



Database Manual

Suite Version 2.8



Database Manual

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Noventri Suite Database Manual

1 Overview

- 1.1 A **Database** is an external file used for storing information. **Databases** come in many forms and sizes. They can be anything from a simple **Text** file, an Excel file, or an advanced SQL or MYSQL **Database**.
- 1.2 The **Database** feature in **Noventri Suite** enables a **Text** or **Image Region** to pull content from an external **Data Source (Database)**.
- 1.3 The **Database** connectivity features in **Noventri Suite** are very powerful, and extremely useful in creating and maintaining content that will be displayed by the **Player**. In many cases the content that users wish to display already exists in a **Database**. So this feature allows the information to be pulled directly from the **Database** instead of it having to be re-entered.
- 1.4 Any number of **Text / Image Regions** on any number of **Pages** within a **Project** can be set up to use the **Database** feature.
- 1.5 **Text / Image Regions** throughout a **Project** can be configured to simultaneously access external content from numerous **Data Sources**.
- 1.6 The **Database** option allows the use of many different types of **Data Sources**. All of which are stored in a **Database** style. This can be a simple **Text File** that has been created with delimiters (**Data Text**), a simple **Spreadsheet** (Excel), an **XML (RSS)** source, or a true **Database** (ODBC).
- 1.7 When **Text / Image** content is being accessed from an external **Data Source**, the **Text / Image** content at the **Data Source** can change unlimitedly and the **Noventri Suite** displayed content will automatically be updated.
- 1.8 Since the **Database** being used may have abnormalities, it is recommended to be familiar with its specific **Guidelines**.
(See the [Driver Guidelines](#) section of this manual.)

2 Database Image/Text General

Tip 1: When creating multiple **Regions** that connect to the same **Database**; create the first **Region**, and then use **Copy/Paste**, to create additional **Regions**. Change the **Formatters** as required.

Tip 2: When creating or changing multiple **Regions** that connect to the same **Database**, the **Matching Database Regions** feature allows certain **Database Properties** to be **Matched** automatically.
(See the [Matching Database Regions](#) section of this manual.)

2.1 To pull **Images** or **Text** from an external **Data Source**, select or create an **Image / Text Region**, then select the **Database Image / Database** option in the **Properties Panel**.

Image Properties

The screenshot shows the 'Image Properties' panel. At the top, there's a 'Region Name' field with 'Image 1' and a 'Fit to Page' button. Below are three tabs: 'Image', 'Crop', and 'Positioning'. Under the 'Image' tab, there are four checkboxes: 'Image List', 'Directory', 'Text List', and 'Randomize'. The 'Database Image' checkbox is circled in red. Below these is an 'Image Path' field with a 'Browse' button. At the bottom, there are 'Adjustments' (Scale, Crop, Tile, Preserve Aspect) and 'Orientation' (90°, 0°, 180°, 270°) sections. There are also checkboxes for 'Background Color' and 'Migrate image content on publish'.

Text Properties

The screenshot shows the 'Text Properties' panel. At the top, there's a 'Region Name' field with 'Text 1' and a 'Fit to Page' button. Below are three tabs: 'Text', 'Text Effects', and 'Positioning'. Under the 'Text' tab, there are three checkboxes: 'Text File', 'Randomize', and 'Database'. The 'Database' checkbox is circled in red. Below these is a 'Text' input field. Further down, there are 'Style' options (Bold, Underline, Italic, Crop, Word Wrap), 'Font' (Arial), 'Direction' (Left to Right), 'Size' (26), 'Custom Tracking' (0), and 'Custom Leading' (0). At the bottom, there are 'Text Color' and 'Background Color' selection boxes.

- 2.2** Once the **Database Image** check box has been selected, a new **Advanced** tab will be available.

Image Properties

Properties

Region Name: Image 1 [Fit to Page]

Image [Crop] [Positioning] [Advanced]

☐ Image List ☐ Directory ☐ Text List ☐ Randomize

☒ Database Image

☐ HTML

Image Path: Use UNC for network path [Browse]

Adjustments: Scale Crop Tile [Preserve Aspect]

Orientation: 90° 0° 180° 270°

☒ Background Color [Color Picker]

Text Properties

Properties

Region Name: Text 1 [Fit to Page]

Aa Text [Text Effects] [Positioning] [Advanced]

☐ Text File ☐ Randomize ☒ Database

Text: [Text Field]

Style: ☐ Bold ☐ Underline ☐ Italic ☐ Crop ☒ Word Wrap

Font: Arial

Direction: Left to Right

Size: 26

☐ Custom Tracking: 0

☐ Custom Leading: 0

Text Color: [Color Picker] Background Color: [Color Picker]

- 2.3** Before the **Image Path** or **Text** boxes can be filled in, it is recommended that the **Database Advanced** tab information is configured correctly.

Image Properties

Properties

Region Name: Image 1 [Fit to Page]

Image [Crop] [Positioning] [Advanced]

☐ Image List ☐ Directory ☐ Text List ☐ Randomize

☒ Database Image

☐ HTML

Image Path: Use UNC for network path [Browse]

Adjustments: Scale Crop Tile [Preserve Aspect]

Orientation: 90° 0° 180° 270°

☒ Background Color [Color Picker]

Text Properties

Properties

Region Name: Text 1 [Fit to Page]

Aa Text [Text Effects] [Positioning] [Advanced]

☐ Text File ☐ Randomize ☒ Database

Text: [Text Field]

Style: ☐ Bold ☐ Underline ☐ Italic ☐ Crop ☒ Word Wrap

Font: Arial

Direction: Left to Right

Size: 26

☐ Custom Tracking: 0

☐ Custom Leading: 0

Text Color: [Color Picker] Background Color: [Color Picker]

- 2.4 Selecting the **Advanced** tab will display the following corresponding panel. In the **Advanced** tab there are three Database options - **Data Text**, **ODBC**, and **XML (RSS)**. When the **Advanced** tab is first selected, it defaults to the **Data Text** option.

Image Properties

The screenshot shows the 'Image Properties' dialog box with the 'Advanced' tab selected. The 'Region Name' is 'Image 1'. The 'Data Text', 'ODBC', and 'XML(RSS)' options are circled in red. The 'Database' field is empty, and the 'Field Defs' field is empty. The 'Time Format' is set to 'Custom' with the format '%I:%M %p'. The 'Refresh Now' button is at the bottom.

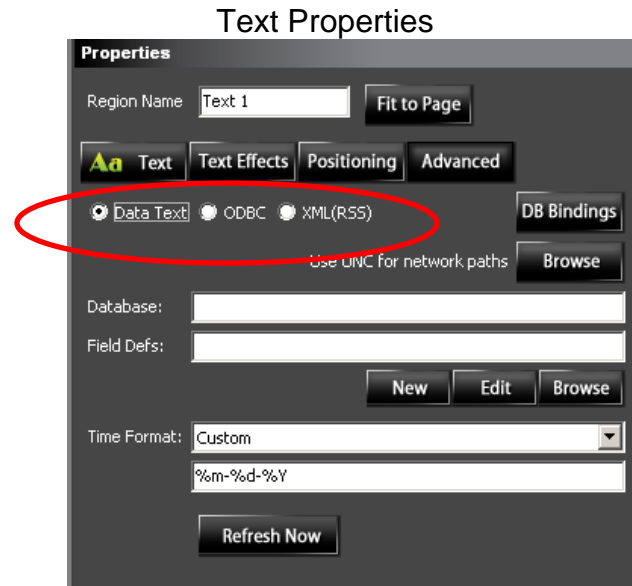
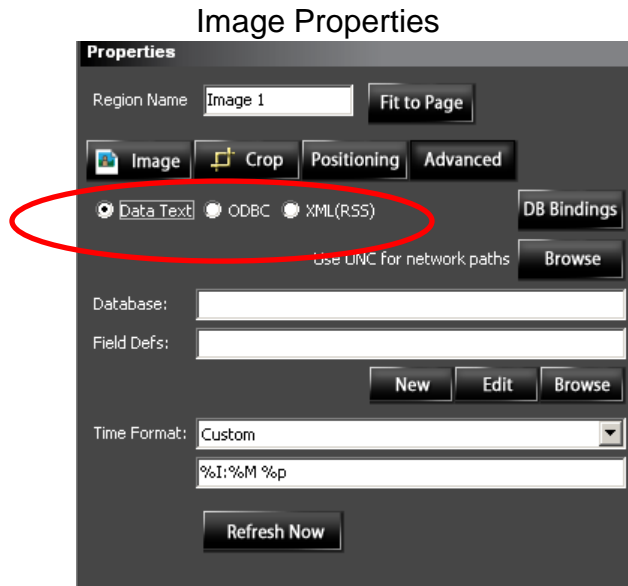
Text Properties

The screenshot shows the 'Text Properties' dialog box with the 'Advanced' tab selected. The 'Region Name' is 'Text 1'. The 'Data Text', 'ODBC', and 'XML(RSS)' options are circled in red. The 'Database' field is empty, and the 'Field Defs' field is empty. The 'Time Format' is set to 'Custom' with the format '%m-%d-%Y'. The 'Refresh Now' button is at the bottom.

(See either the [Data Text](#), [ODBC](#), or [XML \(RSS\)](#) section of this manual.)

3 Data Text

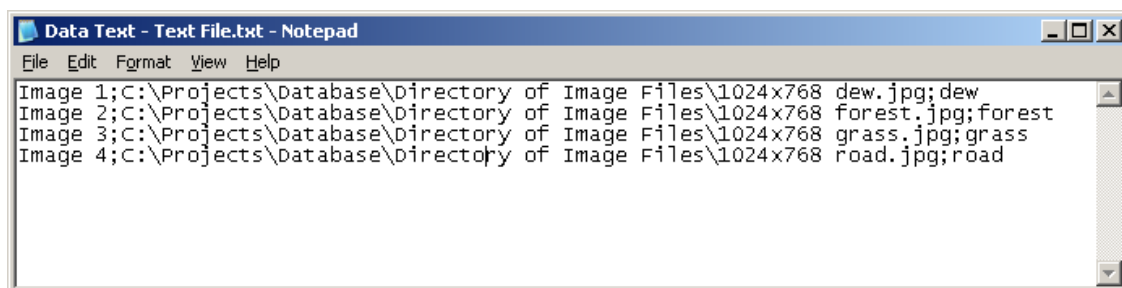
- 3.1** The **Data Text** option is chosen by selecting the **Data Text** radio button. The **Data Text** option allows a simple **Text File** (.txt, .nss, or .csv) to be used as a type of **Database**.



- 3.2** When a **Data Text File** is to be used as a type of **Database**, it needs to be created with delimiters. Delimiters are characters used to separate blocks (column) of data.

Example (using a semicolon for a delimiter)....

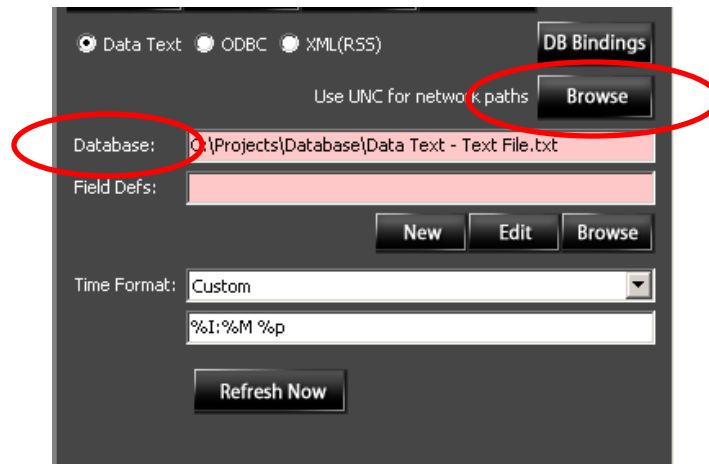
Data Text File



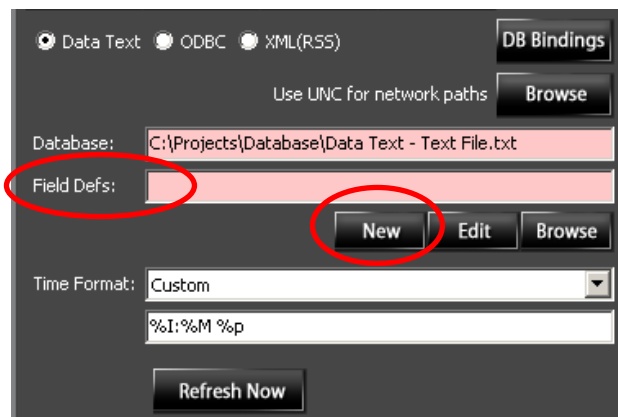
This Data Text file is simply four images divided into three columns by semicolons. Column one - is the image reference number, column two - a path to the image, and the last column - a description of the image.

- 3.3** To connect to the **Data Text File**, fill in the **Database** box with the path to the text file or browse to its location using the **Browse** button.

Note: When **Browsing** to a location on the network, be sure to always use the UNC (Universal Naming Convention) Path (typically contains (\\server...)). Do not use a path containing a shortcut (such as m:).

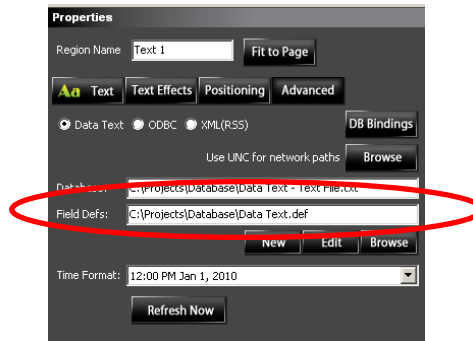


- 3.4** Before the **Data** in the **Data Text File** can be used, its **Fields** need to be **Defined**. This is done in the **Field Definition** file. Select **New** to create a **Field Definition** file. The **Field Definition Properties** window will open. (See the [Field Definition File](#) section of this manual.)



- 3.5** A **Field Definition** file that is already saved can be loaded by entering its path in the **Field Defs** box or can be browsed to, using the **Browse** button. The **Field Definition** file can then be viewed and **Edited** by selecting the **Edit** button. The **Field Definition Properties** window will open. (See the [Field Definition File](#) section of this manual.)

Note: When **Browsing** to a location on the network, be sure to always use the UNC (Universal Naming Convention) Path (typically contains (\\server...)). Do not use a path containing a shortcut (such as m:).



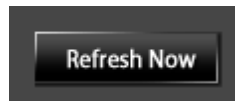
- 3.6** **Time Format** – This field is used if the **Data Text File** contains a column that has been **Defined** as a **Date/Time** field. The current content of that column in the **Data Text File** will be ignored by the **Region**. If the content is chosen to be displayed, the *current Date/Time* will be displayed, instead.

The **Date/Time** being displayed can be formatted using the **Time Format** option. (See the [Time Format](#) section of this manual.)

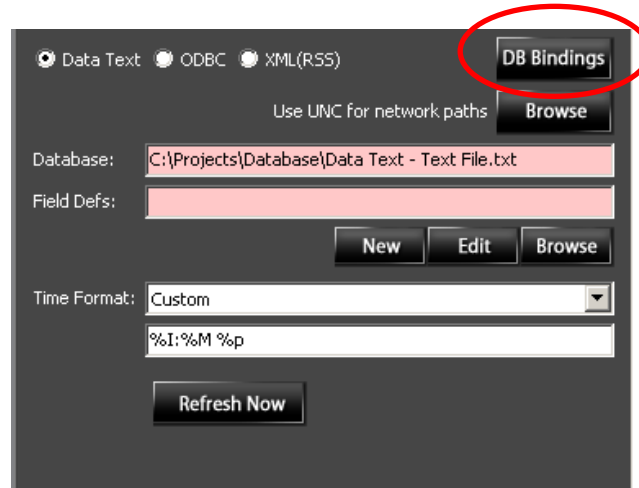


Note: This **Time Format** option is typically not used for **Image Regions**. However, advanced users could possibly use **Time/Date** formatters within an **Image** path, and that would be configured here.

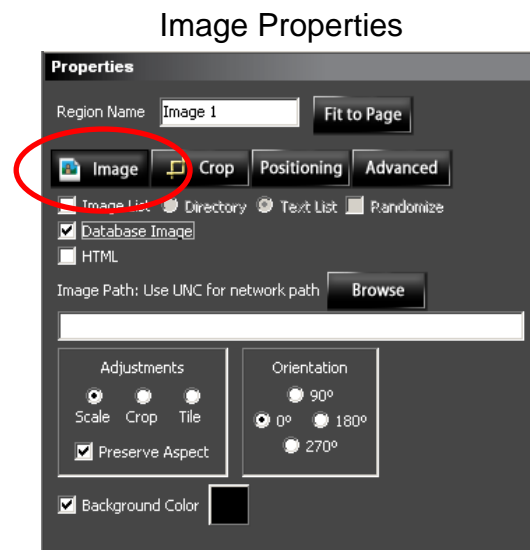
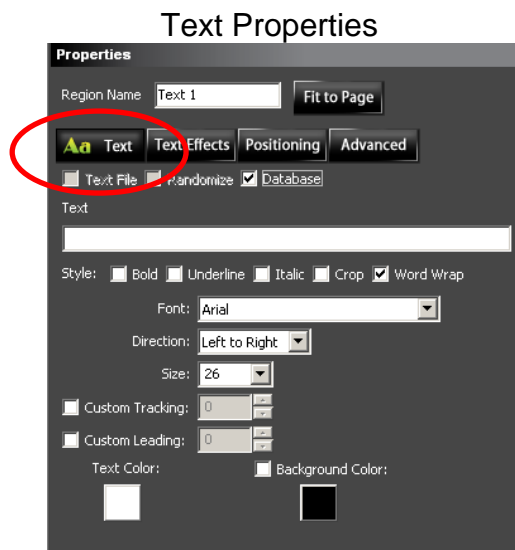
- 3.7 Refresh Now** - The **Refresh Now** button is used for updating the **Database** information that is being displayed within **Noventri Suite**.
(See the [Refresh Now](#) section of this manual.)



- 3.8 Database (DB) Bindings** – The **DB Bindings** option is not currently available for **Data Text** applications.



- 3.9** Once the **Advanced** tab settings are complete for the **Region**, it is then time to go back to the **Text / Image** tab and, using **Formatters**, set up access to the specific content to be displayed.
(See the [Database Formatters](#) section of this manual.)

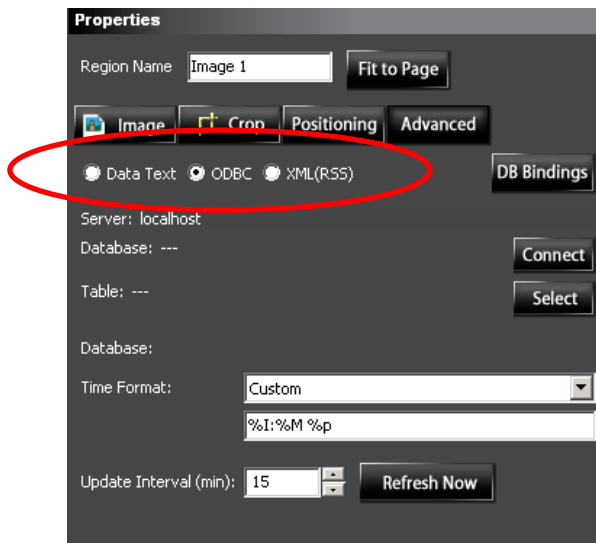


- 3.10** Now that the **Region Properties** are configured correctly to display **Database** content, the **Project** can be completed as it normally would be. Once the **Project** is completed, **Published**, **Scheduled** and **Assigned to Player**, the **Player** will begin displaying the current **Database** information. (See the **Noventri Suite - Design Manual**.)

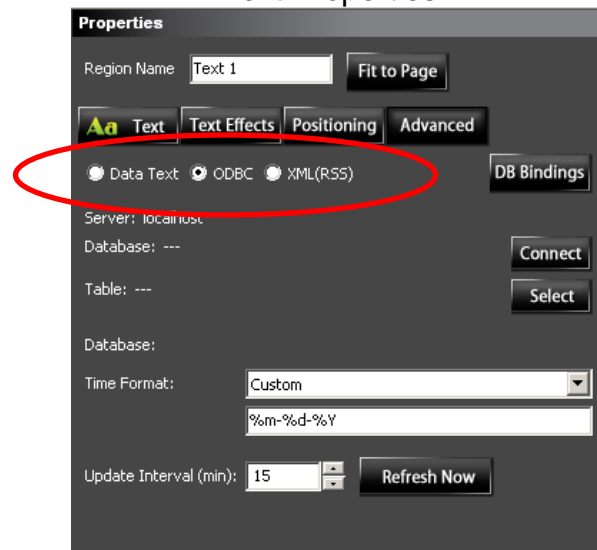
4 ODBC

- 4.1** The **ODBC** (Open Database Connectivity) option is chosen by selecting the **ODBC** radio button. The **ODBC** option allows the use of a true **Database**.

Image Properties



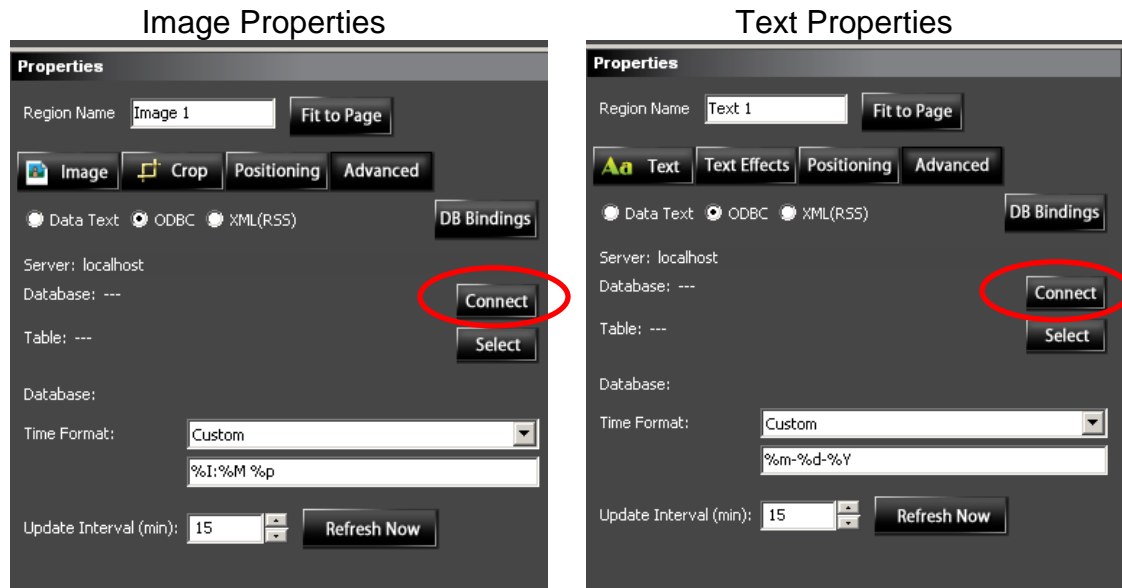
Text Properties



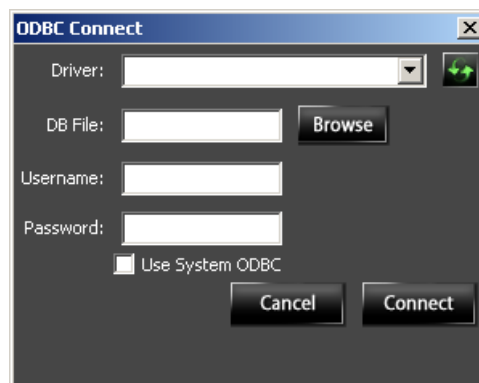
- 4.2** To use the **ODBC** option, the **Database** to be connected to, needs to be an acceptable type. This means **Noventri Suite** has to have access to a compatible **Driver** to enable a proper connection. **Noventri Suite** uses **ODBC Drivers** that are available on the computer where **Noventri Suite** is installed.

Note: It is recommended to use the **Noventri** approved Microsoft ODBC 32 bit **Drivers** as specified on our forum. www.noventri.com/forum

4.3 To **Connect** to the desired **ODBC Database**, select **Connect**.



4.4 ODBC Connect



4.4.1 General

4.4.1.1

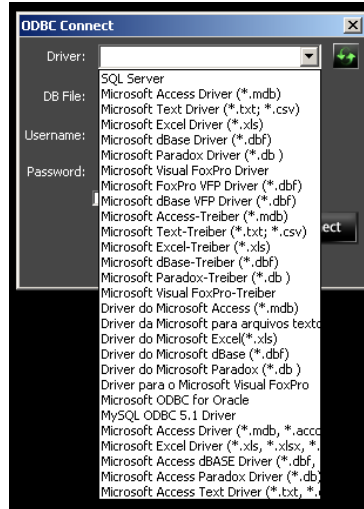
The **ODBC Connect** window is where the **ODBC Data Source** is chosen. Choosing an **ODBC Data Source** can be done in two different ways: by filling in the [Input Boxes](#) in this **ODBC Connect** window or by checking the [Use System ODBC](#) check box.

4.4.2 Input Boxes

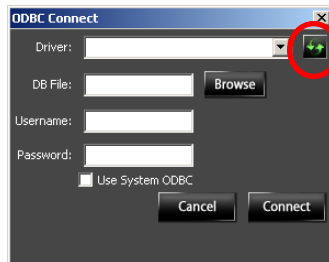
- Note 1:** When using the input boxes to select the **ODBC Data Source**, it should be noted that the **Driver** drop-down menu is populated by the 32bit **Drivers** that are currently installed on the computer where the **Noventri Suite** is installed. Any 64 bit **Drivers** that are on the computer will not be displayed.
(See the [Drivers 64 bit vs. 32 bit](#) section of this manual.)
- Note 2:** It is recommended to use the **Noventri** approved Microsoft ODBC 32 bit **Drivers** as specified on our forum. www.noventri.com/forum

4.4.2.1 Driver

Using the **Driver** drop-down menu, select the **Driver** for the type of **Database** that will be used.

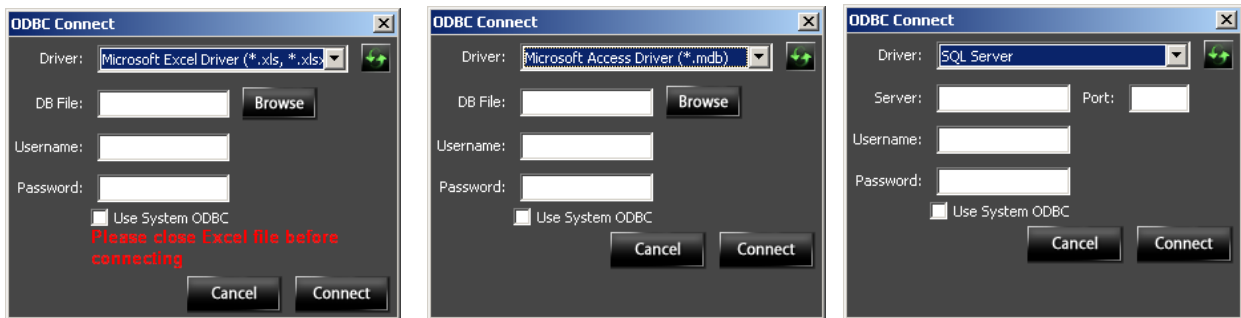


Note 1: To **Refresh** the list of **Drivers** in the drop-down menu, select the **Refresh Driver List** button.



Note 2: There is helpful **Driver** information for specific **Data Source** types available.
(See the [Driver Guidelines](#) section of this manual.)

Once the **Driver** is selected, the **ODBC Connect** window will vary, depending on what type of **Driver** was selected.



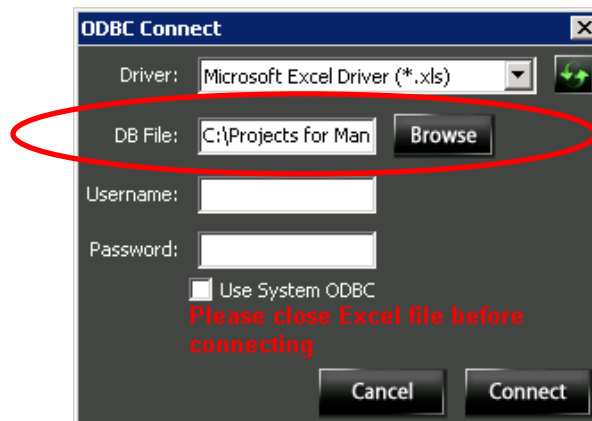
4.4.2.2 DB File

When a **Driver** is selected for a **Database** file such as an Excel Spreadsheet or an Access file, the **DB File** selection box will be available along with a **Browse** button. **Browse** to the file and select **Ok**.

Note 1: When **Browsing** to a location on the network, be sure to always use the UNC (Universal Naming Convention) Path (typically contains (\\server...)). Do not use a path containing a shortcut (such as m:).

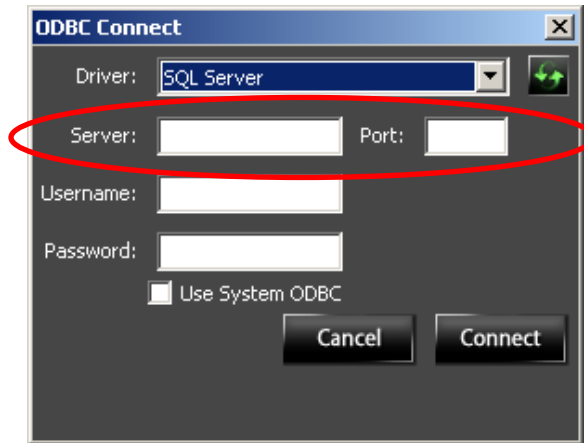
Note 2: Some **Database** files, including Excel files need to be closed before there can be a connection made to them. Use the recommended **Drivers** to avoid this.

Note 3: The recommended **Drivers** are included in the **Noventri** approved Microsoft ODBC 32 bit **Drivers** as specified on our forum. www.noventri.com/forum



4.4.2.3 Server / Port

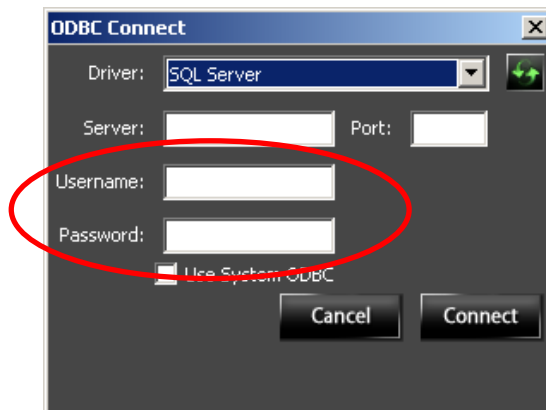
When a **Driver** is selected for a true server type **Database** such as SQL or similar, the **Server** and **Port** selection boxes will be available. Enter the **Server** name and its associated **Port**.



The screenshot shows the 'ODBC Connect' dialog box. The 'Driver' dropdown is set to 'SQL Server'. The 'Server' and 'Port' text input fields are highlighted with a red oval. Below them are 'Username' and 'Password' fields, a 'Use System ODBC' checkbox, and 'Cancel' and 'Connect' buttons.

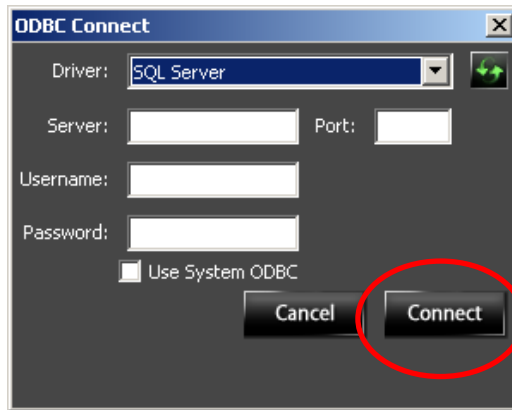
4.4.2.4 Username / Password

Databases that are true server type **Databases**, such as SQL or similar, can contain multiple **Databases**. These types of **Databases** may require a **Username/Password** to access its individual **Databases** or **Tables**. If a **Username/Password** is required, enter them here.



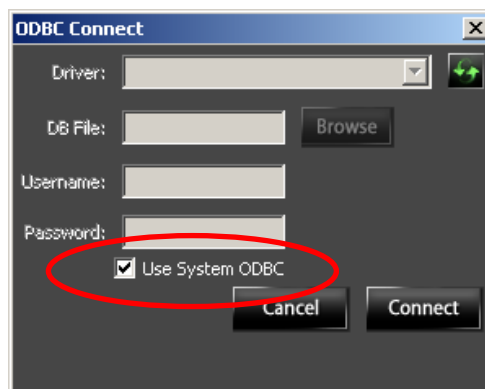
The screenshot shows the 'ODBC Connect' dialog box. The 'Driver' dropdown is set to 'SQL Server'. The 'Username' and 'Password' text input fields are highlighted with a red oval. Above them are 'Server' and 'Port' fields, and below them is a 'Use System ODBC' checkbox and 'Cancel' and 'Connect' buttons.

- 4.4.2.5** To **Connect** to the selected **Data Source**, select the **Connect** button, or to exit out of the **ODBC Connect** window without **Connecting**, select **Cancel**.



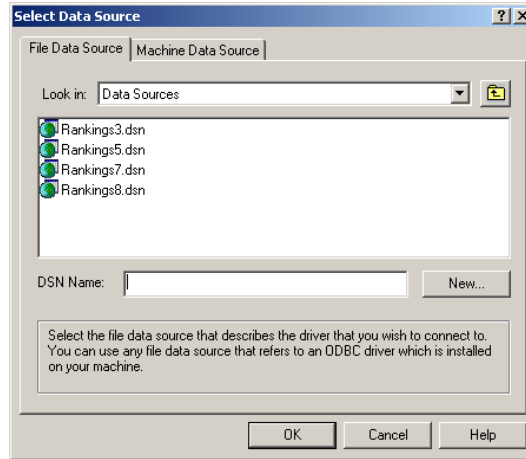
4.4.3 Use System ODBC

Advanced users have the option of accessing the **ODBC Data Source** with its **Driver** through the computer's interface instead of through **Noventri Suite**. This will allow access to more options and help utilities.



- 4.4.3.1** When the **Use System ODBC** check box is selected, all the other input boxes in the **ODBC Connect** window will be grayed out (no longer editable).

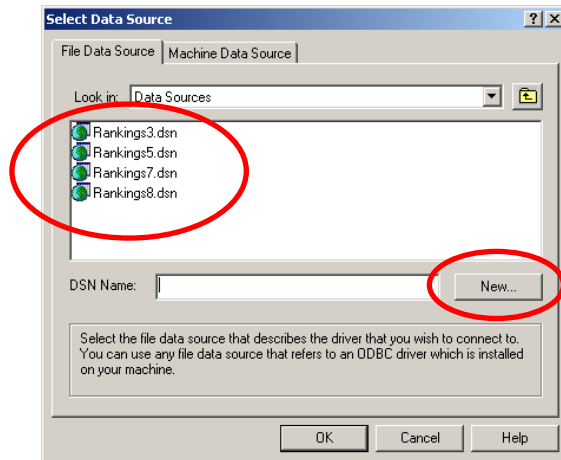
4.4.3.2 When **Connect** is then selected, the **Select Data Source** window will open. This window is part of the Windows operating system and not part of the **Noventri Suite** software.



4.4.3.3 Use the **File Data Source** tab. This will display a list of the existing **ODBC Data Sources** that are compatible with **Noventri Suite**.

Note: Since **Noventri Suite** uses 32 bit **Drivers**, only the **ODBC Data Sources** that use 32 bit **Drivers** will be visible. Any **ODBC Data Sources** that use 64 bit **Drivers** will not be displayed.
(See the [Drivers 64 bit vs. 32 bit](#) section of this manual.)

- 4.4.3.4** Select one of the listed existing **ODBC Data Sources**. A new **ODBC Data Source** can also be created by selecting **New**, then following through the Windows operating system windows; selecting a **Driver** and the **Data Source**.



Note: Accessing **ODBC Data Sources** can also be done outside of **Noventri Suite**. This will allow *full* access to all options (**Add, Remove, and Configure**), so **ODBC Data Sources** can be maintained. (See the [ODBC Data Sources Management](#) section of this manual.)

- 4.4.3.5** To **Connect** to the selected **Data Source**, select the **Ok** button, or to exit completely out of the **Select Data Source** window and the **ODBC Connect** window without **Connecting**, select **Cancel**.

4.4.4 Drivers 64 bit vs. 32 bit

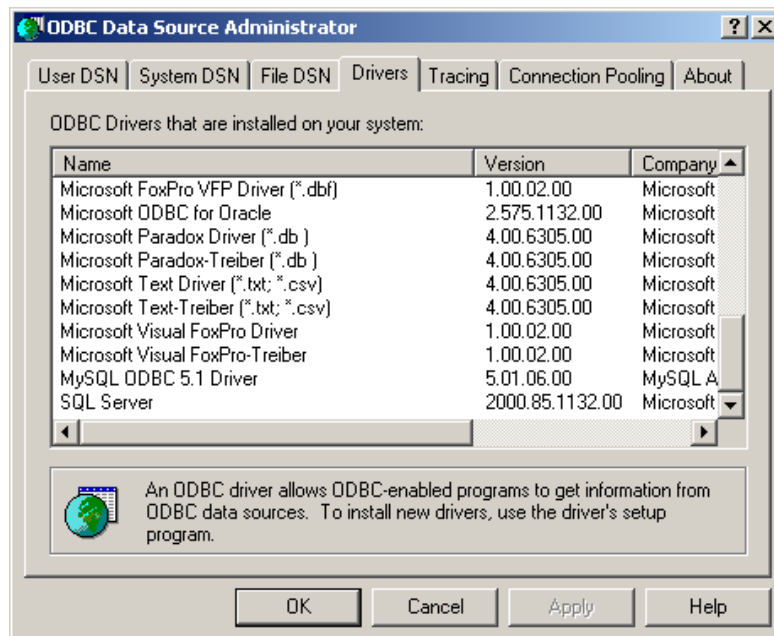
4.4.4.1 **Noventri Suite** only uses 32 bit **Drivers**. Therefore the **Driver** drop-down menu and the **Use System ODBC** option from within **Noventri Suite** will only show the 32 bit **Drivers** that are available on the computer. Any 64 bit **Drivers** that are on the computer will not be displayed.

4.4.4.2 To view the **Drivers** that are 32 bit on a 32 bit computer outside of **Noventri Suite**, open the following.....

Control Panel > Data Sources (ODBC) > Drivers

or

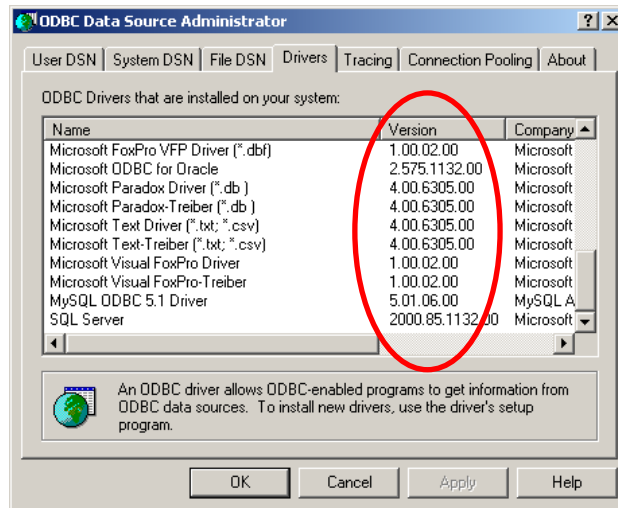
Control Panel > Administrative Tools > Data Sources (ODBC) > Drivers



Note 1: When viewing the **Drivers** in this way, be aware that, if the computer is 64 bit, only the 64 bit **Drivers** will be shown. These are not compatible with **Noventri Suite**.

4.4.4.3

Comparing Driver Versions - If **Noventri Suite** is installed on different computers and they are connecting to the same **Server**, they need to be running the same version of the SQL driver. The version can be seen in this **ODBC Driver** list.



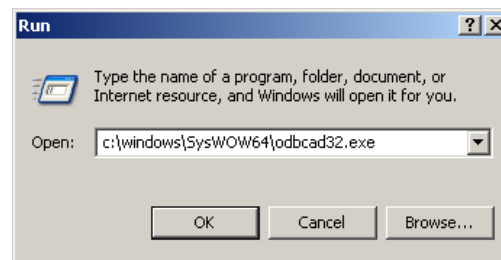
4.4.4.4

To view the **Drivers** that are 32 bit on a 64 bit computer outside of **Noventri Suite**, run the following.....

Start > Run >

c:\windows\SysWOW64\odbcad32.exe

> OK



4.4.5 ODBC Data Sources Management

Note: Advanced users accessing **Drivers** from outside of **Noventri Suite** need to have an understanding of how 32bit and 64bit **Drivers** are accessed.
(See the [Drivers 64 bit vs. 32 bit](#) section of this manual.)

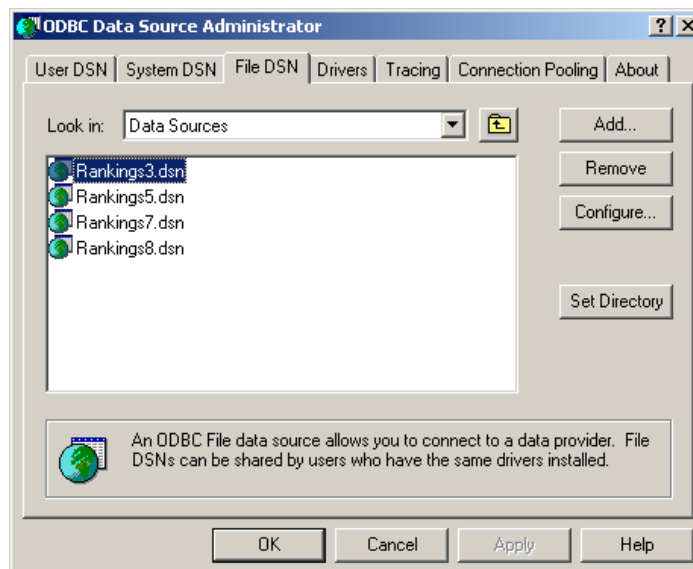
4.4.5.1 Accessing **ODBC Data Sources** with full capabilities is done from outside of **Noventri Suite** in an Administrative window. This will allow **ODBC Data Sources** to be **Added**, **Removed** and **Configured**.

4.4.5.2 To navigate to this Administrative window open the following...

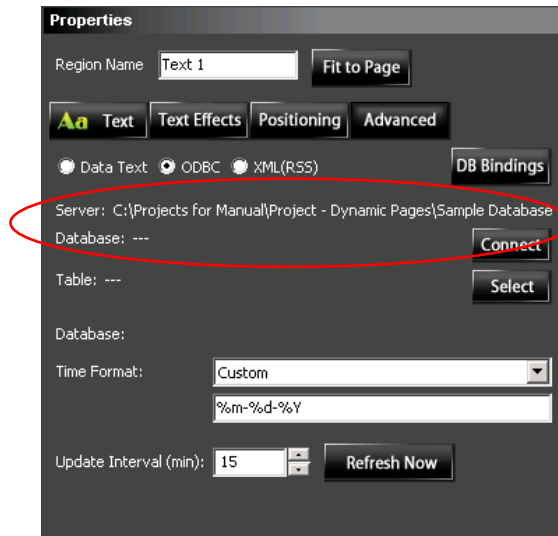
Control Panel > Data Sources (ODBC) > File DSN

or

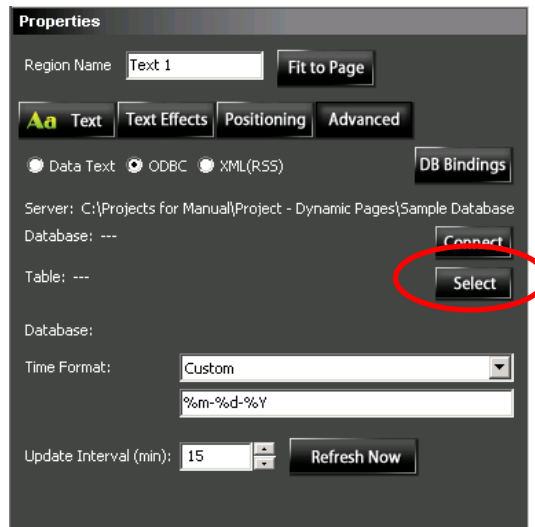
Control Panel > Administrative Tools > Data Sources (ODBC) > File DSN



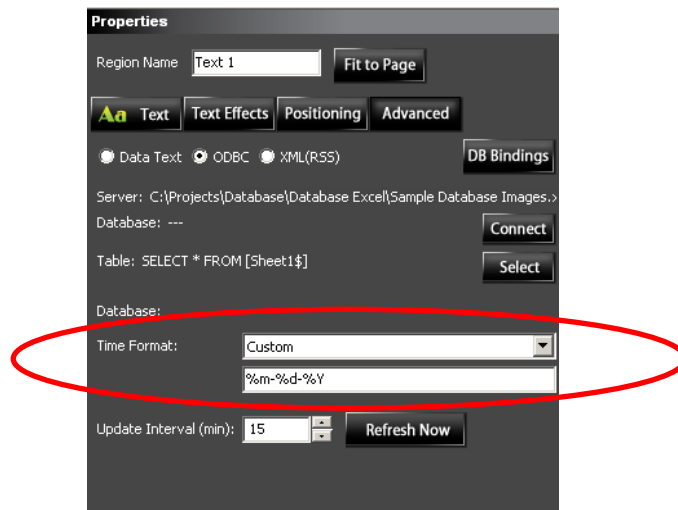
- 4.5** Once **Connected** to the **Database**, the connection can be verified when the path name is displayed as the **Server**, under the **Advanced** tab.



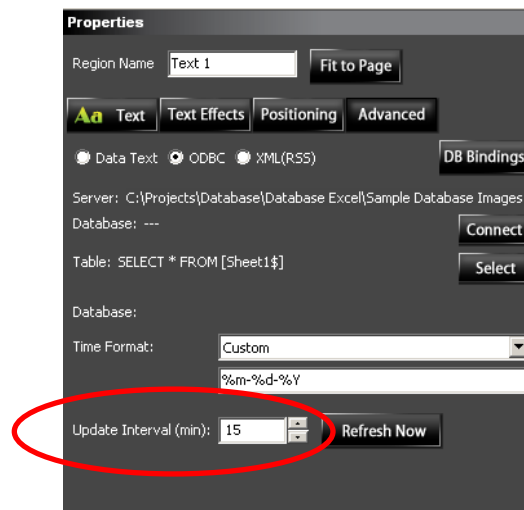
- 4.6** Once the **Database Connection** has been made, the specific **Table** and columns within the **Database** need to be selected. Press the **Select** button. The **Select Table** window will open.
(See the [Select](#) section of this manual.)



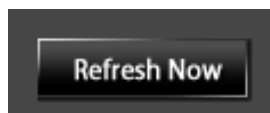
- 4.7 Time Format** – If the **Database** contains **Date** or **Time** fields that are stored as a time/date data type, the output that is displayed can be modified here. (See the [Time Format](#) section of this manual.)



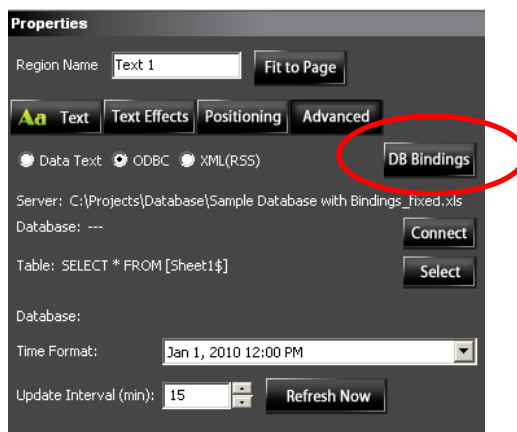
- 4.8 Update Interval** - The **Update Interval** is used for updating the **Database** information that is being displayed on the **Player**. **Player** efficiency can be maximized by setting all **Regions** within a **Project** to the *same Update Interval*. (See the [Update Interval](#) section of this manual.)



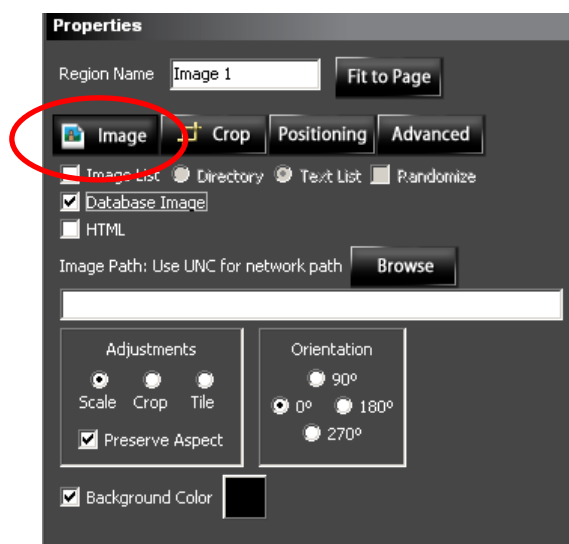
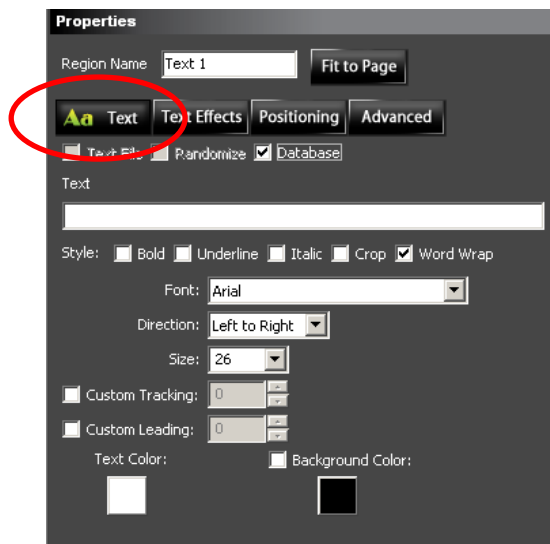
- 4.9 Refresh Now** - The **Refresh Now** is used for updating the **Database** information that is being displayed within **Noventri Suite**. (This option has no effect on the **Server** or **Players**.)
(See the [Refresh Now](#) section of this manual.)



- 4.10 Database (DB) Bindings** – The **DB Bindings** option allows the user to bind **Data** contained in a **Database** to a specific **Player**.
(See the [Database Bindings](#) section of this manual.)



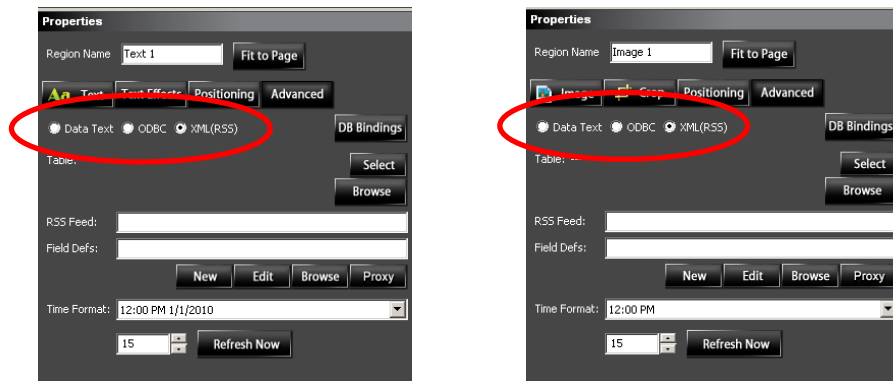
- 4.11** Once the **Advanced** tab settings are complete for the **Region**, go back to the **Text / Image** tab and, using **Formatters**, set up access to the specific content to be displayed.
(See the [Database Formatters](#) section of this manual.)



- 4.12 With the **Region Properties** configured correctly to display **Database** content, the **Project** can be completed as it normally would be. Once the **Project** is completed, **Published**, **Scheduled**, and **Assigned to Player**, the **Player** will begin displaying the current **Database** information. (See the **Noventri Suite - Design Manual**.)

5 XML (RSS)

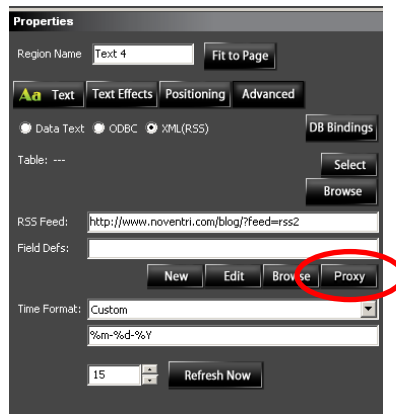
- 5.1 The **XML (RSS)** option allows the use of a **Data Source** from a live **RSS** feed (channel), or from a file in **XML** format.
- 5.2 The **XML (RSS)** option is chosen by selecting the **XML (RSS)** radio button.



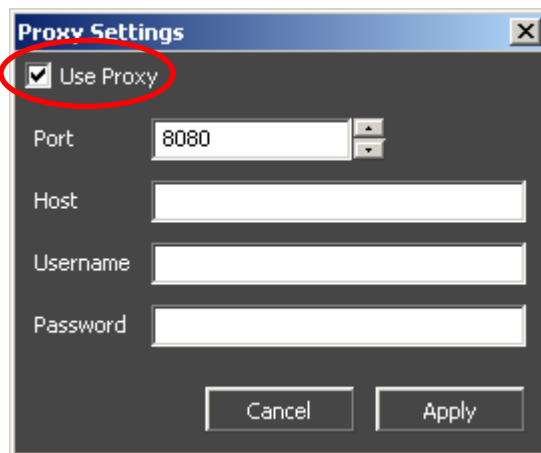
- 5.3 The **XML (RSS) Region** will display a warning message to remind the user to to have the legal rights to use the content that will be displayed.



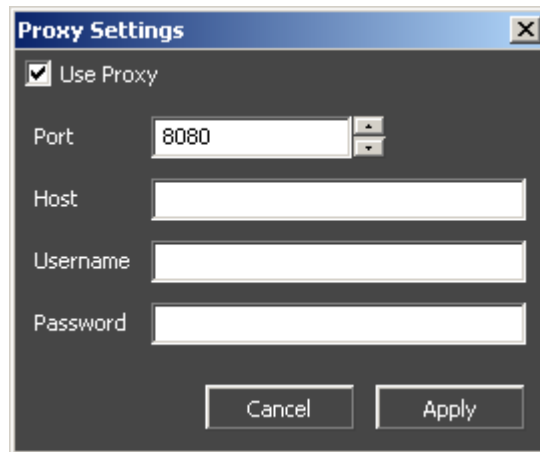
- 5.4 If a **Proxy** is required for a connection to the **RSS** feed, select the **Proxy** button.



- 5.4.1 The **Proxy Settings** window will open. Select the **Use Proxy** check box to activate the window.



5.4.2 Fill in the **Port**, **Host**, **Username**, and **Password** required for a connection to be made through the internet.

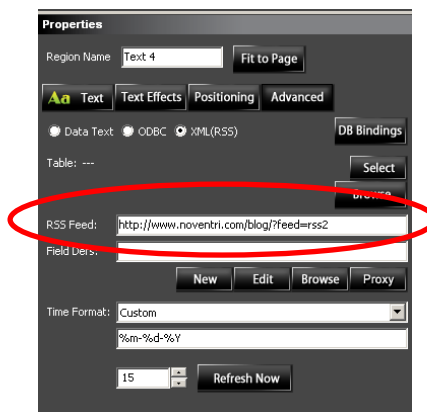
A screenshot of a 'Proxy Settings' dialog box. It has a title bar with a close button. Inside, there is a checked checkbox labeled 'Use Proxy'. Below it are four input fields: 'Port' (containing '8080'), 'Host', 'Username', and 'Password'. At the bottom are 'Cancel' and 'Apply' buttons.

5.4.3 Once the correct **Proxy Settings** are filled in, select the **Apply** button, or to close the window without saving the settings, select **Cancel**.

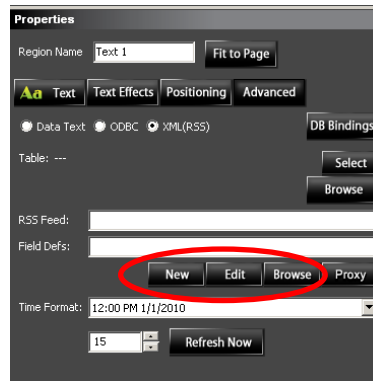
5.5 Fill in the **RSS Feed** box with the web address of the **RSS** feed. For **XML** files, type the path or use the **Browse** button to navigate to the file.

Note 1: When **Browsing** to a location on the network, be sure to always use the UNC (Universal Naming Convention) Path (typically contains (\\server...)). Do not use a path containing a shortcut (such as m:).

Note 2: Connecting to a live **RSS** feed can be done easily by opening the **RSS** feed web site in the web browser and then copy/paste the address into the **RSS Feed** box.

A screenshot of a 'Properties' dialog box with the 'XML(RSS)' tab selected. The 'RSS Feed' text box contains the URL 'http://www.noventri.com/blog/?feed=rss2' and is circled in red. Other visible elements include 'Region Name' (Text 4), 'Table: ---', 'Field Desc:', 'Time Format: Custom', and a 'Refresh Now' button.

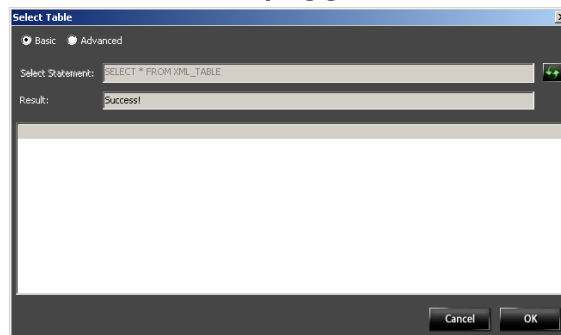
- 5.6** The **XML/RSS Source** contains **Elements** that need to be selected. This is done in a **Field Definition** file. Select **New** to create a **New** file, or select an existing file by typing its path in the **Field Defs** box, or use the **Browse** button. If an existing **Field Definition** file is already listed in the **Field Definitions** box and changes need to be made to it, select the **Edit** button. (See the [Field Definition File](#) section of this manual.)



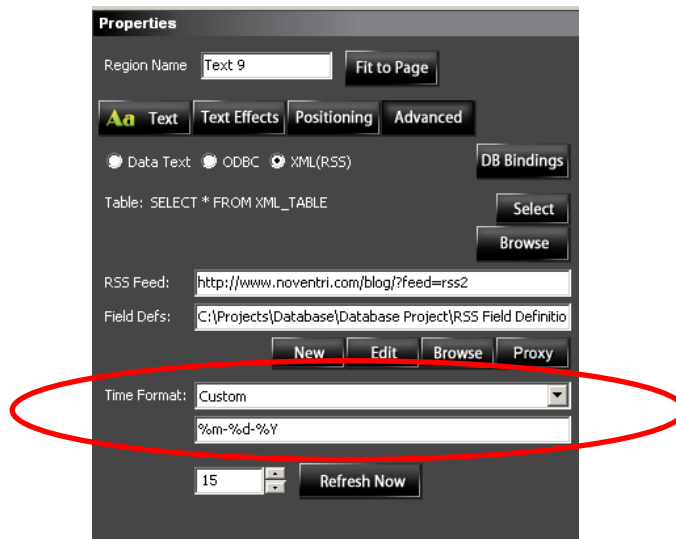
- Note 1:** When **Browsing** to a location on the network, be sure to always use the UNC (Universal Naming Convention) Path (typically contains (\\server...)). Do not use a path containing a shortcut (such as m:).
- Note 2:** It may take a while for the **Field Definition** file to open depending on the size of the **RSS** feed.

- 5.7** Once the **XML/RSS Connection** has been made, the specific **Table** within the **XML/RSS** needs to be selected. Press the **Select** button. The **Select Table** window will open. (See the [Select](#) section of this manual.)

XML/RSS



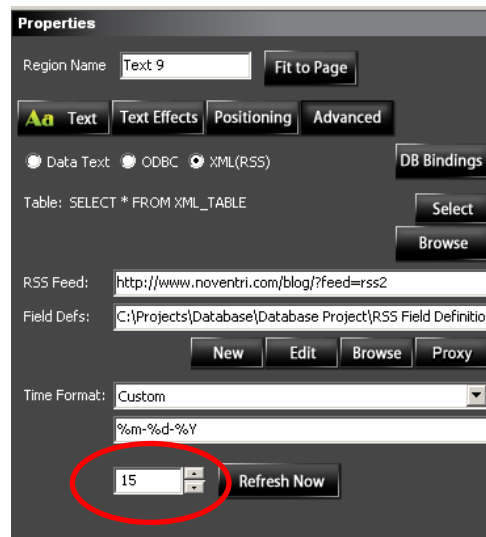
5.8 Time Format – Date and Time fields are not for use in XML/RSS Regions.



The screenshot shows the 'Properties' dialog box for an XML/RSS region. The 'Region Name' is 'Text 9'. The 'Text' tab is selected. The 'Data Text' radio button is selected. The 'Table' is 'SELECT * FROM XML_TABLE'. The 'RSS Feed' is 'http://www.noventri.com/blog/?feed=rss2'. The 'Field Defs' is 'C:\Projects\Database\Database Project\RSS Field Definition'. The 'Time Format' dropdown is set to 'Custom' and the format string is '%m-%d-%Y'. A red circle highlights the 'Time Format' section.

5.9 Update Interval - The Update Interval is used for updating the XML/RSS information that is being displayed on the Player. Player efficiency can be maximized by setting all Regions within a Project to the same Update Interval.

(See the [Update Interval](#) section of this manual.)



The screenshot shows the 'Properties' dialog box for an XML/RSS region. The 'Region Name' is 'Text 9'. The 'Text' tab is selected. The 'Data Text' radio button is selected. The 'Table' is 'SELECT * FROM XML_TABLE'. The 'RSS Feed' is 'http://www.noventri.com/blog/?feed=rss2'. The 'Field Defs' is 'C:\Projects\Database\Database Project\RSS Field Definition'. The 'Time Format' dropdown is set to 'Custom' and the format string is '%m-%d-%Y'. The 'Update Interval' is set to 15 minutes. A red circle highlights the 'Update Interval' section.

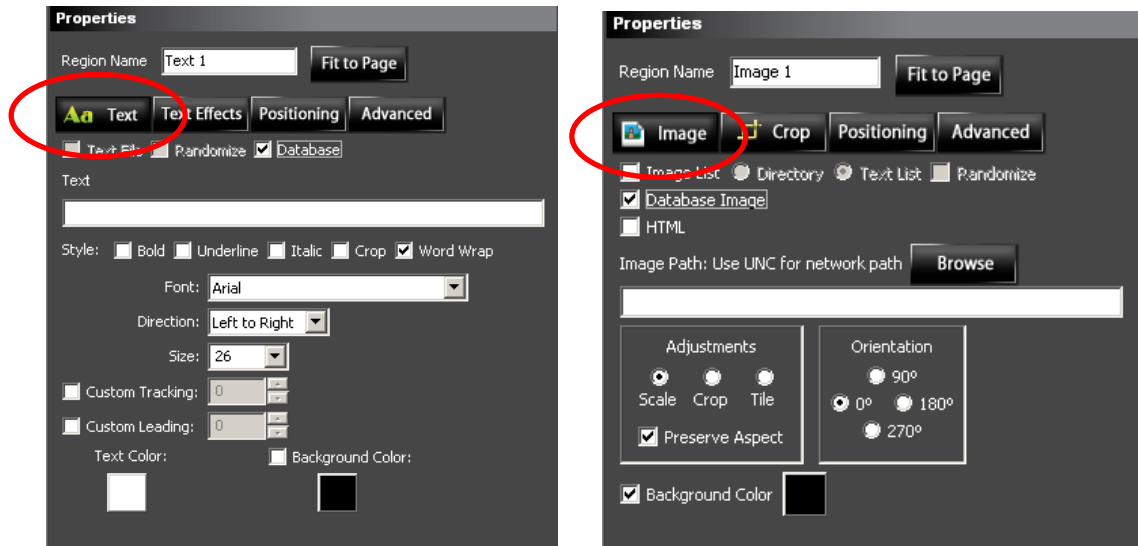
- 5.10 Refresh Now** - The **Refresh Now** button is used for updating the **XML/RSS** information that is being displayed within **Noventri Suite**.
(See the [Refresh Now](#) section of this manual.)

The screenshot shows the 'Properties' dialog box with the 'XML(RSS)' radio button selected. The 'Refresh Now' button is circled in red. The dialog includes fields for 'Region Name' (Text 9), 'RSS Feed' (http://www.noventri.com/blog/?feed=rss2), 'Field Defs' (C:\Projects\Database\Database Project\RSS Field Definitio), 'Time Format' (Custom, %m-%d-%Y), and a 'Refresh Now' button.

- 5.11 Database (DB) Bindings** – The **DB Bindings** option is not currently available for **XML/RSS** applications.

The screenshot shows the 'Properties' dialog box with the 'XML(RSS)' radio button selected. The 'DB Bindings' button is circled in red. The dialog includes fields for 'Region Name' (Text 9), 'RSS Feed' (http://www.noventri.com/blog/?feed=rss2), 'Field Defs' (C:\Projects\Database\Database Project\RSS Field Definitio), 'Time Format' (Custom, %m-%d-%Y), and a 'Refresh Now' button.

- 5.12** Once the **Advanced** tab settings are complete for the **Region**, go back to the **Text / Image** tab. Using **Formatters** set up access to the specific content to be displayed.
(See the [Database Formatters](#) section of this manual.)



- 5.13** With the **Region Properties** configured correctly to display **XML/RSS** content, the **Project** can be completed as it normally would be. Once the **Project** is completed, **Published**, **Scheduled**, and **Assigned to Player**, the **Player** will begin displaying the current **Database** information.
(See the **Noventri Suite - Design Manual**.)

6 Field Definition File

6.1 A **Field Definition File** is a file that specifies the **Fields** in the **Data Source** that need to be accessed. **Field Definition Files** are used for both [Data Text](#) and [XML/RSS Sources](#).

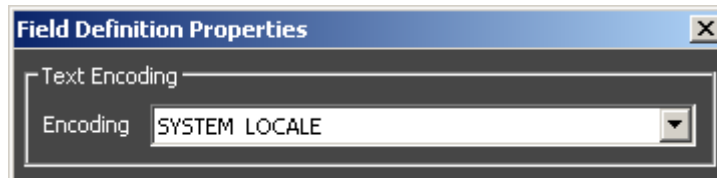
6.2 *Field Definition File (Data Text)*

6.2.1 The **Field Definition Properties** window is where **Data Text - Field Definition** files are created or edited.

The screenshot shows the 'Field Definition Properties' dialog box. It is divided into three main sections: 'Text Encoding', 'Field Layout', and 'Column Editor'. The 'Text Encoding' section has a dropdown menu for 'Encoding' set to 'SYSTEM LOCALE'. The 'Field Layout' section has a checkbox for 'Has Column Name Header' which is unchecked, a dropdown for 'Delimiter' set to 'Comma Separated', and a text field for 'Format'. The 'Column Editor' section has a 'Column Guess' button, and fields for 'Name', 'Width', 'Data Type' (set to 'String'), and 'Date/Time Format'. Below these fields is a table with columns 'Column', 'Field Name', 'Width', and 'Data Type'. To the left of the table are buttons for 'Add', 'Edit', 'Delete', 'Move ↑', and 'Move ↓'. At the bottom right are 'Cancel' and 'Save' buttons.

6.2.2 The **Field Definition Properties** window is divided into three sections: the [Text Encoding](#) panel, the [Field Layout](#) panel, and the [Column Editor](#) panel.

6.2.3 Text Encoding Panel

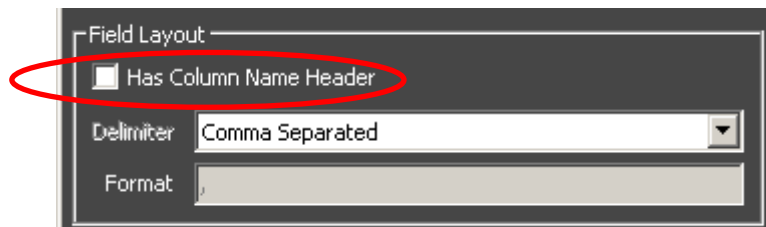


6.2.3.1 Text Encoding – **Text Encoding** refers to the text characters that are used by the computer. The default **Encoding** is **System Locale**. **System Locale** tells **Noventri Suite** to decode the **Database** information using the same **Encoding** that the computer uses (recommended).

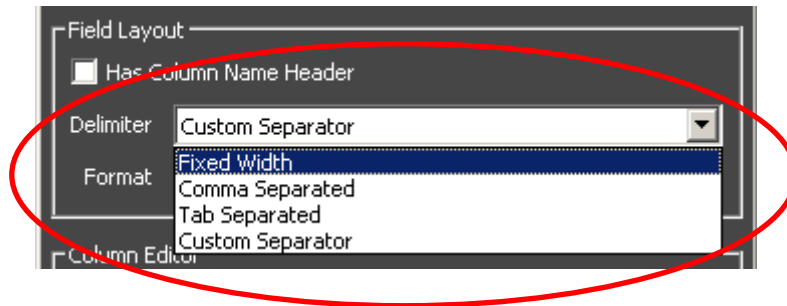
Note: If the language being used in the **Database** is different from the language of the computer, a different **Encoding** may be needed.

6.2.4 Field Layout

6.2.4.1 Has Column Name Header – Select this check box if the **Data Text File** has column headers.

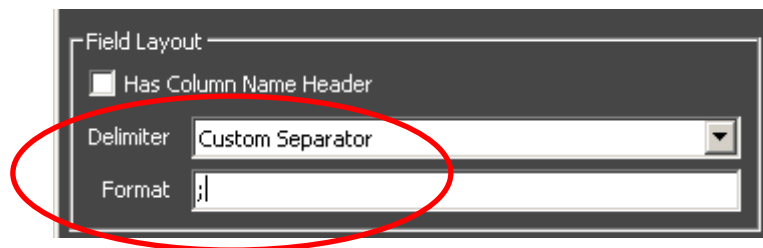


6.2.4.2 Delimiter – Select the type of character that separates the **Text** blocks (columns) within the **Data Text File**.



Note: **Fixed Width** is used when a **Data Source** has a consistent number of character spaces for each cell within a column. This is necessary especially when a common separator is not used within the file. The **Width** of each column will be specified in the [Column Editor](#) panel.

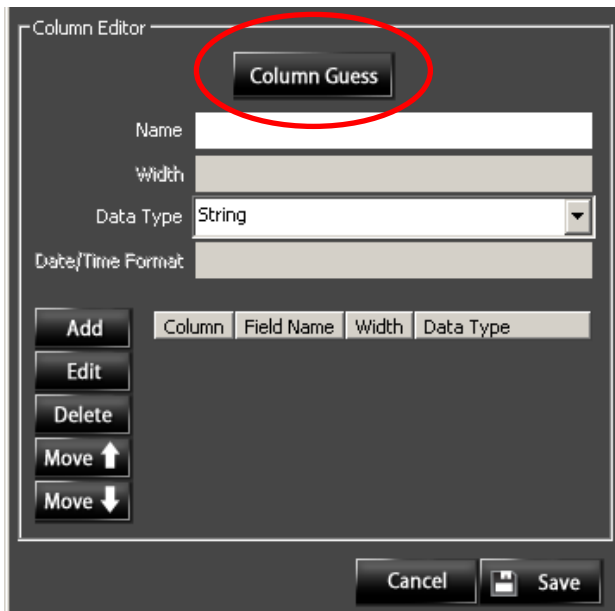
6.2.4.3 If the delimiter being used in the **Data Text File** is not listed, select **Custom Separator** and enter the character in the **Format** box.



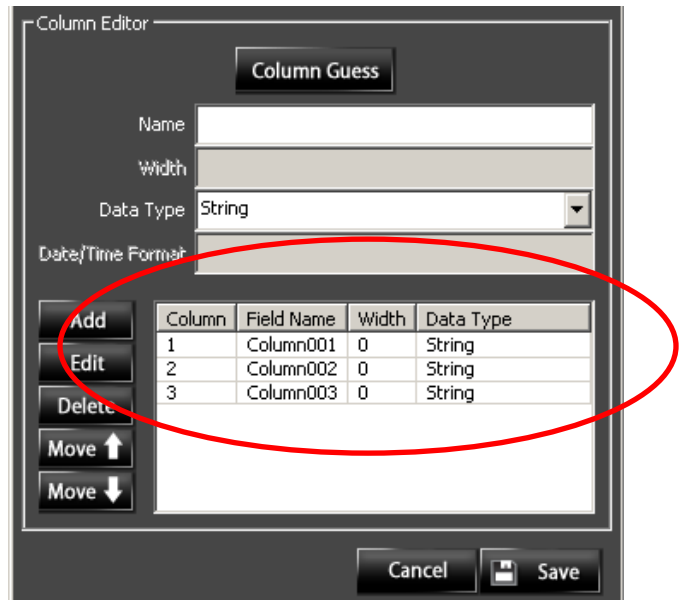
6.2.5 Column Editor

6.2.5.1 Once the information in the [Field Layout](#) panel is correct, the columns of the **Data Text File** can be **Defined** in the **Column Editor** panel.

6.2.5.2 **Column Guess** – Selecting the **Column Guess** button will automatically interpret the **Data Text File** and create column **Definitions** for it.



The Column Editor dialog box is shown. The 'Column Guess' button is highlighted with a red circle. The dialog includes fields for Name, Width, Data Type (set to String), and Date/Time Format. Below these are buttons for Add, Edit, Delete, Move (up), and Move (down). At the bottom are Cancel and Save buttons.



The Column Editor dialog box is shown after the 'Column Guess' operation. The 'Column Guess' button is highlighted with a red circle. The dialog includes fields for Name, Width, Data Type (set to String), and Date/Time Format. Below these are buttons for Add, Edit, Delete, Move (up), and Move (down). At the bottom are Cancel and Save buttons. A table is displayed with the following data:

| Column | Field Name | Width | Data Type |
|--------|------------|-------|-----------|
| 1 | Column001 | 0 | String |
| 2 | Column002 | 0 | String |
| 3 | Column003 | 0 | String |

- 6.2.5.3** The entry area boxes - **Name**, **Width**, **Data Type**, and **Date/Time Format** allow column **Definition** information to be added or edited manually.

Column Editor

Column Guess

Name

Width

Data Type: String

Date/Time Format

Add

Edit

Delete

Move Up

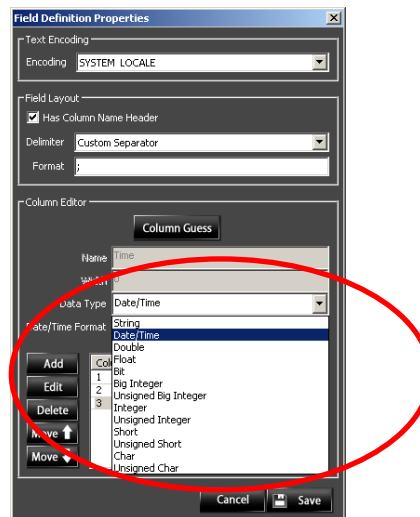
Move Down

| Column | Field Name | Width | Data Type |
|--------|------------|-------|-----------|
| 1 | Column001 | 0 | String |
| 2 | Column002 | 0 | String |
| 3 | Column003 | 0 | String |

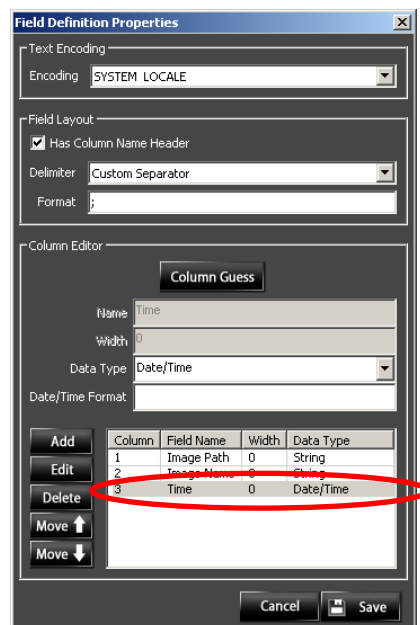
Cancel Save

- Name –** The column **Name** can be the **Column Header** (if the **Data Text File** has them), the default **Column Name** (**Field Name** - that the **Column Guess** button assigned), or a **Name** that is entered here manually.
- Width –** The column **Width** is used if the **Delimiter** that was chosen in the [Field Layout](#) panel was **Fixed Width**. The **Width** of each column is deduced when the **Column Guess** button is used, or can be entered here manually in the **Width** box.

Data Type – The **Data Type** drop-down menu gives selections for the **Data Type** of the data that is contained in the columns.



Note: If **Date/Time** option is selected, the current content of that column in the **Data Text File** will be ignored by this **Region** and the *current* Date/Time will be displayed.



Date/Time Format – Not for use in this version.

If the **Data Type** chosen is **Date/Time**, the **Date/Time Format** box will become available. DO NOT use this **Date/Time Format** entry box, as it can cause undesirable results.

Note: The output **Date/Time Format** will be selected in the **Time Format** drop-down menu that is found in the **Advanced** tab.

(See the [Time Format](#) section of this manual.)

6.2.5.4

To **Add** a column, fill in the entry area boxes with **Name**, **Width** (if applicable), **Data Type**, and **Date/Time Format** (if applicable), and select the **Add** button.

The screenshot shows the 'Column Editor' dialog box. At the top, there is a 'Column Guess' button. Below it are input fields for 'Name' (containing 'new column 4'), 'Width' (containing '0'), and 'Data Type' (a dropdown menu showing 'String'). There is also a 'Date/Time Format' field. On the left side, there are buttons: 'Add', 'Edit', 'Delete', 'Move' (with an up arrow), and 'Move' (with a down arrow). The 'Add' button is circled in red. To the right of these buttons is a table with the following data:

| Column | Field Name | Width | Data Type |
|--------|------------|-------|-----------|
| 1 | Column001 | 0 | String |
| 2 | Column002 | 0 | String |
| 3 | Column003 | 0 | String |

At the bottom of the dialog are 'Cancel' and 'Save' buttons.

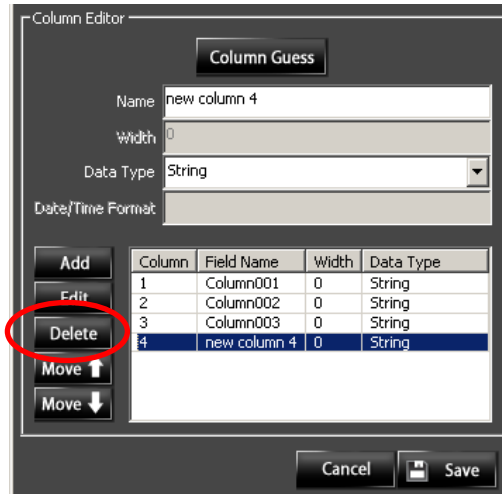
The new column will appear (represented as a row).

This screenshot shows the same 'Column Editor' dialog box, but now the 'Add' button is not circled. The table now has four rows, with the new column added as the fourth row. The new row is circled in red:

| Column | Field Name | Width | Data Type |
|--------|--------------|-------|-----------|
| 1 | Column001 | 0 | String |
| 2 | Column002 | 0 | String |
| 3 | Column003 | 0 | String |
| 4 | new column 4 | 0 | String |

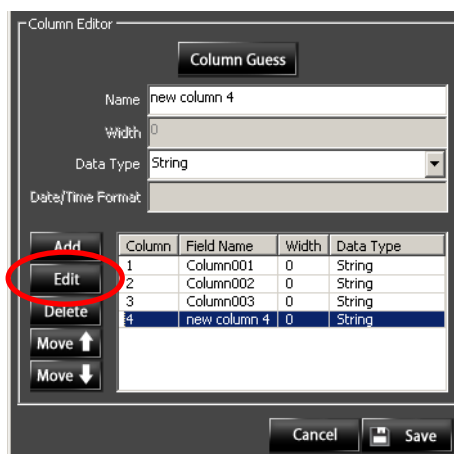
The 'Name' field still contains 'new column 4'. The 'Add' button is no longer circled.

6.2.5.5 To remove a column, select the column, and press the **Delete** button.



6.2.5.6 To **Edit** a column, select the column, make the required changes in the entry area boxes; **Name**, **Width** (if applicable), **Data Type**, and **Date/Time Format** (if applicable), and select the **Edit** button for the changes to take effect.

Important Note: The **Edit** button must be selected *after* the changes are made, or they will not be **Saved** when the **Save** button is selected.



6.2.5.7

To rearrange the order of the **Field Definition** entries, select the column that needs to be moved and using the **Move** buttons, adjust it to the desired location.

| Column | Field Name | Width | Data Type |
|--------|--------------|-------|-----------|
| 1 | Image Number | 0 | String |
| 2 | Column002 | 0 | String |
| 3 | Column003 | 0 | String |

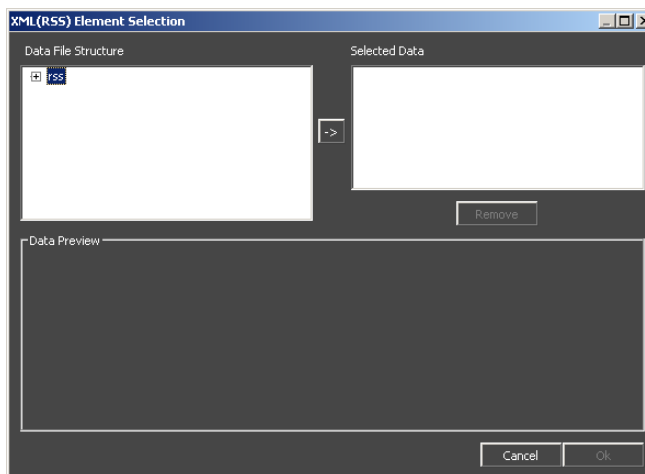
6.2.5.8

Once the **Field Definition** information is complete, select the **Save** button, or to close the window without making changes, select the **Cancel** button.

6.3 Field Definition File (XML/RSS)

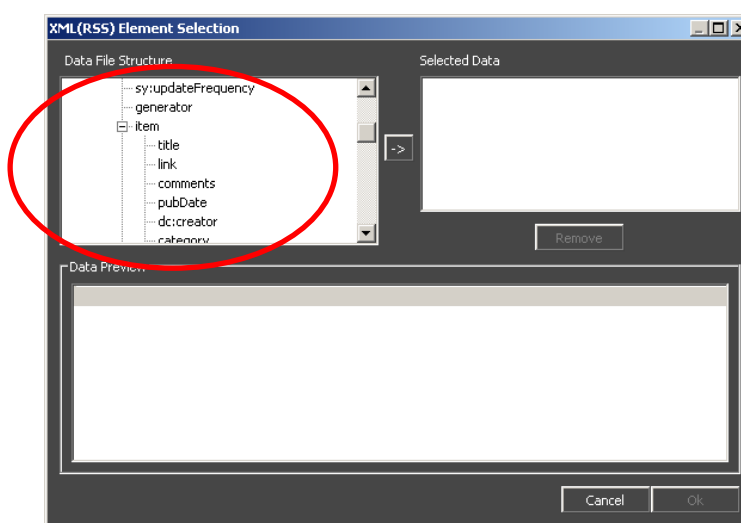
6.3.1 The **XML (RSS) Element Selection** window is where **XML (RSS) - Field Definition** files are created or edited.

Note: It may take a while for the **XML (RSS) Element Selection** window to open, depending on the size of the **RSS** feed.



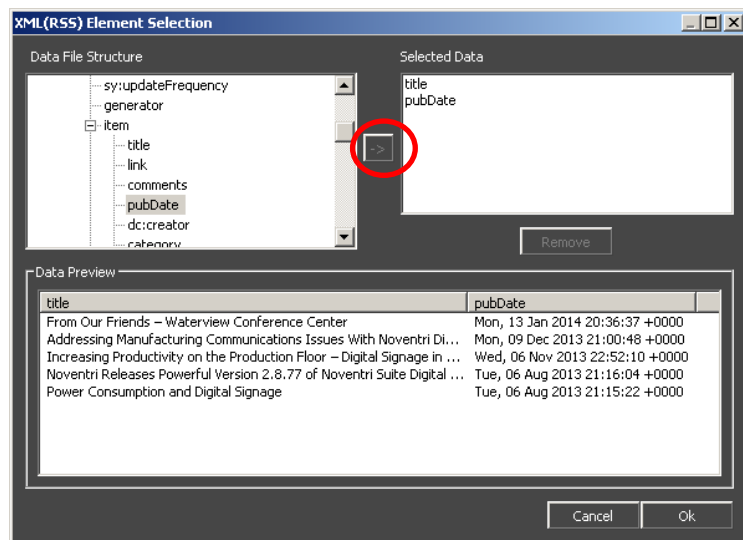
6.3.2 Creating a New Field Definition file –

6.3.2.1 The **Data File Structure** panel contains a tree structure of the **Data** available within the **Data Source**. Expand the **Structure** as necessary to show the **Elements** that needs to be selected.



6.3.2.2 In the **Data File Structure** panel, pick the **Element** to be used. Once an **Element** is highlighted, select the arrow button to add it to the **Selected Data** panel. Repeat this for all **Elements** that contain **Data** that needs to be displayed.

Note: It may take a while for the selected **Element** to show up in the **Selected Data** panel, depending on the size of the **RSS** feed.

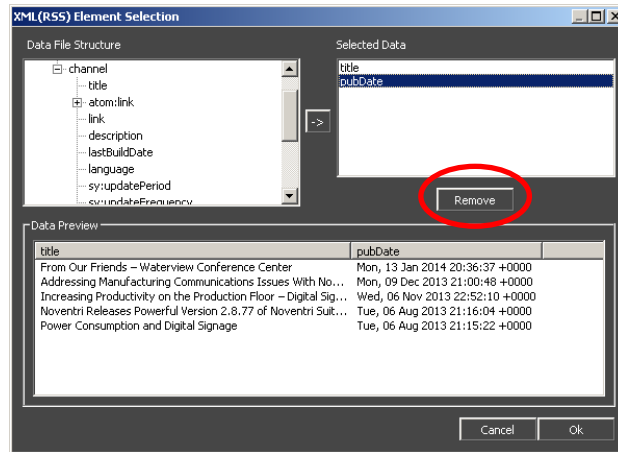


6.3.2.3 The **Elements** that appear in the **Selected Data** panel will have their **Data** displayed in the **Data Preview** panel with the most recent **Data** in the top row.

6.3.3 Editing a **Field Definition** file –

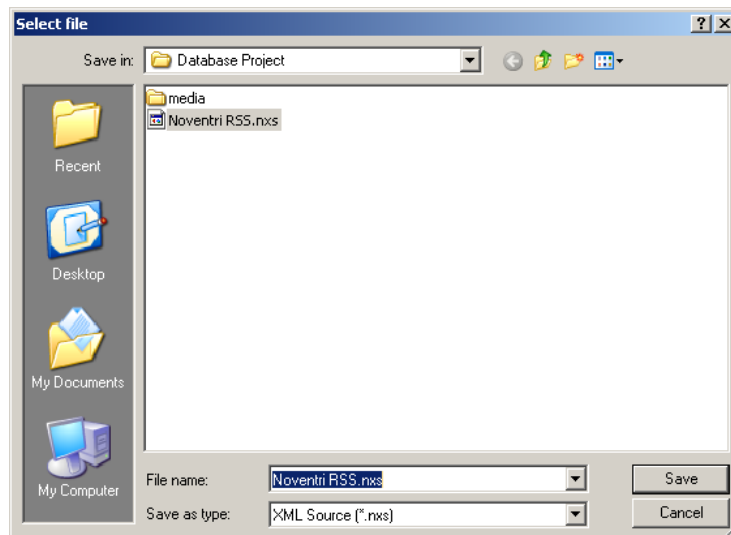
6.3.3.1 Additional **Data File Structure Elements** can be added to the **Selected Data** panel as done when creating a **New Field Definition** file.

6.3.3.2 Elements can be removed from the **Selected Data** panel by highlighting them and using the **Remove** button.



6.3.4 Once the **Selected Data** panel and **Data Preview** panel are showing correct information, select **OK** to save, or to close the window without saving, select **Cancel**.

6.3.5 When creating a **New Field Definition** file, after selecting **OK**, select a location, and enter a file name before saving.



6.3.5.1 Type in a file name and select **Save**, or to close the window without saving, select **Cancel**.

7 Select

- 7.1 With the **Database Connection** completed the specific **Table** and columns within the **Database** need to be selected by using a **Select Statement**. The **Select Statement** is used for both **ODBC** and **XML/RSS**.

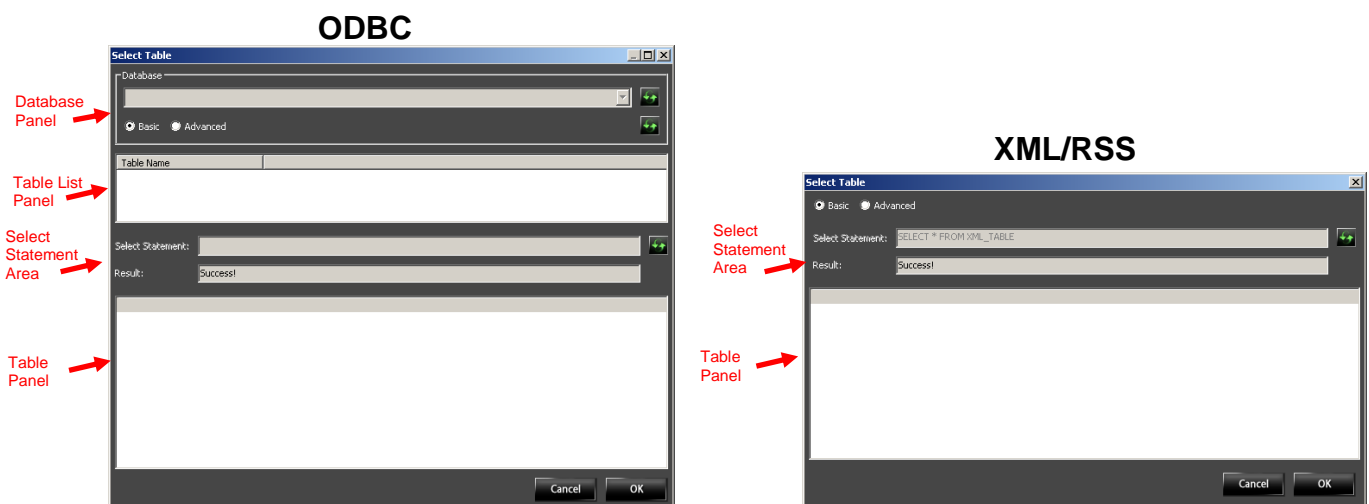
Note: The **Select Statement** can also be used for advanced selecting and manipulating of **Database** information.

- 7.2 A **Select Statement** is written in a **Data Definition Language** such as **SQL**.

Note: The **Data Definition Language** will vary depending on the type of **Database** being used.

- 7.3 When the **Select** button is initially selected, the **Select Table** window will open. The **Select Table** window varies depending on whether **ODBC** or **XML/RSS** is being used.

Within the **Select Table** window are the following sections; the [Database](#) panel (**ODBC** only), the [Table List](#) panel (**ODBC** only), the [Select Statement](#) area, the [Table Panel](#) and covered is a separate section, the [Basic/Advanced](#) radio buttons.

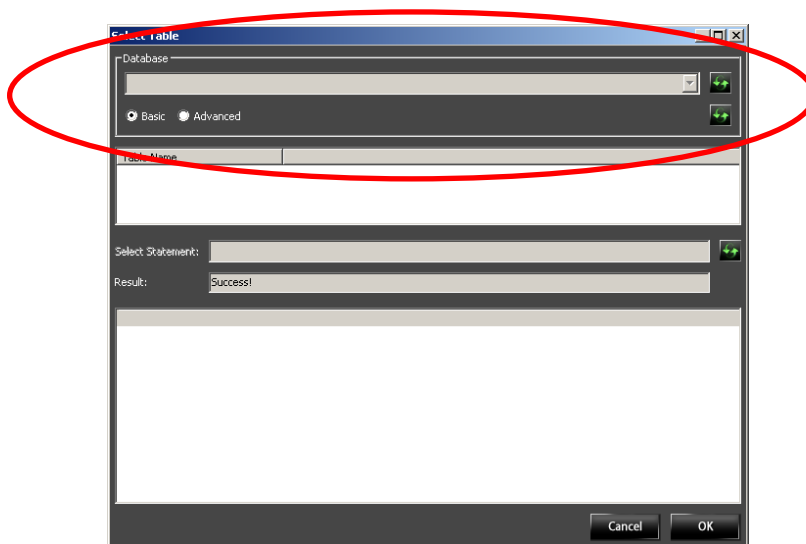


7.4 Database Panel (ODBC only)

7.4.1 The **Database Panel** is found only in **ODBC** version of the **Select Table** window. The **Database** panel options fine tune the **Database** selection, so the **Table** panel can be populated.

This **Database Panel** contains three functions that are covered in this section on the manual; [the **Database** drop-down menu, and the **Refresh Database List** button] (for true SQL type Databases only), and the **Refresh Table** button.

Note: Although the **Basic** and **Advanced** radio buttons are part of the **Database Panel**, their functionality will be discussed in the [Basic/Advanced](#) section of this manual.



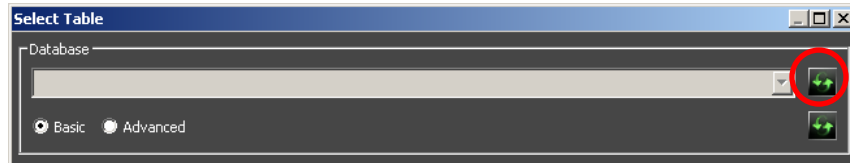
7.4.2 The **Database** drop-down menu is only populated and used if a true server type **Database** (such as SQL) has been selected.

A true server type **Database** may contain multiple **Databases** and they will be shown in this drop-down menu (if the user has permission to use them).

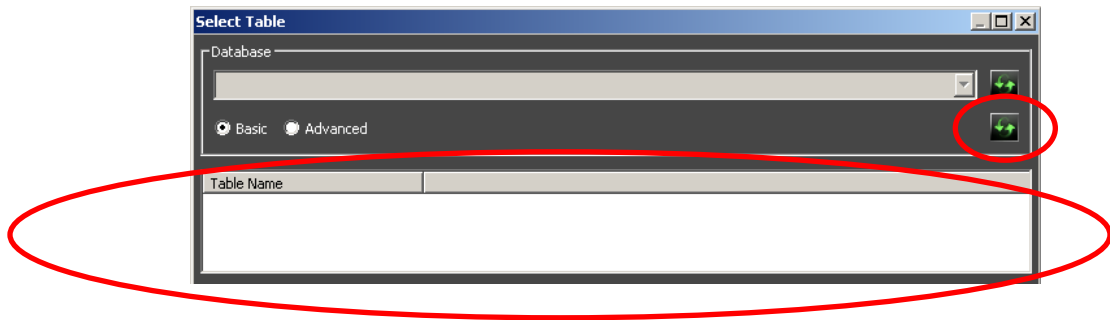
Select the **Database** to be used from this drop-down menu (if applicable).



7.4.3 To refresh the list of **Databases** in the drop-down menu, select the **Refresh Database List** button.



7.4.4 To initially populate or to refresh the list of **Tables** shown in the **Table List** panel, select the **Refresh Table List** button.

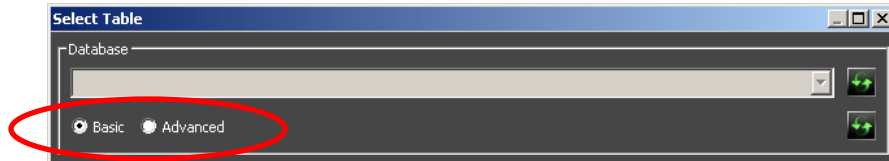


Note 1: When using an Excel **Spreadsheet**, **Tables** are referred to as **Sheets**.

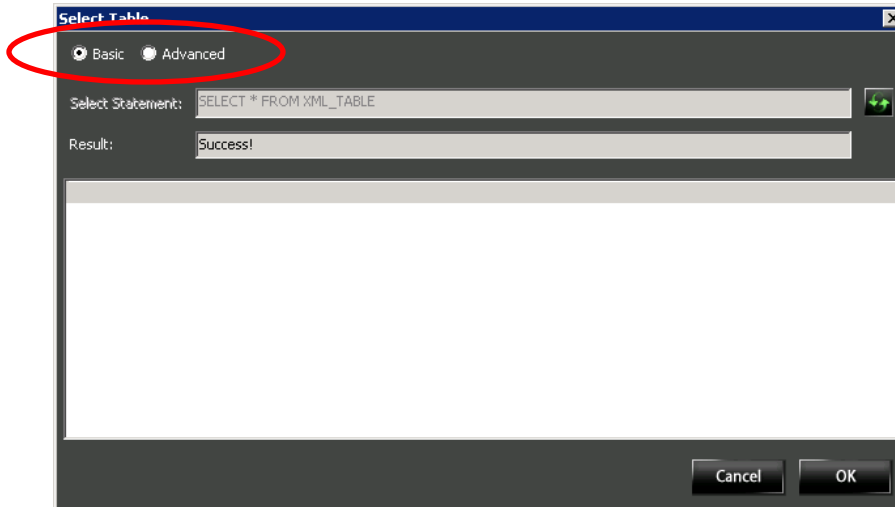
Note 2: When using an Excel **Spreadsheet**, if a Sheet is not displayed in the Table panel, make sure there are no spaces in the name of the Sheet in the Excel file.

7.5 Basic/Advanced (ODBC and XML/RSS)

ODBC



XML/RSS



7.5.1 The **Basic** and **Advanced** radio buttons determine how a **Select Statement** will be generated.

7.5.2 Basic

7.5.2.1 The **Basic** radio button is recommended, and will allow a **Select Statement** to be generated automatically.

Note: The automatically generated Select Statement will include all columns within the **Table**.

7.5.2.2 The automatically generated **Select Statement** will contain the information to specify what **Table** and columns will be used.

- 7.5.2.3** The **Table** part of the **Select Statement** is automatically filled in for **XML/RSS**. For **ODBC**, the **Table** needs to be selected manually.
(See the [Table](#) section of this manual.)



The screenshot shows a dialog box with two input fields. The top field is labeled "Select Statement:" and contains the text "SELECT * FROM [Sheet1\$]". A red circle is drawn around the "[Sheet1\$]" portion of the text. The bottom field is labeled "Result:" and contains the text "Success!". A green double arrow icon is located to the right of the top field.

- 7.5.2.4** The column section of the **Select Statement** is automatically filled in for both **XML/RSS** and **ODBC** to specify all columns within the **Table**.



The screenshot shows a dialog box with two input fields. The top field is labeled "Select Statement:" and contains the text "SELECT * FROM [Sheet1\$]". A red circle is drawn around the "*" portion of the text. The bottom field is labeled "Result:" and contains the text "Success!". A green double arrow icon is located to the right of the top field.

7.5.3 Advanced

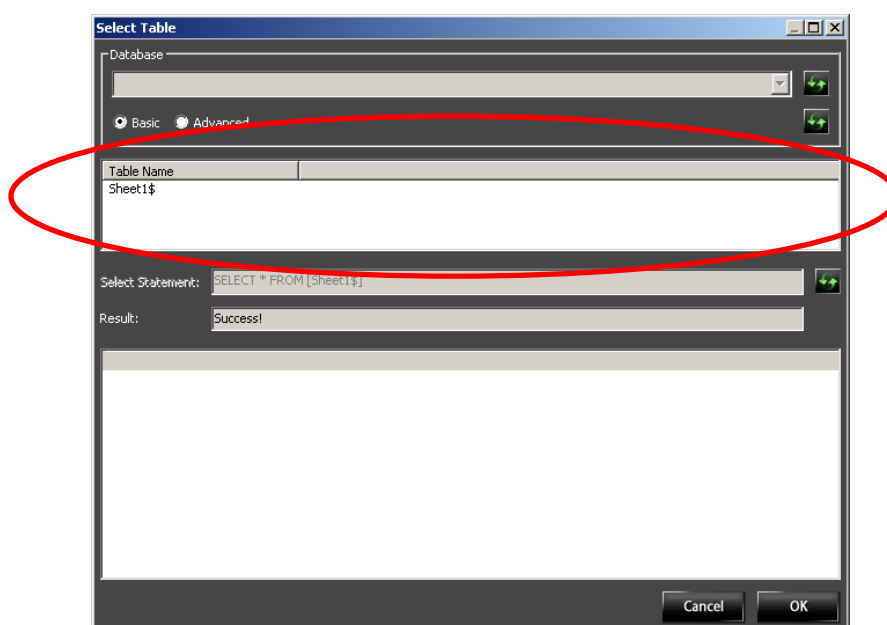
- 7.5.3.1** The **Advanced** radio button is for advanced users that want to create a **Select Statement** manually. This will give the user a multitude of options for selecting and manipulating **Database** content.
(See the [Select Statement](#) section of this manual.)

7.6 Table List (ODBC only)

7.6.1 The **Table List** panel shows a list of all the **Tables** for the selected **ODBC Database** (that the user has permission to use).
Select the **Table** to be used.

Note 1: When using an Excel **Spreadsheet**, **Tables** are referred to as **Sheets**.

Note 2: When using an Excel **Spreadsheet**, if a Sheet is not displayed in the Table panel, make sure there are no spaces in the name of the Sheet in the Excel file.

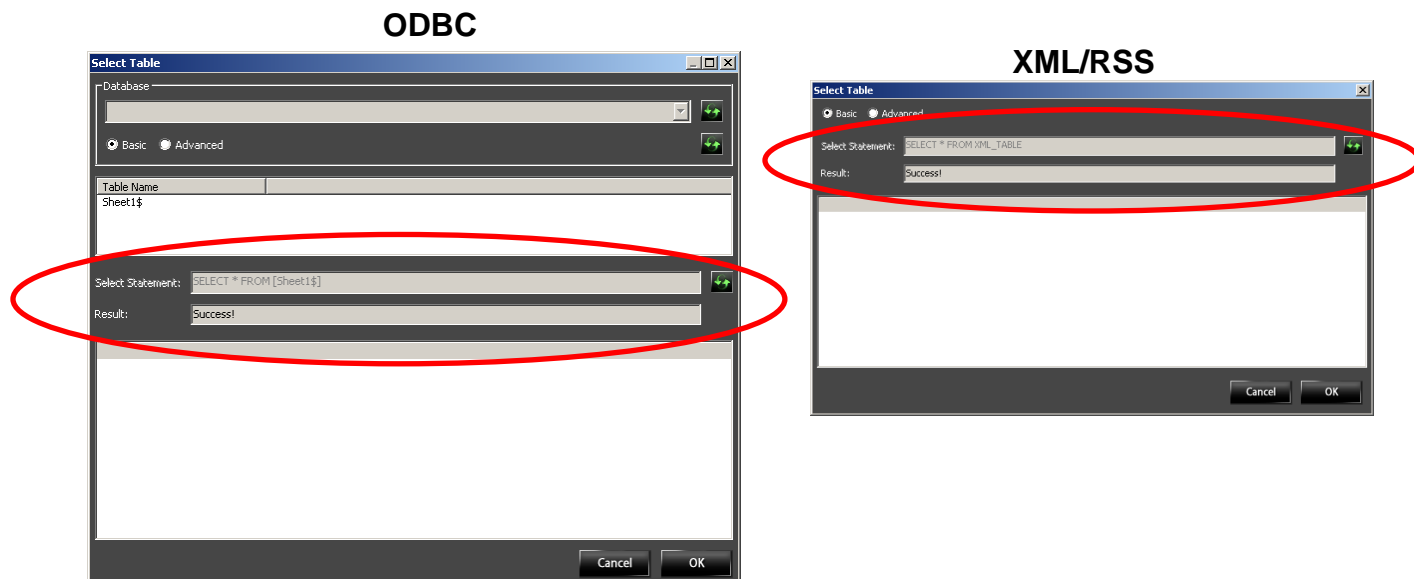


7.6.2 To initially populate or to **Refresh** the list of **Tables** shown in the **Table List** panel, select the **Refresh Table List** button found in the **Database Panel**.
(See the [Database Panel](#) section of this manual.)

7.7 Select Statement (ODBC and XML/RSS)

7.7.1 The **Select Statement** panel is where the actual **Select Statement** is created. The **Select Statement** specifies the **Table** and columns within the **Database**.

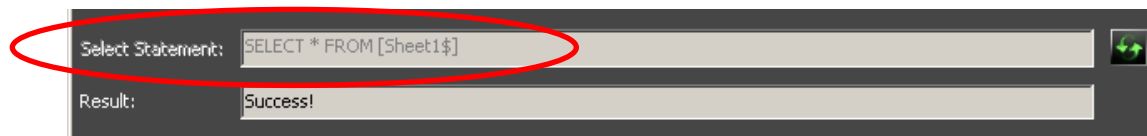
Note: The **Select Statement** can also be used for advanced selecting and manipulating of **Database** information.



7.7.2 Basic

7.7.2.1 If the **Basic** radio button was selected in the **Database** panel, the **Select Statement** box will display the **Select Statement** that was automatically generated. The **Select Statement** box will be grayed out and will be uneditable.

Note: The automatically generated **Select Statement** will include all columns within the **Table**.



- 7.7.2.2** This automatically generated **Select Statement** will contain the information to specify what **Table** and columns will be used.
- 7.7.2.3** The **Table** section of the **Select Statement** is automatically filled in for **XML/RSS**. For **ODBC**, the **Table** is selected manually.
(See the [Table](#) section of this manual.)
- 7.7.2.4** The column section of the **Select Statement** is automatically filled in, and specifies that all the columns within the **Table** are selected.

7.7.3 Advanced

- 7.7.3.1** If the **Advanced** radio button was selected in the **Database** panel, the **Select Statement** box is used to enter a **Select Statement** manually.

Note: The automatically generated **Select Statement** is shown in the now editable **Select Statement** box for reference.

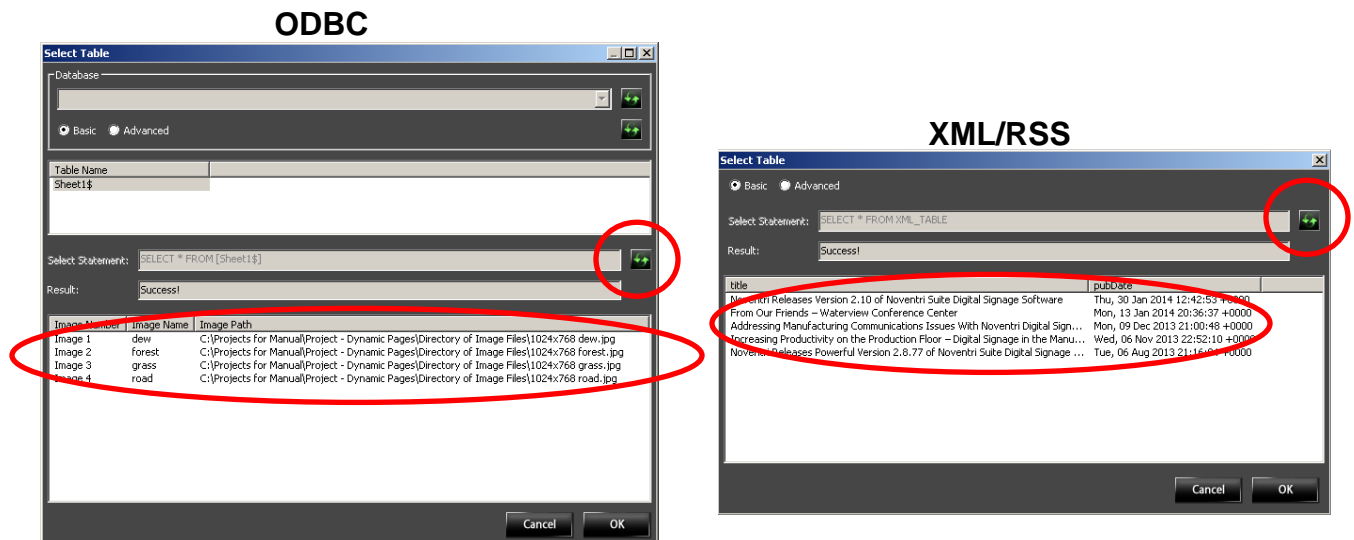


- 7.7.3.2** The manually entered **Select Statement** is created using the **Data Definition Language**.

ODBC: For **ODBC**, the **Data Definition Language** is dependent on what **Database** is being used.
(See the documentation for the **Database** being used.)

XML/RSS: For **XML/RSS**, the **Data Definition Language** is always SQLite.
<http://www.sqlite.org/lang.html>

7.7.4 To implement the **Select Statement** (either an automatically generated **Select Statement** or a **Select Statement** entered manually) and populate the **Table** panel, select the **Refresh Table** button.



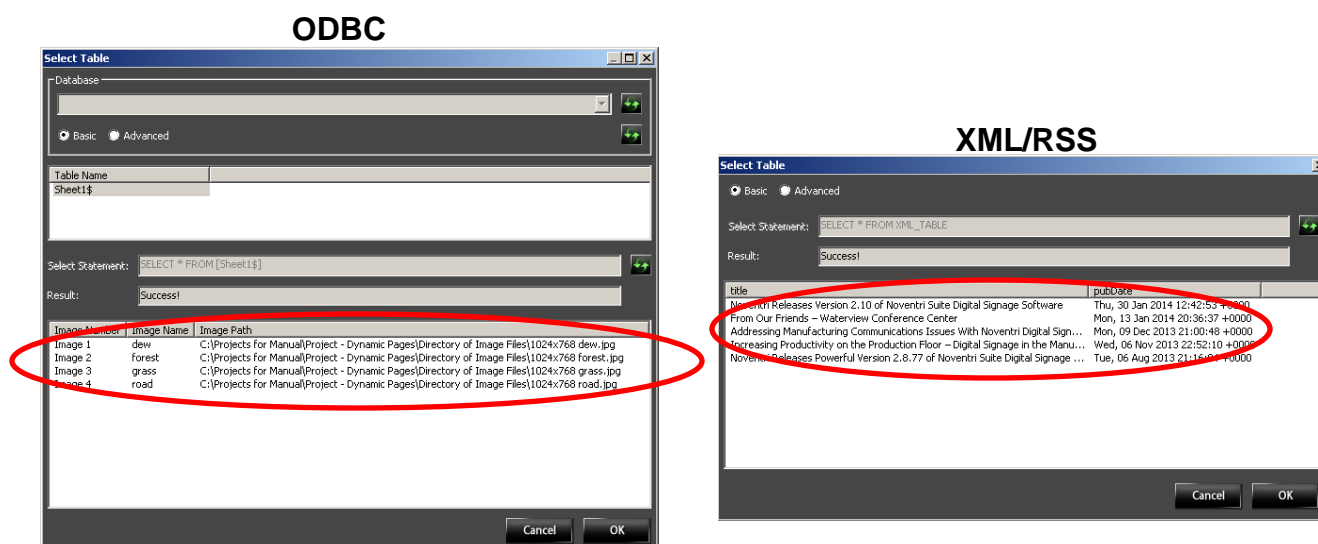
7.7.5 The **Result** box will display "**Success!**" if the **Select Statement** was able to retrieve the **Table** from the **Database**. If a problem occurs, an error message will be displayed.



7.8 Table Panel (ODBC and XML/RSS)

7.8.1 Once the **Refresh Table** button has been selected, and the **Select Statement - Result** was successful; the **Table** panel will show the **Database** information specified in the **Select Statement**.

Note: If the **Database** information does not appear, the chosen **Table** may be empty or the connection credentials entered may not allow access to the **Table**.



7.9 Once the information in the **Select Table** window is correct, select the **OK** button, or to return to the previous window without saving, select **Cancel**.

8 Time Format

8.1 The **Time Format** option allows the **Date/Time** information to be formatted in a variety of ways when it is displayed. There are multiple places throughout the **Database** menus where a **Time Format** can be entered. The same general rules apply to all of them.

- 8.2 Some menu locations (such as in a **Region Properties - Advanced** tab) display a **Time Format** option having a drop-down menu. A selection can be made between a standard **Time Format** or a **Custom Time Format**.



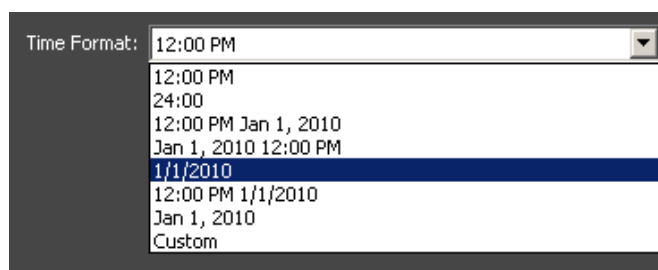
Time Format: Custom
%I:%M %p

Other menu locations (such as in the **Database Bind Mapping** window) have a **Time Format** option that can only be entered manually.



Time Format

- 8.3 When a drop-down list of standard **Time Formats** is provided, the **Time Format** does not have to be entered manually. Simply select the **Time Format** that is desired.



Time Format: 12:00 PM
12:00 PM
24:00
12:00 PM Jan 1, 2010
Jan 1, 2010 12:00 PM
1/1/2010
12:00 PM 1/1/2010
Jan 1, 2010
Custom

- 8.4 When a drop-down list of standard **Time Formats** is provided, one of the drop-down selections will be **Custom**. Choosing **Custom** will allow the **Time Format** to be entered manually. (See the [Custom Formatters](#) section of this manual.)



Time Format: Custom
%I:%M %p

- 8.5** When a drop-down list of standard **Time Formats** is not provided, the **Time Format** will have to be entered manually. (See the [Custom Formatters](#) section of this manual.)

A screenshot of a software interface showing a label "Time Format" next to a text input field. The input field is empty and has a light gray border.

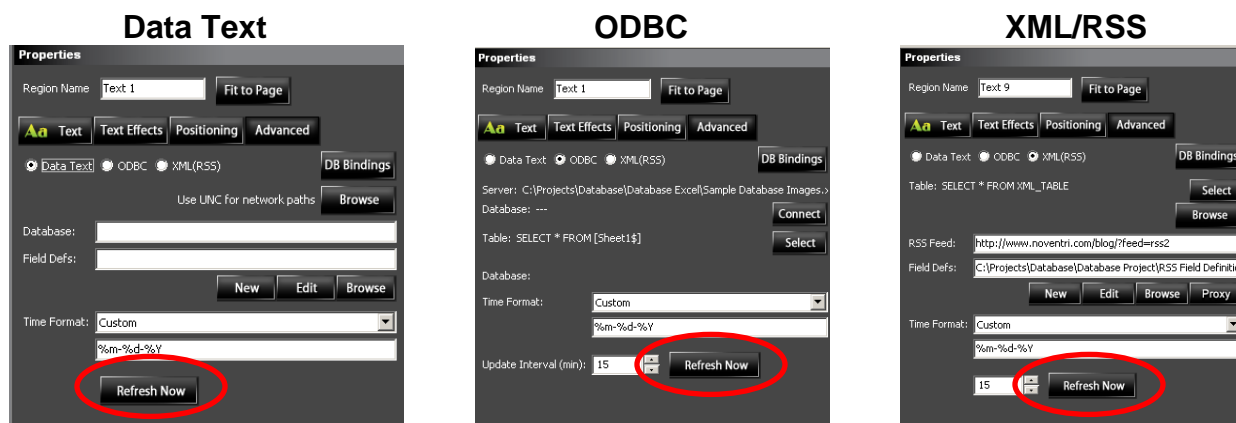
8.6 Custom Formatters

- %a - abbreviated weekday name.
- %A - full weekday name.
- %b - abbreviated month name.
- %B - full month name.
- %c - date and time, as "%a %b %e %H:%M:%S %Y".
- %d - zero-padded day of the month [01,31].
- %e - space-padded day of the month [1,31]; equivalent to %_d.
- %H - hour (24-hour clock) [00,23].
- %I - hour (12-hour clock) [01,12].
- %j - day of the year [001,366].
- %m - month [01,12].
- %M - minute [00,59].
- %L - milliseconds [000, 999].
- %p - either AM or PM.
- %S - second [00,61].
- %U - wk number of the year (Sun as the first day of the wk) [00,53].
- %w - weekday [0(Sunday),6].
- %W - week number of the year (Monday as the first day of the week) [00,53].
- %x - date, as "%m/%d/%Y".
- %X - time, as "%H:%M:%S".
- %y - year without century [00,99].
- %Y - year with century.
- %Z - time zone offset, such as "-0700".
- %% - a literal "%" character.

9 Refresh Now

- 9.1** The **Refresh Now** button is used for updating the **Database Data** that is being displayed in **Noventri Suite**. (This option has no effect on the **Server** or **Players**.)

Note: Content generated with **Bindings** cannot be previewed within **Noventri Suite**. Since the **Noventri Server** does the **Binding** processing, results can only be viewed on the **Player's** output.

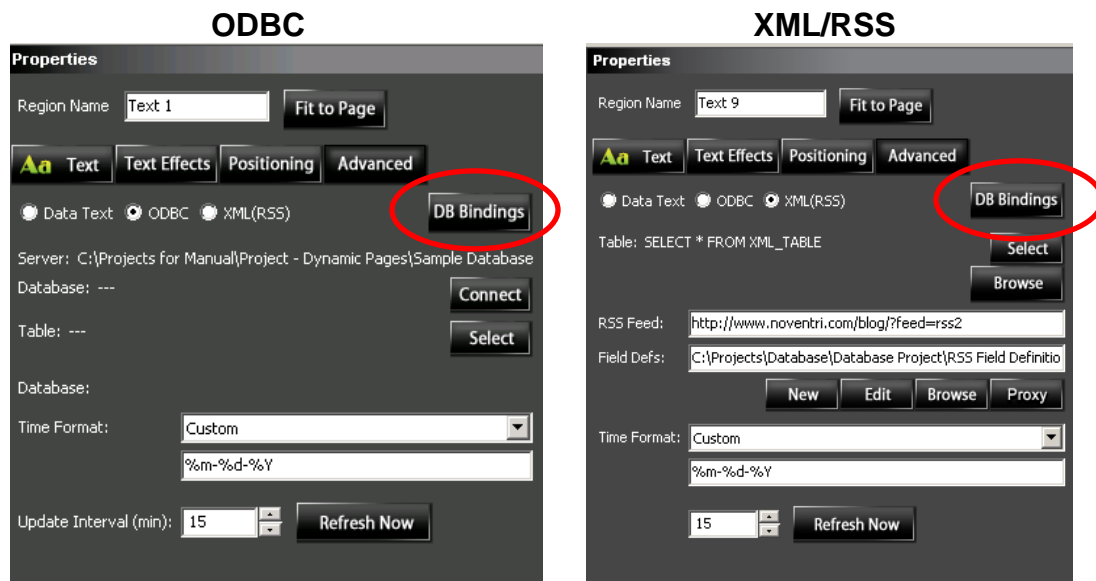


- 9.2** Once a connection has been established between **Noventri Suite** and the **Database**, the **Refresh Now** button can be used to display the current **Definitions** when using **DB Bindings**.
- 9.3** Once a valid **Formatter** is entered for the **Image Path** or **Text** box, and the **Region** is properly linked to the **Data Source**, selecting the **Refresh Now** button will allow the **Noventri Suite** view of that **Region** to display the current **Data** from the **Table**.

Note 1: Selecting the **Refresh Now** button only has to be done within **Suite** the first time, and then will automatically **Refresh**. It will need to be selected again if the **Project** is closed and re-opened in the **Suite**. (This pertains to each **Region** within a **Project** that is connected to a **Data Source**.)

10 Database Bindings

10.1 The **DB Bindings** option allows **Data** in a **Database** to be linked with a specific **Player**.



Note: For use only with ODBC.

10.2 To use the **DB Bindings** option, the **Data Source** file has to be specifically setup with columns for this purpose.

10.2.1 Three columns need to be included in the **Data Source** file;
a column that specifies the **Player**, **Start Time**, and **End Time**.

- **Player** – This column is used to identify what **Player** will be used. This column needs to *match* the **Player Binding**.

Note: The **Player** is assigned its **Binding** in the **Player's Setting Panel (Advanced)** that is found under the **Manage** tab. The **Player Binding** for the **Player** must be setup before a **Project** containing **Bindings** is **Assigned** to the **Player**.
(See the [Player Binding](#) section of this manual.)

- **Start Time** – The **Time** that the **Player** will begin displaying the **Data**.
- **End Time** – The **Time** that the **Player** will stop displaying the **Data**.

Example (Access Database with Binding columns):

| Meeting Rooms : Table | | | | | | | |
|-----------------------|----------------------|-----------------------|----------|--------------|------------|--|------------|
| Meeting Room | Start Time | End Time | Player | Event Number | Event Name | Event Image | Image Name |
| A | 2/17/2013 8:00:00 AM | 12/17/2013 1:00:00 PM | Player A | 1 | Company x | C:\Meeting Rooms\Events\Images\Event 1.jpg | morning |
| B | 2/17/2013 8:00:00 AM | 2/17/2013 10:00:00 AM | Player B | 2 | Company y | C:\Meeting Rooms\Events\Images\Event 2.jpg | dew |
| C | 2/17/2013 8:00:00 AM | 12/17/2013 1:00:00 PM | Player C | 3 | Company z | C:\Meeting Rooms\Events\Images\Event 3.jpg | drop |
| A | 2/17/2013 1:00:00 PM | 12/17/2013 3:00:00 PM | Player A | 4 | Company xx | C:\Meeting Rooms\Events\Images\Event 4.jpg | falls |
| A | 2/17/2013 3:00:00 PM | 12/17/2013 6:00:00 PM | Player A | 5 | Company yy | C:\Meeting Rooms\Events\Images\Event 5.jpg | forest |
| B | 2/17/2013 1:00:00 PM | 12/17/2013 5:00:00 PM | Player B | 6 | Company zz | C:\Meeting Rooms\Events\Images\Event 6.jpg | grass |

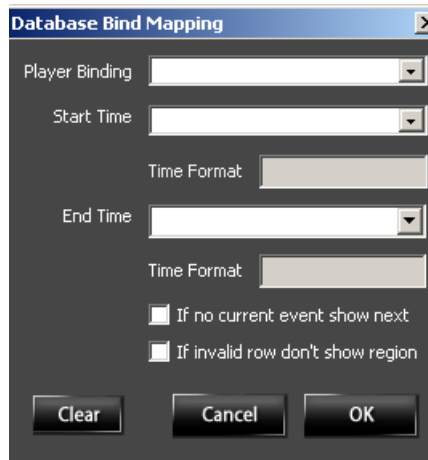
10.3 Once a **Data Source**, that contains the necessary columns, is created, and **Connected** to, the **Bindings** for a **Region** can be configured.

Important: Any number of **Regions** within a **Project** can be linked to a **Data Source** with the use of **Bindings**. However each **Binding** used within a **Project** must be for the same **Player**. To control multiple **Player** content with **Bindings**, a separate **Project** needs to be created for each **Player**.

10.4 Start by selecting the **DB Bindings** button.



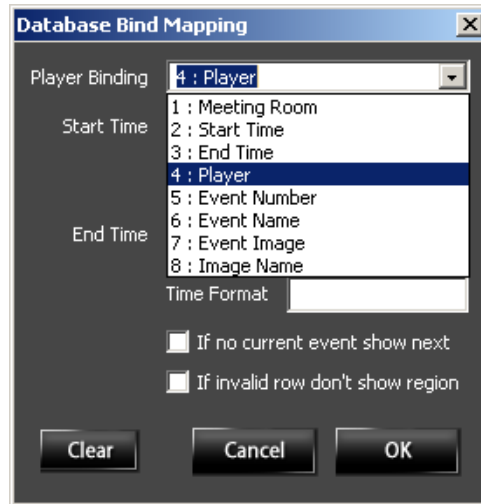
10.5 The **Database Bind Mapping** window will open.



10.6 Player Binding

10.6.1 The **Player Binding** is the link between the **Region** and the specific **Player** that will be displaying the content.

10.6.2 Select the **Player Binding** drop-down menu, and select the column in the **Data Source** that specifies the **Player**.



Note: To populate the drop-down menus, the **Data** needs to be **Refreshed**.
(See the [Refresh Now](#) section of this manual.)

10.6.3 The **Player Binding** specified in the column selected, needs to *match* the **Player Binding** assigned to the **Player**.

Note: The **Player** is assigned its **Binding** in the **Player's Setting Panel (Advanced)** that is found under the **Manage** tab. The **Player Binding** for the **Player** must be setup before a **Project** containing its **Bindings** is **Assigned to Player**.
(See the [Player Binding](#) section of this manual.)

10.7 Start Time

10.7.1 The **Start Time** is the **Time** that the **Region** will begin displaying content for the specified **Player**.

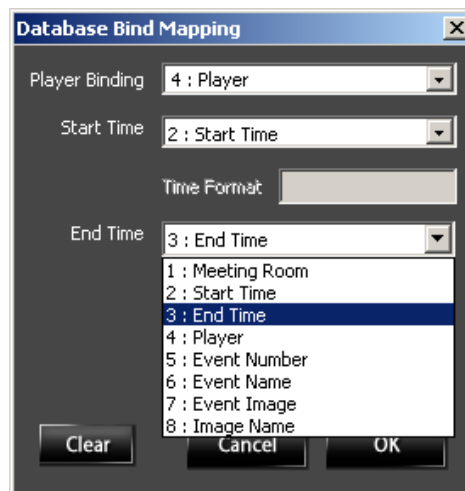
10.7.2 Select the **Start Time** drop-down menu, and select the column in the **Data Source** that specifies the **Start Time**.



10.8 End Time

10.8.1 The **End Time** is the **Time** that this **Region** will stop displaying content for the specified **Player**.

10.8.2 Select the **End Time** drop-down menu, and select the column in the **Data Source** that specifies the **End Time**.



10.9 Time Format

10.9.1 If the **Time Format** for the **Start Time** and **End Time** are recognized as valid **Time Formats**, their respective **Time Format** entry boxes will be grayed out (not editable).

10.9.2 If the **Time Format** entry boxes are not grayed out and are editable, a **Time Format** must be entered so the times and dates can be automatically converted into a usable format.
(See the [Time Format](#) section of this manual.)

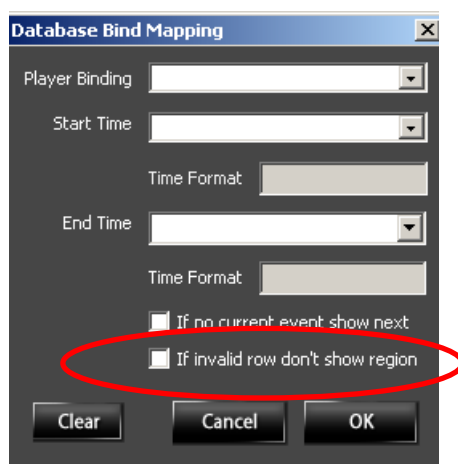
10.10 Check box – “If no current event show next”

10.10.1 If the check box “**If no current event show next**” is selected, and the **Player** does not have a current entry in the **Data Source**, the **Player** will automatically begin displaying content for its next time slot entry.



10.11 Check box – “If invalid row don’t show region”

10.11.1 If the check box “If invalid row don’t show region” is selected, and the **Player** does not have a current entry in the **Data Source**, the entire **Region** and all its content will no longer be displayed by the **Player**.



10.12 To **Clear** the window entries, select **Clear**. Once the **Database Bind Mapping** information is complete, select **OK** to save, or to close the window without making changes, select **Cancel**.

10.13 Once valid **Database Binding** information has been configured, it must be noted that the **Formatters** used to access this **Player** specific data must be configured for **Bindings**, with a zero for the row. Example: [0:3]
(See the [Database Formatters](#) section of this manual.)

Note: Content generated with **Bindings** cannot be previewed within **Noventri Suite**. Since the **Noventri Server** does the **Binding** processing, results can only be viewed on the **Player's** output.

11 Player Binding

11.1 The **DB Bindings** option allows **Data** in a **Database** to be linked with a specific **Player**.

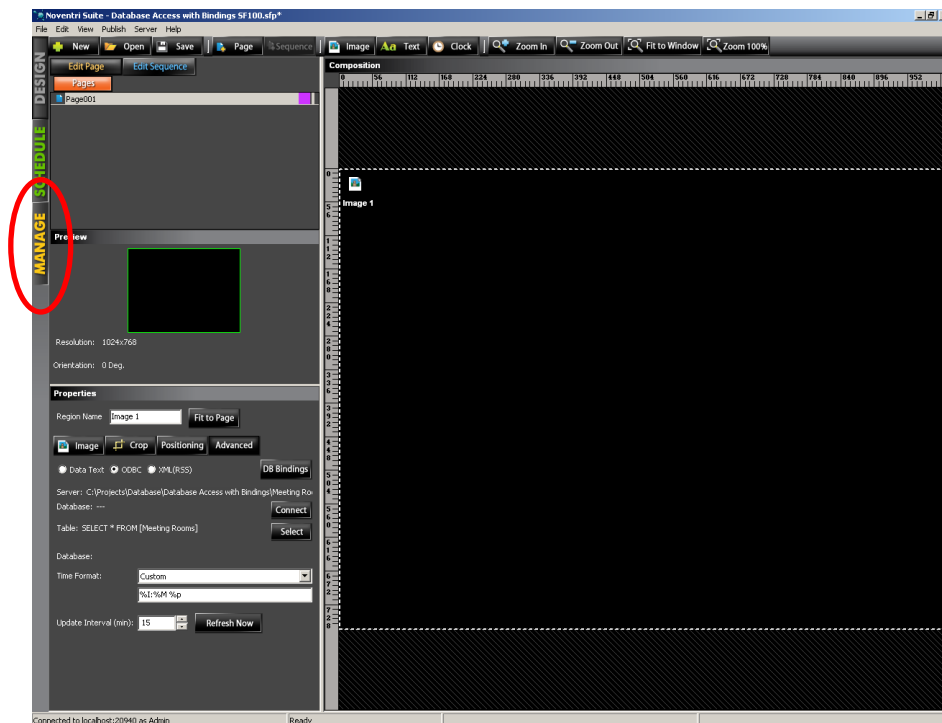
11.2 The **Player Binding** is the name assigned to the **Player**. This name needs to *match* the **Player Binding** name that is specified in the **Database**.

11.3 The Player is assigned its Binding in the Player's Setting Panel (Advanced) that is found under the Manage tab.

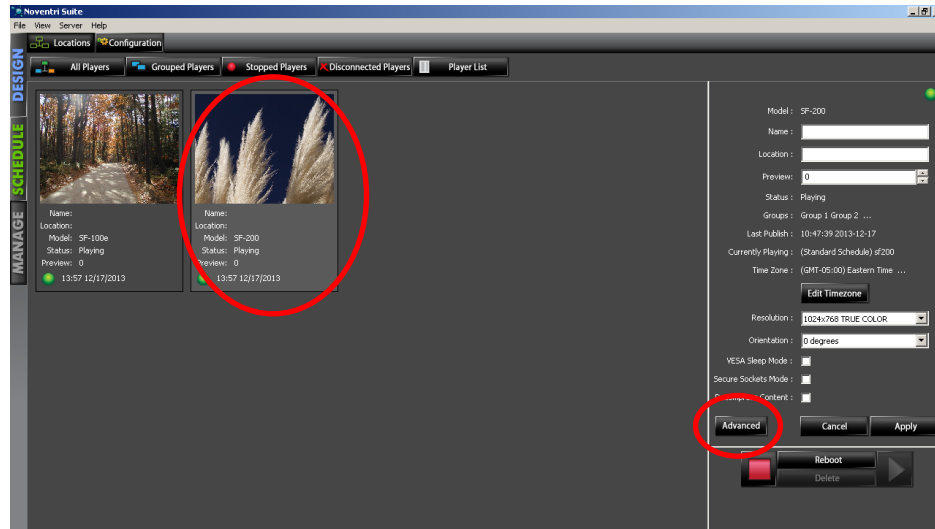
Note: The **Player Binding** for the **Player** must be setup before a **Project** containing **Bindings** is **Assigned** to the **Player**.

11.4 Select the Noventri Suite - Manage Tab.

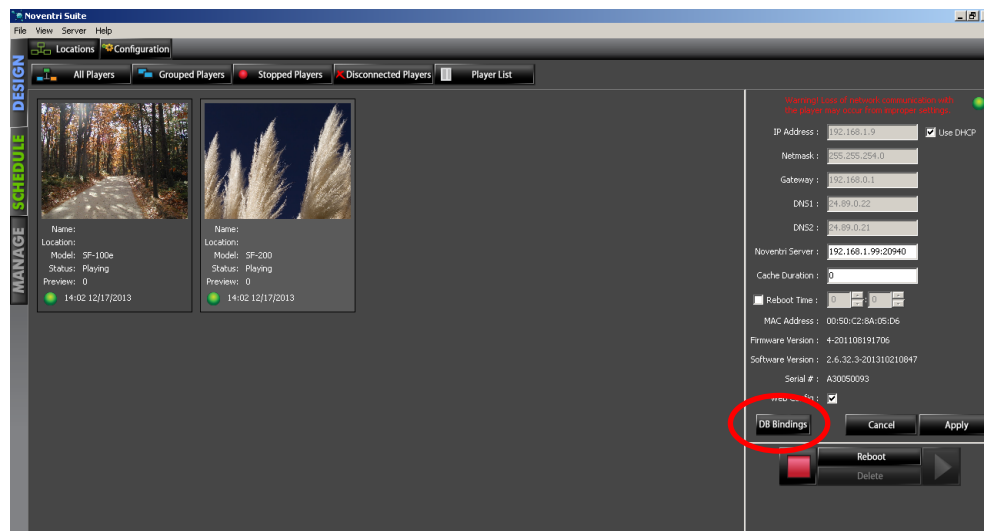
Note: This manual covers the **Player Binding** options in the **Manage Tab**. All other **Manage Tab** information can be found in its manual. (See the **Noventri Suite - Manage Tab Manual**.)



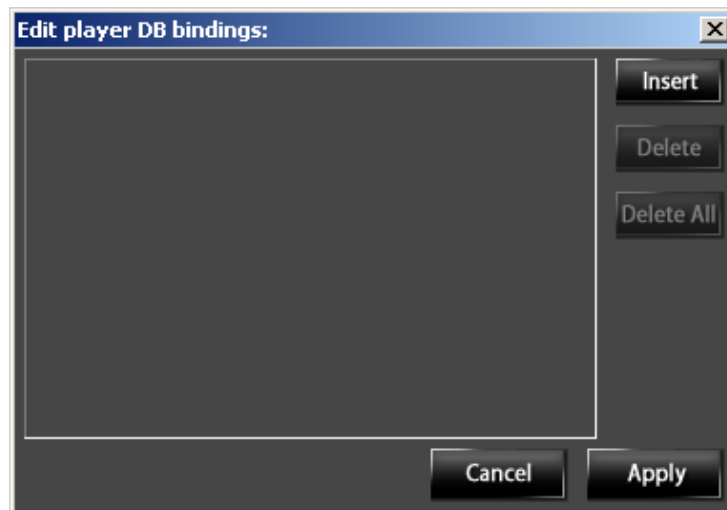
11.4.1 Select the **Preview Panel** for the **Player** that needs its **Player Binding** name assigned. Select the **Advanced** button in the **Settings Panel**.



11.4.2 Once the **Advanced** button is selected, the **Settings Panel** will change to the **Advanced Settings Panel**. Select the **DB Bindings** button.

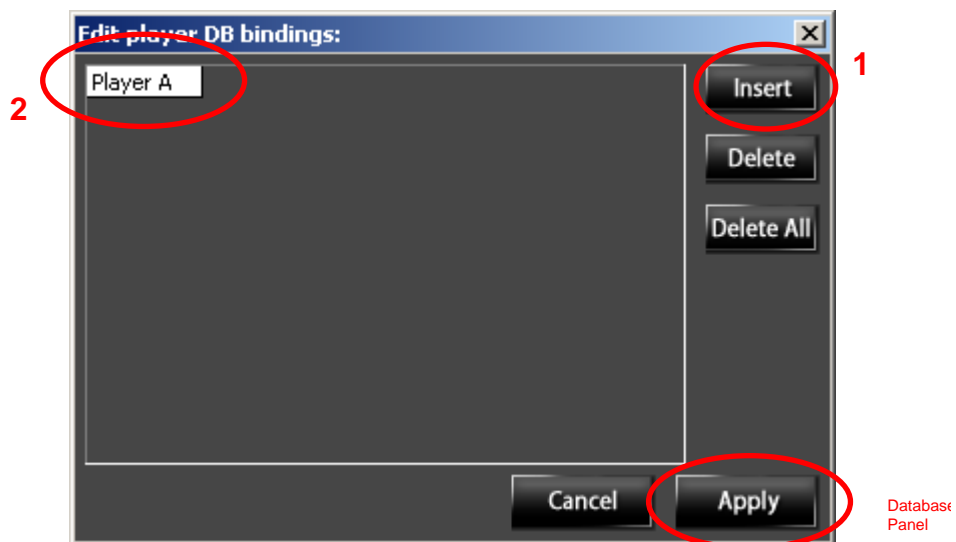


11.4.3 When the **DB Bindings** button is selected, the **Edit Player DB Bindings** window will open.



11.4.4 Select the **Insert** button, and fill in the **Binding** name for the **Player**. Next select **Apply**.

Note: Make sure the **Binding** name matches exactly as it appears in the **Database**.



11.4.5 A **Player** can have multiple **Binding** names.

- 11.4.6** To delete a **Binding** name, select the **Binding** name, and then select the **Delete** button. To delete all of the **Binding** names, select the **Delete All** button.
- 11.4.7** To save the changes, select the **Apply** button. To close the window without saving the changes, select the **Cancel** button.
- 11.5** Once the **Player** has a **Binding** name assigned to it, it is ready to be **Assigned** a **Project** that has been created containing **Bindings**.

12 Driver Guidelines

12.1 Excel Spreadsheet

- 12.1.1 Excel Spreadsheets** are readily available to most users however they can introduce complications to the **Database** feature.
- 12.1.2** If an old Excel **Driver** is being used, it will be necessary that the **Excel Spreadsheet** be closed before connecting to it, or the **Noventri Project** will not be able to pull its data. Use the recommended Excel **Driver** to avoid this.
- Note:** The recommended Excel **Driver** is included in the **Noventri** approved Microsoft ODBC 32 bit **Drivers** as specified on our forum. www.noventri.com/forum
- 12.1.3** When specifying **Formatters** for an **Excel Spreadsheet**, the first row of **Data** is always assumed to be column headers and is therefore not accessible. The formatter [1:1] in an Excel document would actually be the 2nd row of **Data**, 1st column.
- 12.1.4** Since the first row of cells in an **Excel Spreadsheet** is always used by **Noventri Suite** for the column headers, if these cells in this first row happen to not contain data, **Noventri Suite** will assign them the names of F1, F2, F3, etc.

12.2 Access

12.2.1 Within Access, by default, cells are set to have a maximum number of characters (column width). So although the entire data entry is visible within Access, when this data is accessed by **Noventri Suite**, it may not be able to access the entire field. Therefore column widths within Access may need to be adjusted to a larger size.

12.3 SQL

12.3.1 If **Noventri Suite** is installed on multiple computers and they are connecting to the same **Server**, they need to be running the same version of the SQL driver. The version can be seen in the **ODBC Driver** list that is accessed through the Windows operating system. (See the [Drivers 64 bit vs. 32 bit](#) section of this manual.)

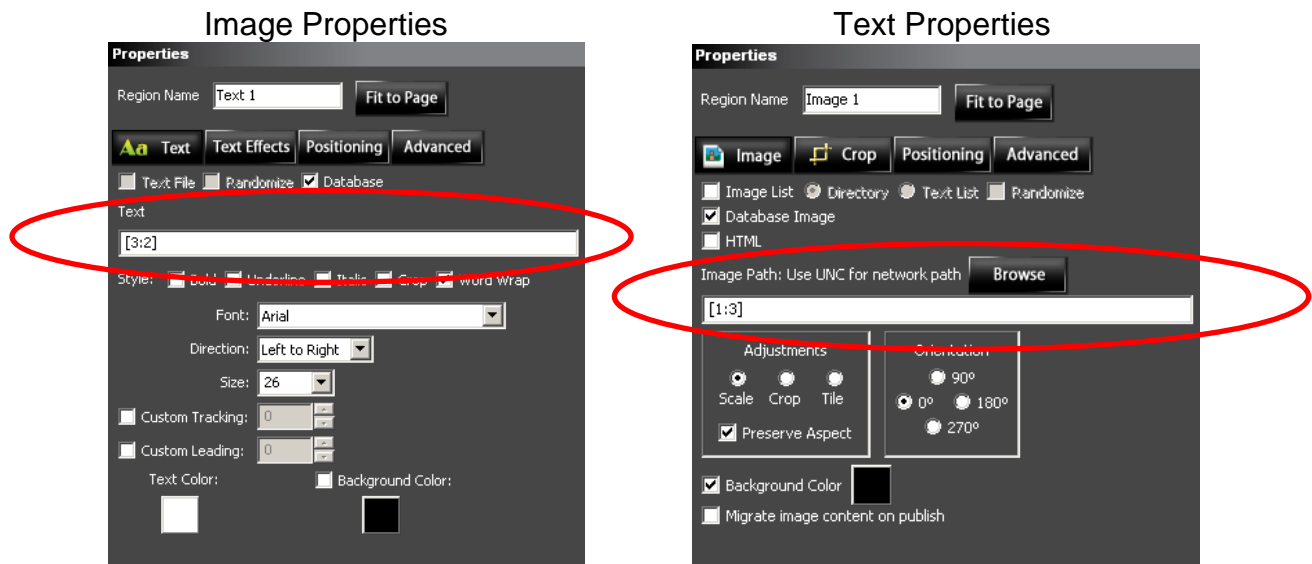
13 Database Formatters

- 13.1** A **Formatter** is used to point to a specific location within a **Data Source**. **Formatters** are entered into the **Text** box for **Text Regions** and into the **Image Path** box for **Image Regions**.
- 13.2** A **Formatter** is configured in a row and column format [row:column]. The first number is the row and the second number is the column. The **Data** at that location within the **Database** will be accessed. It may be **Text** for a **Text Region**, or for an **Image Region**, it can be a path to an **Image** file.

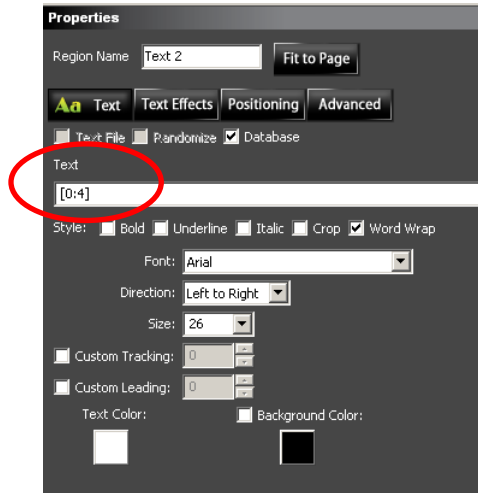
Examples: [1:2] would be row 1 column 2
[3:3] would be row 3 column 3

Note 1: If using column headers, starting on [2:1] may be necessary

Note 2: When using **Dynamic Pages** there are other **Formatter** options.
(See the **Noventri Suite – Dynamic Pages Manual**.)



- 13.3 Binding Formatter** – When **Bindings** are being used, the row is dependent on what **Player** is specified. The **Formatter** needs to have a zero for the row position. This will tell the **Server** to determine the row by the **Player Binding**.



Note 1: Content generated with **Bindings** cannot be previewed within **Noventri Suite**. Since the **Noventri Server** does the **Binding** processing, results can only be viewed on the **Player's** output.

Note 2: When **Bindings** are being used, all the data in the **Data Source** can still be accessed normally (using a row number). When a 0 is used for the row number, the data will be determined by the **Binding** and **Time** columns.

Sample Excel Database

| | A | B | C | D | E |
|----|------------|-----------|--------------|----------------|---|
| 1 | First Name | Last Name | Company Name | Account Number | |
| 2 | John | Smith | Company - A | 11111 | |
| 3 | Cindy | Wilson | Company - B | 22222 | |
| 4 | Ted | Jones | Company - C | 33333 | |
| 5 | Sandy | Marshal | Company - D | 44444 | |
| 6 | Jim | Carter | Company - E | 55555 | |
| 7 | Mike | Black | Company - F | 66666 | |
| 8 | Tina | Adams | Company - G | 77777 | |
| 9 | Frank | Himes | Company - H | 88888 | |
| 10 | David | Kline | Company - I | 99999 | |
| 11 | Susan | Green | Company - J | AAAAA | |
| 12 | | | | | |
| 13 | | | | | |

13.4 Variable – A **Formatter** can also contain a **Variable** in place of the column number. This would be the column name.

Example:

Text box - [2:First Name] is the same as [2:1]

Will display – Cindy

This has two advantages...

- Seeing the column name instead of the column number makes it easier to create the **Formatters** and recognize them.
- If columns are added or deleted from the **Database**, causing the column numbers to change, the **Formatter** will still point to the correct column.

13.5 In addition to the **Formatter**, the **Text** box for a **Database Text Region** can also contain actual **Text**, and/or **Metacharacters**.

13.6 Actual Text

13.6.1 The use of **Formatters** with actual **Text** is done by intermixing them as desired.

Example:

Text box - Welcome [3:1] [3:2] from [3:3]!!

Will display – Welcome Ted Jones from Company- C!!

13.7 Metacharacters

13.7.1 A **Metacharacter** is a character that has a special meaning (instead of its literal meaning). **Metacharacters** can also be intermixed within the **Text** box as desired.

```
\n can be used for a line return
\t can be used for a tab
\\ can be used as a literal \
```

Example 1:

Text box – Welcome [3:1] [3:2] from [3:3]!!\nand\nEnjoy Your Visit!!

Will display – Welcome Ted Jones from Company- C!!
and
Enjoy Your Visit!!

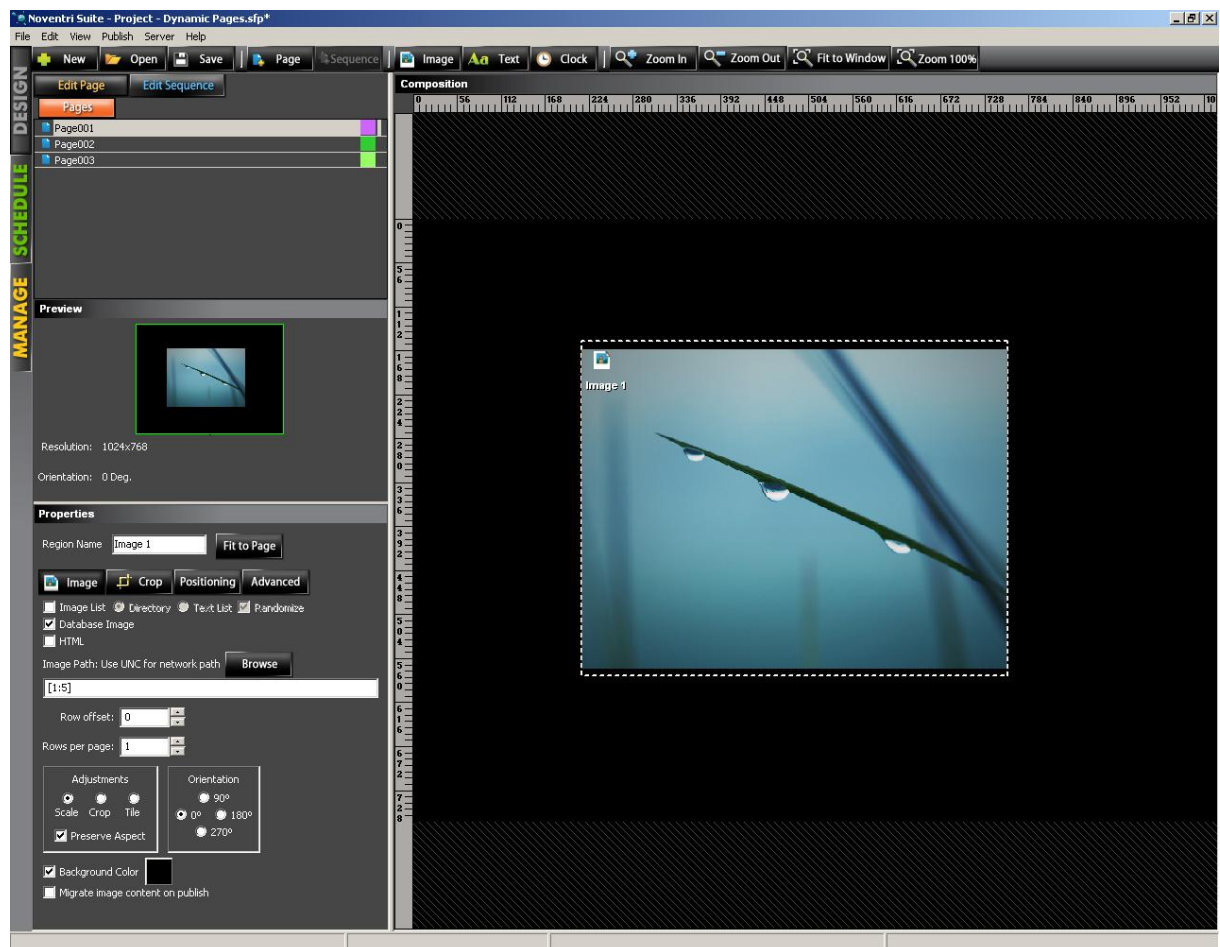
Example 2:

Text box – Welcome\n[6:1] \ [7:1] \ [8:1]

Will display – Welcome
Mike \ Tina \ Frank

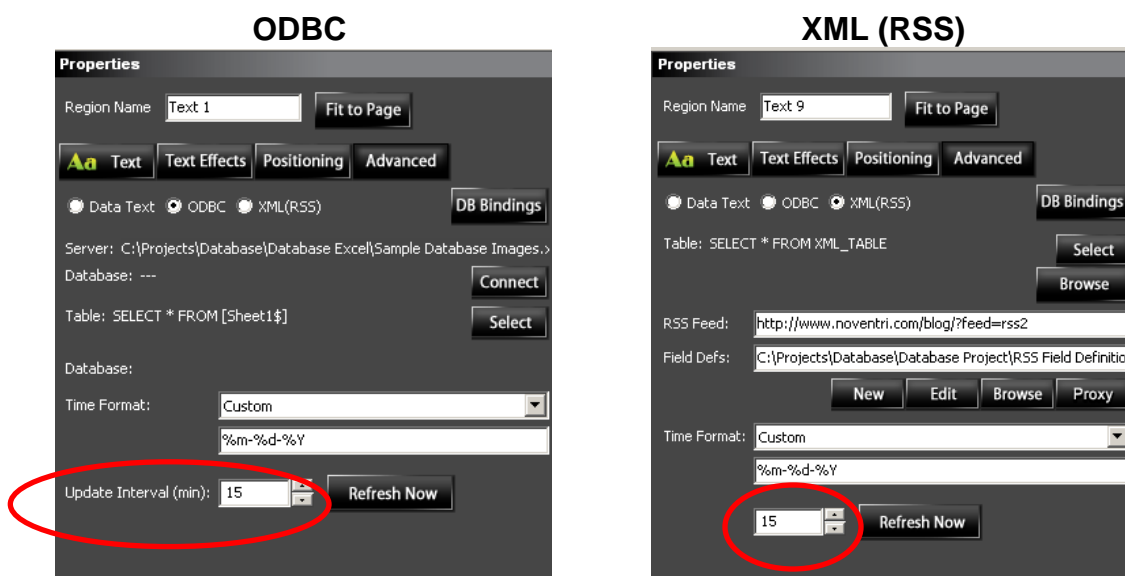
13.8 Once the **Text** box or the **Image Path** box is filled in and contains a valid **Formatter**, the **Database** entry (being pointed to by the **Formatter**) can be viewed within **Noventri Suite**. This is done by selecting the **Advanced** tab and selecting the **Refresh Now** button.
(See the [Refresh Now](#) section of this manual.)

Note: Content generated with **Bindings** cannot be previewed within **Noventri Suite**. Since the **Noventri Server** does the **Binding** processing, results can only be viewed on the **Player's** output.



14 Update Interval

14.1 The **Update Interval** is used for updating the **Database** information that is being displayed on the **Player**.



14.2 Overview

Care must be taken when **Projects** (with **Database** connections) are being used, to avoid excessive content generation (thus maximizing **Player** efficiency). Content is generated for a **Page**, every time a **Region** on that **Page** receives updates from a **Database**. Excessive content generation may cause **Player** content to be delayed.

There are several issues to keep in mind when trying to minimize content generation.

14.2.1 Although care must be taken to avoid excessive content generation, this is especially true for **Servers** using SF-100e **Players**.

14.2.2 It should be noted that **Projects** (with **Database** connections) that are **Published** to the **Server** whether they are being used in a **Schedule** or not, will still actively receive updates from the **Database** causing their content to be generated. Therefore **Projects** (with **Database** connections) that are on the **Server** and not being used should be removed from the **Server** to prevent excessive content generation.

- 14.2.3** **Update Interval** is the primary control, of how often a **Region** is updated with current **Database** information, and therefore how often the entire **Page's** content is generated.

14.3 *Update Interval Guidelines*

- 14.3.1** One way to prevent excessive content generation using the **Update Interval** is to avoid setting the **Update Interval** to less than 15 minutes. An **Update Interval** of less than 15 minutes is not recommended however it can be used as needed on a minimal basis (see examples).

- 14.3.2** **Player** efficiency can be maximized by making sure all **Regions** (with **Database** connections) within a **Project** even if they are connected to different **Databases**, are set to the *same* **Update Interval**. Mismatched **Update Intervals** are not recommended however they can be used as needed on a minimal basis (see examples).

- 14.3.3** **Examples** of situations when specific **Region(s)** should be set to intentionally longer or shorter **Update Intervals** than the rest of the **Regions**.

Note: When mismatched **Update Intervals** are used, it is more efficient if they have a common denominator so the updating is coordinated to happen in unison.

Example 1:

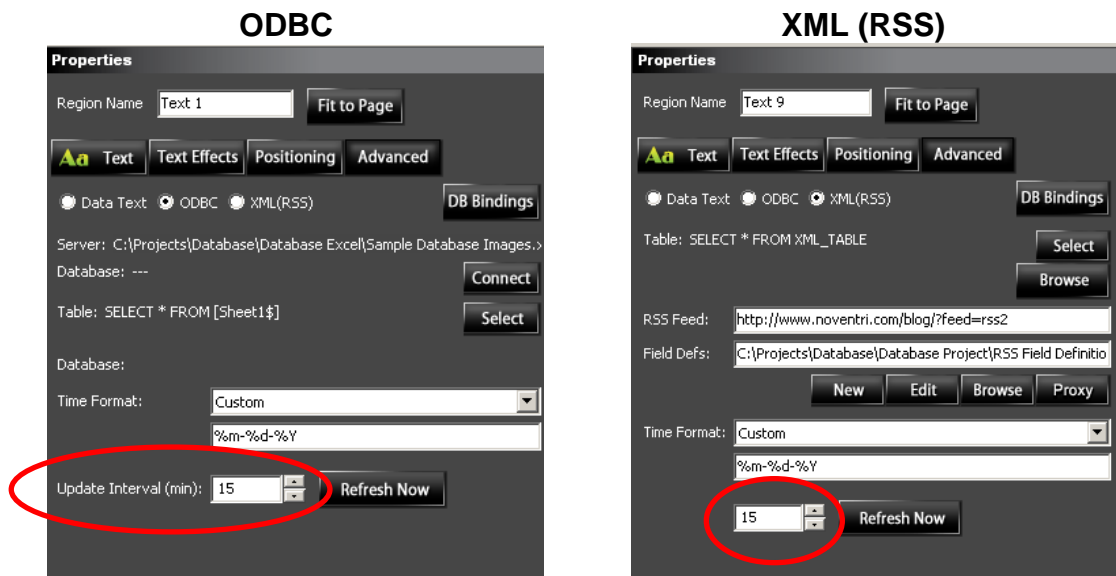
There may be **Region(s)** that connect to a frequently updated **Database** and the desired is to keep the displayed information current. The **Update Interval** for these **Region(s)** can be set to update more frequently than the rest of the **Regions**.

Example 2:

If there are **Region(s)** who's content is massive, updating it as often as the other **Regions** may cause the **Player** content to be delayed. The **Update Interval** for these **Region(s)** can be set to update less frequently than the rest of the **Regions**.

14.3.4 Setting all the **Regions** within a **Project** to the same **Update Interval** can be done by opening each **Region** and changing the **Update Interval** manually, or if all the **Regions** are on the same **Page** and connect to the same **Database**, the "**Matching Database Regions**" feature can be used.
(See the [Matching Database Regions](#) section of this manual.)

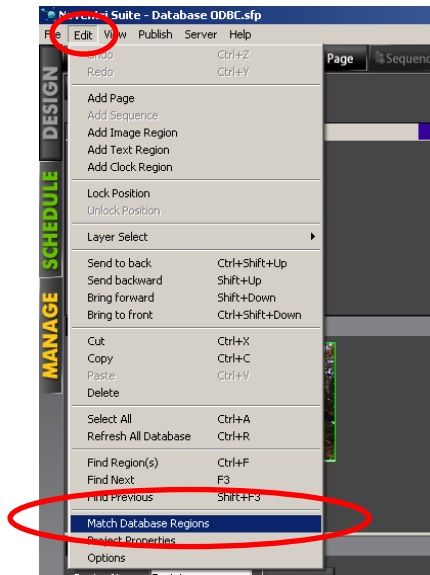
14.4 In the **Update Interval** box, select how often (in minutes) the **Player's** displayed content should be updated with the current **Database** information.



15 Matching Database Regions

- 15.1** The **Matching Database Regions** feature allows multiple **Database Regions** on the same **Page** to have their **Database Properties** automatically **Matched**.
- 15.2** This is helpful when a change needs to be made to multiple **Regions**. The change can be made to one **Region** and then the other **Regions** on the **Page** can be **Matched** to it.
- 15.3** The **Region Properties** that will be **Matched** are on the **Region Properties Advanced** tab. They include the **Connect** information, the **Select** information, the **Update Interval**, and the **DB Bindings** information. The **Time Format** is the only **Advanced** tab **Property** that will not be **Matched**.

- 15.4** To use the **Matching Database Regions** feature, select one of the **Database Regions** on the **Page**, select **Edit** then select **Matching Database Regions** from the menu. This feature can also be selected by right clicking on a *selected Database Region* and selecting **Matching Database Regions** on the menu.

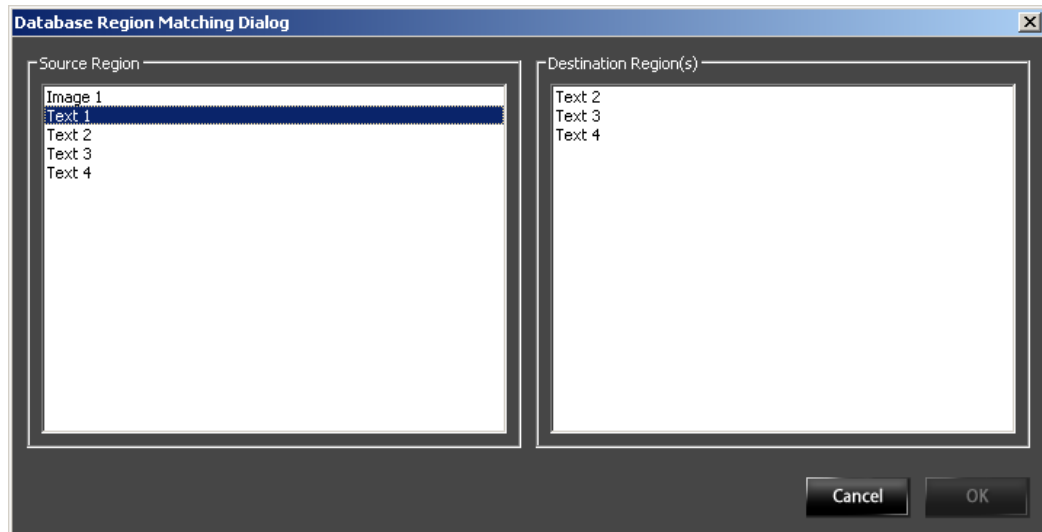


- 15.5** The **Database Region Matching Dialog** window will open.



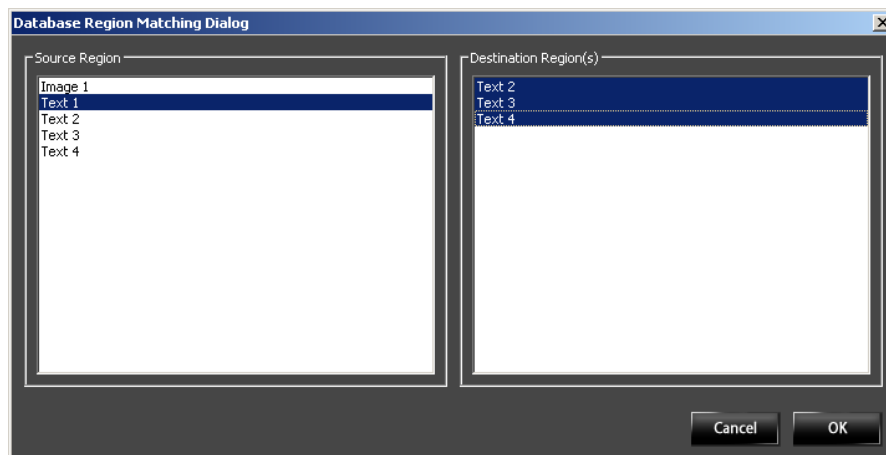
- 15.6** The **Source Region** panel on the left contains a list of all **Database Regions** on the **Page**.

- 15.7** When one of the **Source Regions** is selected, the **Destination Region** panel on the right will list all of the **Database Regions** that do not **Match** the selected **Source Region**.
- 15.8** The **Region** that is selected in the **Source Region** panel is the **Region** that will have its **Properties Matched** to by the selected **Destination Region(s)**.



Example: In the above example, **Regions - Text 2, Text 3, and Text 4** have just been created with their Database check box selected, however they do not have **Database Properties** entered yet. **Text 1** is the **Region** that is set up properly to connect to the **Database** and is the **Region** we want to use as the **Source**. When **Text 1** was selected, **Text 2, Text 3, and Text 4** were then displayed in the **Destination Region** panel on the right, signifying that their **Properties** do not **Match** the **Properties** of **Text 1**.

- 15.9** Select the **Destination Region(s)**. To select multiple **Regions**, click and drag over the desired **Regions** or hold the Ctrl key while selecting them.



Example: To Match the Properties of Regions Text 2, Text 3, and Text 4 with the desired Database Properties of Region Text 1, all three Regions have been selected in the Destination Region panel. When OK is selected they will all be given the same Database Properties as the Source Region - Text 1.

- 15.10** After selecting the **Source** and **Destination Region(s)**, select **OK** to Match them, or to close the window without Matching the Regions, select **Cancel**.

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