



DC Media 6.0

User Manual

Revision 4.0

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DC Media 6.0 User Manual

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1. Introduction

1.1 Overview

Content is registered in the content management database, the genre, multimedia format, duration, display characteristics and associated metadata are recorded for each item. The metadata can be expanded to include custom fields for easy searching at a later stage. DC Media supports MPEG1, MPEG2, MPEG3 Audio, MPEG4, Windows Media (WMA & WMV), ASF, QuickTime, HTML, Microsoft PowerPoint, BMP, JPEG, TIF, PNG & GIF images, Windows Media Streaming, Live Video, Macromedia Flash, WAV audio, AVI, VOB, DVD, Disk Carousels, Digital Signs, scrolling ticker messages and media RSS.

Each player display can be layered to play out more than one item of multimedia simultaneously; these display layouts can be altered dynamically during playback.

The DC Media Digital Signage Management system provides several management functions including hardware auditing, screenshot retrieval, hard disk management, the ability to reboot, execute applications and update the registry, heartbeat monitoring of players, Playlist monitoring, version reporting and event management. Players can be polled for current Playlist information and can be configured to report any anomalies or Playlist changes to a central location. Playback log files are delivered back to a central location for processing by a log file manager. Reports can be retrieved detailing playback of multimedia assets for a specific date or date period.



1.2 Terms used in this manual

Asset	A source of multimedia content such as a video file, an image or a video stream.
Display	LCD screen, TV or VGA monitor.
Player	The DC Media Software that is used to playback multimedia files in a defined layout.

2. Installation and Configuration

2.1 Software Installation

DC Media is provided in three installer packages:

- Scheduler
- Network Manager
- Player

If you are installing DC Media for a dedicated Player device, execute the Player install package. If you are installing DC Media on the computer that will be used for Scheduling and Management, install the Scheduler and Network Manager using the installation packages provided available on the DC Media website.

When you execute an install package, the Install wizard will display relevant licensing information and will require that you click **Next** to continue to the following installation page. Read the *End-User License Agreement (EULA)* and if you agree to the terms contained therein, click **I Agree** and then click **Next** to continue.

Select the destination path where DC Media will be installed and click **Next** to continue. When installation process has completed, the installer will exit and DC Media will be ready for use.

Please consult the *Getting Started Guide* for detailed information on how to install DC media.

2.1.2 Required Components

The following software components are required for the DC Media Player to function correctly:

For Flash® Content Playback:	Macromedia® Flash® Player 6.0 or higher. Visit http://www.adobe.com for more information
For PowerPoint playback:	Microsoft® PowerPoint 2000 or higher.

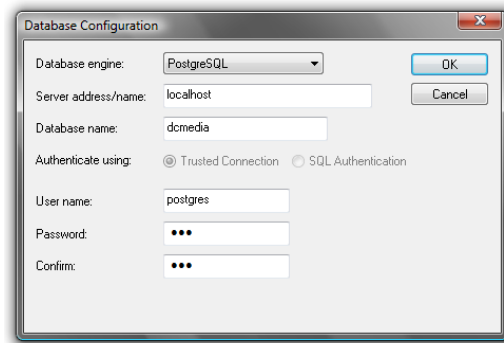
2.2 Scheduler Configuration

The Scheduler application can be configured using several dialog windows available via the **File > Configuration** menu option.

2.2.1 Database Configuration

When DC Media is installed it will automatically install the DC Media Database and will also automatically configure the data settings. Section 2.2.1 is therefore only for users who wish to use a Microsoft SQL Server as a database engine.

To access the database configuration, select **File > Configuration > Database**. A dialog window appears:



Database Engine - select DC Media for the local database option (default) or select ODBC if you have an existing SQL Server installation that you would like to use (this is recommended for multi-user environments). If you select ODBC please ensure that an ODBC data source name already exists. The options to select *Microsoft SQL Server* and *PostgreSQL* are listed for backward compatibility with older versions of the software and should not be selected.

Server address/name - enter the ODBC dataset name.

Database name - enter the name of the database on the SQL Server.

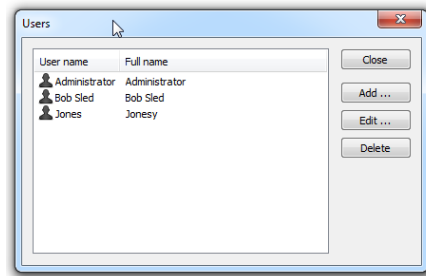
Authenticate using - specify whether the SQL Server connection uses SQL Authentication or Trusted Connection. If you are unsure, select Trusted Connection. This field is provided for backward compatibility only and can be ignored.

Username - (optional) if you have selected SQL Authentication, enter the username used to authenticate the SQL Server connection.

Password - (optional) if you have selected SQL Authentication, enter the password used to connect to the SQL Server database.

2.2.2 User Account Administration

The User administration dialog window is used to add, modify or delete user accounts. To access the user account administration window, select **File > Configuration > User Accounts**. A dialog window appears:



To add a new user account, click **Add**. To modify a user account, click **Edit** and to delete one or more user accounts, select the accounts in the list and then click **Delete** – you will be prompted for confirmation before any records are deleted.

2.2.2.1 Adding a User Account

User name - enter a user name containing alpha or numeric characters up to 16 characters in length.

Password - enter a password containing alphanumeric characters up to 16 characters in length. Confirm the password entry in the field below the password field.

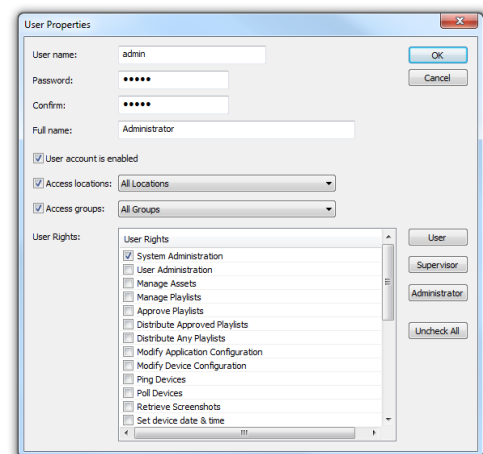
Full name - enter the user's full name.

User account is enabled - the user will not be able to login with the Account if this field has been unchecked.

Access Locations - select the network location that the user can manage and distribute content to. Locations contained within the selected location will also be accessible. To enable access to all network locations select *All Locations*.

Access Groups - select the network groups that the user can manage and distribute content to. Locations contained within the selected location will also be accessible. To enable access to all network locations select *All Locations*.

User Rights - select the rights that are assigned to this user. Read section 6.0 for more information on user rights.



2.2.2.2 Editing a User Account

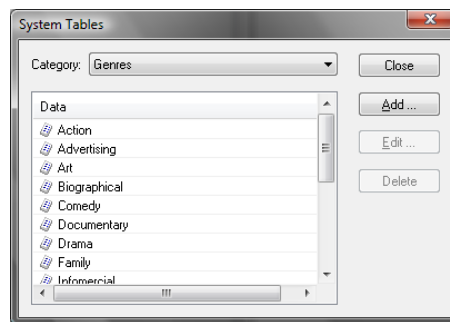
To edit the user account, click the user account in the list and click **Edit** or double click on the account. Modify the properties accordingly and click **OK** to store the changes or click **Cancel** to close the window and discard any changes.

2.2.2.3 Deleting a User Account

Select the user accounts that you wish to delete (hold shift to select more than one account) and then click **Delete**. You will be prompted to confirm the deletion.

2.2.3 System Tables

The System Tables hold information about asset genres and languages. Genres and languages are used for information purposes only. To modify these tables, select **File > Configuration > System Tables**. A dialog window appears:



2.2.3.1 Adding, Modifying and Deleting genres

To add a new genre, click **Add**. Enter the new genre name and click **OK** to store the genre or click **Cancel** to return to the list.

To edit a genre, select the genre and click **Edit** or double click on the genre.

To delete one or more genres, select the relevant genres (hold shift to select more than one genre) and click **Delete**. You will be prompted for confirmation before any records are deleted.

2.2.3.2 Adding, Modifying and Deleting Languages

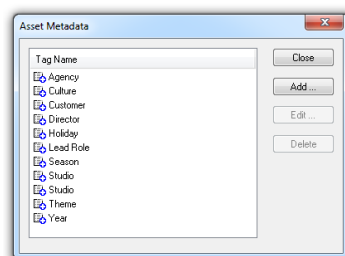
To add a new language, click **Add**. Enter the new language name and click **OK** to store the language or click **Cancel** to return to the list.

To edit a language, click on the language and then click **Edit** or double click on the language.

To delete one or more languages, select the relevant languages (hold shift to select more than one language) and click **Delete**. You will be prompted for confirmation before any records are deleted.

2.2.4 Metadata

Metadata tags store extra information about media assets that can assist in searching and cataloging. To open the metadata administration window select **File > Configuration > Metadata**. A dialog window appears:



2.2.4.1 Adding, Modifying and Deleting metadata

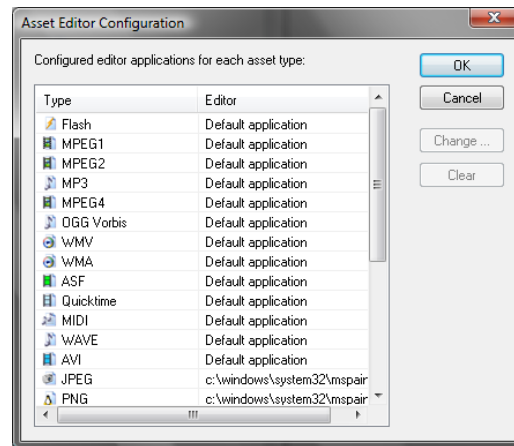
To add a new metadata tag, click **Add**. Enter the new metadata tag name and click **OK** to store the record or click **Cancel** to return the list.

To edit a metadata tag, select the tag name and then click **Edit** or double click the tag name in the list.

To delete one or more metadata tags, select the relevant tag names and click **Delete**. You will be prompted for confirmation before any records are deleted.

2.2.5 Asset Editors

The DC Media Scheduler provides the facility to launch an external editor application in order to edit a registered Media asset. To configure the list of editor applications, select **File > Configuration > Asset Editors**. A dialog window appears:

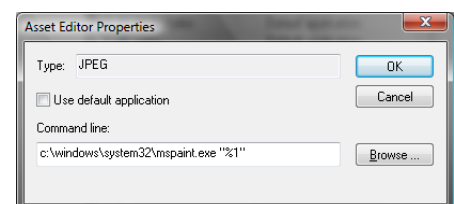


Each multimedia format is listed along with the application command line that will be executed in order to activate the relevant editor application. The *Default application* setting means that DC Media will use the default registered Windows Explorer action to open the file.

You can change the Editor Application setting for any of the listed Media asset types by selecting the Media asset type and clicking on **Change**.

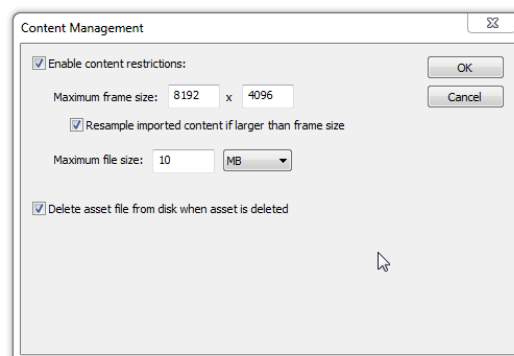
In the asset Editor Properties window, browse to the application executable required for editing the Media asset. The command line can be modified to use the asset file path as a parameter by inserting %1 into the command line, for example:

```
c:\program files\msoffice\powerpnt.exe %1
```



2.2.6 Content Management

The Scheduler can be configured to enforce content rules in terms of maximum file size and maximum image resolution. To configure content management rules select **File > Configuration > Content Management**. A dialog window appears:



Enable Content Restrictions - check this option to enable the following content management restrictions.

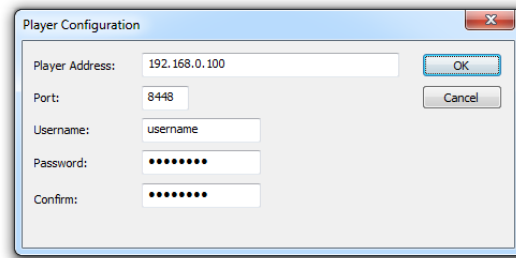
Maximum Frame Size - images larger than the specified frame size will either be rejected or resized.

Resize imported content if larger than frame size - check this option to have images resized to fit within the maximum frame size.

2.2.7 Digital Signage Players

The *Digital Signage Players* configuration menu item allows you to manage the list of digital signage players on your network. To configure your list of digital signage players, select **File > Configuration > Digital Signage Players**.

If you are using the DC Media Network Edition then selecting this menu item will open the Network Manager. If you are using DC Media Single Sign edition, a following configuration window will be displayed:



Player Address - enter the Player IP address or computer name.

Port - enter the port number for DFT file transfers to this player. The default value is **8448**.

Username - enter the username for the DFT file transfer protocol, the default value is **username**.

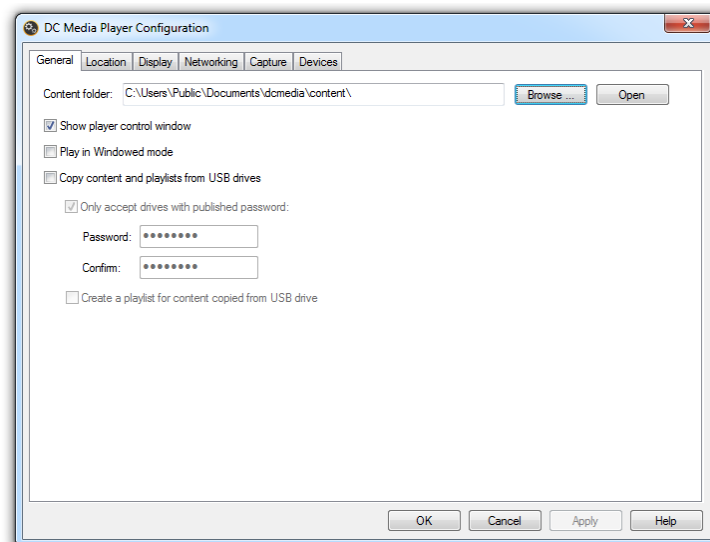
Password - enter the password for the DFT file transfer protocol, the default value is **password**.

2.3 Player Configuration

By default no configuration changes are required after installation in order for the DC Media Player to display content and use playlists however the DC Media Player Configuration application is provided for the customization of player parameters.

The Player Configuration application (playerconfig.exe) has six configuration windows accessed using Tabs displayed at the top of the window. All configuration parameters are stored in a file called dcmediaplayer.ini stored in the DC Media application folder.

To view or modify the DC Media Player configuration, double click on the *Player Config* icon on your desktop, or click the Windows Start button and select **> All Programs > Player Config**. A dialog window appears:



2.3.1 General

Content Folder - enter the path where playlists and content for this player can be found. Click *Browse* to locate the content folder or click *Open* to open the Windows explorer application in the content folder.

Play in Windowed Mode - if this option is enabled DC Media Player will run as a standard application window with a close button, caption and window title.

Copy content and playlists from USB drives - enable this item to accept content via USB drive. When the player detects the insertion of a USB drive, the player will scan the drive and copy all content and playlists from the USB drive to the content folder. If the USB drive does not include any playlists but does include content, the Player will automatically create a playlist for the new content.

Only accept drives with published password - enable this option and enter a password that will restrict updates to only come from an authorized source.

Create a playlist for content copied from USB drive - disable this option to prevent the player from creating a playlist for new content copied from the USB drive.

2.3.2 Location

Country, State/Province, Zip/Postal Code, City - provide as much information as possible for the location where the player is installed. This data does not affect player operation but is used primarily by Digital Signs for retrieving weather data.

2.3.3 Display

Display number - select the display that DC Media will use for content playback.

Span Across - if your display configuration has multiple monitors configured horizontally you can specify how many displays the DC Media Player should span when it displays content. For example, if you have a dual monitor configuration and you specify the Span Across value to be 2, DC Media will display content across both screens as show alongside.

Span Down - specifies how many screens the player will span vertically.

Scale playlists to fit display resolution - enable this option to have DC Media scale the playlist to fit the display regardless of the original resolution selected for the playlist.

Maintain aspect ratio - enable this option to ensure that when a playlist is resized to fit the display the playlist aspect ratio will be maintained.

2.3.4 Networking

Run status host on port - this item specifies the port number that the player will listen on for incoming status connections. This port does not need to be changed unless multiple players are installed on the same computer.

Player must authenticate on Proxy for Internet Connection - if your network has an Internet Proxy that requires authentication, enable this option and enter the username and password that the Player will use to authenticate before retrieving RSS feeds.

2.3.5 Capture

The TV Capture configuration is specific to the device being used as well as the signal infrastructure. Refer to the equipment supplier's documentation for additional information.



2.3.6 Devices

Read GPS coordinates from

If you intend using GPS devices to trigger content playback, enable this option and select the port that the GPS device is connected to.

Read RFID/Barcode data on

Content can be triggered for playback when an RFID scanner detects a specific code, or when a barcode scanner reads a specific barcode.

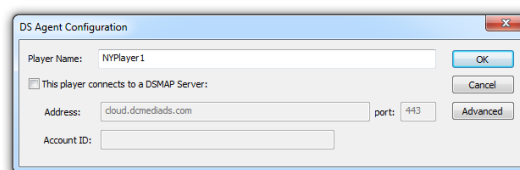
Enable Audience Measurement

If your media player PC's have either *Quividi* or *Intel AIM* audience measurement software installed, or if you intend using group based audience measurement then enable this option and configure the IP address and port accordingly.

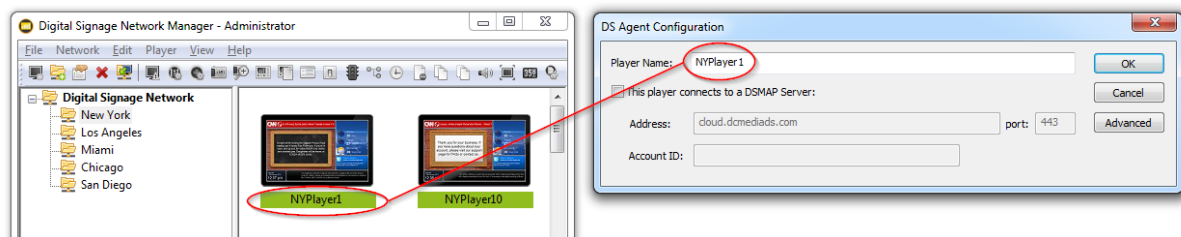
2.4 DS Agent Configuration

All remote player management functionality provided by the DC Media Network Manager is implemented in the Digital Signage Agent (DS Agent). The DS Agent software is included in the DC Media Player install image and must be installed on a player in order to execute any management functions.

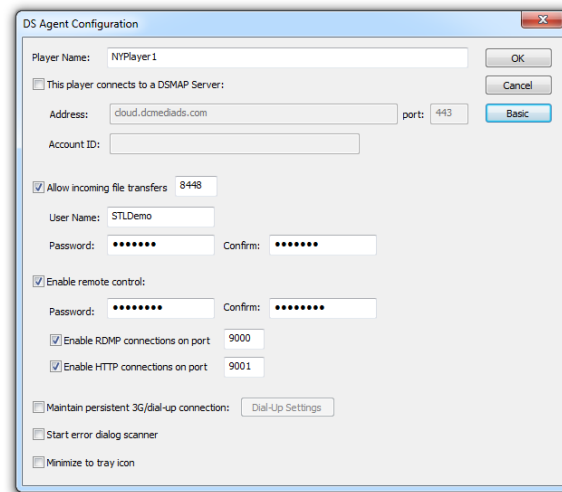
Click the **Configure** button to configure the DS Agent application. A dialog window appears:



The Player Name must match the name of a corresponding player in the Network Manager so that alerts from the player can be matched to the right player in the list of digital signage players:



By default the DS Agent Configuration window shows a basic configuration window. Click on **Advanced** to expand the window and display the advanced configuration settings:



Player Name - enter the player name as defined in the Network Manager application.

This player connects to a DMAP server - leave this field unchecked unless you have a Digital Signage Management Access Protocol (DSMAP) profile allocated to your player.

Allow incoming file transfers – the DC Media Scheduler uses the DFT protocol to upload playlists and asset files to the DS Agent. If you are using the DC Media Scheduler to distribute content to a player, you must enable this option. In the field alongside the checkbox, enter the port number that this file transfer host will listen on for incoming DFT connections. The default value is 8448. See section 8.2.1 *Advanced Tab* for information on changing this value.

Username - enter the DFT protocol username, this value must match the username specified in section 8.2.1 under the advanced tab of the player properties in the network manager. The default value is **username**.

Password - as with the DFT username, enter the DFT password and confirm the password. The default value is **password**.

Enable remote control – this option enables or disables the Remote Device Management Protocol (RDMP) host and the HTTP management host built into the DS Agent. If you disable this option, the network manager will not be able to execute any remote management instructions on this player PC.

Password – enter the RDMP password. The default value is **password**.

Enable RDMP connections on port - this option must be enabled to allow the network manager to send RDMP instructions to the RDMP host running in the DS Agent. The default port number is **9000**. If the player PC is running a firewall application, port 9000 (TCP) must be opened to allow incoming network manager connections.

Enable HTTP connections on port – this option enables an optional HTTP management interface. The HTTP management host is not required by the network manager. The default port number is **9001**.

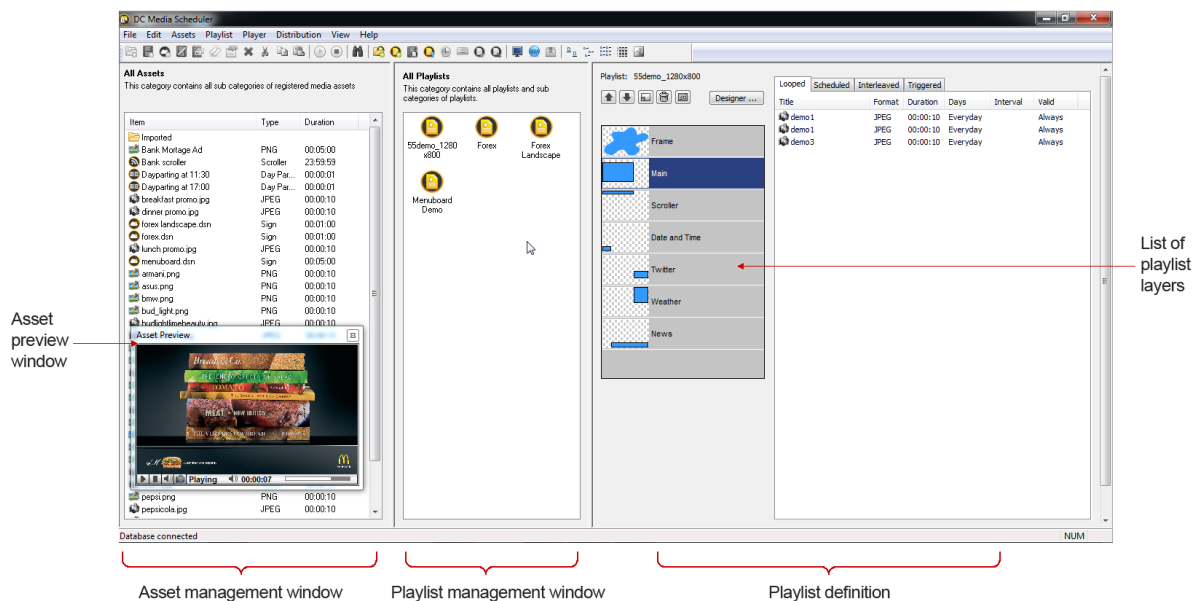
Maintain persistent 3G/dial-up connection - enable this option if you want the DS Agent to maintain an online connection using 3G or a dial-up modem.

Start error dialog scanner - enable this option to start the error dialog scanner. This scanner will detect and remove any error messages or dialog windows that may overlay your digital signage display.

Minimize to tray icon - enable this option if you want the agent to hide itself in the system tray alongside the system clock on the desktop.

3. The Scheduler User Interface

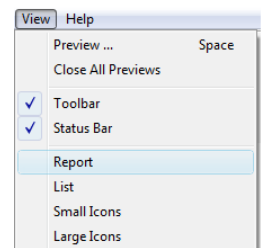
The full DC Media Scheduler user interface is shown below:



3.1 The Asset management window

In DC Media all multimedia files are known as Media assets. The asset management window is used to register and manage these assets by storing them in user defined categories with the option of adding metadata tags (descriptive text) to each asset.

The left most window pane of the DC Media user interface is the media asset window. The list of assets can be displayed as large icons, small icons, a report or a list depending on which option you have selected (large icon is the default). To change the view style, click one of the view style toolbar buttons or select the icon view style from the **View** menu option.



Media assets can be previewed in the asset preview window simply by select the relevant assets and pressing the **space bar** or clicking on the Preview Asset toolbar button.

DC Media can group Media assets into Categories for easier searching and navigation. To create a category, see section 4.1.2 below. Once a category has been created, the user can view the contents of this category by double clicking on the category icon. The Media asset view will be refreshed to list all the Media assets and sub-Categories contained within the selected category.

To navigate back to a parent category, double click the icon listed at the top of the Media assets window:

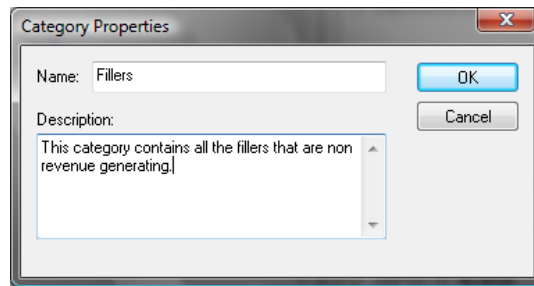


The same navigation principles applied in the Media asset window are applied to the Playlist window located in the center of the DC Media user interface.

3.1.1 Media asset Categories

A media asset category is used to group related media assets and sub-categories of media assets.

To create a new category, select **Assets > Create asset category** or right click in the asset management window and select **Create asset category**. A dialog window appears:



Name – enter the category name.

Description – (optional) enter a description for the category.

Click **OK** to store the new category or click **Cancel** to return to the asset management window.

3.1.2 Registering an asset

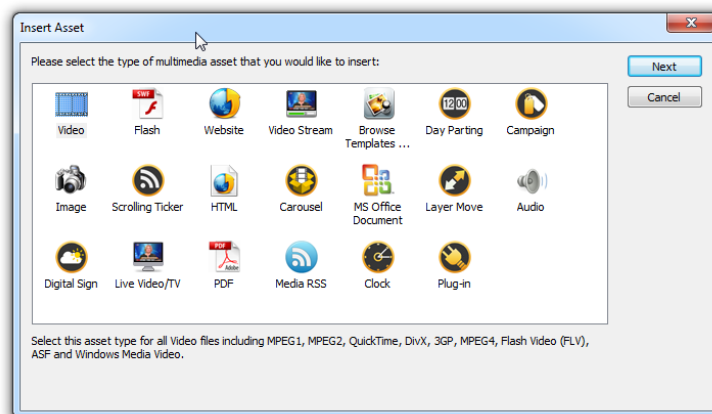
To register a new asset, double click on the category where the asset will be registered. Once inside the category, you can either drag-and-drop multimedia files into the category directly from the Windows® Explorer or you can manually register each asset by type.

3.1.2.1 Drag and Drop asset Registration using Windows® Explorer

Using the Windows Explorer, select the multimedia files that must be registered (any number of files can be selected simultaneously). Using the mouse pointer, hold down the left mouse button and drag the files into the asset management window. DC Media will detect the multimedia format and properties for each file and register the files that are recognized to be one of the many supported file formats. By default the file name will be used as the title for each asset.

3.1.2.2 Manual asset registration by type

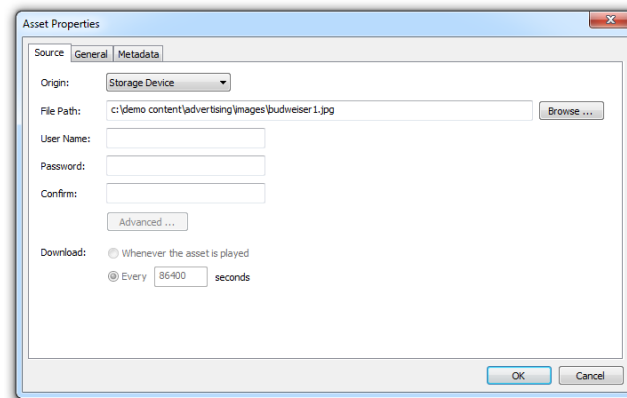
To register an asset by type select **Assets > Insert Asset**, a dialog window appears:



Select the asset type that you would like to register and click **Next**. See section 3.1.3 for more information on the asset properties window that will be displayed.

3.1.3 Modifying the properties of an asset

To modify the properties of an asset, click on the asset icon and then select the **Edit > Properties**, or right click on select **Properties**. A dialog window appears:



The properties of the asset will be show in a window with one or more tabs. The first tab is specific to the asset type, for example the first tab for the live TV asset will contain the information specific to the live TV configuration. The remaining tabs contain general properties and metadata tags. Click *OK* to store any changes or click *Cancel* close the window.

Source Properties

Origin - the origin of the asset file as it pertains the storage location being either on disk, a HTTP web server or on a SharePoint server.

File Path - the path and file name for the asset if the origin is set to *Disk*.

URL - enter the HTTP URL for the asset if the origin is set to *HTTP*.

Server - the SharePoint server address if the origin is set to *SharePoint*.

User Name - (optional) the user name used to access the file authentication is required for *Disk*, *HTTP* and *SharePoint*.

Password - (optional) the password used to access the file authentication is required for *Disk*, *HTTP* and *SharePoint*.

Download – For HTTP assets only. Select either Whenever the asset is played or specify how often the content must be downloaded from the server. For example, using a value of 86400 will ensure that file is only downloaded once per day and is then played from cache for the remainder of the day.

General Properties

Category - for convenience this non-editable field displays the category that the asset is stored under.

Title - enter the asset title.

Description - (optional) enter a description for this asset.

Duration – Enter the duration of the asset. For video assets, the duration of the video is automatically retrieved and displayed here. For image assets the default duration of 20 seconds is used. The format of the duration field is HH:MM:SS where

HH refers to Hours (between 0 and 99)
MM refers to Minutes (between 0 and 59)
SS refers to Seconds (between 0 and 59)

Format – This non-editable field displays the format of the asset.

Genre - (optional) select the Genre for this asset.

Language - (optional) select the language used in the asset content.

Author - (optional) enter the name of the author or authoring agency.

Extern. Ref. - (optional) this field can be used to store a billing reference number or ID for a master tape or a backup storage copy of the asset.

Metadata table

The Metadata tags defined in the system tables are displayed here. The user registering the new content can use these tags to store extra information about the Media asset such as location of shoot, director, actor, style, soundtrack etc. This information will assist in searching for particular Media assets.

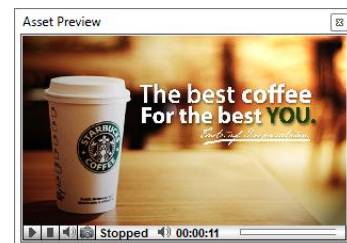
3.1.4 Deleting an asset

To de-register one or more assets, select the relevant assets and press *Del* on the keyboard or select the *Edit > Delete* menu option. You will be prompted for confirmation before any records are deleted. You will be prompted to delete the associated multimedia file from disk or not.

3.1.5 Previewing an asset

To preview one or more media assets, select the assets and then select **View > Preview** or press the **Space-bar** on the keyboard. Each media asset will be opened in a separate preview window. When previewing an asset, content will begin playing immediately. To replay the content, click the **Play** button and playback will begin again.

To mute the audio for the asset being previewed, click the **mute** toggle button located at the bottom of the preview window.



Asset thumbnails are displayed when the view style of the asset management window is set to thumbnail view. Thumbnails for assets are automatically extracted from each asset by the scheduler however some video assets may produce a black thumbnail image. Click the **camera** button to update the asset thumbnail to the image currently displayed in the preview window.

3.1.6 Creating an asset

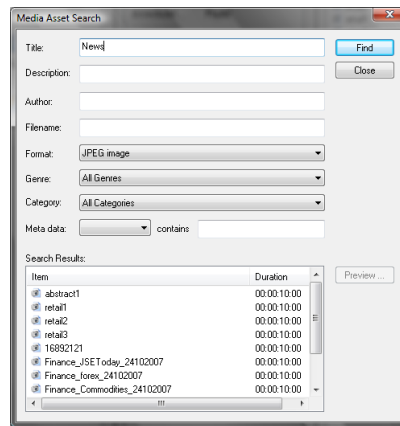
The DC Media Digital Sign Creator application is an authoring application for creating Digital Sign files that containing images and text. To create a new Digital Sign asset, select **Assets > Create Digital Sign** or double click on the Digital Sign Creator icon on the desktop. If you start the Digital Sign Creator outside of the Scheduler, i.e. by double clicking on the desktop icon you will need to register the same when you close the Sign Creator application, whereas if you selected **Asset > Create Digit Sign** the Digital Sign asset will automatically be registered by the Scheduler when you close the Sign Creator application. Read section 7.0 for detailed information on how to create content using the Digital Sign Creator.

3.1.7 Editing an asset

DC Media digital sign assets can be edited in the Digital Sign Creator simply by select **Media assets > Edit**. DC Media also supports the linking of 3rd party applications to specific multimedia formats in order to facilitate quick editing directly from within the DC Media Scheduler. An example of this is using Microsoft PowerPoint to edit PowerPoint files. To edit a PowerPoint asset, highlight the asset and click the **Edit Asset** toolbar button or select **Assets > Edit**. If you have Microsoft PowerPoint installed on your computer, the presentation will be opened inside the PowerPoint application ready for editing. To manage the list of applications that can be linked to each multimedia type, see the section 2.2.5.

3.1.8 Searching for assets

To find one or more assets, select **Media assets > Find**. A dialog window is displayed:



Each field in the search window is optional and if left blank will not be used in the search query. To define search criteria, enter specific keywords in the relevant fields and click **Find**. The search results are listed at the bottom of the dialog.

Once search results have been displayed you can preview one or more assets in the result list or you can drag the assets into the current Playlist.

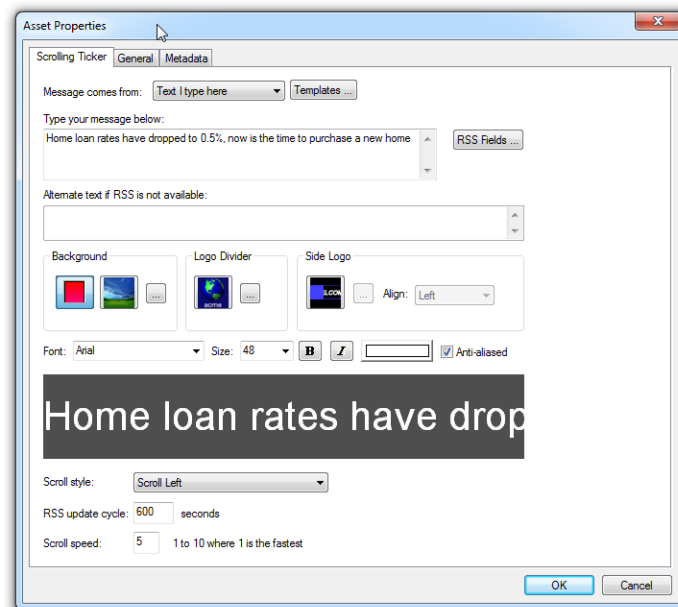
3.2 Creating assets that are not file based

DC Media provides several special function assets that are not based on multimedia files but rather on external data such as RSS new feeds, Live TV capture, multimedia streams etc.

3.2.1 Scrolling Ticker

The Scrolling Ticker asset is used to display text and images scrolling left, right or vertically in a portion of the display area. The information contained in the scrolling ticker can be entered directly into the ticker asset definition or it can be obtained from a file on disk or from a published RSS source on the Internet. RSS content can be stored in a disk file and read out from the file at the remote site in the event that the player computer does not have a live internet connection.

To create a scrolling ticker, select **Assets > Insert Asset** and then double click on the Scrolling Ticker icon. A dialog window appears:



Message Comes From - select the message source from the list provided. The message can either be entered directly into the space provided or read from a file on disk or downloaded from an Internet based RSS feed.

Templates - click on the Templates button to open the DC Media Content Library, you can select pre-made scrollers from the list of available templates.

Type your message below/File name/URL - depending on the message source, you may enter a message in this field, alternatively enter the file name for the file that contains the message that will be displayed in this ticker or if the message source is an RSS feed, enter the URL. If you enter a URL, ensure that you supply a protocol prefix such as `http://` or `rss://`.

Background - the scrolling ticker can be displayed with a background color or a background image. To display a color as the background, click the color button and select the color from the list provided. If you want a background image behind the scrolling ticker text, click the image button and then click the browse button (>) to locate the file on disk.

Logo Divider - if you want a logo to be displayed between each item in the ticker, click the logo button and then click the browse button to locate the logo file on disk.

Side logo - if you want a logo on the left or the right side of the scrolling ticker, click the side logo button and then click the browse button to locate the image file on disk.

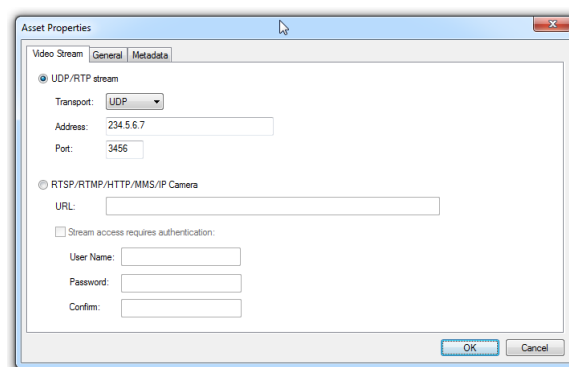
Scroll style - select whether the message will be scrolled left, right or vertically.

RSS update cycle - the number of seconds before the ticker will connect to the data source and look for updates. If the source is a file on disk, the file date and time will be checked periodically as defined by the number of seconds in this field.

Scroll speed - enter the ticker scroll speed, ranging from 1 to 10 where 1 is the fastest speed.

3.2.2 Multimedia Streaming

DC Media can display the contents of a multimedia stream from a UDP/RTP or HTTP stream. To create a video stream asset, select **Assets > Insert Asset** and then double click on the Video Stream icon. A dialog window appears:



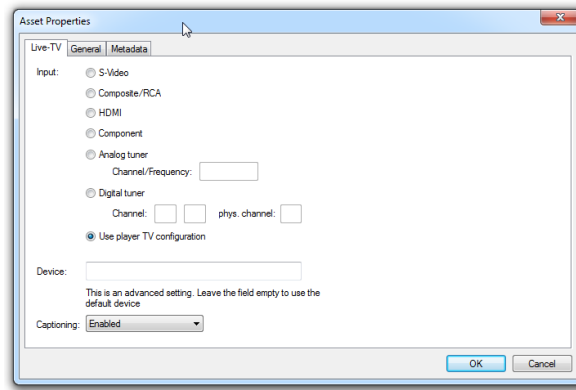
UDP/RTP stream – for UDP/RTP streams, enter the UDP address and port number.

RTSP/RTMP/HTTP/MMS – for RTSP/RTMP/HTTP/MMS streams, enter the URL.

Stream access requires authentication – (optional) if the stream is RTSP/RTMP/HTTP or MMS based and requires authentication, check this option and enter the username and password.

3.2.3 Live Video & Audio Capture

DC Media can display live TV from a signal connected to video capture hardware. A WDM compatible Video Capture card is required for the live TV asset to function. Consult section 10.3 for a list of Video Capture cards tested with DC Media. To create a video stream asset, select **Assets > Insert Asset** and then double click on the Live Video/TV icon. A dialog window appears:



Input - select the video source from the list of input types.

Channel/Freq - if the Input parameter is set to TV Tuner, enter the channel number or frequency. Values less than 99998 are considered to be channel numbers, values greater than 99997 are considered to be exact frequency values.

Device - this field is provided for playback devices that have multiple capture sources such as a capture card and a webcam or two capture cards. To ensure that DC Media uses the relevant capture device, enter the device ID in this field. To view a list of capture device ID's, execute the dcmdiag.exe utility supplied with the DC Media Player software on the remote computer. The output from this utility would look as follows:

DC Media Diagnostics
Version 6.0

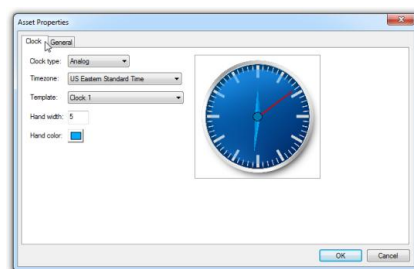
WDM Video Capture Device = @Device:pn\?\usb#vid_046d&pid_0920#5&3816cc72&0&1#{65e8773d-8f56-11d0-a3b9-00a0c9223196}\global

WDM Video Capture Device = @Device:pn\?\pci#vid_052d&pid_0921#5&1821cc72&0&1#{23e8773d-8f56-11d0-a3b9-00a0c9211196}\global

As with the example above, the device ID's consist of a lot of text, any portion of this text can be used as the device ID so long as the text is unique to the device you are using, in the example above the ID used could be 'PCI' (vs. 'USB' in the other device ID).

3.2.4 Clock

DC Media can display a real-time analog or digital clock as a Media asset. To create a clock asset, select **Assets > Insert Asset** and then double click on the Clock icon. A dialog window appears:



Clock type - the clock can be displayed as a digital clock or analog clock.

Time zone – if you would like to display the time for a specific part of the world, select the time zone from the list.

Template – select the template for the clock appearance.

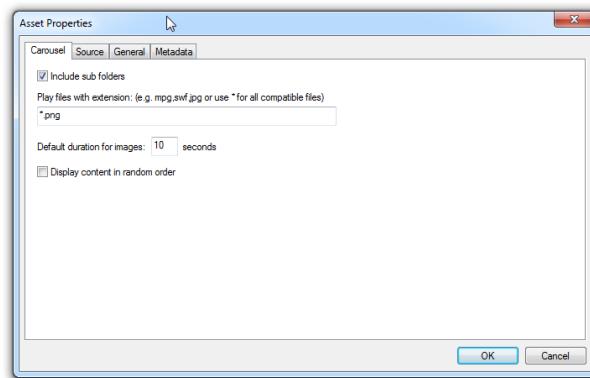
Hand width – this value determines the line width of the clock hands.

Hand color – this value determines the color of the clock hands.

3.2.5 Disk Carousel

The Disk Carousel asset will playback all supported multimedia files found in folder on disk. The specified folder will be scanned for multimedia files that conform to the specified filter (or if the filter is empty all multimedia files will be played) and playback will begin. At the end of every asset, the folder is re-scanned for any new multimedia files.

To create a disk carousel asset, select **Assets > Insert Asset** and then double click on the Carousel icon. A dialog window appears:



Include sub folders – for disk based carousel assets, check this option to have the carousel scan sub folders.

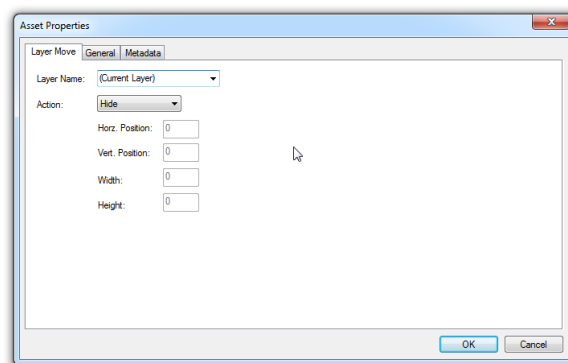
Play files with extension - enter a list of allowed file extensions that can be played out. Extensions can be specified with or without the period or wildcard, i.e. *mpg* or **.m4v* or *.mp4* are acceptable.

Default duration for images - because images have no duration the value specified here will be applied to each image played out.

Display content in random order – check this option for the content to play in a random order.

3.2.6 Layer Move

The layer move asset is not a visual asset but can be added to any playlist in order to manipulate the size and position of any of the layers in the playlist. For example a layer move asset can be used to squeeze back a specific video thereby revealing advertising content in the newly visible space.

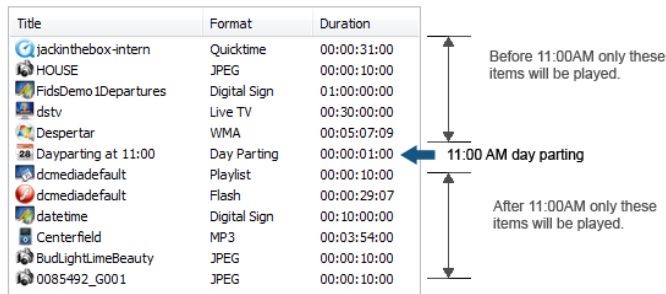


Layer Name - enter the name of the layer that must be moved.

Action – specify whether the asset should hide or be squeezed back. If you select hide, the layer is hidden for the duration of the layer move asset and thereafter the layer is made visible again. If you select Squeeze back, the layer is reduced to the width and height specified and then restored to its original size at the end of the layer move asset duration.

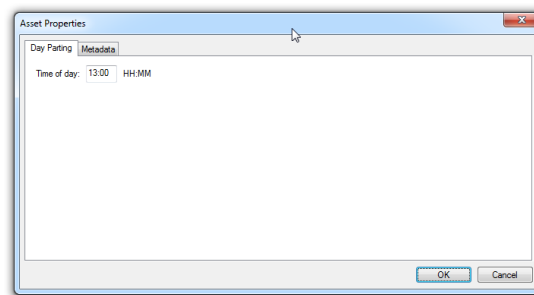
3.2.7 Day Parting

A day parting is an asset that can be used to break a loop list into sub-loops that are only played before the time specified in a day parting. For example, if you create a day parting asset with the time 11:00 am, any content listed in a playlist before the day parting will be played from 00:00 until 11:00 am; all content listed after the day parting will be played after 11:00 am. The following diagram illustrates this concept:



The Day parting asset is useful for dividing a loop list to display content for different times of the day, for example with a digital menu board displaying breakfast, lunch and dinner items depending on the time of day. There is no limit to the number of day partings in a playlist.

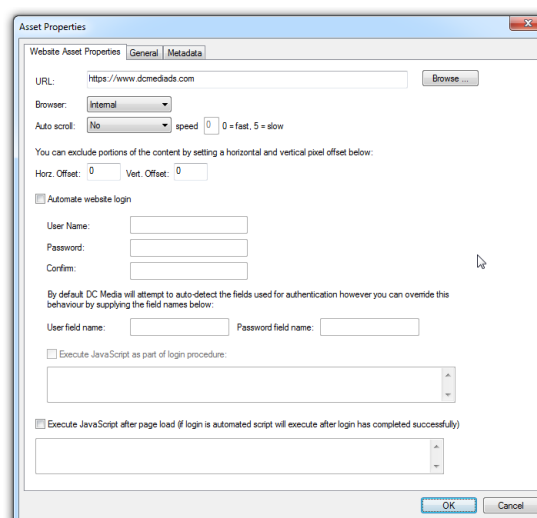
To create a day parting asset, select **Assets > Insert Asset** and then double click on the Day Parting icon. A dialog window appears:



Time of day – enter the time of day in 24 hour format.

3.2.8 Website

An Internet or Intranet website can be registered as an asset. To create a website asset, select **Assets > Insert Asset** and then double click on the Website icon. A dialog window appears:



URL - enter the URL of the website

Browser – select the browser engine that you would like to use to render the website. Select either Internal (Chrome) or Internet Explorer. Some websites don't render correctly in all browsers, this option is provided for such cases. The internal browser is an embedded version of the Chrome browser and therefore Chrome does not need to be installed on the Player PC.

Auto scroll – check this option to scroll the web page vertically at the specified speed.

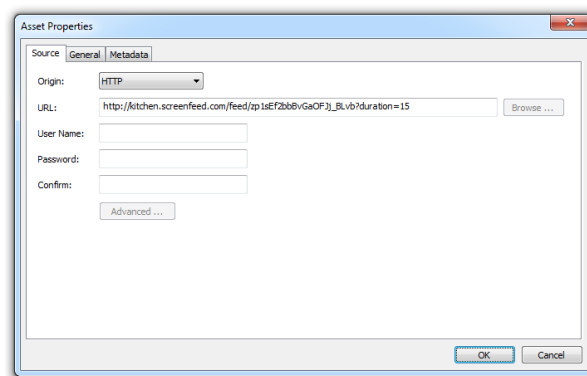
Horz. Offset & Vertical Offset - you can hide portions of the website content by using a horizontal and vertical pixel offset.

Automate website login - to automate authentication on a website, enter the username and password. If the website uses Realm Authentication, the username and password will be used by the player to automatically login. If the website uses a HTML based input form, DC Media will look for input fields that contain the words 'user', 'email' and 'password'. If the site you are using has custom input field names, enter the fields in the field provided.

Execute JavaScript – you can provide JavaScript that can be executed during or after the login procedure.

3.2.9 Media RSS

A Media RSS feed lists images, video and flash content published in an XML feed by a content provider such as screenfeed.com. To create a website asset, select **Assets > Insert Asset** and then double click on the Media RSS icon. A dialog window appears:



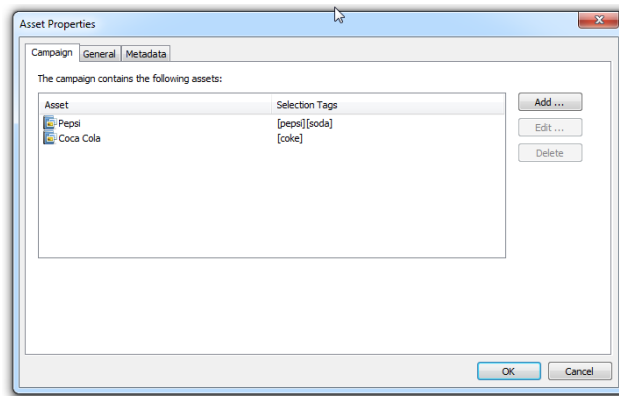
URL - enter the published URL for the Media RSS feed. The player will download the XML and then download and display each image, video or Flash file listed in the XML.

User Name / Password – if access to the URL requires authentication, enter the username and password.

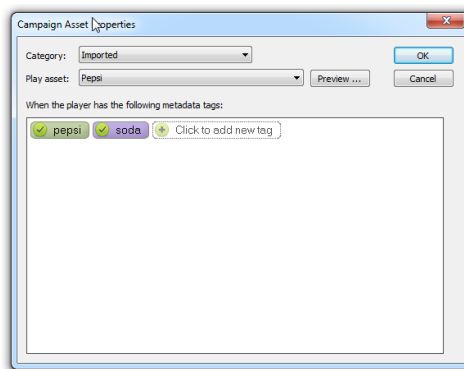
3.2.10 Campaign

The campaign asset is a placeholder representing multiple assets, allowing you to create a playlist that will produce variable output based on the metadata tags assigned to player. A campaign asset can be added to a playlist just like any other asset and when the playlist is uploaded to a player, the campaign asset will be replaced by one of the assets in its list of linked assets by comparing the player metadata tags to the tags assigned to each asset. This allows you to have a single playlist for regions with different languages or different brand rules.

To create a campaign asset, select **Assets > Insert Asset** and then double click on the Campaign icon. A dialog window appears:



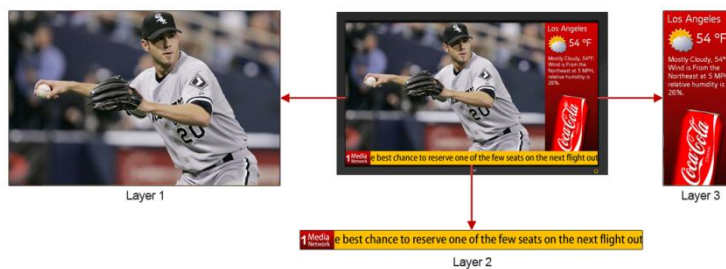
To add an asset to the campaign, click **Add**. A dialog window appears:



The example above will result in the *Pepsi* asset being selected if the player has the two metadata tags **pepsi** and **soda**.

4. Playlist Creation

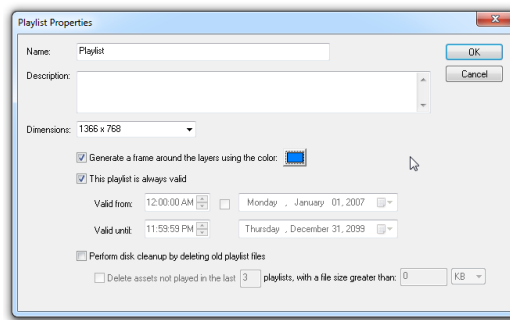
Once you have registered and created your multimedia assets, you need to create a playlist to display the assets on a screen. A Playlist has one or more layers that represent an independent portion of the display. Layers can overlap or be adjacent to each other, and each layer has a list of assets that are scheduled to play in a sequenced order (loop list) or at specific dates and times (scheduled items). When DC Media displays a playlist, each layer in the playlist will play items scheduled for specific dates and times and if no scheduled items are due assets in the layers loop list will be displayed.



Navigating the playlist window is done using the same user interface guidelines described in section 3.1.

4.1 Creating a playlist

To create a playlist, select the **Playlist > Insert Playlist** menu option, or right click in the playlist view (the center window pane) and select **Insert Playlist**. A playlist property window will be displayed:



Name - enter a name for this playlist.

Description - enter a description for this playlist.

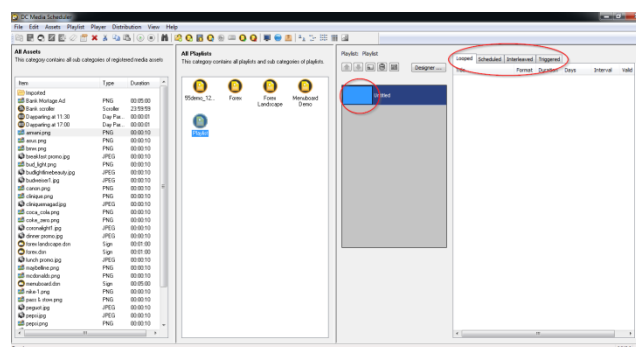
Dimensions - select the dimensions of the playlist in pixels specified as *width x height*. By default the playlist dimension is set to 1366 x 768. You can select a predefined dimension from the drop down list or you can enter your own custom dimensions.

Generate a frame around the layers using a color – check this option to have the player generate a smooth beveled edge around the layers using the selected color. An example of a dark gray beveled edge is shown below:



This playlist is always valid – uncheck this option if you would like to apply a start and end time/date to the playlist. Please note that time and date are independent, i.e. specifying a start time of 08:00, an end time of 16:00 and a start date of 1/1/2015 and a end date of 1/31/2015 will cause the playlist to be played every day from the 1st January 2015 to the 31st of January 2015 between the hours of 08:00 and 16:00.

Once you have created your playlist the default layer properties window will be display in the rightmost window pane:



The new playlist has a single layer with dimensions matching your playlist dimensions. Each layer in the playlist has a looped list, a scheduled list, interleaved list and a triggered list.

4.1.1 Looped content

The looped list is a list of assets that will play in a continuous loop inside the layer. This loop list can be sub divided using day parting assets (see section 3.2.7 for an explanation of the day parting asset).

4.1.2 Scheduled content

The scheduled list has time slots for a 24 hour period. Assets can be added to these timeslots and scheduled for specific times of the day or for specific days of the week. The playback day can be a specific date, every day or a selection of week days.

4.1.3 Interleaved content

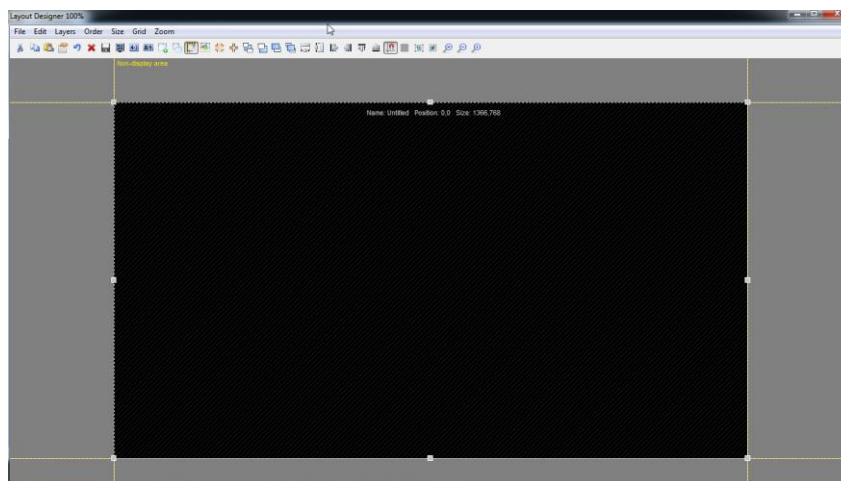
The interleaved list contains assets that will be played the specified number of times in a day. The player will intersperse this content into the loop list to make up the number of plays in a day.

4.1.4 Triggered content

The triggered list contains assets that will only be played when an external trigger event occurs, such as an audience measurement event or a barcode scanner scanning a specific serial number.

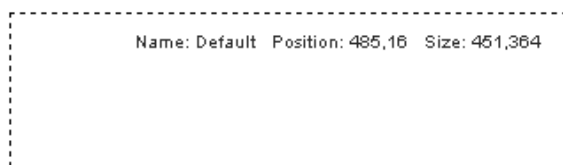
4.2 The Designer

Adding layers or changing the layout of layers in a playlist is done visually using the playlist designer. To open the designer, select the **Playlist > Open Designer** or click on the **Designer** button. A window is displayed:



Each layer is represented on the display with a rectangle. These rectangles can be moved around and resized according to the layout design that you wish to create.

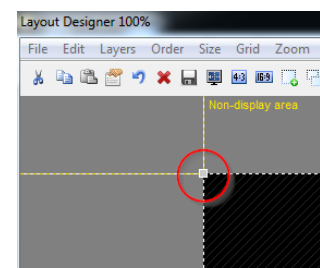
Inside each layer rectangle, the name of the layer, width, height and position are displayed as illustrated below:



The position is displayed as the horizontal pixel coordinate followed by the vertical pixel coordinate (horizontal, vertical). The size of the layer window is displayed as the pixel width and the pixel height (width, height).

The display area is divided into two areas, the outside area is drawn in dark gray and this area represents coordinate space that is not part of the actual display. Layers placed in this area will not be displayed on the screen during playback. The inner portion of the display represents the actual display area on the playback screen.

To resize a layer move the mouse cursor over a gray anchor block, hold down the left mouse button and move the anchor point until the required size is achieved. To move a layer, position the mouse cursor anywhere inside the layer rectangle and click the left mouse button. Hold the mouse button down and move the layer around the display.



The toolbar has the following buttons:

	Cut the selected layers from the display and store in the clipboard.
	Copy the selected layers to the clipboard.
	Paste layers stored in the clipboard into the display.
	Displays a dialog containing the properties for the selected display dynamic.
	Undo the last change made.
	Delete the highlighted layer.
	Store changes made to the playlist.
	Use this option to define the display size at the remote site.
	Adjust the aspect ratio of the selected layer to a 4:3 ratio.
	Adjust the aspect ratio of the selected layer to a 16:9 ratio.
	Add a new layer to the display layout.
	Duplicates the selected layer by adding a new layer with the same width and height.
	Enable this item to prevent layers from moving outside of the display area.
	Provides a file browser window whereby the user can select a bitmap, JPEG, PNG or Digital Sign (DSN) file for display inside the layer window. This is used to size layers to match specific content. You will be prompted with the option to automatically resize the layer window to match the size of the image.
	Increase the gap between layers so that a frame can be generated (see 4.1).
	Decrease the gap between layers.
	Moves the selected layer behind the next layer in the order of visibility.
	Moves the selected layer to the back of the order of visibility.
	Moves the selected layer forward in the order of visibility.
	Moves the selected layer to the front in the order of visibility.
	Make the selected layers all the same length.
	Make the selected layers all the same height.
	Align the layers to the left of the layer that is selected first in the list.
	Align the layers to the right of the layer that is selected first in the list.
	Align the layers to the top of the layer that is selected first in the list.
	Align the layers to the bottom of the layer that is selected first in the list.
	Enable/disable magnetic edges. With magnetic edges, layers are automatically moved to align with neighbor layers.
	Toggles the grid display.
	Provides a dialog whereby you can define the size of the grid square in pixels.
	Toggles the Snap to Grid option. When enabled, all mouse movement is constrained along the grid square size.
	Zoom in by a factor of 10%.
	Zoom out by a factor of 10%.
	View the display layout at the actual resolution.

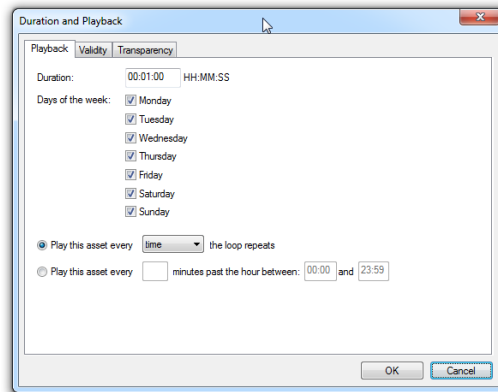
4.3 Adding assets to a playlist

To add one or more assets to a playlist, select the assets in the asset management window using the mouse and then without de-selecting the assets, drag the items across the display and drop them into the active loop list or scheduled items window.

4.3.1 Looped assets

Media assets listed in the loop list will be played in the order they are listed whenever scheduled assets, interleaved assets and triggered assets are not due. Assets listed in the loop List can be restricted to only play on specific days of the week

and also at specified intervals during each hour. To change the playback configuration of a loop list item, double click on the asset listed in the loop list or right click and select **Duration & Playback**. A dialog window appears:



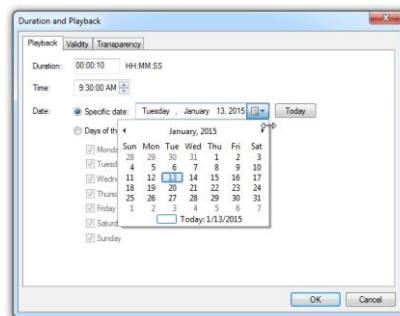
Duration - enter the playback duration (please note that video content will always play its full duration and the duration specified here will be ignored).

Days of the week - select the days of the week that the asset can be played on.

Play asset every - if you would like the asset to only play at specific intervals during a specified period of time, check this option and enter the interval time. For example, by entering 15 the asset will only be played once on the quarter past the hour each hour. To further restrict the time period, change the start and end time.

4.3.2 Scheduled assets

The assets listed in the scheduled list are assigned a playback time and optionally a specific date. By default when you drag an asset into this list the asset will automatically be scheduled to play every day at the scheduled time. If you hold down the CTRL on the keyboard when you drag the asset into the schedule list the asset will only be scheduled for playback on the current Schedule day (as per the calendar alongside the schedule). To change the start date and time, double click the item or right click and select **Duration & Playback**. A dialog window appears:



Duration - enter the playback duration (please note that video content will always play its full duration and the duration specified here will be ignored).

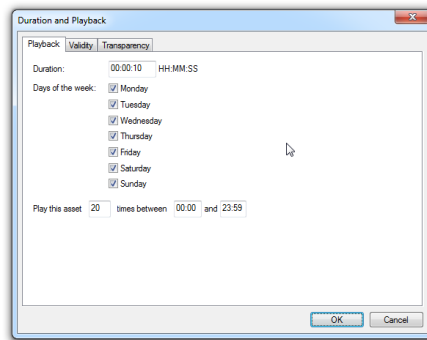
Time - specify the start time for this asset.

Date - select a playback date using the drop down calendar control or specify that the asset must be played on specific days of the week.

Days of the week - select the days of the week that the asset can be played on (if a specific date is not selected).

4.3.3 Interleaved assets

The assets listed in the interleaved list are assigned a default interleave value of 20 and will therefore by default play 20 times per day. To change the interleave value, double click the item or right click and select **Duration & Playback**. A dialog window appears:



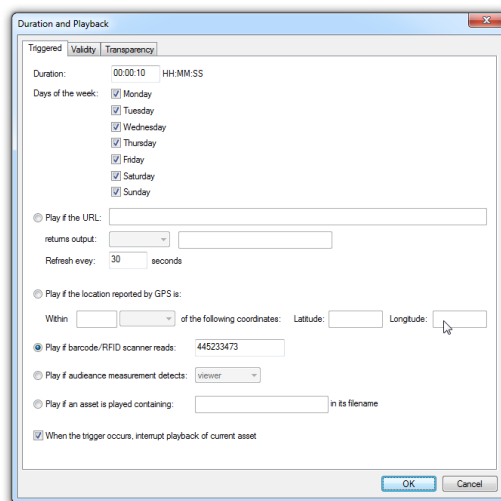
Duration - enter the playback duration (please note that video content will always play its full duration and the duration specified here will be ignored).

Days of the week - select the days of the week that the asset can be played on.

Play asset - enter the number of times per day that the asset will be played. The default setting of 20 times will result in the asset being played once every 72 minutes through the 24 hour period. To restrict the time period to a shorter time, change the start and end time values.

4.3.4 Triggered assets

The assets listed in the triggered list are only played when the specified trigger action occurs. To select the trigger action, double click the item or right click and select **Duration & Playback**. A dialog window appears:



Duration - enter the playback duration (please note that video content will always play its full duration and the duration specified here will be ignored).

Days of the week - select the days of the week that the asset can be played on.

Play if the URL - enter a URL that will be read by the player.

Returns output - select the condition and value that will be compared to the output from the URL.

Refresh every - enter the number of seconds that must elapse before the URL is requested.

Play if the location reported by GPS is - enter a distance and GPS coordinates of a map location, the asset will be played when the player location reported by the GPS device falls within the specified radius.

Play if barcode/RFID scanner reads - enter a serial number that will trigger playback when a barcode or RFID reader scans the matching serial number.

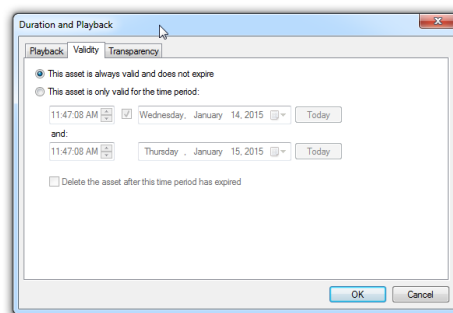
Play if audience measurement detects – select the criteria that must be matched by the audience measurement system (not included with DC Media) in order for the asset to be played. The criteria can be gender or age.

Play if an asset is played containing - enter a sequence of characters that must be found in another asset played in a different layer. If the sequence is found then the triggered asset will be played. For example, specify *coke* in this field and when *cokesummer.mp4* is played in another layer, the triggered asset will also play. This is useful for displaying synchronized content.

When the trigger occurs, interrupt playback of current asset – check this option to have the asset played immediately when the trigger condition is detected. If this option is unchecked, the triggered asset will only play at the end of the current asset.

4.3.5 Validity

By default an asset will always be valid however you can specify a period of validity by entering a start date & time as well as end date & time. If you select this option, the asset will only be played between the start date & time and the end date & time. You can also indicate if you wish to have the asset deleted from the hard disk when it expires. To set the validity for an asset, double click the item or right click and select **Duration & Playback**. A dialog window appears, click on the **Validity** tab:



This asset is only valid for the time period – select this option and then select the start date, end date, start time and end time for the asset. The date and time values are evaluated independently of each other. For example:

Start date: 15/1/2015

End date: 21/1/2015

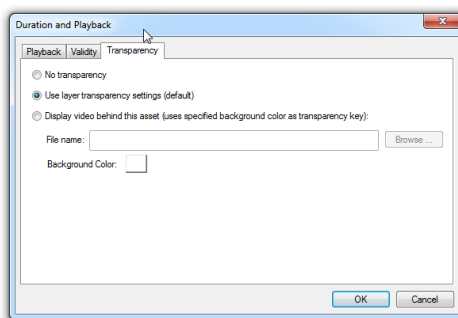
Start time: 08:00

End time: 16:00

The asset will be played daily from the 15th to the 21st of January 2015 between the hours of 8am and 4pm.

4.3.6 Transparency

By default assets will apply the layers transparency settings however you can use this tab to specify transparency settings for a specific asset. To set the transparency for an asset, double click the item or right click and select **Duration & Playback**. A dialog window appears, click on the **Transparency** tab:



No transparency – select this option to play the asset without any background transparency.

Use layer transparency settings – select this option to the transparency settings from the layer that the asset is played in.

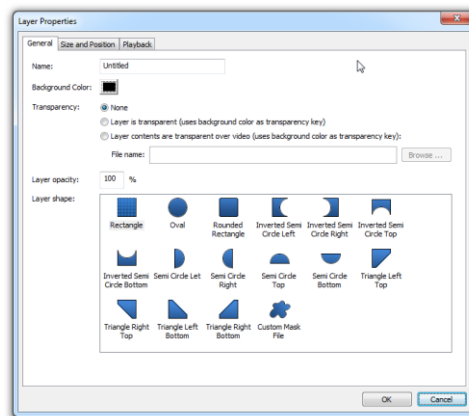
Display video behind this asset – select this option and provide the filename of a video that will be played behind the asset. The background color is used to determine the transparent portion of the asset. For example if you select black as the background color then wherever black is displayed in the asset will be transparent and the video will be visible through the asset.

4.4 Removing an asset from a Playlist

To remove one or more assets from a playlist, select the asset (hold the SHIFT key on the keyboard to select multiple assets) and then drag the assets out of the playlist window. Release the mouse button once the mouse cursor has left the playlist window and the assets will be removed from the playlist, alternatively press **Del** on the keyboard or select the assets and then select **Edit > Delete**.

4.5 Layer Properties

Each playlist has properties that determine how content is displayed such as aspect ratio and fit-to-screen. To modify the layer properties, select the layer and then select **Edit > Properties**. A dialog window is displayed:



General Tab

Name – enter the layer name.

Background color – select the background color for the layer.

Transparency:

None - select this option to disable transparency.

Layer is transparent – select this option to have the layer use the layer background color as a key color.

Layer contents are transparent over video – select this option and provide the filename of a video that will be played behind all assets played in this layer. The background color is used to determine the transparent portion of each asset.

Layer opacity – specify a percentage value for the layer opacity. 100% means the layer will be displayed without any blending whereas 50% will apply a significant amount of blending, allowing any content behind the layer to be visible as a blended background.

Layer Shape - layers can be shaped using one of the predefined shapes or using a black and white mask file. By default the layer shape is a rectangle.

Primary Position Tab

Left - the left most pixel position of the layer.

Top – the topmost pixel position of the layer.

Width – the pixel width of the layer.

Height – the pixel height of the layer.

Content: Fit to screen – assets that are smaller or bigger than the display area will be resized to fit the display.

Content: Maintain Aspect Ratio - if this option is selected, assets that displayed with dimensions different to the display area or layer size will not be distorted to match the aspect ratio of the display area.

Horizontal Alignment – assets that do not fit the display dimensions will be aligned to the horizontal alignment setting specified here.

Vertical Alignment – assets that do not fit the display dimensions will be aligned to the vertical horizontal alignment setting specified here.

Playback Tab

Audio Priority - select the audio priority for this asset. If an asset in another layer is due to play and the asset has a higher audio priority, all lower priority assets will be muted.

Transition between slides - select the transition that will be applied between the current and the next image (JPEG, Bitmap or PNG) to be displayed. Transitions are only available for images.

Effect - select either Alpha blending, Sliding or Swipe effects.

Type - select the sub-type of effect. For fade effects the effect can fade to a color, fade from a color or fade between images (crossover).

Duration - enter the duration of the transition in frames.

Synchronize playback - enable this option to have all the players on a local area network play content at exactly the same time.

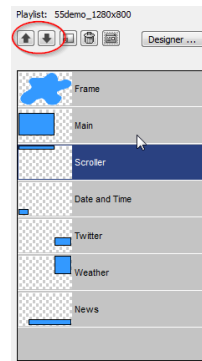
At end of list - select *Loop* to have the loop repeat, or select *Randomize* to have the loop randomly sorted and then repeated. Select *End Playback* to prevent looping.

4.6 Re-arranging layers

Layers are displayed in the scheduler from top to bottom in order of precedence where the topmost layer will always be displayed over the bottom-most layer.

To move a layer up in the order of precedence, select the layer and then click on the **Up** arrow button located at the top of the layer list. To move the layer down, click on the **Down** arrow.

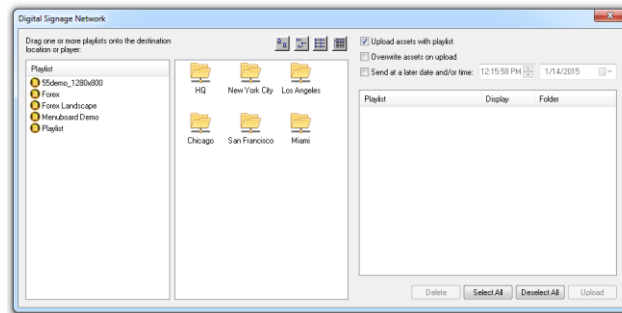
To delete a layer, select the layer and then click on the **Delete** layer button.



5. Uploading Playlists and Content

5.1 Displaying the Digital Signage Network window

When you are ready to upload a playlist to your network select **Distribution > Distribute Content**. A dialog window appears:



Upload assets with Playlist - enable this option if you want DC Media to upload asset files with the playlist. If this option is disabled, only playlists are uploaded to players. This option is selected by default.

Overwrite assets on upload - enable this option if you would like all content listed in the playlist to be uploaded regardless of whether it exists on the remote player PC. By default the application only upload assets that don't exist on the player PC or that have changed. If you select this option, assets will always be uploaded.

Send at a later date and/or time - enable this option if you wish to schedule the upload of a playlist a later date or time.

5.2 Selecting a Playlist

To upload a Playlist, click on the playlist icon and drag it onto a specific player or a group of players. Each Player in your network is listed with a blue screen icon:



Training 1

A group of players is listed as a folder icon:



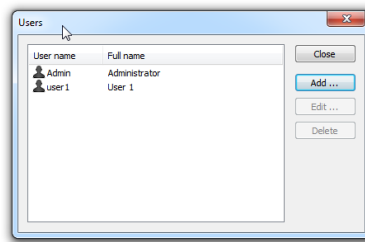
New York City

Click **Upload** to upload the Playlist and asset files to the selected players. Read section 2.2.7 for information on how to configure your digital signage network.

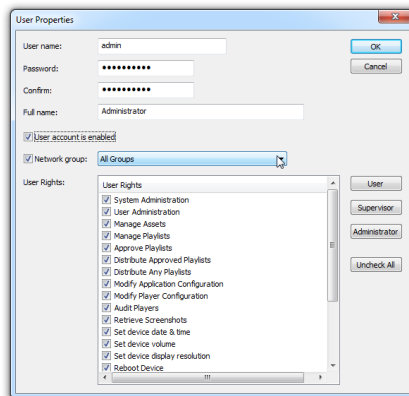
6. User Rights within the Scheduler and Network Manager

By default the Scheduler and Network Manager can be used without having to login with a user name or password. It is possible to configure a user list and provide user rights for a range of application features.

To manage the list of users, select **File > User Management**. A dialog window appears:



To create a new user account click on the **Add** button. A dialog window appears:



User name – enter a name for the user account.

Password – enter password for the user account and then confirm it in the Confirm field.

Full name – enter the user's full name.

User account is enabled – uncheck this field to disable the user account.

Network group – select the topmost group that the user will have access to. The user will only be able to send playlists and content to this group and its sub groups. The restriction also applies to the network manager application.

User rights – select the user rights for the user click the **User**, **Supervisor** or **Administrator** buttons to select the most common user rights for the user role.

To modify an existing user account, select the user and click on **Edit**.

To delete a user account, select the account and click on **Delete**.

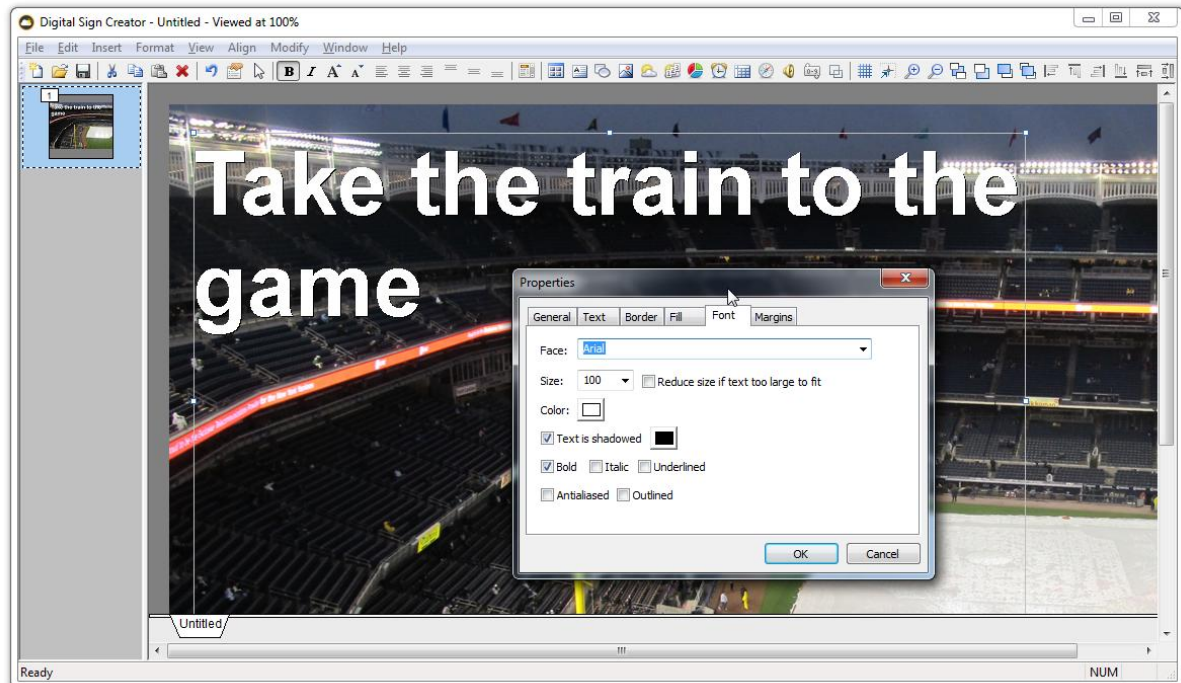
DC Media Digital Sign Creator

The Digital Sign Creator is an authoring tool that can be used to create Digital Signs composed of one or more slides containing shapes, images and text.

A variety of display characteristics can be applied to the items in a slide including alpha blending, key coloring, position and size. A Slide can contain multiple shapes, images and text items in order to create a composite image for advertising, welcoming, information or entertainment.

7. Creating content using the Digital Sign Creator

The Digital Signage Creator can be used to edit multiple Digital Sign files with each open file shown as a Window Tab at the bottom of the application window. The Sign file currently being edited is represented with a white Window Tab and the remaining open Sign files are represented with gray tabs.



7.1 Slide Management

Each slide in a digital sign displayed as a small thumbnail down the left most window pane. The slide currently being edited is highlighted with a blue frame.

To insert a blank slide, select **Insert > Slide**. A blank slide is displayed in the main edit window.

To edit a slide simply click on the slide thumbnail. To delete a slide, right click on the slide thumbnail and select **Delete** from the context menu, or select **Edit > Delete**.

7.2 Slide content

A slide can contain shapes, images, tables and text items that make up a composite image for advertising, welcoming, information or entertainment. Each item can be moved and resized in the editing window as well as ordered in a layered structure. Items will overlap according to the order they were added to the slide.

If an item is selected it will be displayed with a dotted rectangle surrounding the item. Clicking on an item will select it and any other item currently selected will be de-selected. To select more than one item's simultaneously, hold down the **Ctrl** key before clicking on the item.

7.3 Creating a Digital Sign

To create a new sign, select **File > New**. A dialog window will be displayed.





To create a blank sign, click on the **Blank** icon and click on **OK**, alternatively click on one of the pre-made sign templates. To view the available templates in each category, double click on the category icon. Each template in the category will be displayed as a thumbnail. To view more details on the template, click on the icon and a description and larger preview will be displayed in the sign preview section of the window.

When you select a template, a new sign is created using the contents of the template. You are then able to add, change or remove items as required.

7.4 Editing a digital sign

This section describes in detail the various actions that can be taken to create and edit a digital sign.

7.4.1 The editing window

The editing window has various options that can assist with sign editing, for example the canvas can be zoomed in or out during the editing process, a grid can be displayed to assist with item placement and items can be sized to match other item sizes. Menu options are also available to alter the layering structure of each slide.

7.4.1.1 Zooming

To zoom in, select **View > Zoom In**, or click on the applicable toolbar button. A keyboard shortcut is also available for this action, press **Ctrl +** on the keyboard.

To zoom out, select **View > Zoom Out**, or click on the toolbar button or simply hold down **Ctrl-** (*minus*).

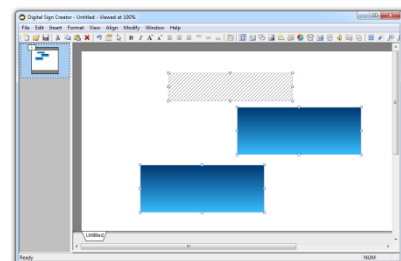
7.4.1.2 Grid display and snap to grid

A grid can be displayed as a guide for item placement. To view the grid, select **View > Show Grid** or click on the relevant toolbar button. Item movement can be constrained within the grid rectangles by selecting **View > Snap to Grid**. The grid size can be defined by selecting **Edit > Preferences** and entering a new grid size in the field provided.

7.4.1.3 Item resizing

Whilst items can be sized individually using the mouse cursor, items can also be sized to match the size of a specific item in the slide. To size multiple items, select the items that must be resized and then holding down the **Ctrl** key, select the item that the selected items will be adjusted to match. The diagram below illustrates this action:

Select **Modify > Make same width** or **Modify > Make same height** to update the items according to your requirements. In the example above we've selected **Make same width** and the results are shown alongside:



7.4.1.4 Item alignment

In the same manner as Item Sizing described above, multiple items can be aligned to match a selected item. To align multiple items, select the items that must be aligned and then holding down the **Ctrl** key select the item that the selected items will be aligned to match. Select **Align > Left**, **Align > Right**, **Align > Top** or **Align > Bottom** to align the items accordingly.

7.4.1.5 Layering items

Items are layered in the order in which they were inserted. To bring an item closer to the front of the slide, select an item and click on **Modify > Arrange > Bring forwards** to adjust the item layering one layer at a time or **Modify > Arrange > Bring to front** to bring the item to the top layer immediately.

At any time during the editing process, hold down the left **Ctrl** key on the keyboard to highlight all the items in the slide. This is particularly useful for text items that do not contain any text or that have a color making them difficult to locate.

7.5 Inserting Items

7.5.1 Inserting an Image

The Digital Sign Creator supports JPEG, BMP and PNG image formats. Select the **Insert > Picture** menu option, the mouse cursor will change to indicate that an item can be placed and sized. Hold down the mouse button and move the mouse, an item sizing rectangle will be displayed. Release the mouse button and a new image item will be placed in the slide. To specify the image file that must be displayed inside the item, ensure the image item is selected and then enter the file path in the **Image file** field located at the bottom right hand corner of the application window:

To locate the image file using Explorer, click on the **browse** button: ...

The file path for the image file can be dynamically constructed using macros. For example you may require text that originates from an external data source such as a weather feed or finance feed. A variety of macros are available for XML, CSV, INI or SQL data, for more information consult section 7.7.

The image will always be scaled to match the size of the item, to set the image to display at 100% its original size, enter 100 in both the **Horz** and **Vert** scale entry fields or set the image item size in the item properties.

Images can also be inserted in the slide using drag 'n drop actions. Select the image file in the Windows Explorer window and then drag the file into the slide. An image item will automatically be created to display the image at 100% of its original size.

7.5.2 Inserting a Shape

To insert a shape item such as a rectangle, a triangle or ellipse, click on **Insert > Shape** or click on the **Insert Shape** toolbar button. The mouse cursor will change to indicate that a shape can be inserted into the slide. Hold down the mouse button and move the mouse, an item sizing rectangle will be displayed. Release the mouse button and a new shape item will be placed in the slide. By default the shape is set to an ellipse. To change the shape type, select the new type from the drop down list in the bottom right hand corner of the window:

The shape can be filled with a solid color, a color gradient or an image. To set the fill properties, use the item format controls found directly above the item shape dropdown list.

7.5.3 Inserting Text

To insert a text item, select the **Insert > Text** menu option or click on the **Insert Text** toolbar button. The mouse cursor will change to indicate that text can be inserted into the slide. Hold down the mouse button and move the mouse, an item sizing rectangle will be displayed. Release the mouse button and a new text item will be placed in the slide. To set the font, fill and other display properties of the text item use the item properties controls shown above.

The text that will be displayed can be entered in the **Text Content** field located at the bottom right hand corner of the display.

This field can also accept dynamic text macros as a method of displaying external data such as weather, news, financial date, the current time or date and more, consult section 7.7 for more information.

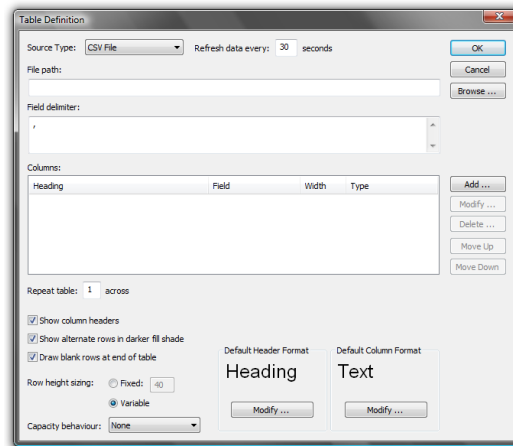
7.5.4 Inserting a Clock

To insert a clock item, select **Insert > Clock** or click on the **Insert Clock** toolbar button. The mouse cursor will change to indicate that a clock item can be inserted into the slide. Hold down the mouse button and move the mouse, an item sizing rectangle will be displayed. Release the mouse button and a new clock item will be placed in the slide. The clock type can be set to **Analog** or **Digital**.

The clock will reflect the current time on the player PC, this time can be adjusted using the time zone field. This is useful for displaying international times in a slide.

7.5.5 Inserting a Table

A table can be used to display data from an external CSV file, SQL database or XML source. To insert a table item, select **Insert > Table** or click on the **Insert Table** toolbar button. The mouse cursor will change to indicate that a table can be inserted into the slide. Hold down the mouse button and move the mouse, an item sizing rectangle will be displayed. Release the mouse button and a new table will be placed in the slide. To configure the table data source, columns and format of the table, click on Table Properties. The table definition dialog will be displayed.



Source Type - this field is used to select the source of the table data.

For tables displaying CSV data:

File path: enter the file path for the CSV file or click on *Browse* to locate the file.

Field Delimiter – enter the field delimiter will default to a comma however this can be changed to match the delimiter in your data file.

For tables displaying XML data:

File path - Enter the file path or URL for the XML file or click on *Browse* to locate the file.

Tag Path - this field must list the tags that will be followed in order to reach the column data, each tag must be separated by a period. Consider the following example XML:

```
<NEWS>
  <ITEM>
    <TITLE>Peace broke out today in the city</TITLE>
    <DESCRIPTION> > .</DESCRIPTION>
  </ITEM>
</NEWS>
```

The TITLE and DESCRIPTION tags will be used for column data, the tag path used to reach these tags is

`news.item`

For tables displaying SQL data:

DSN/Connection String - enter the name of the ODBC DSN that will be used to connect to the database.

SQL Query - enter the SQL query that will be executed in order to retrieve column data.

7.5.5.1 Table configuration

Columns - the table must contain at least one column. Click *Add* to create a new column in the table or select an existing column and click *Modify* to edit the column properties. Click *Delete* to delete a column.

Repeat table across - use this field to indicate how many times the columns should repeat in the table. This is useful for building wide tables that list many rows.

Show column headers - enable this option to make column headers visible.

Show alternate rows in a darker shade - enable this option to have the table automatically darken every other row based on the color scheme you have chosen for the table.

Draw blank rows at end of table - if this option is enabled, the table will be drawn with blank rows until the full table height is covered.

Row Height Sizing

Select **Fixed** and enter the row height to have all rows the same height. If variable sizing is selected, each row will determine its height based on the content of the row.

Capacity behavior - this option controls how the table will handle a situation where the number of rows exceeds the visible space in the table. If **None** is selected, rows that are not visible will not be drawn. Select **Smooth scroll items** for each row to be scrolled slowly up the table in a continuous loop with rows repeating at the bottom of the table. **Skip row per cycle** and **Display next page** are variants of the scrolling option.

Default Header Format - click on *Modify* to define the default header display attributes.

Default Column Format - click on *Modify* to define the default column display attributes.

7.5.6 Inserting an Audio Player

An audio player item can be used to play a list of MP3 and WMA files as well as display the album art, progress bar, title, album name and artist for each mp3. To insert an audio player, select **Insert > Audio** or click the **Insert Audio Player** toolbar button.

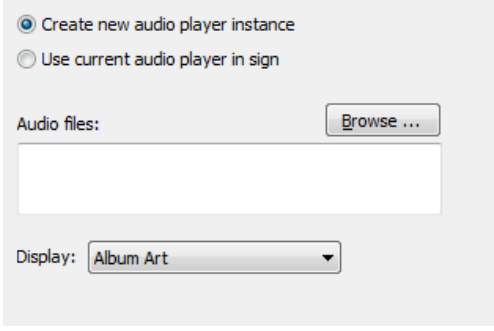
The audio player requires a one of the following:

- A path to the MP3 files
- A specific file name of an audio file
- A text file listing audio files
- A M3U playlist file.

Specify the source of the audio files or click on **Browse** to locate a playlist file.

Select the display characteristic of the audio player - i.e. select whether the audio player will display album art, title, artist, album, progress bar or duration.

To display multiple characteristics of the audio file being played, insert another audio player and configure the item to use an existing instance of an audio player by selecting **Use Current Audio Player in Sign** instead of **Create new audio player instance**. Thereafter select whether the audio player will display the progress bar,

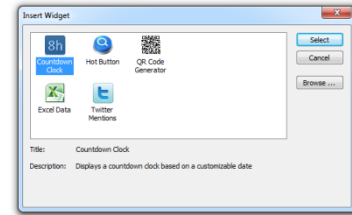


The screenshot shows a configuration window for an audio player. At the top, there are two radio buttons: "Create new audio player instance" (which is selected) and "Use current audio player in sign". Below these, there is a label "Audio files:" followed by a text input field and a "Browse ..." button. At the bottom, there is a label "Display:" followed by a dropdown menu currently showing "Album Art".

album art etc. This approach allows the freedom to create an audio player display with varying color, font, size and placement of audio properties.

7.5.7 Inserting a widget

Widgets allow for the expansion of the Digital Sign capabilities by using DLL files as plug-ins, for example a QR code can be generated easily by insert the QR code widget. To insert a widget, select **Insert > Widget** or click the **Insert Widget** toolbar button. The sign creator will scan the DC Media content folder for widget DLL's, these files will be listed in the window.



7.6 Item Display Properties

Each item has a number of properties that define how and where the item will be displayed. The common properties are:

Property	Description
Name	Item name.
X	Horizontal pixel coordinate with 0 representing the left hand side of the slide.
Y	Vertical pixel coordinate with 0 representing the top of the slide.
Width	Width in pixels.
Height	Height in pixels.
Blend	Alpha blending level. 100 = totally opaque and 0 = invisible.
Key Colored	Specifies color that will be excluded from the item display.
Angle	Reserved for future use.

In addition, each item will include all or some of the following property sections:

7.6.1 Border

Property	Description
Style	Can be solid, dotted, dashed or none.
Color	The color of the border.
Size	Size of the border, only applicable to solid border style.

7.6.2 Fill

Property	Description
Style	Type of fill effect. Can be Solid color, Gradient, Image or none.
Color 1	Color of the fill effect, for gradients this is the first color in the gradient.
Color 2	Second color in gradient.
Fit to shape	Applies to Image fill style.
Image	Image file path.
Blend	Alpha blending level. 100 = totally opaque and 0 = invisible.

7.6.3 Font

Property	Description
Face	The font face.
Size	Font point size.
Color	Text color.
Text is shadowed	Text includes color shadow.
Bold	Font is bold.
Italic	Font is Italic.
Underline	Font is Underlined.
Ant aliased	Font is smoothed.
Outlined	Font has black outline.

7.6.4 Margin

Property	Description
Alignment: Horz	Specify horizontal alignment within item rectangle. Can be left, center or right.
Alignment: Vert	Specify vertical alignment within item rectangle. Can be top, center or bottom.
Margins: Left	Left Margin within item rectangle.
Margins: Top	Top Margin within item rectangle.
Margins: Right	Right Margin within item rectangle.
Margins: Bottom	Bottom Margin within item rectangle.

7.7 Dynamic Data Macros

7.7.1 Overview

Dynamic Data Macros can be inserted into text items and image items in order to use external data as part of the rendered text or image. For example, in order to display the date and time in a slide, a macro must be used instead of the actual date and time. An image item can be updated to display an image file based on a file path that includes specific data such as the day of the week, the time of the day or any other data driven condition.

Macros are always enclosed by square brackets for example [dayName]. The macro is replaced in the text whenever the text is rendered. For example:

Today is [dayName]

This macro will be rendered as:

Today is Wednesday

Macros can also be used to retrieve data from a XML file, a CSV file, an INI file, a Twitter feed, a JSON feed or an SQL database. The following macros are supported:

Macro	Function
[day]	Day of the month as a number, padded to two digits e.g. 02
[month]	Month as a number, padded to two digits e.g. 12
[year]	Year as a number
[dayName]	Day of the week name with first letter uppercase. [dayname] returns day of the week name in lowercase. [DAYNAME] returns day of the week name in uppercase.
[dayName3]	Day of the week name abbreviated to 3 letters, [dayname3] returns same name in lower case, [DAYNAME3] returns name in uppercase.
[daynum]	Day of the month with postfix, e.g 3 rd or 21 st . Number is not padded.
[MonthName]	Name of the month. [monthname] returns name in lowercase, [MONTHNAME] returns name in uppercase.
[12hr]	Current hour between 1 and 12, padded to 2 digits.
[24hr]	Current hour between 0 and 23, padded to 2 digits.
[min]	Current minute padded to 2 digits.
[sec]	Current second padded to 2 digits.
[ampm]	am or pm depending on time of day.
[AMPM]	AM or PM depending on time of day.
[exepath]	Current directory path used by executable, e.g. c:\program files\dcmedia\
[exedrive]	Current drive used by executable, e.g. d:\
[dd/mm/yyyy]	The date as a string, can be adjusted using + to future date the string, e.g. [dd/mm/yyyy]+1 will return tomorrows date. There is no limit to the value that can be supplied to adjust the date value.
[mm/dd/yyyy]	Same as above but with the month first
[mm/dd/yy]	Same as above but with a two digit year

7.7.2 Text File

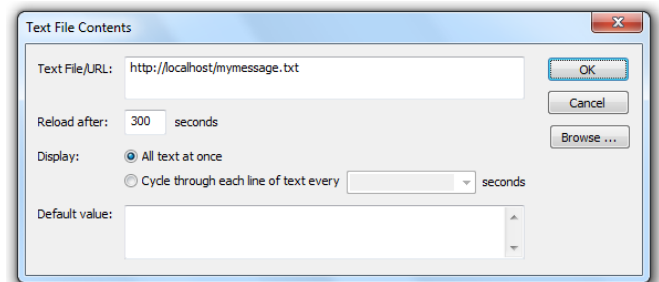
The macro can read from a text file that is available on the local disk or via HTTP.

Text File/URL - enter the file path or URL of the text file that will be read by the macro processor.

Reload after - enter the number of seconds that must elapse before the URL is reloaded. This field is disabled and not used if the file is stored on the local drive (DC Media will detect when the file changes and will only reload when a change is detected).

Display - select **All text at once** to use all the text in the text file as the value of the macro. Select **Cycle through each line of text every** to have the macro read the next line of text from the file using the number of seconds specified.

Default value - enter a default value that will be displayed if the text file is not available.



7.7.3 XML

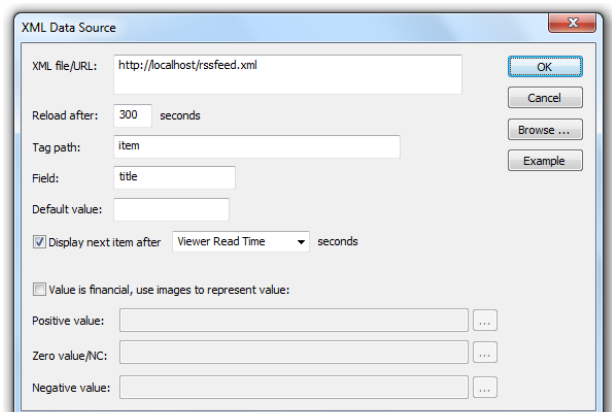
XML data can be read from a local file on disk or from a HTTP source.

XML file/URL - enter the file path or URL of the XML file (can be RSS feed).

Reload after - enter the number of seconds that must elapse before the URL is reloaded. This field is disabled and not used if the file is stored on the local drive (DC Media will detect when the file changes and will only reload when a change is detected).

Tag Path - enter the XML tags that lead to the data you want to load. For example, in the example below we want to read and display the value in the <title> tag. The path to the <title> tag can be expressed as *streams.items.item*, or it can be expressed as *item*.

```
<stream>
  <items>
    <item>
      <title>This is an example</title>
    </item>
    <item>
      <title>This is the 2nd entry in the example</title>
    </item>
  </items>
</stream>
```



Field - enter the name of the tag or attribute that you want to read to obtain the value.

Default value - enter a default value that will be displayed if the XML file is not available.

Display next item after - enable this option if you want DC Media to advance to the next instance of the tag (following the tag path). Select **Viewer Read Time** and the row will be advanced after a number of seconds. The advance time is calculated based on the number of words being displayed.

7.7.4 CSV data

Data can be read from a CSV file that is stored locally or online via HTTP.

CSV File/URL - enter the file path or URL for the CSV file.

Reload after - enter the number of seconds that must elapse before the URL is reloaded. This field is disabled and not used if the file is stored on the local drive (DC Media will detect when the file changes and will only reload when a change is detected).

Row - enter the row number of the field that will be read.

Column - enter the column number of the field that will be read.

Default value - enter a default value that will be displayed if the CSV file is not available.

Display next item after - enable this option if you want DC Media to advance to the next row. Select **Next Display Time** and the row will be advanced whenever the digital sign is displayed. Select **Viewer Read Time** and the row will be advanced after a number of seconds. The advance time is calculated based on the number of words being displayed.

7.7.5 SQL data

Data can be retrieved directly from a SQL database using a database query contained within a macro.

DSN, Connect String or MDB File Path - enter the ODBC DSN name, OLEDB connection string or file path to a MS Access MDB file. Using an ODBC DSN enables you to connect to a Microsoft SQL Server, MySQL Server etc.

SQL Query - enter the SQL query that will be submitted.

Field Name - enter the name of the field that will be used to retrieve the dataset column.

Default value - enter a default value that will be displayed if the SQL source is not available.

Show next row after - enable this option if you want DC Media to advance to the next row in the resulting dataset. Select **Viewer Read Time** and the row will be advanced after a number of seconds. The advance time is calculated based on the number of words being displayed.

7.7.6 Twitter

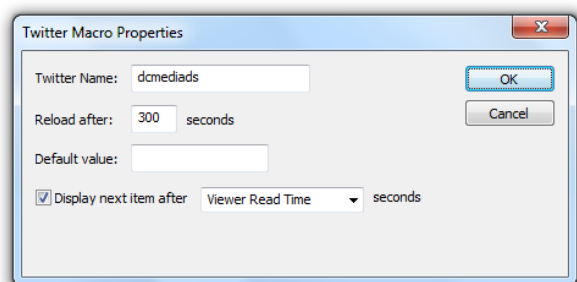
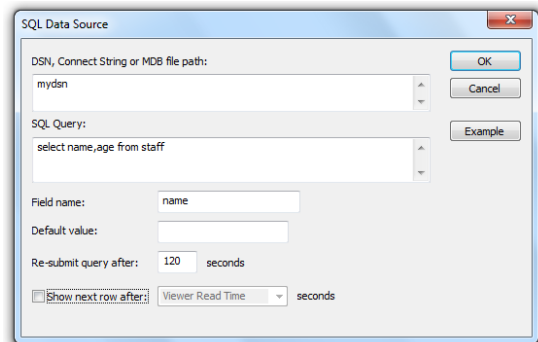
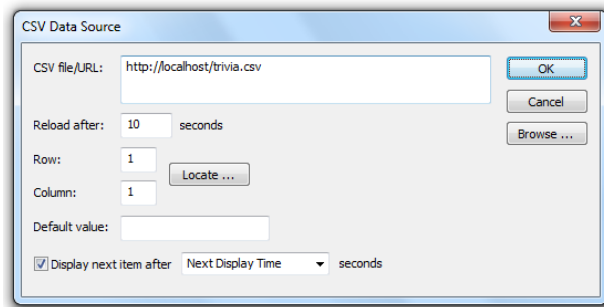
Text can be retrieved directly from a Twitter account.

Twitter Name - enter the name of the twitter account

Reload after - enter the number of seconds that must elapse before the Twitter account is reloaded.

Default value - enter a default value that will be displayed if the Twitter account is not available.

Display next item after - enable this option if you want DC Media to advance to the next Tweet (in descending order of posted date and time). Select **Viewer Read Time** and the row will be advanced after a number of seconds. The advance time is calculated based on the number of words being displayed.



7.7.7 INI files

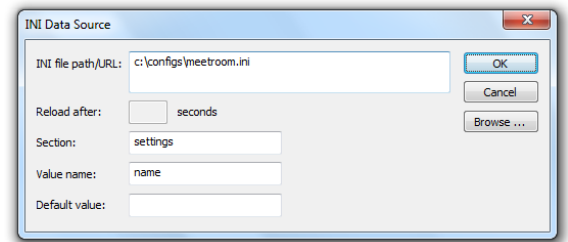
A macro can be configured to retrieve configuration data from an INI file.

INI File path/URL - enter the file path or URL of the INI file.

Reload after - enter the number of seconds that must elapse before the URL is reloaded. This field is disabled and not used if the file is stored on the local drive (DC Media will detect when the file changes and will only reload when a change is detected).

Section - enter the name of the configuration section.

Value name - enter the value name from the configuration file.



7.7.8 JSON feed

Data can be read from a local or online JSON data stream. The following fields must be provided:

JSON URL/file - enter the file path or URL of the JSON file.

Reload after - enter the number of seconds that must elapse before the URL is reloaded. This field is disabled and not used if the file is stored on the local drive (DC Media will detect when the file changes and will only reload when a change is detected).

Items with attribute - specify an attribute name value pair as <name>=<value>. E.g. category=pricing

Attribute - specify the attribute whose value will be selected as the macro result.

Default value - enter a default value that will be displayed if the feed is not available.

7.7.9 Add-On macros

Digital Sign Add-On DLL's can be also be used for macro replacement. Each DLL supports a custom list of macros that can be used to obtain dynamic data values. Consult the user manual for the add-on to see the list of macro's that can be used and how to use them.

7.7.10 Macros within macros

Macros can be embedded within other macros. For example, using INI file data to build a SQL query in order to retrieve data that must be displayed:

```
[src:sql;;select title from events where roomid =
[src:ini;c:\room.ini;settings;roomid;0;] order by schedule desc;title;;]
```

7.7.11 Casting Macro results

If you need to adjust a macro result you can cast the value by surrounding the macro with a cast macro, using the following syntax:

```
[cast:<find>^<replace>^<current value>]
```

Example:

```
[src:jso^http://myserver/getcurrentspecial.php^type=misc^name^^3600^]
```

This macro is supposed to retrieve the name of a product that has been selected for a daily special, but if the special is not configured, the server returns 'null' as the result. To prevent the macro displaying 'null', cast it to something else using the cast macro:

```
[cast:null^Nothing on special  
today^[src:jso^http://myserver/getcurrentspecial.php^type=misc^name^^3600^]]
```

With the cast in place, if the server output contains the word 'null', the macro result will be changed to 'Nothing on special today'.

7.8 Editing the Slide Master

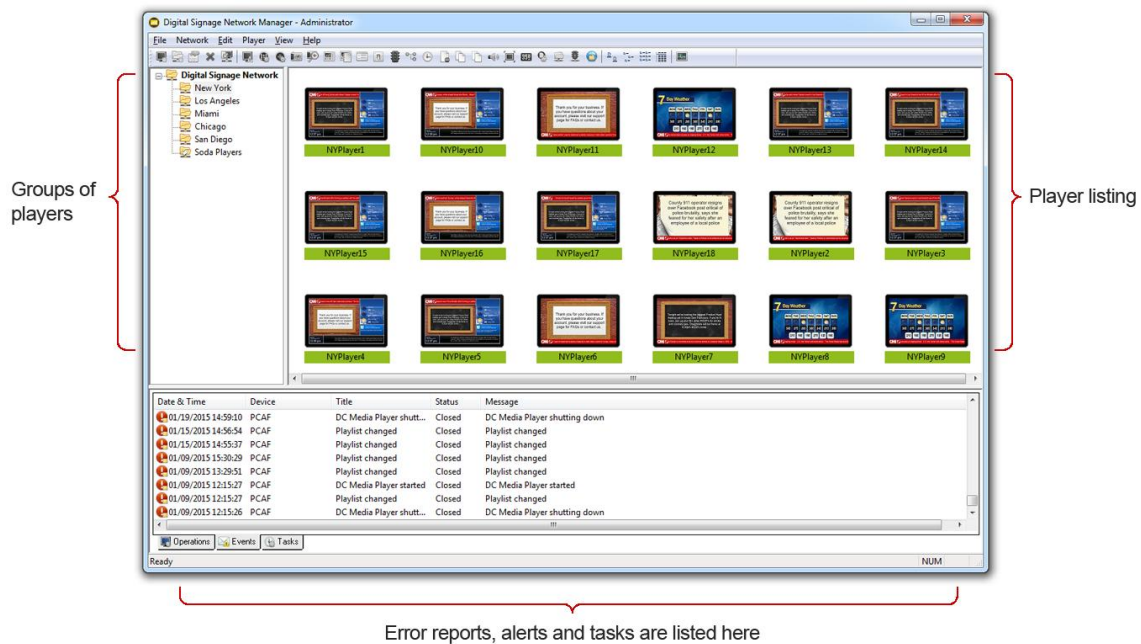
Each slide in the Digital Sign is independent of any other slides however you can apply a uniform look and feel to the all slides in the sign by editing the slide master. Select the **Edit > Slide Master** menu option to edit the slide master. All other slides will be hidden until you complete the edit process. Changes made to the slide master will be applied to all slides in the digital sign.

DC Media Network Manager

The DC Media Network Manager application provides a wealth of management features that ensure you have full control over your digital signage network, and that you are able to detect and resolve any points of failure, minimizing screen downtime and maintaining customer satisfaction. By deploying the management agent software on a player PC you will be able to control playback, execute applications, update the registry, control the display resolution, audit the hardware and retrieve screenshots and more.

8. Using the Network Manager

The main application interfaces is divided into several sections as shown below:

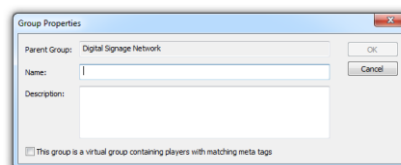


8.1 Groups of players

The leftmost window in the user interface is used to create and manage a hierarchy of digital signage player groups. When a group is selected in this view, the players in this group are listed in the player window located on the right.

8.1.1 Creating a new group

To create a new group, select **Network > Create Group**. A dialog window appears:

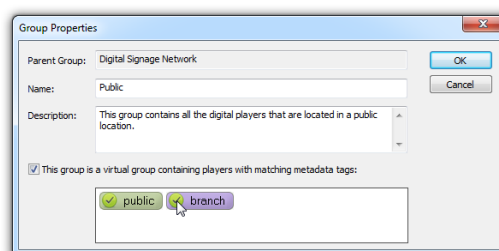


Parent Group - this field shows the parent group for this group.

Name - enter a name for this group.

Description - enter a description for this group.

This group is a virtual group - check this option to create a virtual group that contains players with metadata tags that match the list of tags in the group. If you check this option, the dialog window expands to look as follows:



In the example above, the **Public** group will list all players on your network that include the metadata tags **public** and **branch**.

8.1.2 Editing a group

To edit a group, double click on the group or select the group and then select **Edit > Properties**.

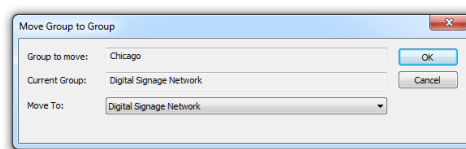
8.1.3 Deleting a group

To delete a group, select the group and click on the **Delete** toolbar button or select **Edit > Delete**.

Please note: When you delete a group all players and groups in this group will also be deleted.

8.1.4 Moving a Group

To move a group, click on the group and then select **Edit > Move**. A dialog window appears:



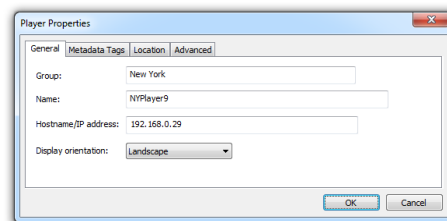
Select the target group and click **OK**, the group will be moved into the target group.

8.2 Player listing

When you click on a group in the group list window, the player listing window pane will contain all the digital signage players in the selected group. The list of players can be viewed in four view styles: large icon, small icon, list and details. The large icon view shows a thumbnail of the last screenshot retrieved from the player. The small icon and list styles show a colored player icon alongside the player name. The color of the icon indicates the player status with green indicating the player status to be OK where the red icon indicates a player that is either offline, powered down or experiencing an error condition. The Details style lists each player with the player network address, status, playlist name, the published date of the playlist, software version numbers and the date and time on the player. To change the listing style, use the **View** menu option.

8.2.1 Creating a new player

To create a new player, select **Network > Create Player**. A dialog window appears:



General Tab

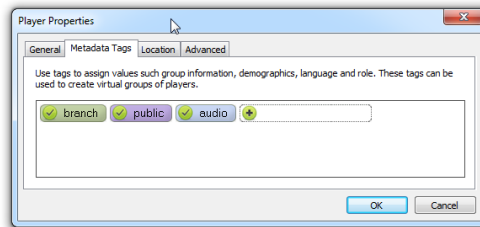
Group - this field shows the group that this player will be listed in.

Name - enter a name for this player.

Hostname/IP address - enter IP address of the player. If you are using DHCP, enter the hostname or Windows computer name in this field.

Display orientation - select the player display orientation. The orientation is only used by the network manager to determine the orientation of the screenshot thumbnail when displaying this player. Please note that this setting **does not** affect the configuration of the player.

Metadata Tags tab



Enter the metadata tags that you would like to assign to this player. In the example above, the player has 3 metadata tags, **branch**, **public** and **audio**. Based on this example, the player will be listed in the example group **Public** shown in section 8.1.1.

Location tab

The information entered in this tab is optional and is only provided to assist with remote player support in the event of a problem with one or more digital signage players at a remote location where the players are installed. Skip this section if this does not apply to your network.

Contact - enter the name of contact person at this location.

Email - enter the email address of the contact person at this location.

Telephone - enter the telephone number of the contact person at this location.

Country - select the country where the player is located.

Zip/Postal code - provide the zip code or postal code for the player location.

State/Province - select the state or province where the player is located.

City - enter the city name where the player is located.

Address - enter the street address of the player location.

Advanced tab

The settings in this tab are for advanced users and can be left as the default values. There is no need to make any changes. Any settings changed in this tab must also be applied to the DS Agent configuration at the remote player.

DFT port - enter the port number that the DS Agent on the remote player is listening on for incoming *Direct File Transfer* (DFT, a DC Media proprietary TCP protocol) connections. The default value is **8448**.

DFT username - enter the username used to authenticate over a DFT connection. The default value is **username**.

DFT password - enter the password used to authenticate over a DFT connection. The default value is **password**.

RDMP port - enter the port number that the DS Agent on the remote player is listening on for incoming *Remote Device Management Protocol* (RDMP, a DC Media proprietary TCP protocol) connections. The default value is **9000**.

RDMP password - enter the password used to authenticate over a RDMP connection. The default value is **password**.

8.2.2 Editing a player

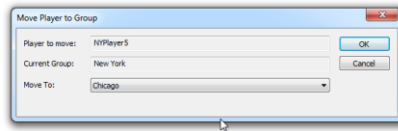
To edit a player, double click on the player or select the player and then select **Edit > Properties**.

8.2.3 Deleting a player

To delete a player, select the player and click on the **Delete** toolbar button or select **Edit > Delete**.

8.2.4 Moving a player

To move a player to different group, click on the player and then select **Edit > Move**. A dialog window appears:

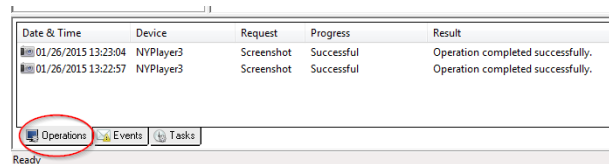


Select the target group and click **OK**, the player will be moved into the target group.

8.3 Player Management

8.3.1 Updating screenshots

To update a player screenshot, click on the player and then select **Player > Request screenshot**, or right click on a player and select **Request Screenshot** (you can also press the Space bar as a shortcut). You will see a new operation status appear at the bottom of the screen under the **Operations** tab. This status item will describe the network operation in progress to the point of producing an updated screenshot or in the event of an error, the error message.



Date & Time	Device	Request	Progress	Result
01/26/2015 13:23:04	NYPlayer3	Screenshot	Successful	Operation completed successfully.
01/26/2015 13:22:57	NYPlayer3	Screenshot	Successful	Operation completed successfully.

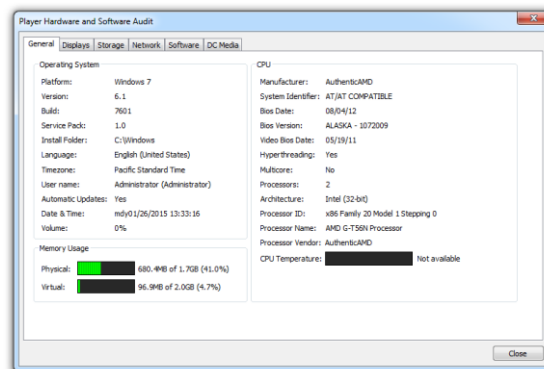
If you require a larger screenshot, select **Player > More Screenshots**. A dialog window appears:



Select the screenshot size and then click **Request**. The window size will change to display the updated screenshot.

8.3.2 Audit hardware and software

To retrieve a detailed report containing information on the player hardware and the software installed on the player, select **Player > Audit hardware and software**. The network manager will connect the player and retrieve and audit report. Once the operation has completed, the report can be viewed by select **Player > View audit details**. A dialog window appears:



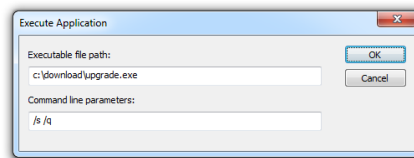
The report details are displayed in sections with each section under a separate tab. The information listed here can be used to fault finding and information gathering. Please note that the player configuration cannot be altered in this dialog window.

8.3.3 Actions

The network manager provides a list of actions that can be executed directly on the remote player PC to assist with management and configuration. The following actions are available:

8.3.3.1 Execute an application

To execute an application, select one or more players and select **Player > Action > Execute**. A dialog window appears:



Executable file path - enter the file path of the executable on the remote player PC and then enter any command line parameters below the executable file path. You do not need to include quotation marks in the executable file path.

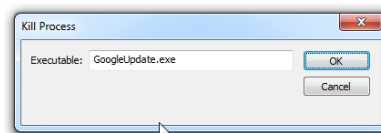
Click **OK** to send an instruction to the player to execute the application. The application must already reside on the remote player before this instruction can be sent. Monitor the **Operations** window at the bottom half of the application window for status information relating to the delivery and execution of this instruction.

8.3.3.2 Rebooting a player

To reboot one or more players, select the players and then select **Player > Action > Reboot**. You will be prompted to confirm operation before the instruction is sent to the players. If you click **No**, the reboot command will be cancelled. Monitor the **Operations** window at the bottom half of the application window for status information relating to the delivery and execution of this instruction.

8.3.3.3 Terminating a process

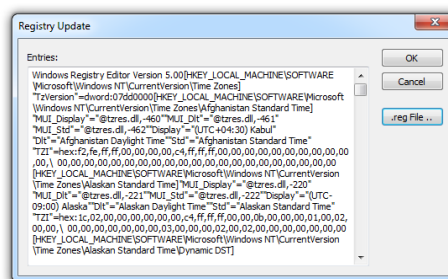
To terminate a process on one or more players, select the players and then select **Player > Action > Kill Process**. A dialog window appears:



Click **OK** to send the instruction. If the matching executable is found in the process list on the remote player it will be terminated. Monitor the **Operations** window at the bottom half of the application window for status information relating to the delivery and execution of this instruction.

8.3.3.4 Updating the registry

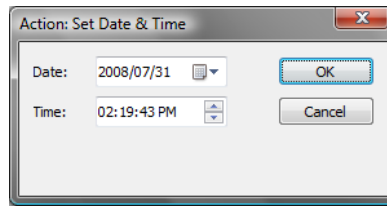
To update registry entries on one or more players, select the players and then select **Player > Action > Update Registry**. A dialog window appears:



Entries - enter the updated registry entry keys in the text entry field or paste the contents of a registry export file with a **.reg** extension (this is the preferred method of performing registry updates). Monitor the **Operations** window at the bottom half of the application window for status information relating to the delivery and execution of this instruction.

8.3.3.5 Setting the date and time on the Device

To update the date and time on one or more players, select the players and then select **Player > Action > Set Date & Time**. A dialog window appears:



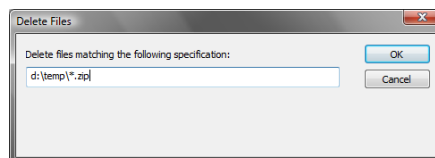
Date – select the new date from the calendar.

Time – select the new time.

Monitor the **Operations** window at the bottom half of the application window for status information relating to the delivery and execution of this instruction.

8.3.3.6 Deleting files

To delete files on one or more players, select the players and then select **Player > Action > Delete Files**. A dialog window appears:



Enter the full file path in the field provided or specify a wildcard in the file path to delete multiple files matching the specification. **WARNING:** Files are permanently deleted and cannot be recovered from the recycle bin.

Wildcard deleting in the root folder of **C:** drive, the **Windows** folder and the **System32** folder is blocked by the application. Monitor the **Operations** window at the bottom half of the application window for status information relating to the delivery and execution of this instruction.

8.3.3.7 Copying files

To copy files on one or more players, select the players and then select **Player > Action > Copy Files**. A dialog window appears:



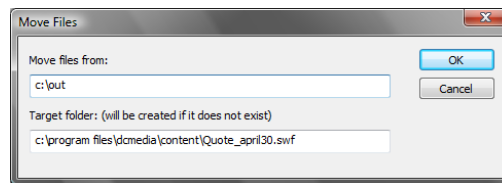
Copy files from - Specify the source folder and specific file name or wildcard. Files matching the source specification will be copied to the target folder.

Target folder – enter the target folder name. The folder will be created if it does not already exist.

Monitor the **Operations** window at the bottom half of the application window for status information relating to the delivery and execution of this instruction.

8.3.3.8 Moving files

To move files on one or more players, select the players and then select **Player > Action > Move Files**. A dialog window appears:



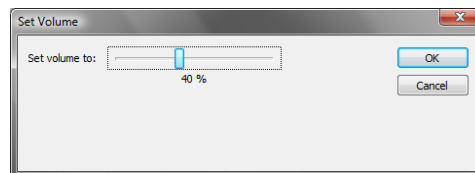
Move files from - Specify the source folder and specific file name or wildcard. Files matching the source specification will be moved to the target folder.

Target folder – enter the target folder name. The folder will be created if it does not already exist.

Monitor the **Operations** window at the bottom half of the application window for status information relating to the delivery and execution of this instruction.

8.3.3.9 Setting Device master volume

To set the volume on one or more players, select the players and then select **Player > Action > Set Volume**. A dialog window appears:

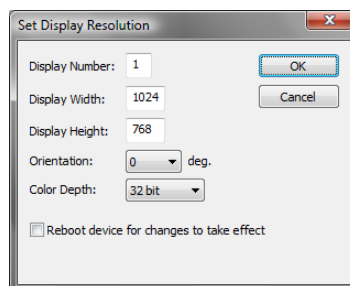


Set the new volume using the slider control and then click **OK** to send the instruction. Monitor the **Operations** window at the bottom half of the application window for status information relating to the delivery and execution of this instruction.

Please note that Windows Vista, Windows 7 and Windows 8 will not allow the volume to be set if the Windows **User Access Control settings** (UAC) are enabled at the highest level. To allow the volume to be controlled remotely, disable UAC or run the DC Media DS Agent software with **Administrator** rights.

8.3.3.10 Setting the display resolution

To set the display resolution on one or more players, select the players and then select **Player > Action > Set Display Resolution**. A dialog window appears:



Display Number – for player PC's with multiple displays, enter the display number that will be affected, or leave this value as 1 for single display players.

Display Width - enter the pixel width of the new display resolution.

Display Height - enter the pixel height of the new display resolution.

Orientation - select the rotation of the new display resolution, with 0° for a landscape display and 90° for a portrait display (180° will also produce a landscape display upside down and 270° will produce an upside down portrait display).

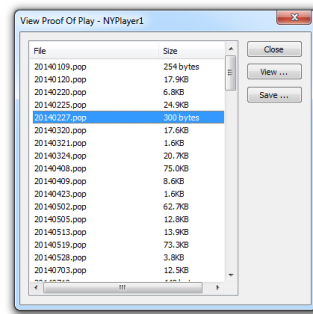
Color Depth - select the color depth for the new display resolution.

Reboot device for changes to take effect – some display drivers will require a player reboot in order for the changes to take effect.

Monitor the **Operations** window at the bottom half of the application window for status information relating to the delivery and execution of this instruction.

8.3.4 Retrieving proof of play data

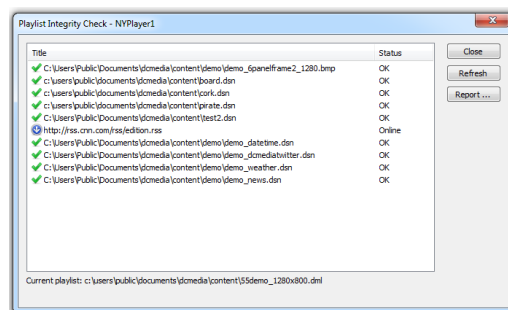
To view or download proof of play files from a remote player, click on the player and then select **Player > Retrieve Proof of Play**. A dialog window appears:



The window will list all the proof of play files located on the player PC. To view a proof of file, select the file and then click **View**. To store a proof of play file on your local hard drive, select the file and then click **Save**. Proof of play files (.pop extension) can be view using the **Proof of Play Viewer** application.

8.3.5 Playlist integrity check

The Playlist integrity report checks the integrity of the playlist being displayed by the player by listing each asset in the playlist along with a status indicator indicating the status of each asset in the playlist. To retrieve a playlist integrity report, select **Player > Check Playlist Integrity**. A dialog window appears:



For each asset in the list, a green check mark indicates the asset file is on the player hard drive. A blue download arrow indicates that the content is hosted elsewhere and a red cross indicates that an asset is missing. Click **Report** to export the report to HTML. Click **Refresh** to update the listing.

8.3.6 Player Configuration

The network manager has the ability to retrieve the configuration data used by the DC Media Player application and display that data in a dialog window. You can make changes to this data and then send it back to the remote player in order to update the DC Media Player application configuration. To edit a player configuration, click on the player and then select **Player > Player Configuration**. For information on the dialog window and player settings, refer to section 2.3.

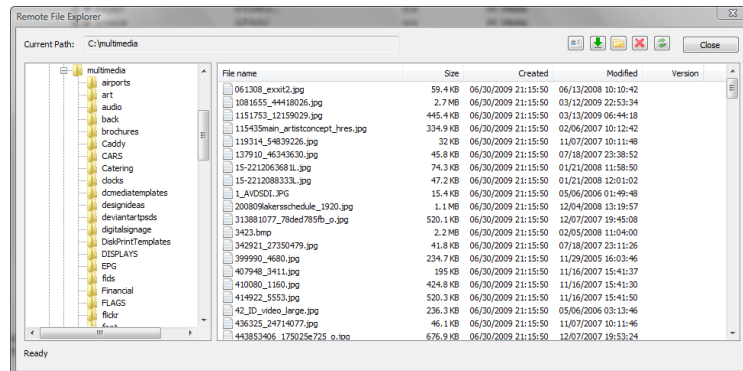
8.3.7 DS Agent Configuration

The network manager has the ability to retrieve the configuration data used by the DS Agent application and display that data in a dialog window. You can make changes to this data and then send it back to the remote player in order to update

the DS Agent application configuration. To edit a player's DS Agent configuration, click on the player and then select **Player > DS Agent Configuration**. For information on the dialog window and DS Agent settings, refer to section 9.0.

8.3.8 The Remote File Explorer

The network manager includes a remote file explorer that will enable you to browse the files on a player PC. To open the Remote File Explorer window, select a player and then select **Player > Remote File Explorer**. A dialog window appears:



The remote file explorer will retrieve drive and directory listings on demand. When the file explorer is first opened, the list of hard disks on the remote device is listed. To view the files on a hard disk, double click on the relevant disk. The current path will become the root of the selected hard disk and this root path will then be displayed at the top of the window as the **Current Path**. If you double click on a folder listed in the root, the files and folders located in the folder will then be retrieved and the **Current Path** will be updated.

To open a drive, double click on the folder or select the folder and then click **Refresh**. Files located in the selected folder will be displayed on the right side of the window and sub folders will be listed underneath the selected folder. The file listing will be stored in a cache file on the local hard disk for future viewing. To refresh the cached list simply select the folder and then click on the **Refresh** button.



Viewing Remote Files

To view a file located on a remote device, select the file in the listing and then click on the **View** button. The file will be downloaded to your current temporary path and then displayed using the default application for the selected file type.



Downloading a Remote File

Using the same technique as Viewing, this option enables you to download the file to custom group on your hard drive.



Create a remote folder

Click the **Create Remote Folder** button and enter the folder name.



Deleting a remote file

To delete one or more remote files, select the files and click the **Delete** button.

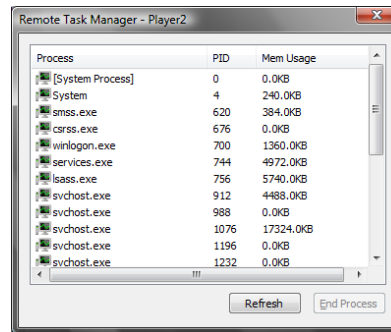


Refreshing the list of files

To refresh the file listing click on the **Refresh** button.

8.3.9 The Remote Task Manager

The network manager includes a Remote Task Manager that enables direct access to the list of running processes on the remote player. To open the remote task manager click on a player and then select **Player > Remote Task Manager**. A dialog window appears:



Each running process is listed along with the relevant program ID (PID) and current memory usage statistic. To end a process, select the process and click **End Process**.

9. Support

Visit <http://www.dcmidiads.com> and click on Support for access to video tutorials, a knowledge base and downloads of the latest software versions.