ABNORMAL_TERMINATION_CODE	10201
DATA_FEED_NOT_AVAILABLE_CODE	10202
PLAYER_STOPPED_RESPONDING_S	10204
TOP_CODE	
SYSTEM_DISK_SPACE_THRESHOLD_	10305
ALERT_CODE	
DATA_STORAGE_DISK_SPACE_THRE	10306
SHOULD_ALERT_CODE	
CONTENT_PLAYBACK_ERROR_CODE	10401 (message sent by engine)
NO_TIME_SLOT_ON_SCHEDULE_CO	10501
DE	
DOWNLOAD_ERROR_CODE	10601

Events

NEW_PROGRAM_RECEIVED_BY_PLA	50101
YER_CODE	
EXPIRED_MEDIA_CODE	50301
SCREEN_TURN_ON_CODE	50401
SCREEN_TURN_OFF_CODE	50402
SOFTWARE_UPDATE_CODE	50601

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Navori Conductor functions

PlayerProfil related error codes

Hard drive management	
Error code	Description
unauthorized access driver informations : " + ex.Message	Unauthorized hard disk driver access.
input/output error accessing driver informations : " + ex.Message	I/O errors while accessing the information from the hard disk driver.
unauthorized access driver informations [" + drive2.Name + "]: " + ex.Message	Unauthorized access to a specific hard disk driver.
input/output error accessing driver informations [" + drive2.Name + "]: " + ex.Message	Error reading a specific hard disk driver.
section [" + Consts.ini_section_every_process + "]" + Consts.ini_database_player + " doesn't exist in conductor.ini !	[every_process] database_player parameter not found in the conductor.ini file.
directory " + directoryNavori + " define in + section [" + Consts.ini_section_every_process + "]" + Consts.ini_database_player + " doesn't exist !	Player's database directory was not found.
Expired media file purging	
Error code	Description
player database not completed, can't purge media !	The player database is corrupted. Cannot purge this media file.
error deleting " + mediaPath + " : " + ex.Message	Error generated while attempting to delete a media file.
error deleting directory " + directoryName + " : " + ex.Message	Error generated while attempting to delete a media file directory.
Programmed Player reboot	
Error code	Description
Error when rebooting player : " + ex.Message	Error generated during Player reboot attempt.
player database not completed, can't reboot player !	Database is corrupted. Cannot reboot Player.
Updating Player software	
Error code	Description
reading file name update " + fileNameUpdate + " : " + ex.Message	Error generated while attempting to open previously downloaded patch updater.
UPDATE ERROR : update file not exist : [" + fileNameUpdate + "]"	The patch updater file does not exist.
UPDATE ERROR : in executing update : " + ex.Message	Runtime error generated when attempting to update (patch) software.
Warning	Description
update already installed	The updated version of the software is already installed.
update player software data non completed !	The database profile is incomplete. Software update cannot be

can't update player software	performed.
no update exist " + fileNameUpdate	No patch updaters available in the update folder.

Updating the Player software key (NPK)

Error code	Description
error in instanciating the timer for getting engine key : " + ex.Message	Error initializing the timer to update the NPK.
GetNPK() call from server failed !	Error getting the web service to confirm NPK.
internalComm reference is null when sending check add ons to engine !	Unable to check add-ons installed on the device because there is no reference on internal.Comm .
bad error return by GetNPK() call from server : + errorType.ToString()	Error generated by the NPK retrieval service.
while changing the interval of next timer of engine key : " + ex.Message	NPK timer value change error detected.

Monitoring Player's Windows resource values (handle, RAM, threads, gdi)

Error code	Description
GDI max value reached : (GDI=" + gdiValue + ") !	Maximum GDI levels exceeded.
Handles max value reached : (Handles=" + handlesValue + ") !	Maximum handle levels exceeded.
RAM max value reached (RAM=" + availableRAMValue + " KB) !	Maximum RAM levels exceeded.
threads max value reached (threads=" + threadsValue + ") !	Maximum threads levels exceeded.
closing player...	Shutting down Player.
Error when rebooting player : " + ex.Message	Error detected while attempting to reboot Player engine.

Confirming that Player Engine is performing within normal parameters

Error code	Description
Error in launching thread launchThreadVerifProcess : " + ex.Message	Error detected at Player Engine launch.
File not found, configured in : " + Consts.ini_FileName	Player Engine executable file not found.
launching " + processService.ProcessFileName + " : " + ex.Message	Error detected at Player Engine launch.
can't launch player : " + ex.Message	Error detected at Player Engine launch.
Error engine name is not an exe " + processFileName + " !	Player Engine executable file extension (.exe) is missing.

Other Conductor functions...

Warning	Description
can't catch engine windows because " + applicationName + " doesn't exist !	Cannot capture windows because applicationName file does not exist.



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Player communication error codes

Here is a list of communication related error codes and their explanation:

Error Code	Description of the issue	Explanation/Potential Solution
can't call server : externalComm is null !	Player cannot communicate with the server because a variable was not initialized.	Re-establish communication with QL Server.
engine => conductor : sendPlayBackError : errorId = [" + errorId + ""] message = [" + message + ""]	Playback error message sent by the Player Engine to the Conductor.	Content could not be played so it was skipped.
Error opening internal communication with engine : "" + ex.Message	Error generated when attempting to initialize the Player Engine's communication.	Incorrect communication setup between Player engine and Conductor. Check the settings in the QLEngine.exe.config file.
error in sending notify to engine : "" + ex.Message	Communication error between the Conductor and the Player Engine.	Conductor was not able to exchange information with QL Engine.
can't call engine (notifyPlayer) : callback is null	No communication possible. Player Engine has not yet initialized communications.	Conductor has not launched Player Engine yet. Wait until Player Engine has launched.
error in sending close to engine : "" + ex.Message	Error generated when sending a closePlayer command to the Player Engine.	Conductor can't shut down Player Engine. Check the settings in the Qlengine.exe.config file.
can't call engine (closePlayer) : callback is null	Cannot communicate with Player Engine because it has not initialized communications.	Conductor can't shut down Player Engine. Check the settings in the Qlengine.exe.config file.
can't call engine (xmlUpdated) : callback is null	Cannot communicate with Player Engine because it has not initialized communications.	Conductor can't update the XML feed to shut down Player Engine. Check the settings in the Qlengine.exe.config file.
error in sending request copy data to engine : "" + ex.Message	Error detected when requesting a copy of the Player Engine's data.	Check the settings in the Qlengine.exe.config file.
can't call engine (requestCopyData) : callback is null	Cannot communicate with the Player Engine because it has failed to initialize communication.	Check the settings in the Qlengine.exe.config file.
error in sending checkAddOns() to engine : "" + ex.Message	Error generated while attempting to send a "check device add-on" command	Check the settings in the Qlengine.exe.config file.
can't call engine (checkAddOns) : callback is null""	Cannot communicate with the Player Engine because it has failed to initialize communication.	Check the settings in the Qlengine.exe.config file.
error in sending setScreenOnOff() to engine : "" + ex.Message	Error generated when Player Engine attempts to turn screens on / off	Check the settings in the Qlengine.exe.config file.
can't call engine (setScreenOnOff) : callback is null	Cannot communicate with the Player Engine because it has failed to initialize communication.	Check the settings in the Qlengine.exe.config file.

Warning Messages	Description of the warning	Explanation/Potential Solution
engine not running, can't notify player	Player Engine is not running. Conductor cannot send notification.	Check the settings in the Qlengine.exe.config file. Player is not performing. Notification.
engine not running, can't close player	Player Engine is not running. Conductor cannot send player shutdown request.	Check the settings in the Qlengine.exe.config file. Player is not performing. Notification.
engine not running, can't update xml to player	Player Engine is not running. Conductor cannot send an update XML request.	Check the settings in the Qlengine.exe.config file. Player is not performing. Notification.
engine not running, can't call request copy data	Player Engine is not running. Conductor cannot send a data copy request.	Check the settings in the Qlengine.exe.config file. Player is not performing. Notification.
engine not running, can't check add ons	Player Engine is not running. Conductor cannot send a check add-on request.	Check the settings in the Qlengine.exe.config file. Player is not performing. Notification.
engine not running, can't setScreenOnOff	Player Engine is not running. Conductor cannot send a screen on / off request.	Check the settings in the Qlengine.exe.config file. Player is not performing. Notification.
Notification	Description	
write schedule	Write to the Player's schedule table.	
write listPlayList	Write to the Player's listPlayList table.	
write listPlayListComponent	Write to the Player's listPlayListComponent table.	
write listPlayerSpecificContent	Write to the Player's listPlayerSpecificContent table.	
write list Media	Write to the Player's Media table.	
write template	Write to the Player's template table.	
write viewZoneMediaList	Write to the Player's viewZoneMediaList table.	
write viewZonePlayListList	Write to the Player's viewZonePlayListList table.	
write viewPlayerStatus	Write to the Player's viewPlayerStatus table.	
write list ticker	Write to the Player's ticker table.	
write list zone shape	Write to the Player's zone shape table.	
write list zone template media	Write to the Player's zone template media table.	
write list template media	Write to the Player's template media table.	
write zoneText for template	Write to the Player's zoneText for template table.	
write xmlMedia zone text for template	Write to the Player's xmlMedia zone text for template table.	
write xmlFeed zone text for template	Write to the Player's xmlFeed zone text for template table.	
write xmlMediaData zone text for template	Write to the Player's xmlMediaData zone text for template table.	

write zoneText	Write to the Player's zoneText table.
write XMLFeed list	Write to the Player's XMLFeed list table.
write list xmlmedia	Write to the Player's list xmlmedia table.
write list xml media data	Write to the Player's list xml media data table.
write playerProfil	Write to the Player's playerProfil table.
write list MediaPeriod	Write to the Player's list MediaPeriod table.
write PlayerProfilScreen	Write to the Player's PlayerProfilScreen table.
write PlayerScreen	Write to the Player's PlayerScreen table.
write list playlistBanner	Write to the Player's list playlistBanner table.
writing in database	Write to the Player's database table.
get default media	Return value of default media field.
there are no default media to download	No default media content available for download.
all playList completed !!!	Confirm all playlist content finished playing.
COMMAND PLAYER UPDATE IS ALREADY SEND	Conductor triggers new program swap instruction on the Player Engine

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Navori database and registry errors

Here is a list of error codes that can be generated by the Navori database or registry entries:

Navori database access error codes	
Error code	Description
retrieving size of " + mediaFileName + " : " + ex.Message	Miscalculation of the size of a media file stored on the hard disk.
media.MediaPath + " don't downloaded"	Media file not downloaded.
media.MediaPath + " downloaded partially (delete it)	Media file partially downloaded.
media.MediaPath + " has no length in database"	The media file does not have any corresponding length field in the database.
templateMedia.MediaPath + " don't downloaded"	Path of media file not downloaded.
media table is empty and templatemedi table is empty	The table in the media database is empty.
error creating directory " + target.FullName + " : Error creating a directory. " + ex.Message	
can't retrieve list of file in validateDatabase : " + ex.Message	Error reading media file names.
error copying from " + fi.Name + " to " + pathToCopy + " : " + ex.Message	Error copying files during the player's database validation.
Navori software registry error codes	
Windows 32 bit: HKEY_LOCAL_MACHINE\SOFTWARE\Navori\Navori QL Player	
Windows 64 bit: HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Navori\Navori QL Player	
Error code	Description
error reading key in registry " + PLAYER_KEY_NAME + "\\ " + INSTDIR_VALUE + " : " + ex.Message	Error reading the InstDir registry key.
key instDir in registry not configured in " + PLAYER_KEY_NAME	The value of the InstDir registry key is empty.
instDir + " doesn't exist ! configured in " + PLAYER_KEY_NAME)	The database directory configured in the registry does not exist.
file name [" + watchDogIniFileName + "] doesn't exist ! configured in " + PLAYER_KEY_NAME	The conductor.ini file was not found.
error writing key in registry : " + PLAYER_KEY_NAME + "\\ " + VERSION_VALUE + " : " + ex.Message	Error writing to the version registry key.
error writing key in registry : " + PLAYER_KEY_NAME + "\\ " + ADDONS_VALUE + " : " + ex.Message	Error writing to the addons registry key.

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Misc. error codes

Here is a list of miscellaneous error codes:

RSS URL testing	
Error code	Description
error retrieving data from url " + url + " : " + ex.Message	Application is unable to retrieve RSS feed using the specified URL.
Windows Services	
Error code	Description
starting service " + serviceName + " : " + ex.Message	Error detected when launching the service.
Warning	
Warning	Description
engine key (npk) not writed in registry !	The NPK (Navori Product Key) has not been written to the registry.
Saving Conductor logs to disk	
Error code	Description
error in instanciating the timer for EraseFileManager : " + ex.Message	Error generated while initializing the timer charge to clear any log files older than 8 days.
error getting directory of log file " + logFileName + " : " + ex.Message	Error generated while recovering the directories where log files are stored.
error getting list file of directory " + directoryLogName + " : " + ex.Message	Error generated while listing the file logs in the directory where they are stored.
while changing the interval of next timer of engine key : " + ex.Message	Error generated while changing the timeout value of the log file deletion timer.
Playback Engine errors	
Error code	Description
engine => conductor : sendPlayBackError : errorId = [" + errorId + "] message = [" + message + "]	Error generated when sending error messages for the playback engine (errorID = 10,401)

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Upgrading your QL Server or QL Player software

This section covers the QL Server and QL Player update procedures.

Requirements:

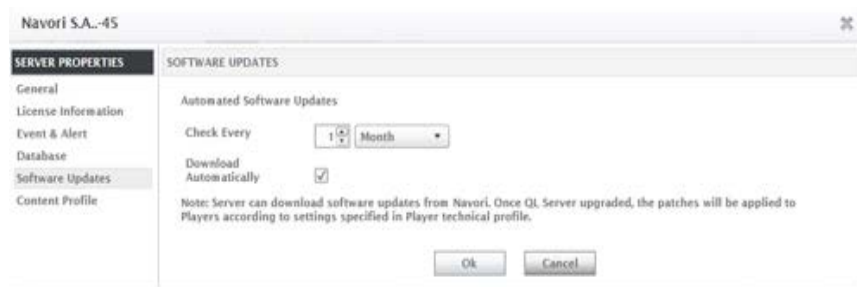
QL Server PC must be connected to the internet.

The Server license support and update plan must be valid

How it works:

QL Server will periodically connect to Navori extranet web site in order to check if a new patch for both server and player is available.

The check frequency is defined in QL Server Properties window, software updates tab.



Once the patch has been downloaded, a message will be displayed on QL Manager logon (Admin account only). It means that the new update is available!

You may also trigger manually the download from QL Manager, Menu\Server\update.

IMPORTANT: PREPARATION PRIOR APPLYING THE UPGRADE

QL Server backup procedure:

Make sure you back up the contents of these folders:

- The **NavoriManager** folder (typically located under **C:\inetpub\wwwroot**)
- The **NavoriService** folder (typically located under **C:\inetpub\wwwroot**)
- The **Content Storage Folder**. This will preserve all of your media files in case you need to restore your setup. The content storage folder location is determined during the QL Server software installation.
- Next, backup your **NavoriSQL** database. **PLEASE NOTE!**: The Navori Content folder and the database must be synchronized; that is, the content must match what is in the SQL database. To backup your database, proceed as follows:
 1. Launch the **Microsoft SQL Server Management Studio**.
 2. Open the Databases tree and locate **NavoriSQL**. Right click it and select **Tasks > Back Up...**
 3. Make sure the correct database is selected. Select **Full** backup. Give this database backup a name. Select **Disk** as the destination. The first time you back up your database, you will need to click **Add...**, select in which folder to store the backup and name the backup file. The next time you create a backup you can simply click **OK** and this will overwrite the previous file, saving you a step. You can also create a new backup under another name if you wish.

When the backup is completed you can click **OK** to finish the process.

Once you have performed these backups, you can begin the QL Server software upgrade

process.

QL SERVER UPGRADE PROCEDURE:

1. If **NavoriQLServer_update.exe** already exists in your download folder, replace it with the new version. You will find **NavoriQLServer_update.exe** in the folder containing the media. It is located by default under **C:\Media Upload\update**.
2. Select the File, Right click. Tab= version. Check that the patch version is newer than the version you are currently running.
3. Launch the patch updater application.
4. When prompted, type in your QL Server **serial number** followed by your Navori **extranet account login and password**.
5. Once the upgrade process is finished, log into QL Manager using your **root administrator account**.
6. Look under **Menu > Server > Properties > License Information** and confirm the version of QL Server matches the newly released version.

QL PLAYER UPGRADE PROCEDURE

QL Player upgrades are performed automatically each time you upgrade your QL Server software. It is important to configure the automated software upgrade process so your player version always matches your server otherwise you could run into compatibility issues.

AUTOMATED PLAYER UPDATES:

Here is how you configure automated QL Player updates.

1. Log in to QL Manager from any PC.
2. Select **Menu > Tools > Player Technical Profile**.
3. Select the **Software Updates** tab.
4. Next, enable **Automated player updates**.
Use the drop down menu and select: **Every day**
Configure the time at which the player should **check for** and **download** the update. To force an immediate download, select 10 minutes from the current player time. Otherwise select a time of your choosing, preferably when no one will be looking at the screens if you plan to apply the updates soon after.
Next, configure **Apply Updates Automatically > Enable**, On = **ASAP (or select on which day you want to apply the update)** then click **Ok** to confirm your settings and close the window.
Configure the time at which the player should **install** the update. To force an immediate installation, select 10 minutes from the time set to check and download the update. Otherwise select a time of your choosing, preferably 30 minutes after the programmed download time. This is to ensure the Player will have had enough time to completely download the patch updater application before attempting to launch it.
5. To make sure your new settings are taken into account, send a program update to all your players.

IMPORTANT:

Each time a player installs a new upgrade via patch installer, the software is automatically installed and the PC is rebooted. We recommend you schedule a day and time where there will be minimum viewer disruption, such as in the middle of the night as the reboot process will interfere with the programmed content. Once the PC has rebooted, QL Player will automatically launch and resume playback.

NOTE:

If you are attempting to upgrade your software immediately, wait about 20 minutes and then perform these steps to confirm the update has been performed:

1. Log in to QL Manager from any PC.
2. Type the software version in the **Player > Search** field. For example, to bring up all the Players that are currently running version 1.0.0.19, you would type the version number exactly as shown in the Search field

and hit Enter. All Players running this version will be listed. It might be a good idea to bring up all players running the previous version as well as this will indicate if
You can also identify which version of the software is running on individual players by right-clicking the player's name and selecting **Properties > License Information** and looking in the **Version** field.

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