DisplayIt! Xpress Management Console

DisplayIt! Xpress

Installation and User Guide

Windows Revision 12.0v01 and above
Android Version 1.9.3 and above
November 6, 2024

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DisplayIt!Xpress

DisplayIt!Xpress is an exciting new way to create, update, and display content on a network of digital signs – with a simple 1-2-3 interface. "Justyou're your PowerPoint!" is frequently used to describe the simplicity DisplayIt!Xpress. But don't let the simplicity of DisplayIt!Xpress fool you. It is a powerful system that currently supports 8 categories of media files, specifically:

Images – jpg, bmp, pict, tiff, gif and png formats.
PowerPoint – saved as pptx (PowerPoint) or ppsx (PowerPoint Show) files.
Excel – saved in xls, xlsx formats.
Digital video – wmv, avi, mov, mp4, and mpg formats are supported.
PDF – Adobe PDF files are supported.
Web – Internet addresses (URLs).
Flash – swf files created with Adobe Flash.

These file types can be mixed inside of a "playlist." The files within a playlist may be scheduled, to play on specific days at particular times of day, providing you with total signage control.

DisplayIt!Xpress also includes several powerful "Widgets" that you can place on the screen of a display. In a a few seconds you can incorporate a clock (digital or analog), calendar, weather from 8,200 worldwide locations, and scrolling text which can include text you type, the date and time, and news feeds.

DisplayIt!Xpress player is compatible with almost all Windows operating systems from Windows 2000 forward, and many Androids from 4.2.x forward on almost all processors. Typically, small form factor computers are used, which are connected to a corporate network and to a large LCD screen in a public area.

The DisplayIt!Xpress Management Console supports updates of displays over a network, using a cloud service like Google Drive or Best Wave's Cloud Update Service, copying the update directly to shared folders on the player PC(s), or even USB thumb drives (sneaker-net). These methods can be mixed from one player to the next for total flexibility.

But the beauty of DisplayIt!Xpress is the fact that everyone already knows how to use it. The simple 1-2-3 interface with drag-n-drop allows anyone to be successful at operating one or many digital signs in their company. You will be operating DisplayIt!Xpress digital signs in minutes. It really is that easy!

IMPORTANT NOTE:

DisplayIt!Xpress players must initially be connected to the Internet while in operation. It checks with our server each day, and if not authorized it will quit. If your security software prevents access to unauthorized web sites, the following sites should be allowed for proper operation:

www.bestwave.info tgftp.nws.noaa.gov (for weather)

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Installation of DisplayIt!Xpress

Installation of *DisplayIt!*Xpress software on Windows media players

If you need a free 30-day trial please send an email to support@bestwave.com. You will be sent an email address to use for activation. It is purposefully not a real address so people who see your sign boot up cannot use it to contact you.

The Windows PC(s) that you are using as media players must be connected to the Internet. Download the installer from the www.bestwave.com > Products > *DisplayIt!*Xpress page. Select the DisplayItX Player Software WINDOWS from the pop-up on the right side of the page.

The installer will ask where you want the software installed. Choose the disk drive or partition that has the greatest amount of room for content storage.

When the software installer is finished, it will auto-run the Installation Wizard. Follow the steps outlined in the Wizard carefully. They are designed to turn your ordinary Windows PC into a dedicated digital sign player. By following the steps you will be eliminating unsightly and unnecessary pop-up windows and reminders from appearing on your digital signs. This is especially important because dialog boxes on digital signs never go away!

On Windows media players, the Installation Wizard will automatically launch the WatchDisplayItX.exe application. WatchDisplayItX will start up *DisplayIt!*Xpress and then minimize itself to the task bar. After that, it will check that *DisplayIt!*Xpress stays running, and if necessary, will restart the software or even the computer. WatchDisplayItX.exe will make a shortcut to itself in the Startup folder - so it starts automatically on restart.

Write down the IP address shown in red on the first *DisplayIt!*Xpress screen. You will need that in the next step. On the seconds screen, type the activation email address. Do not hit Enter – just wait for it to continue. **Once you see the blue sky image with the Best Wave watermark, installation is complete.**

To stop the software, hold down the Ctrl key and the Shift key together, or right-click the mouse until all of the *DisplayIt!*Xpress programs have stopped. Otherwise, the software will restart automatically.

Download and install the Management Console software on your desktop from the www.bestwave.com > Products > *DisplayIt!*Xpress page. The Management Console will automatically take you to the Add/Edit Displays screen. The Management Console is free for our customers to use, and does not need to be registered. There is a Tutorial button on that page to see how to use it!

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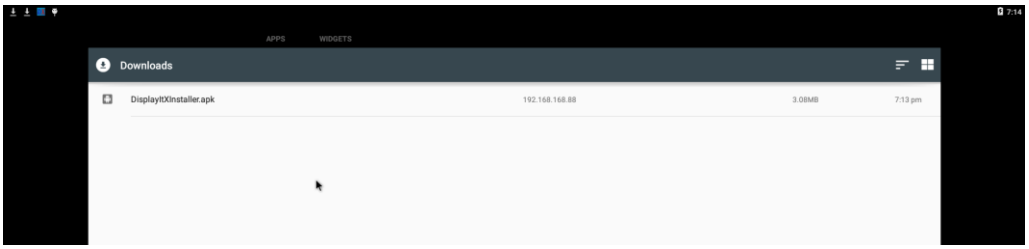
Installation of DisplayIt!Xpress software on Android media players

The Android devices that you are using as a media player(s) must be connected to the Internet. If you will be using Best Wave's Cloud update service (fee-based) you will need to install SignBlaster! Software instead of DisplayIt!Xpress – please skip this section and start at the SignBlaster! Installation page.

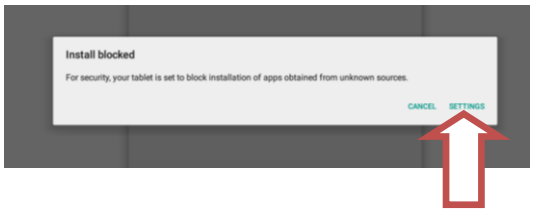
To begin the installation process, first select the Android App Drawer icon on the main Desktop screen and then select the Browser app on the App Drawer screen.

In the Browser app, download the installer from the www.bestwave.com > Products > DisplayIt!Xpress page. When the download is finished, close the Browser app by pressing the Android Home button or . Note: For the ViewSonic NMP-302w, press the Recent Apps button and select the Launcher app.

Select the Android App Drawer icon on the main Desktop screen again and then select the Downloads app or on the App Drawer screen. In the Downloads app, select the DisplayItXInstaller.apk file.



If an Install Blocked window appears, press the Settings button. On the Securities screen (Settings screen on the NMP-302w), turn on the Unknown Sources options and press the Ok button. Confirm that the Unknown Sources option has been enabled. See the screen shots on the next three pages for examples of setting Unknown Sources to Enabled.



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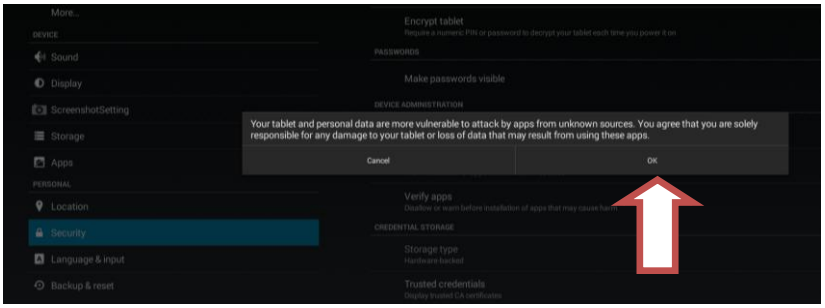
Android 4:



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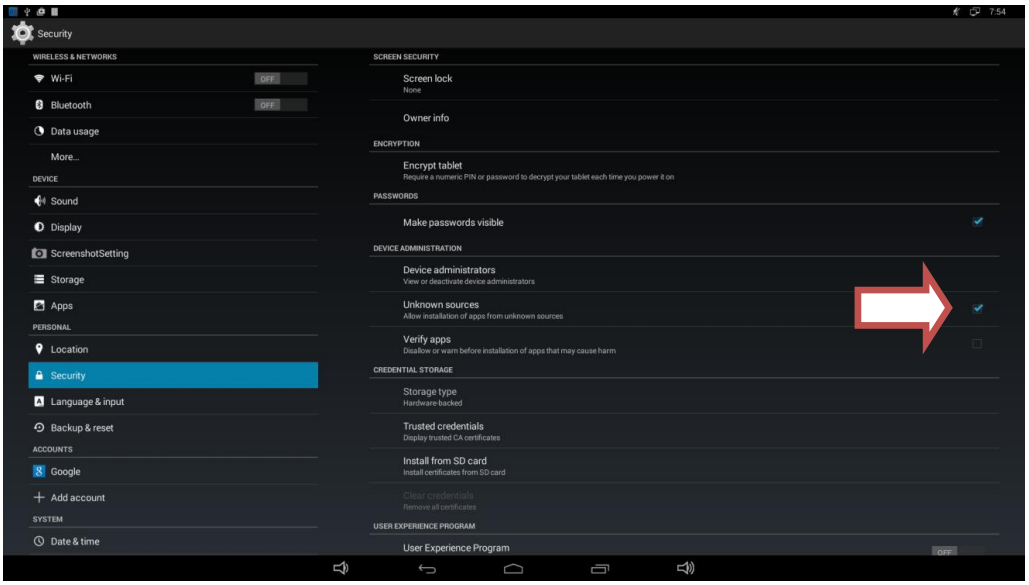
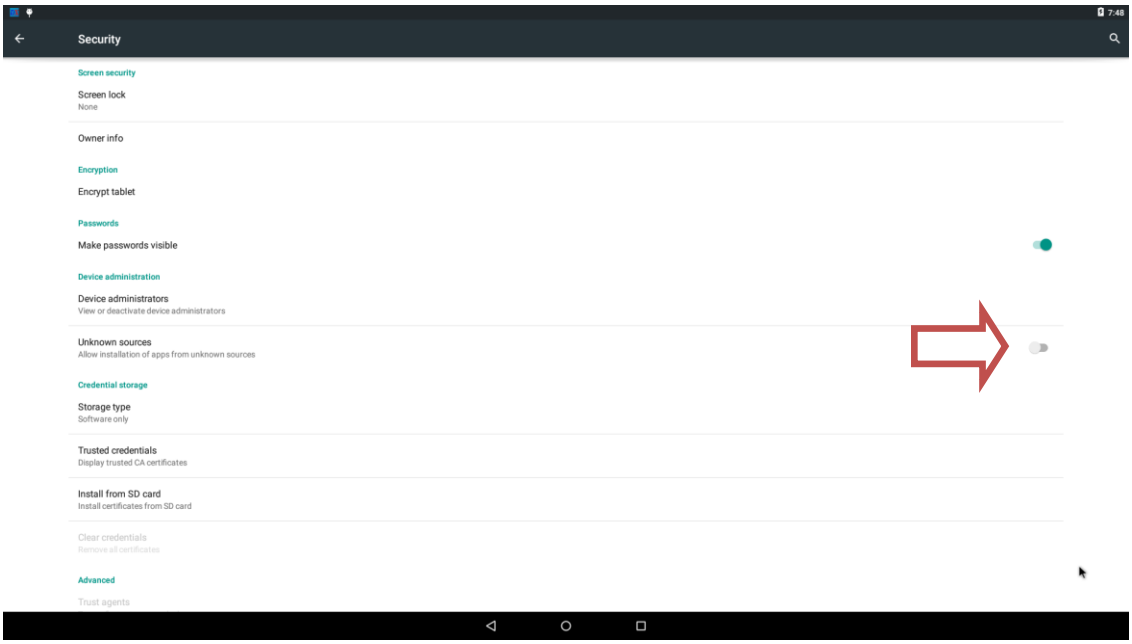
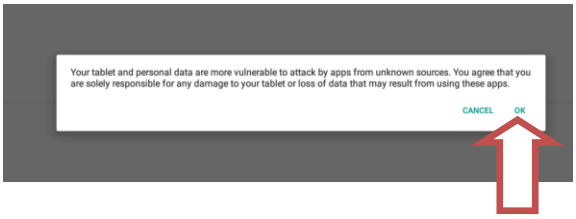


Android 5:





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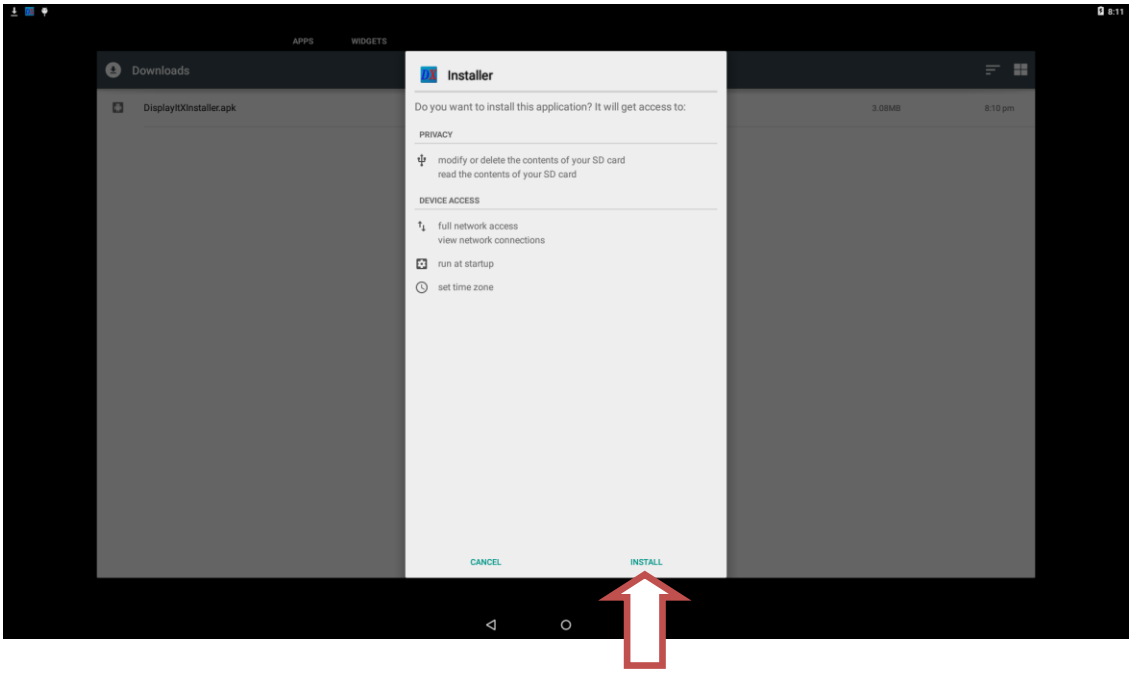
Press the Escape key on the keyboard or the Back button ⮌ or ◁ on the touch screen to return to the Downloads app and select the DisplayItXInstaller.apk file again.

After the DisplayItXInstaller.apk file has been successfully selected, press the Install button in the first Installer window and the Open button in the second Installer window.



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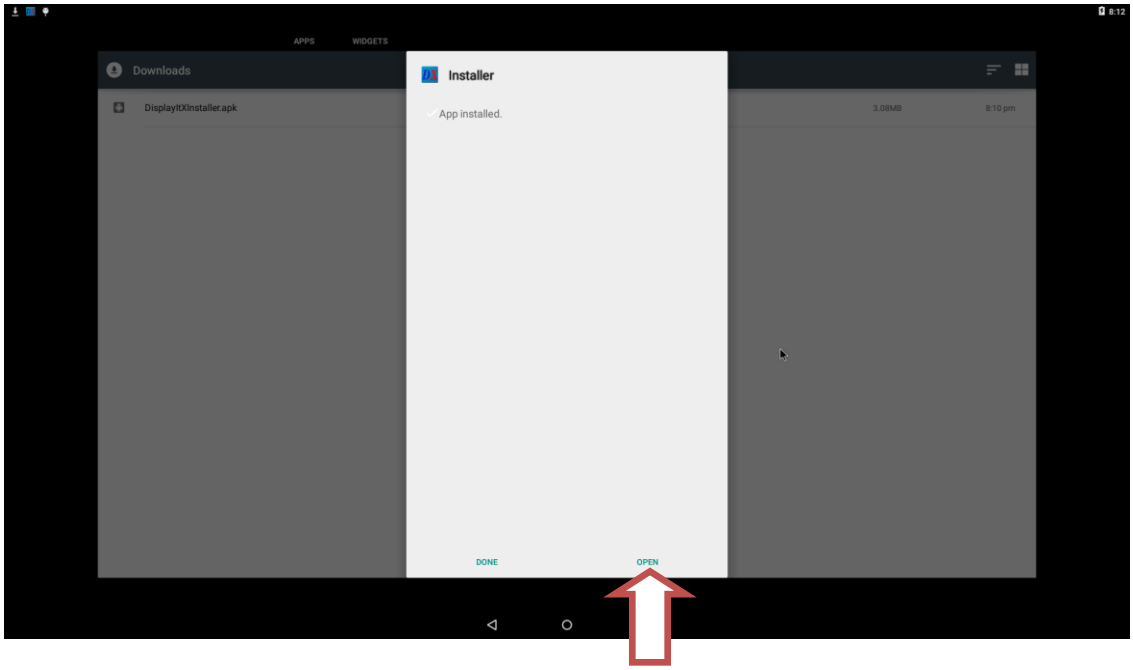
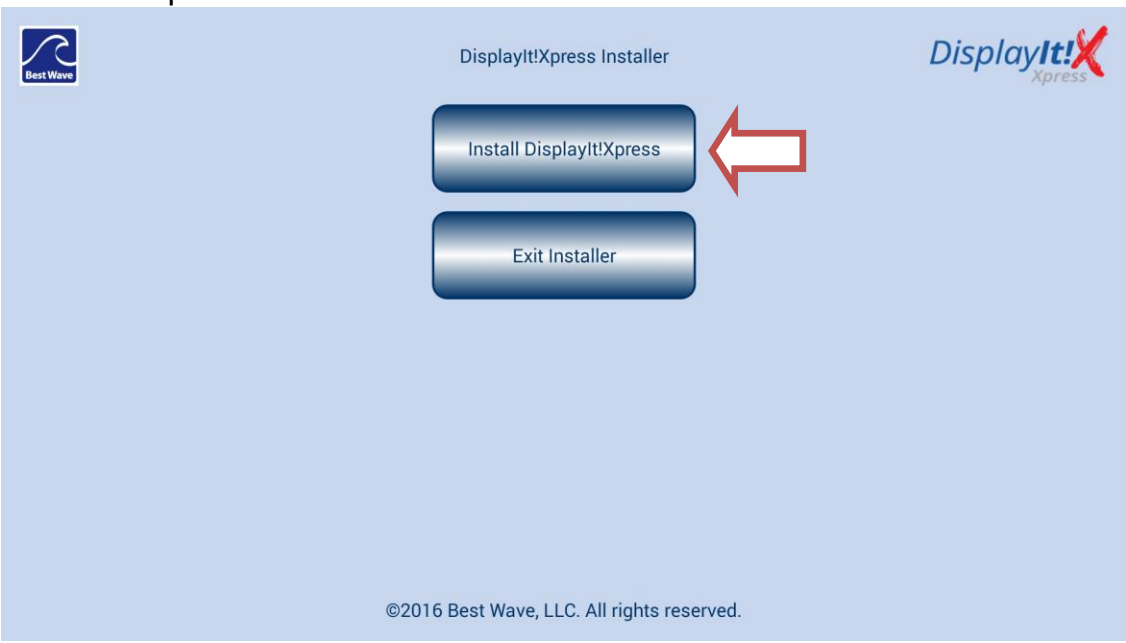
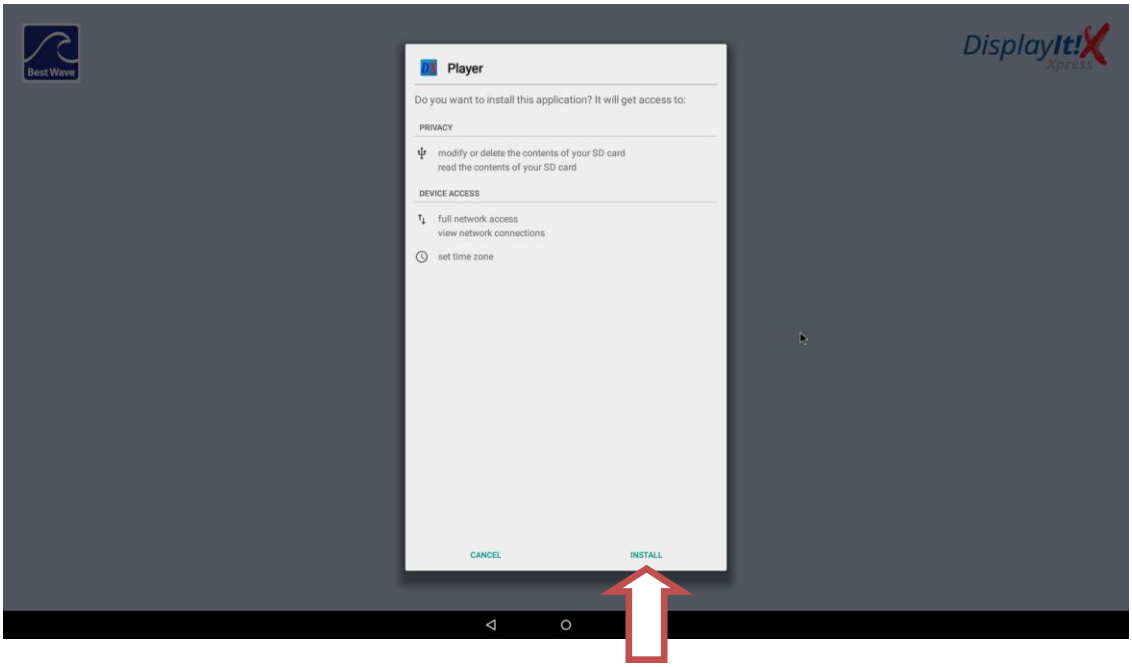
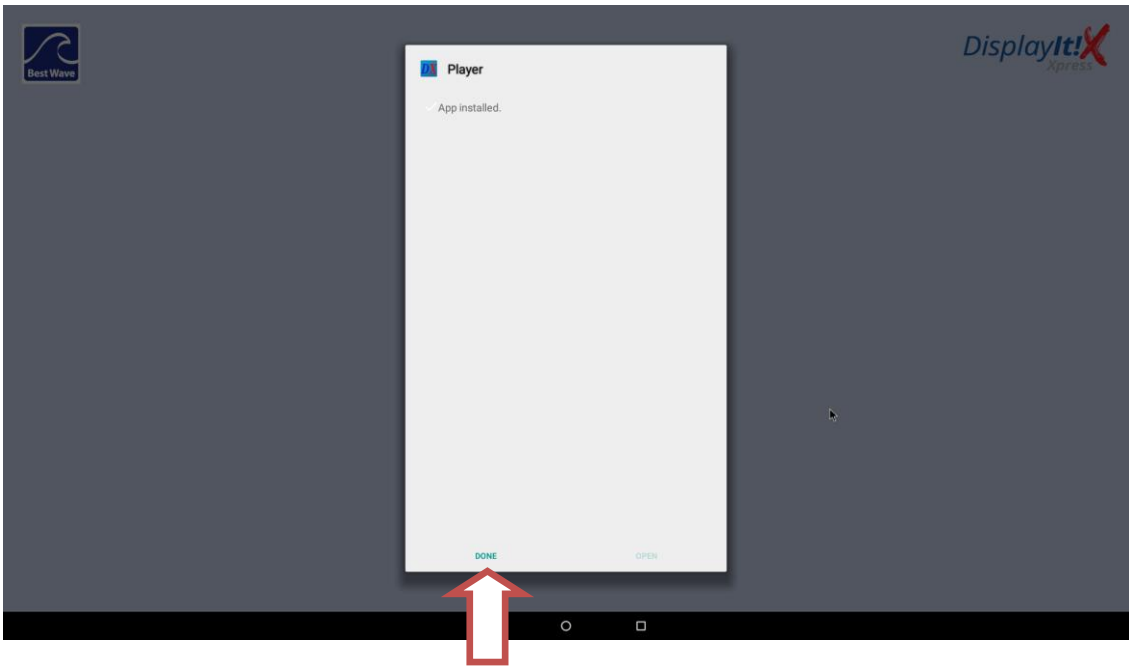


In the Installer app, press the Install DisplayIt!Xpress button to continue the installation process.



First, press the Install button on the first Player window and the Done button on the second Player window. Next, press the Install button on the first Watcher window and the Done button on the second Watcher window. Then finally, press the Install button on the first Launcher window and the Open button on the second Launcher window.





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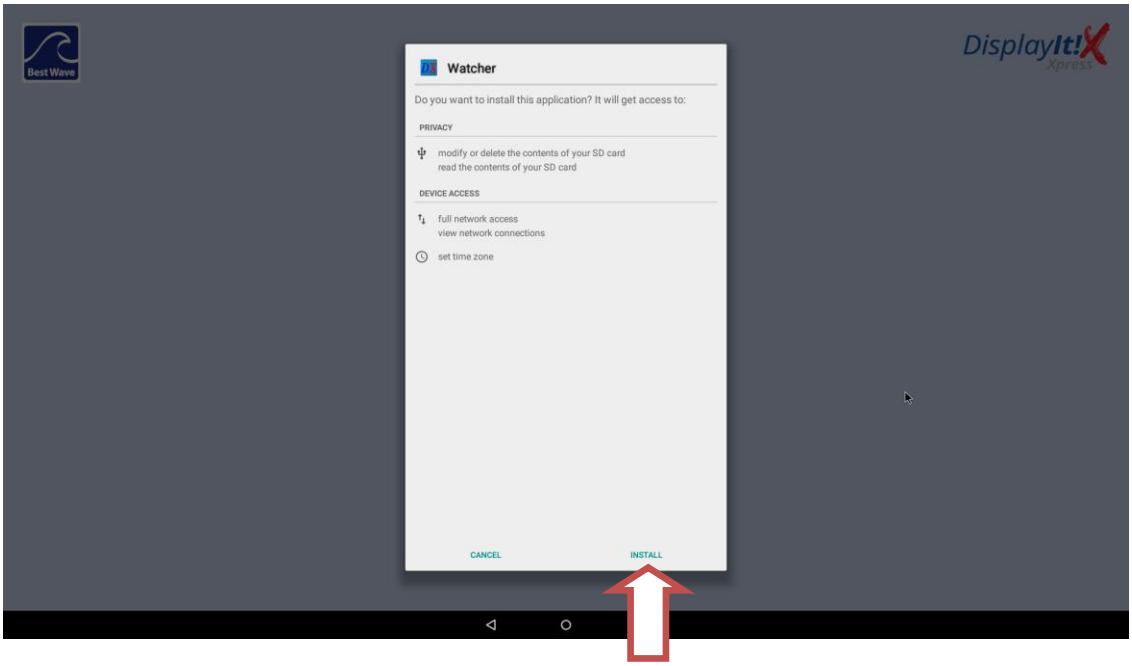
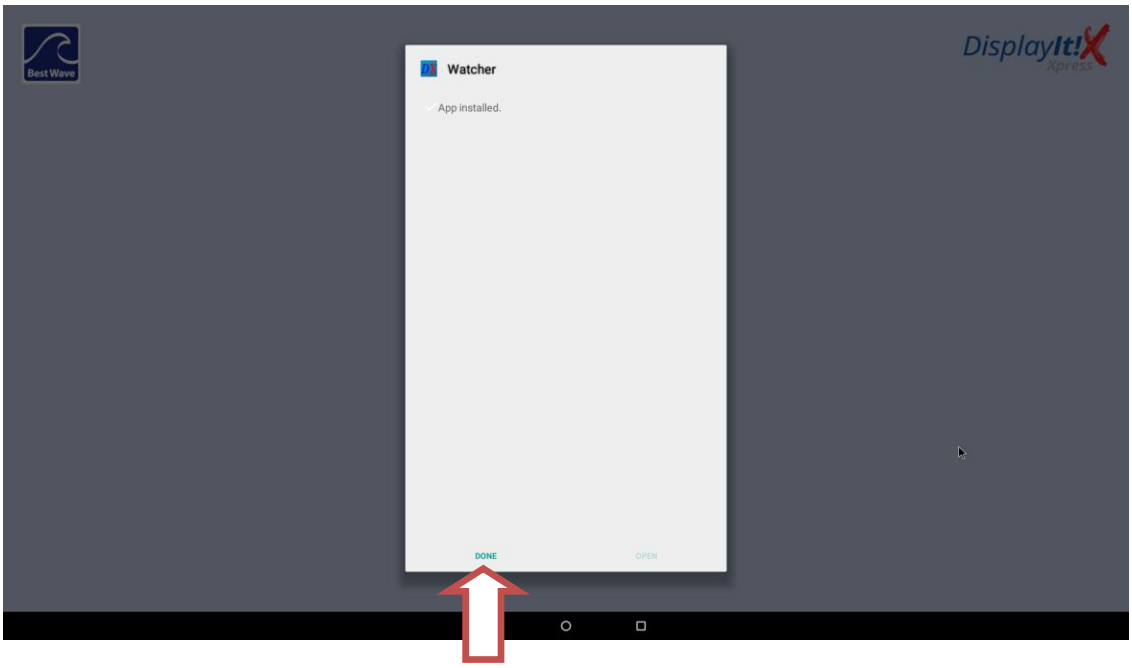
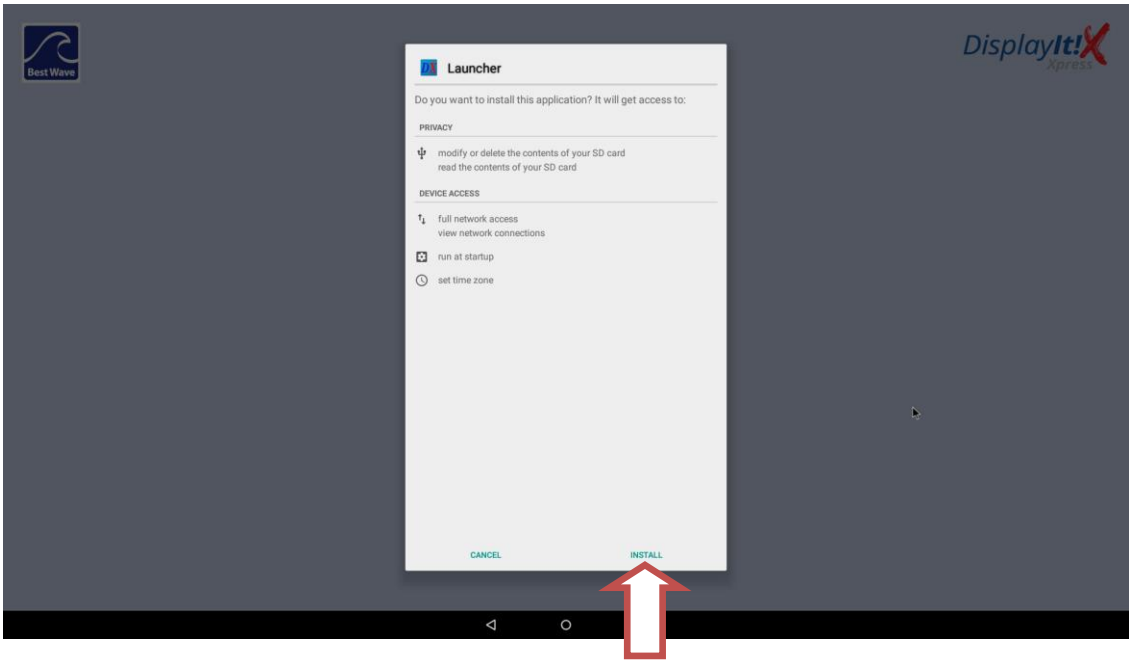
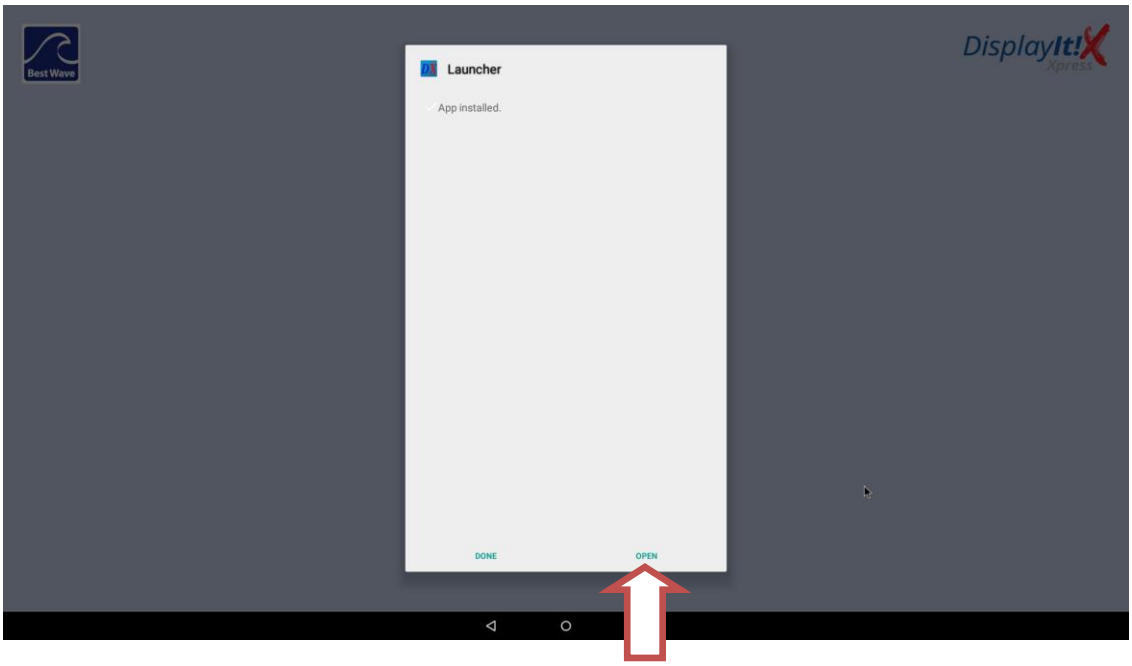

Best Wave
DisplayIt!X Xpress
Watcher
Do you want to install this application? It will get access to:
PRIVACY
modify or delete the contents of your SD card
read the contents of your SD card
DEVICE ACCESS
full network access
view network connections
set time zone
CANCEL
INSTALL


Best Wave
DisplayIt!X Xpress
Watcher
App installed.
DONE
OPEN





After the Launcher app appears, enter the activation email address you received from support@bestwave.com. You should then see a blue cloud screen with the Best Wave logo. That means the player is running and ready to receive content from the Management Console.

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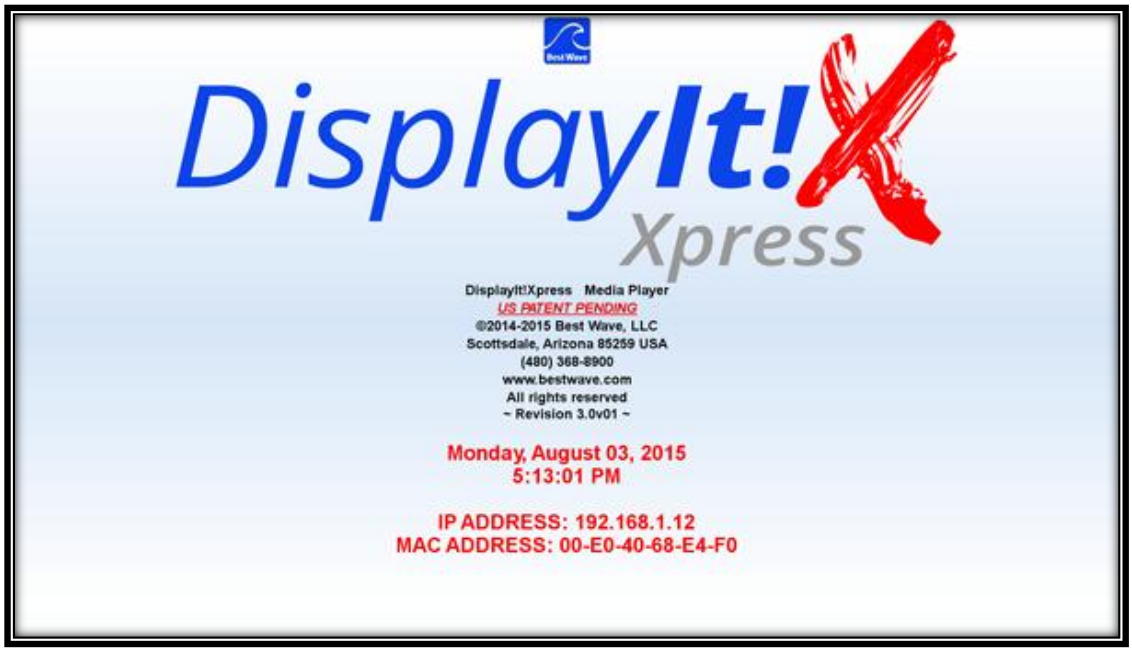
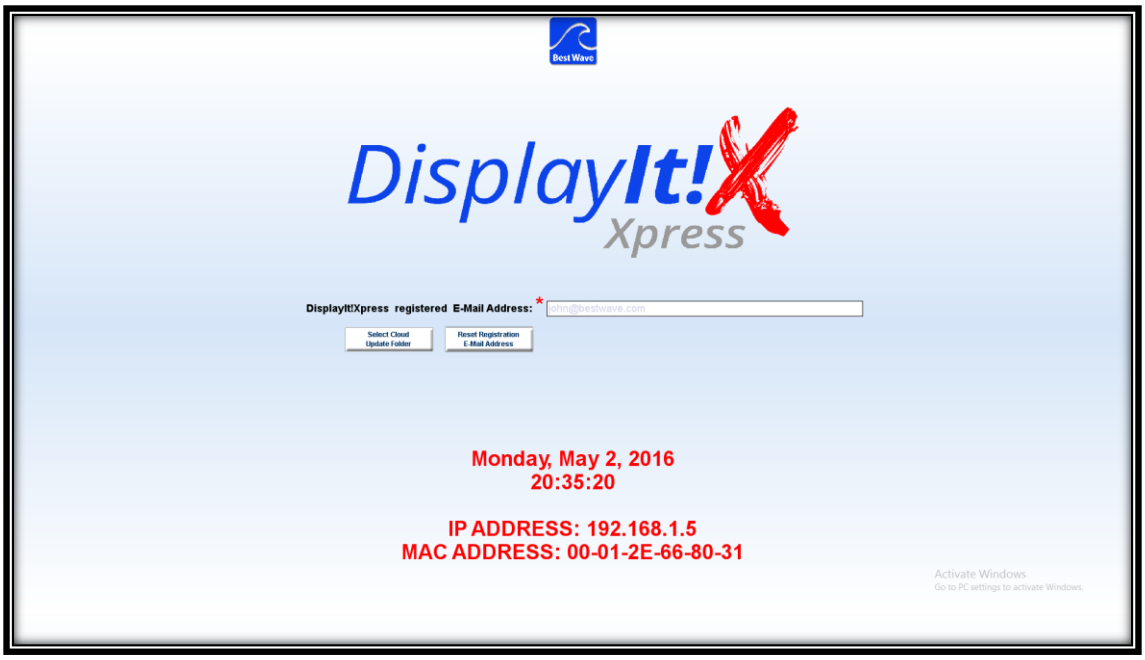
Start up and Activation – Windows Players

When *DisplayIt!Xpress* runs, you will see some important information - like the IP address of the computer that it is running on. If the IP changes it may affect communications with the player (depending on the updating method in use).



On the next screen, you will enter your activation email address. **The activation email address must be entered using only lower case characters.**



You will also see two buttons on this screen:

The first button, Select Cloud Update Folder… **is only used if you are using Google Drive/Sync synchronization service, to update this display.** It allows you to choose the folder that is going to be synchronized via Google Drive. More information about setting up Google Drive can be found in Chapter 2- Changing Content. To turn off cloud updating, click this button, then cancel the selection of a folder which will delete the "cloudfolder.txt" file in the DisplayItX folder. That removes cloud updating when the software is restarted.

IMPORTANT: Do not use the Cloud Update Folder for the Best Wave updating service. Best Wave's service uses a built-in application to pull content from a folder on Best Wave's server. The folder is typically based on the MAC address of the player computer, or can be set to a group name if multiple displays will be using identical content. Discuss your specific needs with support@bestwave.com so that the service can meet your exact needs.

The second button, Reset registration E-Mail allows you to change the email that is being used. Remember **email addresses must be entered in all lower case characters. Do not click ENTER at the end of the email.**

If your email address is not found on our activation server, you will be taken to the software activation screen, which looks like this:

Fill out all the fields on the screen. If you have already licensed the software, enter the serial number(s) from your license cards. If you are just trying it out, click the temporary activation button – no serial numbers are required.

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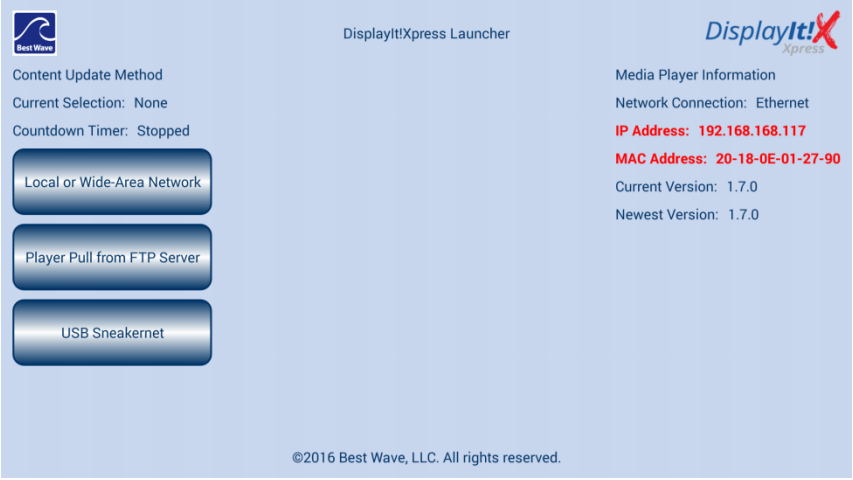
Note for advanced users: If you do no longer wish to display the IP and MAC Address on the startup screen you may add a file named “hideIP.txt” to the DisplayItX folder. This will suppress display of that information on startup.

Start up and Activation – Android Players

When *DisplayIt!Xpress* runs, you will see the following screen where you may select the method of updating that you will be using. There are three options, Local or Wide-Area Network, Player Pull from FTP server, and USB drive Sneakernet. Click or press the update method button to go to the next screen:



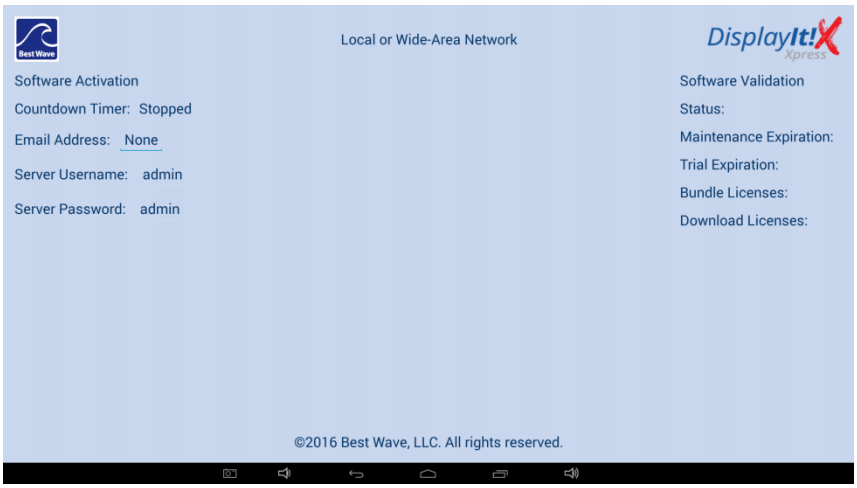
Note the IP Address and MAC address for your media player on the right side of the screen. It is a good idea to write these down for use in the following steps.

The most common update method is Local or Wide-Area Network. This method uses a “push” approach, sending updated content to the player directly from the Management Console.

The Player Pull method uses an FTP server (which can be running on the same computer as the Management Console or on another computer or server on your network. The media players continually poll the server to see if there is new content for them, and if there is, pull it down to their internal storage area.

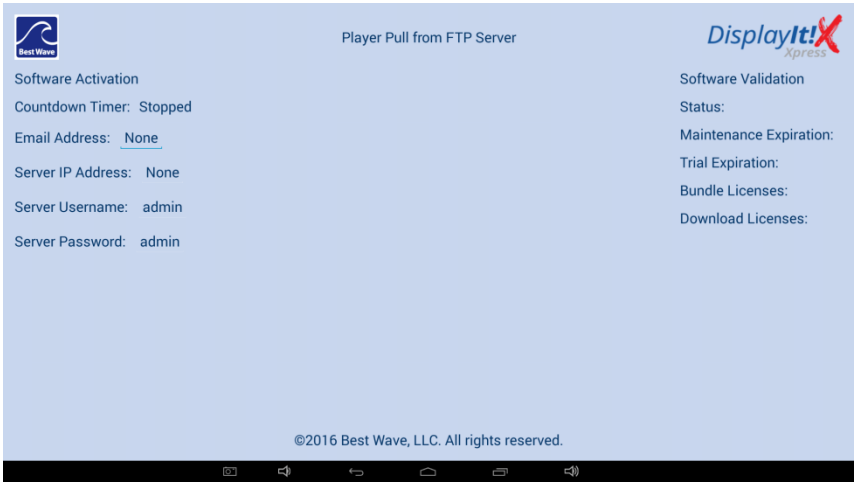
USB drive updating allows the content to be moved to the player manually via a flash drive. The Management Console will save content to the drive and the player will recognize the new content and store it when the drive is inserted.

Depending on the update method choice you select, you will see one of three screens. For LAN/WAN updating, you will see this screen next:



Fill in the email address field with the email supplied by Best Wave. The default FTP Username is 'admin' and the default Password is 'admin' (all lower case). You may change the Username and Password on this screen. Fill in the required fields and press the Done button (or the Enter key) on the Password field to complete the configuration process.

For Player Pull from FTP Server updating, you will see this screen next:



You will need to enter the IP address, Username, and Password to connect to the server that holds content for this display.

Fill in the Server IP Address, Username, and Password as instructed by the administrator of the server you are using. Remember, Usernames and Passwords are case sensitive. For additional information, see Chapter 4 – Optional/Advanced Features. You will see this screen next:

Fill in the email address with the email address supplied by Best Wave. Remember, **email addresses must be entered in all lower case.**

After your player starts up and goes through the activation screens, you will see a blue sky with the Best Wave logo. This means your software is fully operational and ready for content. Next you should download and install the Management Console which is covered in the next section.

Using the Management Console

Installation

To install the Management Console, download it from the *DisplayIt!Xpress* page at www.bestwave.com . It is a standard Windows software application that will run on every Windows operating system from Windows XP – Windows 10.

The installer places a shortcut on your desktop to launch the software.

IMPORTANT NOTE:

If you are sharing management responsibilities with others in your organization, you can share content resources with them. Set the content storage location to a network drive or shared folder using the Settings screen in the Management Console. Do this with the first Management Console installation, then choose the same content location as you add additional users.

This will store media and display schedules in a common location so everyone can use them. You can change this location later.

After startup and activation, if you have not yet defined the displays on your network, you will be taken to the Add/Edit Displays tab. If your displays have already been defined, you will go directly to the Monitor and Update tab.

IMPORTANT NOTE:

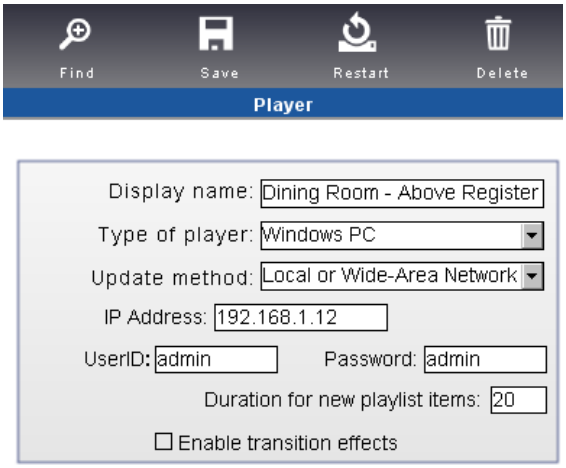
No updates occur while you are on the Add/Edit Displays or the Manage Content tabs. You must update by using the Monitor and Update tab. If the status box for the display you want to update is Green, the Management Console will not send anything to the display because it thinks the latest content has already been sent. Go to Manage Content and make a change to something, like move a playlist item up or down, then the status box will be Yellow and content will be sent to the player when you click it.

Add/Edit Displays

Searching for compatible Displays (Local Area Networks only)

If you have already installed the ***DisplayIt!Xpress*** player on one or more media players, and they are connected to your local network (in nearby subnets), you may use the "Find Players" feature to discover them. This will verify information like the IP address of the player computer.

Click on the "Find" button. This will send a message over your network requesting a response. Discovery of compatible players will fill in the Display name, Type of player, and IP address. You will need to enter the remaining information and click the Save button to save the display. Feel free to change the display name to something easy to remember and descriptive. Repeat this process until all of your displays have been added.



IMPORTANT NOTES:

The Find command does not always work. You can simply write down the IP address as ***DisplayIt!Xpress*** player software starts up and type it in here.

The User ID and Password fields are set to admin/admin or admin/default during installation of ***DisplayIt!Xpress*** player software. You may change these in the Filezilla Edit-Users menu. They are case sensitive, so type them exactly as they were entered on the player.

If you are not using the Find Players button, select the Type of Player, and the Update Method using from the pop-up menus and type in the information.

The "Duration for new playlist items:" field defines how long a content item should play. You can set that on an item-by-item basis later, but 60 seconds should be a good starting point.

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The “Enable transition effects…” button will apply a random transition to images as they are displayed. Leaving it off will cut from image to image. Transition effects are only available on Windows media player PCs.

Windows media players – especially those running Windows 10, will revert to Firewall ON and automatically install all Windows updates. It is difficult to disable these features. So, DisplayIt!Xpress has checkboxes that let you decide if DisplayIt!Xpress should control the Firewall and Updates. Check them to control these functions or leave them unchecked if you want to control them.

Changing Display Information or Deleting Displays

To change any information for an existing display, click on the name of the display in the Display List, then make the necessary changes. Don’t forget to click on the Save button to save your settings.

To delete any Display, click on the name of the display in the Display List, then click the Delete button. If you want to delete all displays and start over, hold down the shift key while clicking the Delete button.

Adding Display Information Manually

If a display’s computer is not on the same network node as your administrative computer or if you have not yet installed the player software on a display, or if you will be using an updating method other than a network, you can enter the information on this screen manually. Type the information, and click Save.

Defining Groups of Displays

Any display can be set into a Group in order to distribute the same content to all of the players in that group quickly. To set the Group for a display, right-click the name of the display in the list. A pop-up window will appear where you can type the name you want for the Group. Groups names that have already been used, will be listed, so you can click on them and save time typing. To clear the display from a group, simply clear the group name and click OK.

Seeing what is playing on an existing Display

The DisplayIt!Xpress software on Windows PCs and most Android players, takes a picture of its own screen every minute. You may see what the latest picture looks like by going into the Add/Edit Displays tab and clicking on the display’s name. This works for some updating methods, Network, Shared Folder, but not for others like USB drive or cloud update services. Android players cannot capture running movie shots.

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Here is a typical screenshot. *The date, time, IP address, and Mac Address of that particular display have been stamped on the picture for your information.*

The Timestamp data is not being displayed on the actual display screen:

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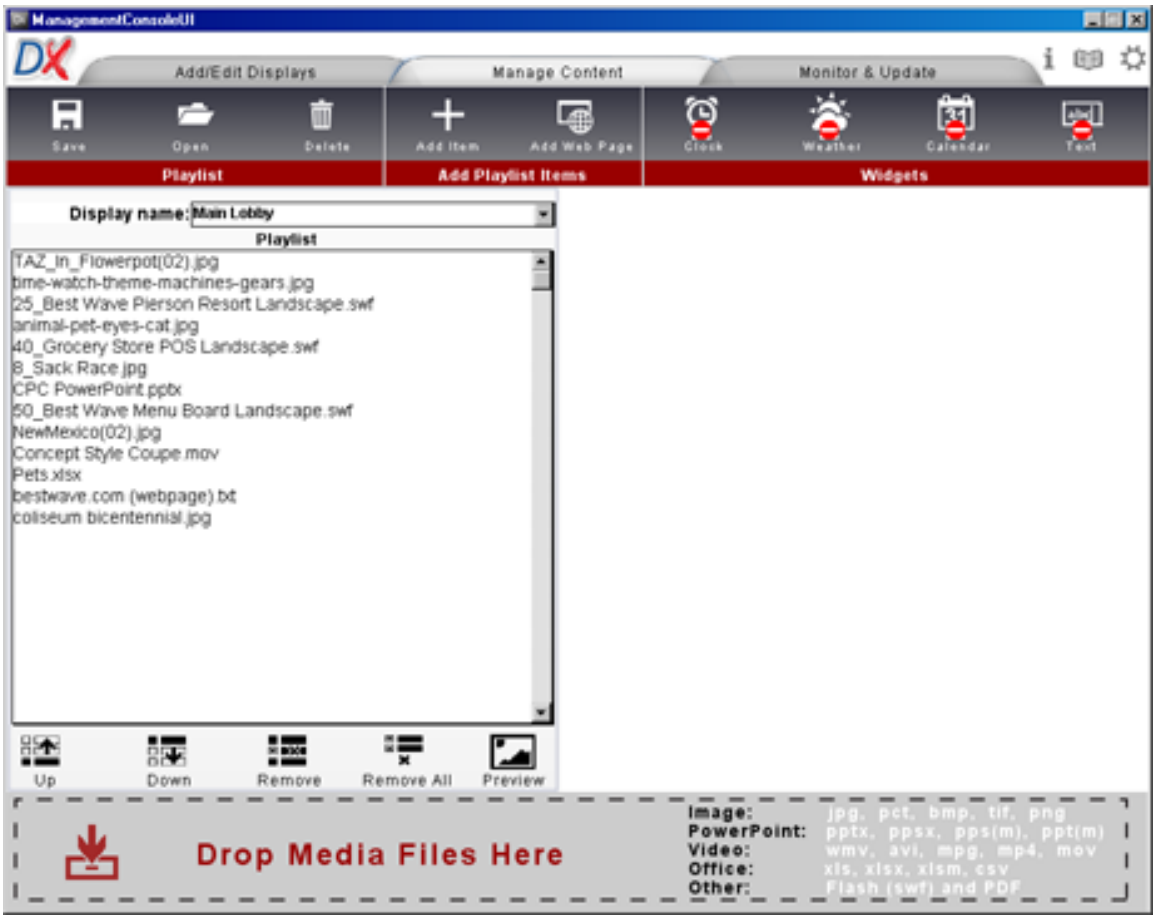
Managing Content

The Manage Content tab

The Manage Content tab is divided into logical sections as shown here:



Across the top are buttons divided into three sections. The left section is for saving, recalling or deleting playlists. The center section has two buttons to add content; an Add Item button which allows you to look for files on your computer or network, and a Web Page button that allows you to type the address (URL) for a web page. And the right section is for configuring Widgets- Clocks, Calendar, Weather, and Scrolling text to enhance your displays.

Below that are two main areas. The left side contains the media playlist and the controls for changing their order, or removing them from the playlist. The right area displays the playback properties of any media item when it is highlighted in the playlist, or of the Widget you are adding or configuring.

At the bottom is a gray drag-n-drop zone for adding content to the playlist.

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Selecting a Display

To select a display use the pop-up menu to the right of the Display name field.

Managing the Playlist

After selecting a Display, you will see the current playlist. You may add files to this list three ways, drag a file icon from a Windows Explorer window onto the "Drop Media Files Here" area, click the blue, + button, or click the Web Page button and type in a URL.

IMPORTANT NOTE:
It may take some time to add a file to the list. A copy of the file has to be made, which takes time for movies, and other large files. For media players that are not Windows PCs, PowerPoint files will be converted to a series of PNG images. This process may take a while to finish.

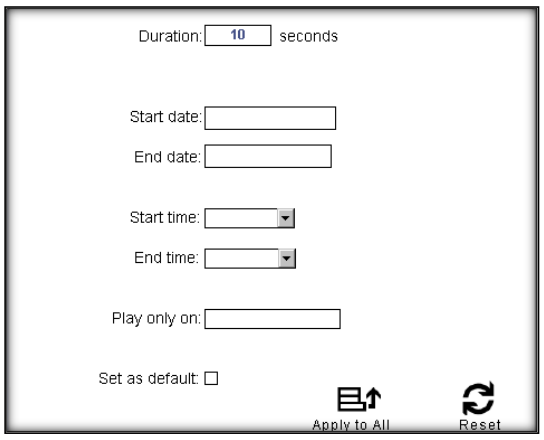
To delete a file, select it by clicking on its name in the playlist, then click the "Remove Item" button. To clear the entire playlist, click "Remove All."

You may select more than one item in the playlist by holding down the Ctrl key or the Shift key while clicking on the list. This allows the properties for multiple files to be set at once, or to delete multiple files at one time.

You may specify the order that files should be played. Highlight any file in the playlist and click the Up or Down buttons, or use the up and down arrows on your keyboard to move the item higher or lower in the list.

Setting Playback Properties

You can also set specific playback properties for each file in the Playlist. Again, start by selecting one or more files so that they are highlighted. The Playback Properties window will appear like this:



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At the top is the name of the media item you are working with. The Duration field will automatically have the default timing that you set in the "Add/Edit Displays" tab. Or, if the file name has a time in the front (i.e. 30_slides.ppsx) the duration field will have that timing in it.

If there is only one item in your playlist, for example a single PowerPoint file, set the duration to 86400. That is the number of seconds in 24 hours.

The rest of the properties are optional. You can use one or more to set the file playback the way you want it. For example, if you want the file to begin playing on a specific date, and then play from then on, set the "Start date:" field, but leave the "End date:" field empty.

The start time and end time will control the time of day that a file plays. If you want the same file to play at two different times, put two of the same file into your playlist (i.e. Announcements_AM.jpg and Announcements_PM.jpg). Then set the start and end times for each one.

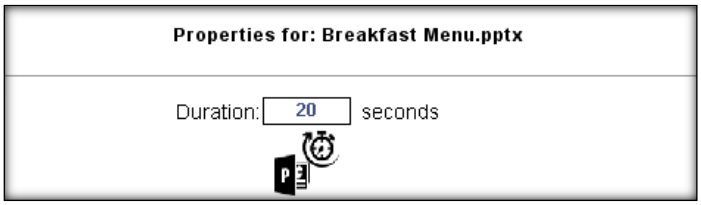
You may set an item in the playlist to interrupt whatever else is playing to play at a specific time each day. It will play only once, at that exact time. To do this, set a start time and then click the "Interrupt playlist" checkbox.

The "Play only on:" field has these choices: Weekdays, Weekends, Sundays, Mondays, Tuesdays, Wednesdays, Thursdays, Fridays, Saturdays. For example, you can set a start date and end date, and then select Play only on: Fridays to show an announcement every Friday during the target dates.

The 'Set As Default' checkbox sets this file to play ONLY when no other content items are specifically scheduled to play. Using this checkbox, you could set an image file to be your default, then schedule a number of PowerPoint files to play at specific times throughout the day. In-between those PowerPoint files, the "Default" image file (or files) would play.

To clear all of the Properties for a file, highlight it and click the "Reset" button. You can then re-enter the parameters for the file. To apply the same properties to all of the files in your playlist, click the "Apply to All" button.

For PowerPoint files, an additional button, "Get Duration" will appear in the top-left corner of the Properties area:



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This button is for determining the approximate duration of a PowerPoint file. For most PowerPoint files, this estimate will be reasonably accurate. Microsoft PowerPoint must be installed to use the PowerPoint duration button.

Saving a Playlist

These buttons are for saving a playlist, recalling it for use later. Saved playlists can be placed on another display. Clicking the Save Playlist button will show a dialog box where you can enter the name you would like to use to save.

When you save a playlist, everything will be saved including the properties for each media item, and the Widgets that you are using and their settings. This allows you to quickly set multiple displays to an identical look.

IMPORTANT NOTE:
Playlists are saved in folders, so the names you use for playlists must be valid Windows folder names. Do not use special characters like "\" or "/". ***You do not need to save a playlist to save changes you have made***, that happens automatically. Only save a playlist if you need to use it for some purpose later.

Loading a Saved Playlist

Click the Open button to select a saved playlist and begin using it. You will be asked if it is OK to replace the current playlist with the stored one. Be careful not to use playlists created for Windows players on Android media players. There are several types of media that only work on Windows PC players, that will not work on Android players at all (Flash and PowerPoint for example).

Deleting a Saved Playlist

Click the Delete button to select a saved playlist and delete it. This will save disk space, and make selecting a playlist faster.

Previewing a Playlist

Click the Preview button to see a representation of what your playlist will look like on the screen. If your display is mounted in Portrait orientation, right click the Preview button to switch it to Portrait before clicking it. Note that not all media types can be previewed. The widgets will be shown in proper colors and locations, but will not be operational in the Preview.

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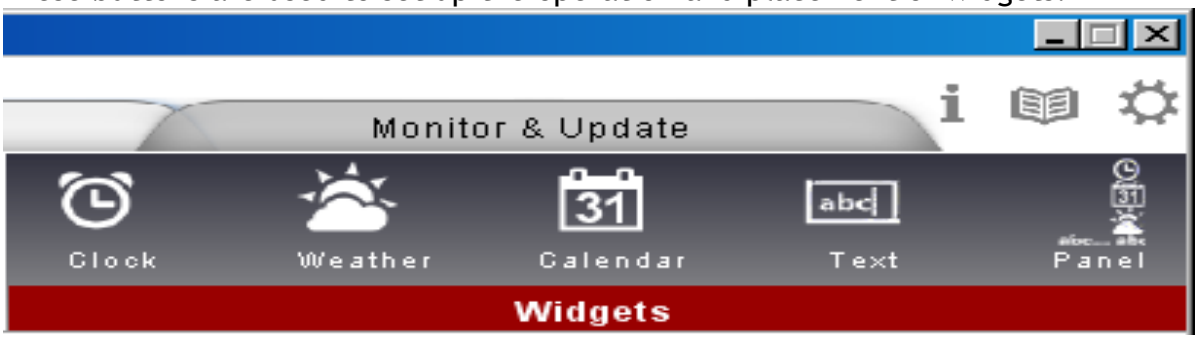
Adding Widgets to the Display

These buttons are used to set up the operation and placement of widgets:

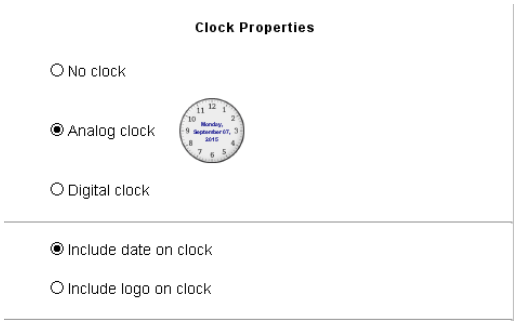


There are 4 Widgets, Clocks, Weather, Calendar, and Text/News Feeds. Initially, all of them will be off – which is shown by a red marker at the bottom of each icon. Click on an icon to add it. The fifth button, Panel, allows the widgets to be shown on a color panel rather than floating on top of content.

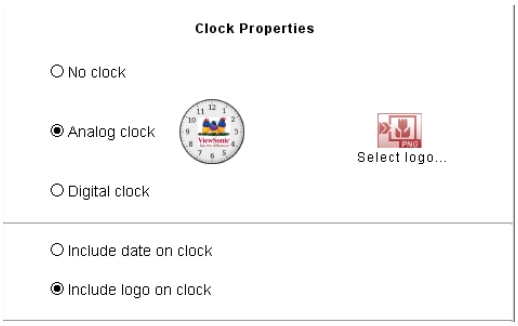
When a Widget is enabled, a green checkmark will appear at the bottom of the icon. Click on the icon to edit its properties.

Clocks

You may select either an Analog or a Digital clock using the radio buttons in the properties window:



In this case, the Analog clock is selected, and the "Include date…" checkbox is checked, so the clock on the screen would look have the date as shown.



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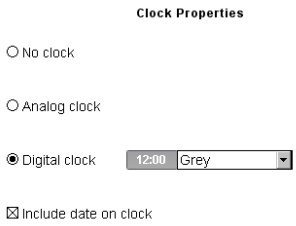
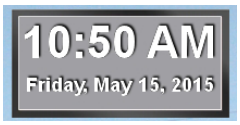
Or, you can click the “include logo…” button and select a PNG file for the logo by clicking the red “Select logo” button. The clock would then look as shown above.

Selecting the Digital Clock option allows you to select a color from the popup in the properties window. In this case, grey was selected:



So the clock would look like this on the screen:



Weather

The weather widget in *DisplayIt!Xpress* is extremely powerful. Not only does it give you almost 8,200 weather locations from around the world to choose from, but it allows you to select up to 5 different locations and will rotate them every 10 seconds on the display.

To illustrate this feature, think about Los Angeles. Instead of choosing a single location or zip code, *DisplayIt!Xpress* allows you to select Los Angeles, Burbank, Orange County, Ontario, and Ventura; providing a view of the entire metropolitan area.

For New York you could select Central Park, JFK airport, Manhattan/Downtown, La Guardia airport, and Newark to give a well rounded view of the weather situation in the area. Weather locations in Canada, and around the world are also available and can be mixed with US and Canada.

You may also display a full screen weather map with up-to-the-minute radar from the National Weather Service. This is available on Windows PC players using the Google Chrome browser. More information and step-by-step instructions are on page 62.

To use the weather widget, select it from the Widgets menu, and set its color and weather locations:

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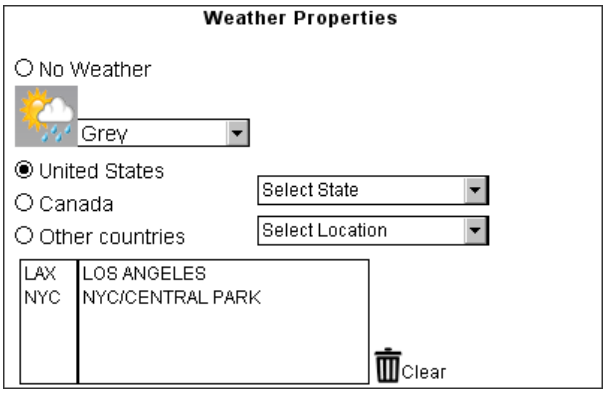

First, select one of the three radio buttons at the top, United States, Canada, or International. You may mix weather from different states, or even different countries.

In the above example, we have checked United States, selected the state of California and chosen Los Angeles and then the state of New York and selected Central Park as our 2nd location. You may select up to 5 weather locations.

We have also specified that the text at the top and bottom of the weather widget is going to be grey.

Calendar

The calendar widget will show the current date in this format:

You may change the color by using the pop-up menu as shown here:

Text and RSS Feeds

The Text and RSS feed widget is a powerful feature of *DisplayIt!Xpress* which allows you to scroll text that you have typed, the current date, the current time, and news and weather feeds across the display screen.

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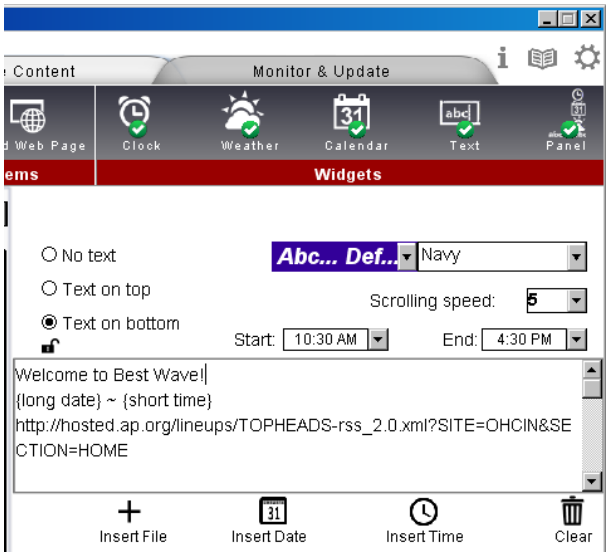
You may store a text file with the text you use most often and load that file so that you don't have to type everything in again.

You may also use date and time placeholders, which will be replaced with the actual date and time before being shown on the screen:
[long date] Wednesday, September 23, 2015
[short date] 9/23/15 or [short time] 7:45 PM

These will be in the correct language and format for your location, in other words, outside of the United States, the long date above would appear as Wednesday, 23 September, 2015 and the short date as 23/9/15. The time would be 19:45. There are buttons to allow quick addition of date and time. For Android players, the date and time placeholders must use less than and greater than characters like this: <short time> <long time> <long date>

To set up scrolling text, choose it from the widget icons on the top-right and then adjust its properties as shown here:



RSS feeds that include '.xml' in the feed URL may be used as shown in the last line of the example above.

You may select a top or bottom location for scrolling text by clicking either of those buttons. You may also set the speed from 1 to 10. Since computers vary greatly in their processor speeds and memory, you will have to experiment with this setting to find the right speed for your displays.

You may limit text to certain times by selecting a start time and an end time with the two pop-ups. The text bar will still appear, but there will be no text outside of the selected times.

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On the top are the Font and background color selections. It is a good idea to set the background from the pop-up menu first so that you can see your selected font and color on the background.

IMPORTANT NOTES:

The font you select MUST BE ON THE DISPLAY COMPUTER. Otherwise a font will be substituted. A list of fonts installed on the display will be retrieved when you click on the display's name in the Add/Edit Displays tab. Once that list is available, trying to set the text to an unavailable font will be blocked.

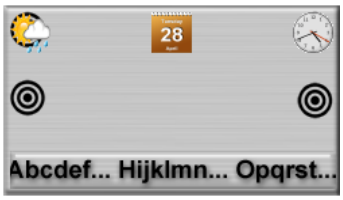
Try to keep the lines you type relatively short. Long lines may extend off the screen both left and right at the same time – which makes them difficult to read – especially on displays mounted in portrait mode. The maximum length of a single line of text is 133 characters. Longer lines will be truncated.

The buttons along the bottom of this area allow you to insert text, such as news feeds or text into the field. You can also insert the date or the time. Clear all the text and start over by clicking the Clear button.

You may lock the position of the Scrolling Text on the screen by using the lock/unlock icon. Locking will resize images, PowerPoint, and video so that they are not partially hidden behind the scrolling text on the player screen.

Positioning Widgets

There are 8 positions around the screen that you may position widgets. These are shown as targets in the widget properties window:



In this example, we have a full set of widgets in use. You can reposition by dragging from one target to another, or on top of an existing widget – in which case they will be switched with each other.

You may also drag the Text bar from the bottom to the top, and the existing widgets will be moved to the bottom for you.

IMPORTANT NOTE: All changes in the Modify Content tab are automatically saved as soon as you do anything. The changes will not appear on the display until you go to the Monitor & Update tab, described in the next section.

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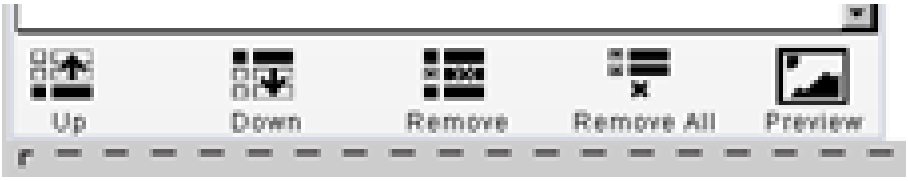
Previewing Widget Positions and Colors

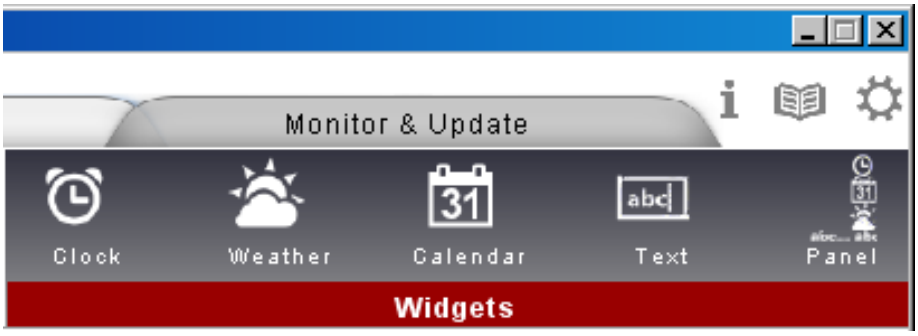
Click the Preview button to see a representation of what your playlist will look like on the screen. If your display is mounted in Portrait orientation, right click the Preview button to switch it to Portrait before clicking it.

Note that not all media types can be previewed. Some digital video files are able to be shown in the previews and others are not. This depends upon a number of factors, including the media players and digital video resources installed on your computer. The widgets will be shown in proper colors and locations, but will not be operational in the Preview.



Panels vs Floating Widgets

Instead of having widgets float over your content, you may want to group all of the information normally contained in the widgets on color coordinated panels on the sides, top, and bottom of the display. Selecting the Panel icon allows you to do this:



The Panel properties allow you to turn panels on and off, add your own custom logo to the panel, select a panel template, and select the background color and text font for all of the text shown on the panel:

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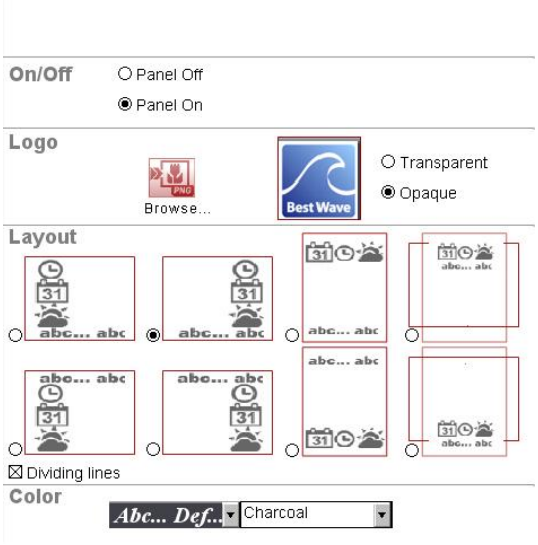

To turn panels on and off click the buttons at the top. When panels are On, you will no longer control the positioning of the individual widgets because they will not be floating over the content. So the positioning controls will no longer appear under each widget. The colors for the entire panel set controlled in this window. So the Weather, Calendar, Digital Clock and Text colors controls will not be displayed within those widget properties. Notice that there are 4 panels for landscape, 2 panels for portrait, and 2 panels that can be used for either orientation.

Selecting Panel Properties

The top area of the panel properties is for adding a Logo. You must use a PNG file for the logo. The closer to square the logo is the better, but rectangular logos will still work. Click the browse.. button to find the logo you want to add. It will appear in the logo area to the right:

To the right of the logo are two buttons, Transparent and Opaque. Some logos look better on certain backgrounds when you can see the color of the background through the blank areas of the logo, others are best shown without seeing through the logo. A representation of how the logo will look on the panel is shown as you click each of these buttons.

To clear the logo, click the Browse… button, then cancel.

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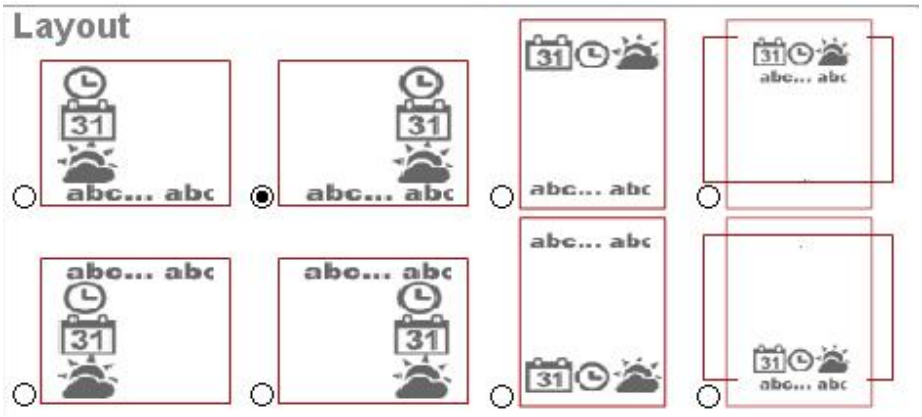
The next section allows you to choose one of 8 layouts for your panels. Text on the bottom or top, widgets on the left or on the right. The right two panels are condensed, with text and the weather, time, date and temperature all on one small panel (it is 105 pixels high). They can be used for Portrait or Landscape displays.



Note: hidden feature…
The two condensed panels can be moved away from the top or bottom of the display. This is done by placing a text file in the DisplayItX folder on the Windows PC player. The text file must be named 'panelLocation.txt' and it must contain the top and bottom of the panel, like this: `Top|351|Bottom|400`

The last section of the panels properties window is for selecting the background color, font, and text color:

Choose a background from the pop-up on the right, then choose a font, color, style, and size from the font pop-up on the left.

Panel Dividing Lines

As of revision 9.0v05 of the software, you may turn on or off the dividing lines between panel elements. This is done via the checkbox labeled "Dividing lines" at the bottom of the Layout area:

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Controlling Other Panel Elements

Although the basic look of the panels is set using the screens above, the operational aspects of the individual elements are still controlled by the widgets.

For example, to select an analog or digital clock for the panel, use the Clock widget control. To select weather locations, use the Weather widget control. To turn text on and off, or to enter text and RSS Feed information, use the Text widget, and to turn the calendar off and on, use the Calendar widget.

Panels can even be set to show nothing at all, by turning off all the widgets and not using a logo. Or you can selectively use the widgets you want, perhaps the weather the clock and a logo. You have complete control and unlimited flexibility.

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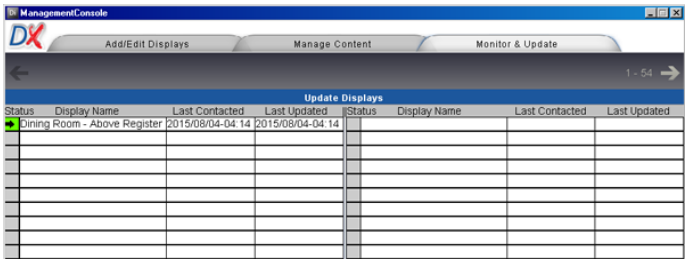
Updating the displays

Updating will only occur when you are at the Monitor and Update tab.
When you define or change the media or widgets for a display, you must go to the Monitor and Update tab to send the new information to it. The update method depends on the selection made in the Add/Edit Displays tab.



Status Indicator Colors

Displays are listed on this screen, with a status color in front of their name that signifies the current status of that display.

Green – The display has been communicating, and is updated with the most recent playlist that you set in the Manage Content tab.

Yellow – The display has been communicating, but does not have the most recent playlist and widget information yet.

Red – Communication with the display was not possible at the most recent attempt. An e-mail notification will be sent (if that feature is in use) when this condition occurs, and another e-mail is sent when is sent when it is resolved.

An arrow shows which display is currently being updated. You may click on the status indicator box (the color red, green, yellow box) to immediately update that particular display.

You may change the operation of the updates from automatic to manual, and the time between updates in the Settings screen, which is discussed in the next section.

Status	Display Name	Last Contacted	Last Updated
➡	Main Lobby	2015/05/21-13:47	Content Modified
	Cafeteria	2015/05/21-13:48	2015/05/21-13:48

This example shows the Main Lobby Status indicator is yellow, meaning that the content has been modified, but the display has not received its update yet.

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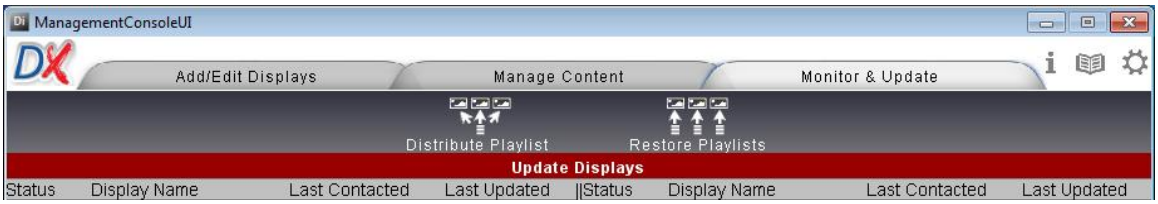
The Cafeteria Status indicator is green, indicating it is up to date. You can also see when each display was last contacted, and the last date and time the content was modified for each.

To see the latest screen shot from any display, go to the Add/Edit Displays tab and select the display you want to see. A screen shot will be pulled from the display for you to view. This will not work for every updating method – for example if you update a display via USB thumb drive.

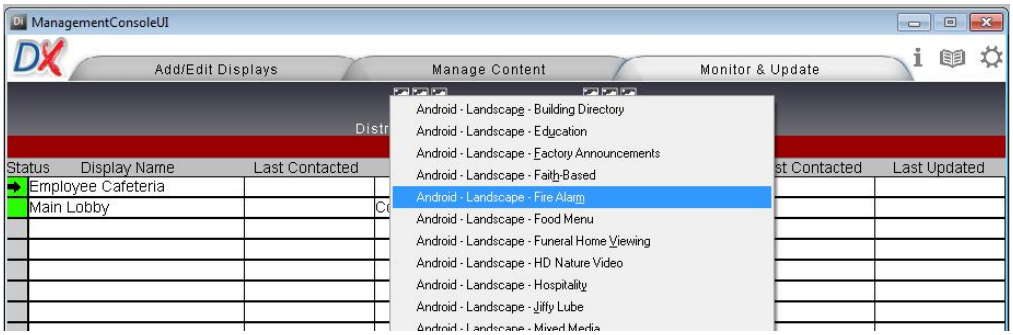
Distribute Playlist / Emergency Broadcast

There are two buttons on the Monitor Update screen that allow all of your displays to be set to the same stored playlist with a single click, and to be set back to their original content. They appear at the top of the screen and are named “Distribute Playlist” and “Restore Playlist”.

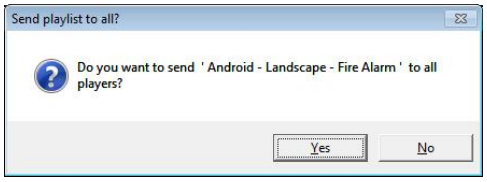


This feature can be used to speed up the update process, by eliminating the need to define content for several displays that are playing the same thing, or to set all of the displays to an emergency playlist of your choice.

To send the same saved playlist to all of your displays, or to a group of displays, select the saved playlist you want to send from the pop-up as shown here.



You will be asked to confirm this action:



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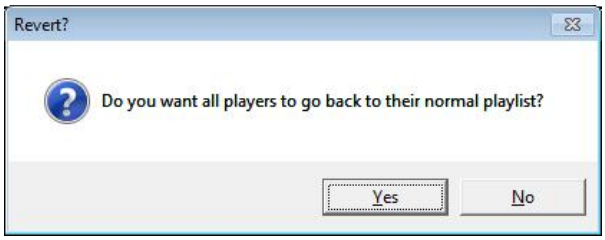
Once you confirm that you want to distribute the playlist, the pointer will step from display name to display name and update each display as quickly as possible. The time it takes depends on the updating method.

To put all of the displays back to their normal playlist, click the “Revert Playlists” button. You will see this confirmation:



After you confirm, the pointer will start at the top of the list of displays and update each display with what it was previously playing before the Distribute Playlist was used.

IMPORTANT NOTE:

If you have both Android and Windows players on your display network, be careful not to select a playlist that was created for a Windows player if it contains Windows-only content. For example, a PowerPoint file or Excel spreadsheet. Any files that cannot be played on the Android player will be ignored by Distribute Playlists. It is safer to use an Android playlist.

IMPORTANT NOTE:

Attempting to use Windows fonts on an Android player will crash the DisplayIt!Xpress software on the player. The only valid fonts for Android players are Droid fonts such as Droid Sans, Droid Serif, etc.

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Updating Methods

There are 5 updating methods.

1) Local or Wide-Area Network which works via FTP (File Transfer Protocol) using TCP/IP port 21 on Windows players and TCP/IP port 2221 on Android media players.

2) Pull from FTP server, which works only with Android media players. This uses TCP/IP port 21 to pull content from an FTP server like Filezilla Server. You must install Filezilla on the same network as the Management Console so it can save files to the root folder of the server. Make certain that your computer has a static IP address so that it does not change. Otherwise, all of your displays would stop updating if a different IP address is being used.

3) Shared Folder on Player which copies new content directly to a shared folder on the player computer. This works only with Windows PC media players. That shared folder must be the "DisplayItX" folder on the player PC(s).

4) A Cloud-Based file synchronization service such as Google Drive/Sync. This works only with Windows PC media players. There is more information on this method in the next section. Recently we have received a number of complaints about Google Sync stopping on remote players. For this reason we developed our own Cloud Update service.

   Another cloud based update method is the Best Wave Cloud Synchronization Service. This is a subscription based service that supports all of the functionality of DisplayIt!Xpress for Windows via the Internet. The cost of this service is based on the polling interval. For a display that looks for updates every 20 minutes, the cost is $4 per month, every 10 minutes, $5 per month and every 5 minutes, $6 per month. Talk to support@bestwave.com for more information.

5) USB Sneaker-net. This method requires that you insert a USB thumb drive each time you perform an update. The updated content will be copied to the USB drive, then you have to take the drive to the player computer and insert it for the update to occur.

Changing Content via the Cloud (Google Drive – for Windows PC players only)

First, get a Google account and review the Google Drive terms of service to make sure you are complying with their policies https://support.google.com/drive/answer/2450387?hl=en)

Install the Google Drive application on the desktop PC that has the Management Console. When the installation is complete, you will see the "introduction" to Google Drive screens. The last screen will provide your only opportunity to select which folder Google Drive should synchronize. It looks like this:

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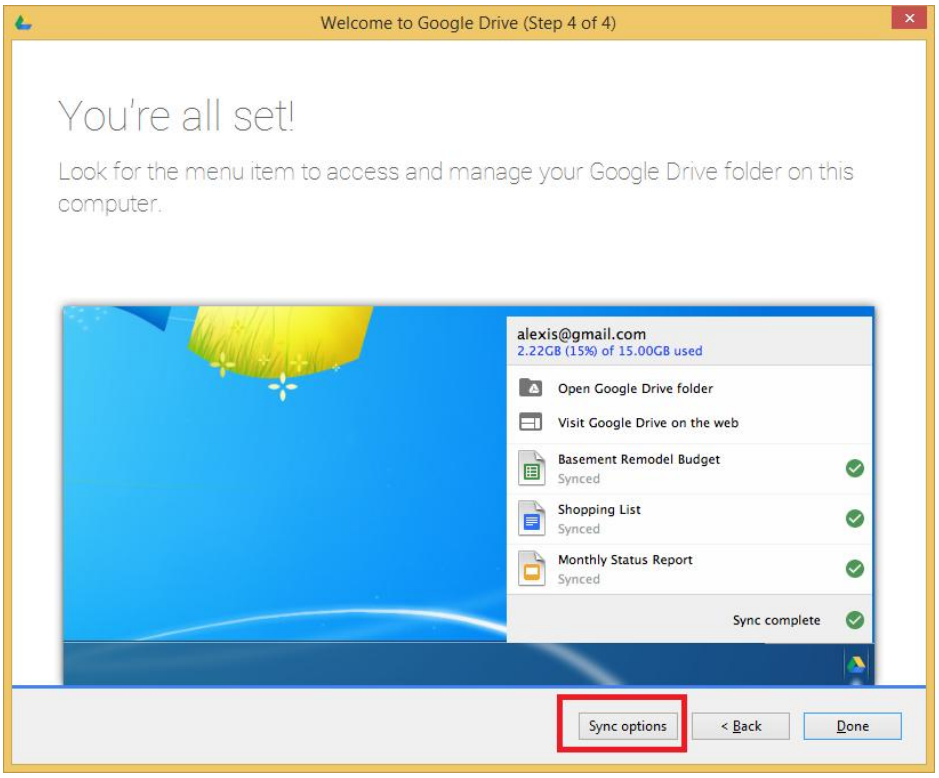
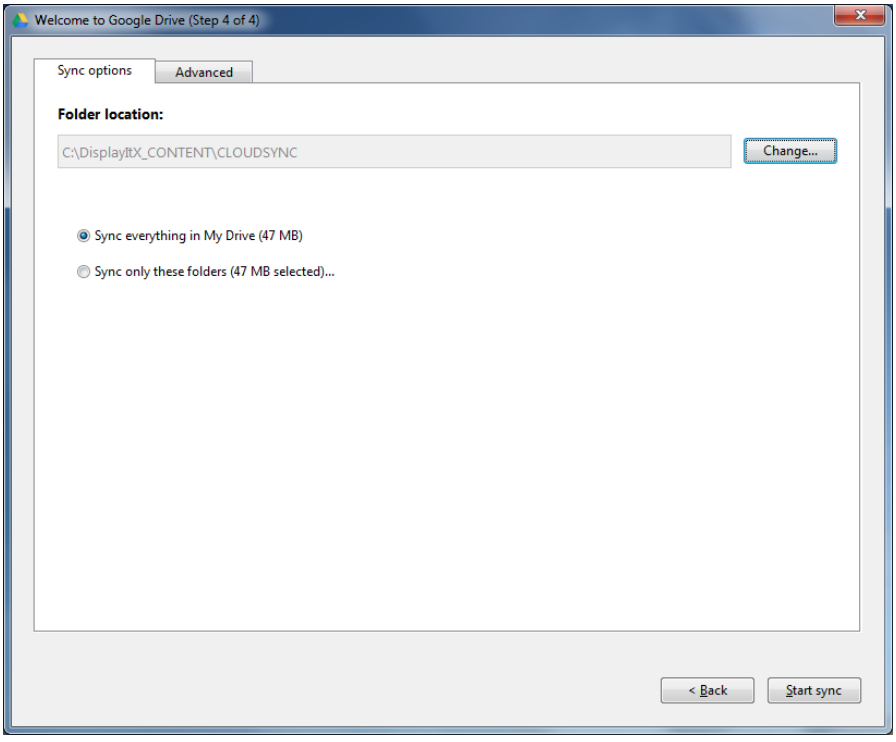


Click on the Sync options button, highlighted above with red. You can now select the folder that Google Drive will synchronize.

Click the "Change…" button and select the CLOUDSYNC folder in your DisplayItX_CONTENT folder like this:



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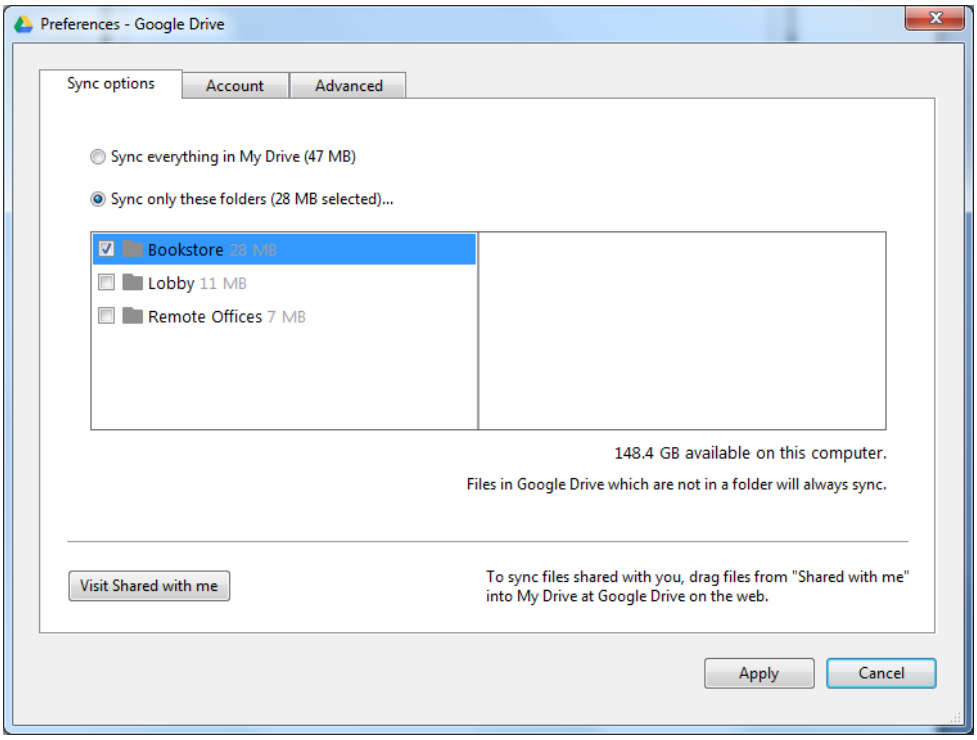
After you have selected the folder, click on the Start sync button to start up Google Drive. Now, Install Google Drive on each media player PC, following the same procedure. After installation, click the Sync Options button. But this time, click the "Sync only these folders" radio button, and select the name of the display you want to have this player be, as in this example:



When you start up DisplayIt!Xpress on the player, click on the "Select Cloud Update Folder" button on the first screen: (You will be asked if you are using a cloud synchronization service, which you are, so click Yes)

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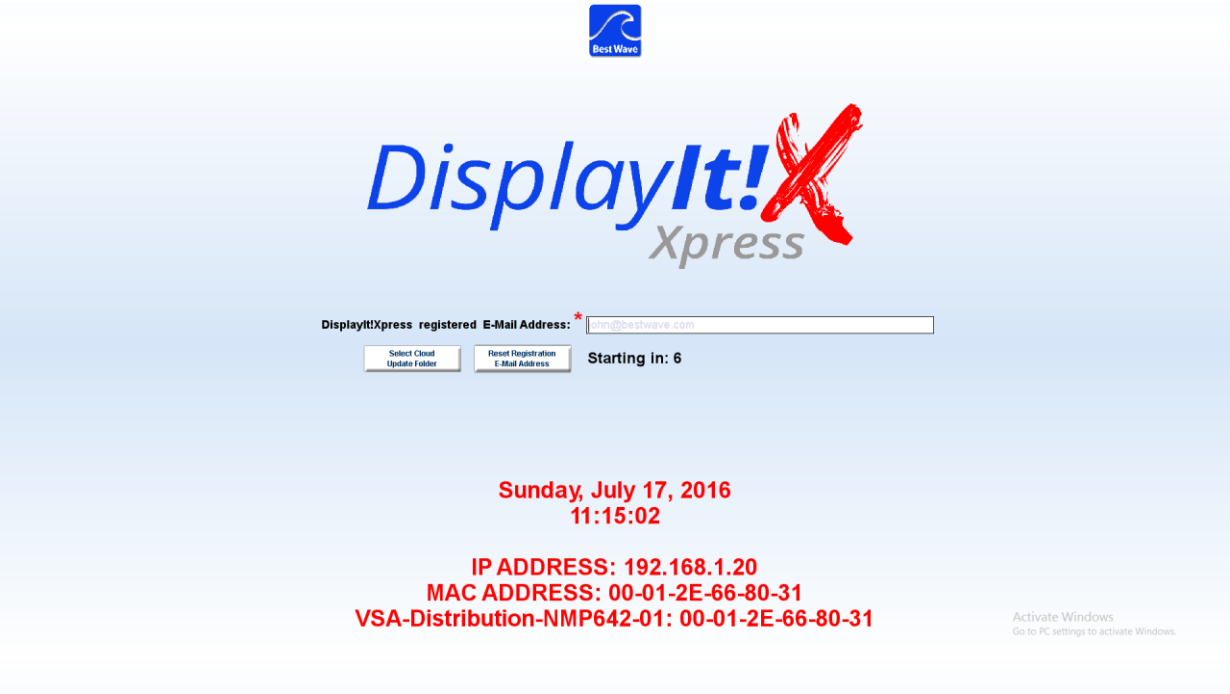
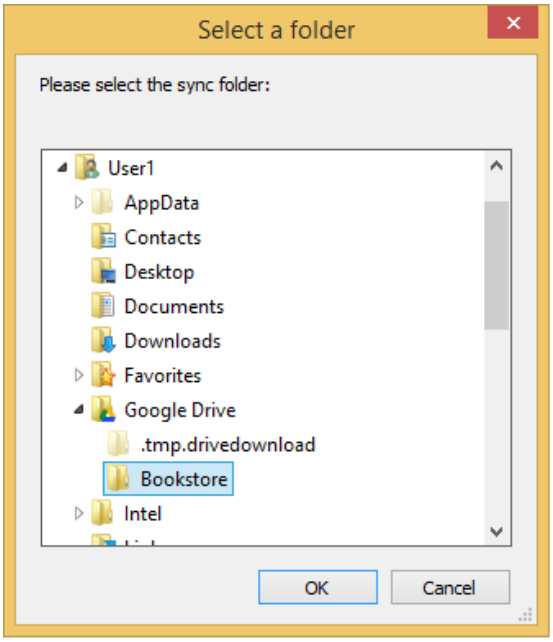


Then, select the folder corresponding for the display name that you want used for that player. The Google Drive folder will be in the Username folder for the computer. Select the folder inside, in this case, we selected “Bookstore”:



You may choose the same folder for one or many players!

So one “Display” on the Management Console may correspond to many physical displays (player PCs) in the field.

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Make sure that the display names in the Management Console are descriptive of their real-world use. For example, you might want to name your displays, “California Doctor Lounge”, “Arizona Doctor Lounge”, “California Factory Floor”, and so forth. That allows the person setting content for those displays to easily distinguish the location and use case for each.

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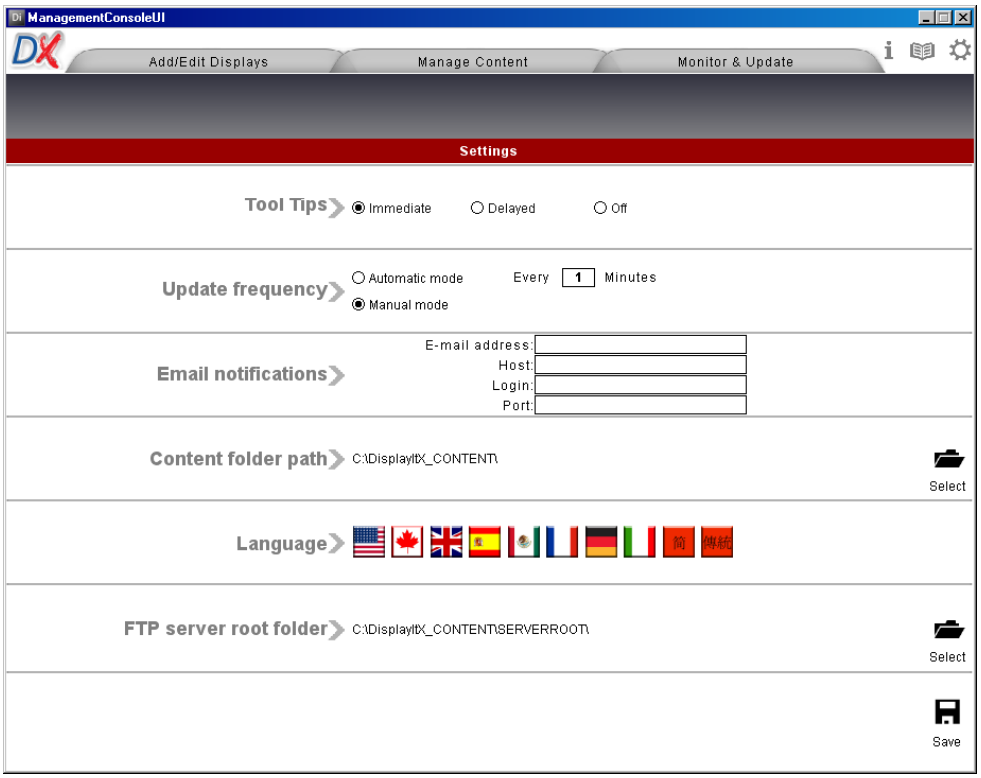
Settings

You may go to the settings screen by selecting settings from the DX pop-up menu in the top left corner of any other screen:

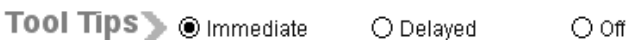
You will see the settings screen as shown here:



The settings are divided into six areas. We will discuss each of these in the following sections.

Tool Tips

You may determine how quickly tool tips appear on all the screens within **DisplayIt!Xpress** by choosing one of these settings:



The Immediate selection will pop-up a tool tip within a second and is good for beginners using the software for the first time.

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Delayed will wait 3 seconds before showing a tool tip, and is good for more experienced users.

Off will turn off tool tips for experienced users of DisplayIt!Xpress.

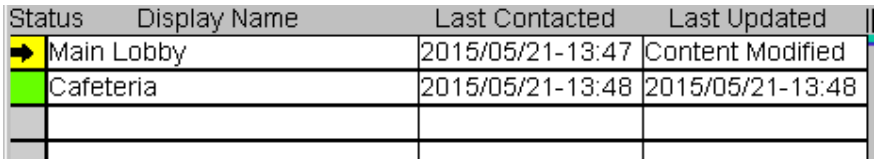
Update frequency

You may determine how the updating and checking of displays will operate in the Update and Monitor tab using these settings.

Choose automatic mode if you will be leaving DisplayIt!Xpress running all the time to monitor your displays. Set the number of minutes between updates to something reasonable given the number of displays you have.

Do not use automatic updating if any of your displays are being updated by USB drive. That requires you to insert a drive when the update happens.

Choose manual mode if you plan to update displays as you change their content. You can click on the status indicator next to a display name to initiate the manual update. For example, the Main Lobby display below has had its content modified but the content is not yet on the display. You can click the yellow box to start the update process. Wait till the box turns green before starting another update, or leaving this screen.



Status	Display Name	Last Contacted	Last Updated
	Main Lobby	2015/05/21-13:47	Content Modified
	Cafeteria	2015/05/21-13:48	2015/05/21-13:48

E-Mail notifications

DisplayIt!Xpress can notify someone in your organization when there is an issue communicating with a display. They will receive an e-mail when the status changes to red and another when communication is restored and it changes back to green.

To enable email notification, fill out the area shown here in the settings screen:

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These settings are decided by your network administrator. Best Wave does not have the ability to troubleshoot these settings with clients, so please don't ask!

Some networks will not even allow emails to be sent from applications this way, in which case this feature will not work. A workaround may be to use an email forwarding service. Again, setting up such a service is too individualized for us to offer support, so please, ask your IT manager to help.

Content Folder Path

DisplayIt!Xpress can store all of the playlists and display information in a shared folder or on a network drive. This allows multiple people with access to that drive to cooperate in managing the digital sign system.

To change the location that DisplayIt!Xpress stores content, click the Select button shown here, and navigate to the folder that you want to use. All of the information you currently have stored will be moved to the new location, so this might take a while.

Language

DisplayIt!Xpress automatically senses the language running on your computer. If it does not, you may select on the startup screen, or by going to the settings screen and selecting the appropriate flag. Supported languages are English, Spanish, French, German, Italian, Simplified Chinese, and Traditional Chinese.

FTP Server root folder

If you are using "FTP Pull" updating (available for Android players), then you must select the folder that is set as "Home" or "Root" in the server software.

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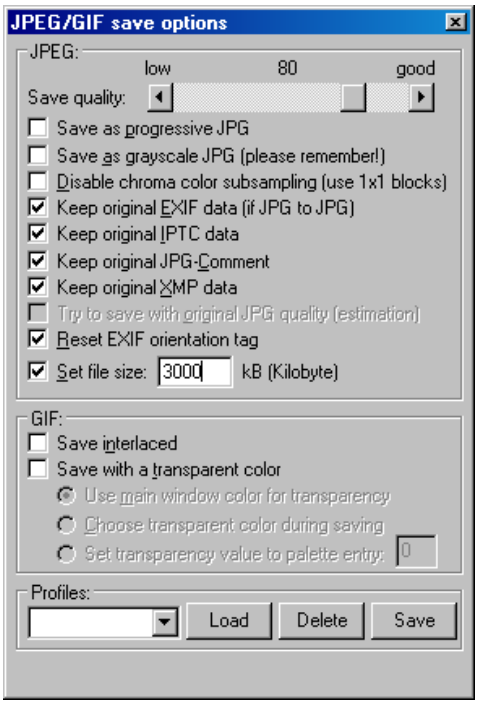
Creating Media

Images

Image files in multiple formats are supported. These include JPG, PNG, PCT, TIF, and BMP. PNG is actually the best overall format with high image quality and a small size that takes up less room on the display PC.

Make sure that the edges of your images are not pure white, or DisplayIt!Xpress will cut them off during the import process. An easy way to do this is to add a thin color border, or a small dot in two of the corners of the image.

Android - Important Tip: Android players may crash if large (over 3Mb) files are sent to them. We recommend using IrfanView Image Viewer. It is free for personal use, and the installer is in your C:\DisplayItX folder. Simply opening an image with IrfanView and then clicking the Save icon allows you to quickly reduce the file size. When you save, you will see a small dialog box that allows you to specify the maximum file size, like this:



Make sure it says 3000 or less in the 'Set file size:' field before you Save.

PowerPoint

PowerPoint presentations are a great way to add automated slide shows to digital sign content. They are easy to create, and modify.

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For best results use the Page Setup menu in PowerPoint to set the size of your presentation to 16:9 aspect ratio (or 9:16 for Portrait mode displays). **To get full resolution from your PowerPoint slides, set the slide show size to custom, 26.666 inches by 15 inches for landscape or 15 inches by 26.666 inches for portrait.**

Before you save your presentation, 1) **set the slide show to play in Kiosk mode in the Slide Show Setup tab** and 2) set all of your slides to advance automatically.

There are two PowerPoint files inside of the C:\DisplayItX\PPT Templates folder that downloaded with the Management Console that have all the settings correct: DigitalSignPresentation-Portrait.pptx and **DigitalSignPresentation-Landscape.pptx**

Key PowerPoint Playback tips (Windows PC Players only): VERY IMPORTANT

1) The duration of a PowerPoint file added to the playlist is critical. If it is too small, PowerPoint will not have time to open and will start over and over again, which could cause a system crash. Use the “Calculate PowerPoint Duration” button which is shown beneath the Duration field when you highlight a PowerPoint file in the playlist to find out how long the slide show is.

2) EVERY slide must have a time to advance to the next slide. So the easiest thing to do is go to Animations, set the "Automatically after:” time for one slide, and then click the "Apply to All" button. Then adjust any slide that should be on the screen for less or more time.

3) The slide show MUST be set to Browsed at a kiosk (full screen) in the Slide Show tab, Set Up Slide Show selection.

4) If you use fonts in your presentation that are not on the player, you should embed the fonts in your PowerPoint. Open the PowerPoint Options screen and select the Save tab. There is a button to Embed Fonts in the File. Click that and the Embed only the characters… button beneath it.

Starting out using the blank PowerPoint presentations provided with the Management Console will make sure that all of these settings are correct. They are found inside the DisplayItX\PPT Templates folder. DigitalSignPresentation-Landscape.pptx and DigitalSignPresentation-Portrait.pptx

Not all PowerPoint transitions are supported by the PowerPoint Viewer application. Here is a list of transitions. The ones in **bold type are supported** the rest are not:

None	**Reveal**	**Cover**
Fade	**Cut**	**Flash**
Push	**Random Bars**	*Fall Over*
Wipe	**Shape**	*Drape*
Split	**Uncover**	*Curtains*

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Wind	*Prestige*	**Switch**
	Fracture	**Flip**
	Crush	**Gallery**
	Peel Off	**Cube**
	Page Curl	**Doors**
	Airplane	**Box**
	Origami	**Comb**
	Dissolve	**Zoom**
	Checkerboard	**Pan**
	Blinds	**Ferris Wheel**
	Clock	**Conveyer**
	Ripple	**Rotate**
	Honeycomb	**Window**
	Glitter	**Orbit**
	Vortex	**Fly Through**
	Shred	

Excel (Windows PC Players only)

You may use any Excel spreadsheet as content with DisplayIt!Xpress. Macro Enabled sheets (.xlsm) do not work, so remove macros and save as .xlsx files before adding them to the playlist.

The sheet that will be shown on the display exactly as it appeared when the spreadsheet was saved. For that reason it is a good idea to make a sheet specifically for this purpose. **Macros do not run on the player because Excel Viewer does not allow them.**

The display sheet can be a compilation of data from several other worksheets or even from other Excel files. Make the display sheet wide – remember it will typically be shown on a 16:9 aspect ratio screen that is 1920 by 1080 resolution! Columns of figures do not make as good of a presentation on digital signs as charts and large colorful worksheets with compiled data.

Windows and Android players - Comma separated values files are text files that can be opened by Excel. The Management Console will open and format csv files dynamically before sending them to the player(s) as image files. In order for this feature to work, you must have Excel installed on the same computer as the Management Console.

You may have an automated system update or replace a spreadsheet or csv file periodically, just leave the Management Console running on the Update tab. To establish where the spreadsheet updates should occur, go to the content folder specified in the Management Console settings. Then find the folder for the display. Inside will be a copy of all of that display's playlist items. Have your automated process update that copy instead of the original.

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Key Excel Playback tips:

1) The Excel Viewer must have successfully installed on the Player PC.

2) Make the page you want shown the size it should be shown on the player. In other words, open it on a 1920x1080 screen and expand it to full size.

3) Before you save, be sure you are looking at the sheet you want shown.

Digital Video

If the video you select causes a red X to appear, or a "Script Error" message appears, the Codec that is necessary to play the particular video is probably missing from the Windows player computer or not installed correctly.

NOTE: An older version of the K-Lite full Codec Pack is downloaded with ***DisplayIt!***Xpress **.** There is a newer version available that may allow more types of videos to play. The installation is a bit more complex. Learn more about it at: http://www.free-codecs.com/K_Lite_Codec_Pack_download.htm.

PDF documents (Windows PC Players only)

DisplayIt!Xpress supports the use of Adobe PDF (Portable Document Format) files. It is important to realize that the PDF format is not optimal for digital signs. When a PDF comes onto the screen, controls will appear momentarily, which is not optimal in this environment. Also, Adobe Reader (which is what displays PDFs on screen), will not stretch smaller documents to fit the screen. Instead, it will pad the sides with gray, which is not a terrific look, especially for small documents.

Still, using a PDF is a good way to display some content, like Word documents. Make sure the fonts and document settings are as large as possible so that the viewer can see the information being presented. You must have PDF Viewer enabled in Internet Explorer for this feature to work.
You may also export PDF documents to a series of JPG images. This is a good option for multi page PDF documents. Then add the JPGs to your playlist.

There is an optional feature of ***DisplayIt!***Xpress to frame these images with a nice background of your choice. That way they will not look like letter sized pieces of paper on a black background. Ask your Best Wave representative about the image background option.

Web pages

DisplayIt!Xpress supports the display of web pages from the Internet or an Intranet on your in-house server. Some pages might not work because of pop-ups or Active X objects, so testing is important.

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To add a web page to a presentation, click the Web Page icon. A pop-up will allow you to type in the URL for the page you want. All URLs must begin with http or www.

Using the Google Chrome browser

DisplayIt!Xpress normally uses the Internet Explorer web browser on Windows PC players. Some web pages will not appear correctly in IE, so Google Chrome can be used instead. To specify a URL should be rendered using Google Chrome, type the word 'CHROME:' followed by the URL, like this: CHROME:www.bestwave.com

Note: Chrome must be installed on the Windows PC player manually for this option to work. Also, you must be using revision 11.0v05 of the Management Console and the Windows Player. More detailed instructions may be found on page 62 with an example displaying the National Weather Service Radar Weather.

HTML files

DisplayIt!Xpress supports **HTML** through HTML5. You may include an html or htm file in your playlist. All CSS, Javascript and other text-based elements must be inside the same file. Images can be included by referencing them in the local folder.

If you include referenced images in your html code, you must add the image(s) to the playlist. Set the images so they will not actually play by setting their duration to zero. That will prevent them from ever being shown separately from the web page. Meanwhile, the html will reference and display them as part of the web page when it is rendered on the screen.

Flash files (Windows PC Players only)

DisplayIt!Xpress supports Flash (.swf) through the current revision, 15.0. Sound and all animation effects are fully supported. Flypaper created swf files are fully supported.

Please note, as of June, 2021 Flash will no longer be offered or supported by Adobe. For this reason, the Flash installer is no longer run as part of DisplayIt!Xpress player for Windows.

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Optional Features

In order to keep the base cost of DisplayIt!Xpress low, Best Wave offers features that a small percentage of customers need as upgrades. To license these upgrades contact Best Wave: support@bestwave.com or your computer reseller.

Place Images on Full-Screen Backgrounds

Images that do not fill the screen on players because they are not the correct aspect ratio are centered with black bars showing either on the right and left edges or on the top and bottom of the image. This may be fine in most situations, but for some customers, placing these images on a consistent high-quality background would be preferable. Best Wave offers a number of artist-quality background images for this.

If you have this feature, when image(s) are added to a playlist they are checked to make sure they have the correct aspect ratio for the display. If they do not, you will be asked if you want to place the images on a background. Select a background image file from your computer and DisplayIt!Xpress will do the rest. The images will be expanded and placed with a shadow effect in the center of your background.

Advanced Features

Turn the Display OFF and ON or Change Input Ports (Windows Players Only)

There are two ways to control display off and on times with DisplayIt!Xpress.

Method 1) If your display is a normal TV or you do not have a serial connection to the display, you can simulate the display turning off and on by showing a black screen.

Method 2) If your display is a commercial display and has a serial port, it can force monitors to turn off (go into standby mode) and resume normal operation at specific times of the day and night. It can also switch the input for the monitor to an alternative input during certain times. Since most small media players do not have a serial port, a USB to Serial Port adapter can be used. A serial cable is used to connect the two devices. The most important commands are On, Off, TV Input, PC Input. You will need to look up the commands in the user guide of the specific display.

For ViewSonic Commercial Displays, the serial commands are as follows:
ON: 899s!001[CR] OFF: 899s!000[CR] VGA input: 899s”000[CR]
HDMI1 input: 899s”001[CR] YPbPr input: 899s”004[CR] DVI input: 899s”006[CR]

The [CR] notation means Return, you can also use [LF] for Line Feed if needed.

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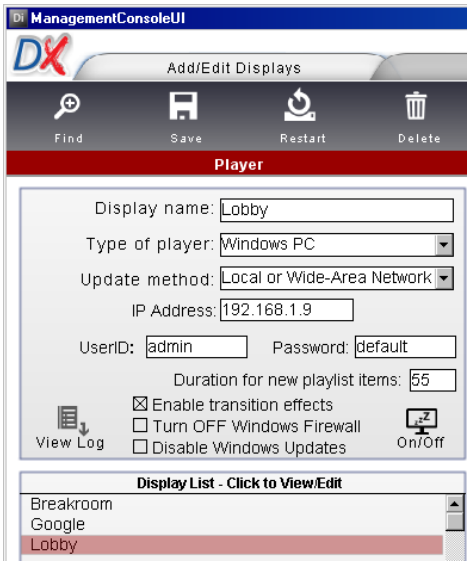
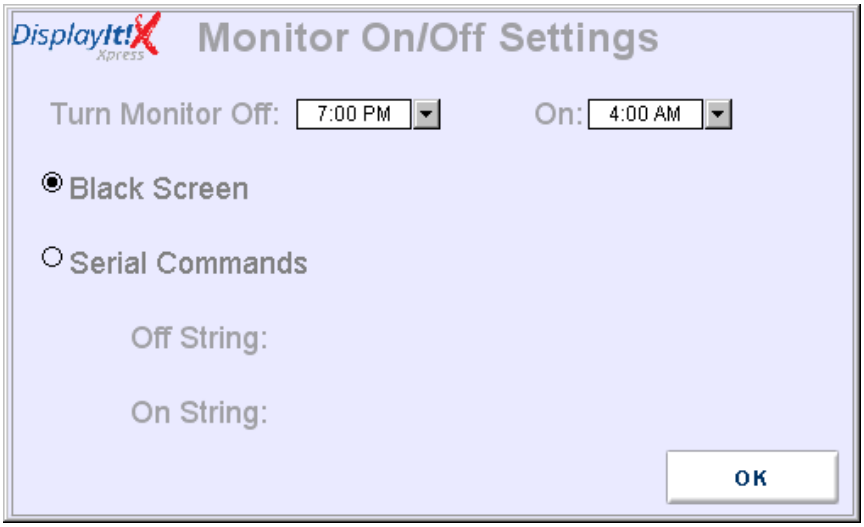
If your display requires Hexadecimal codes, enter them separated by colons, like this; 01:2e:1C:2A

Once you know what your commands are, decide what time you want your displays to turn off and what time they should come back on again. To set the times for either approach, select the display name in the list, then click the Off/On button:



You will see this dialog box:



Select the time you want to turn the display off from the first pop-up menu, and the time the display should go back on from the second pop-up menu. In this case we have selected 7 PM to turn off and 4 AM to come back on.

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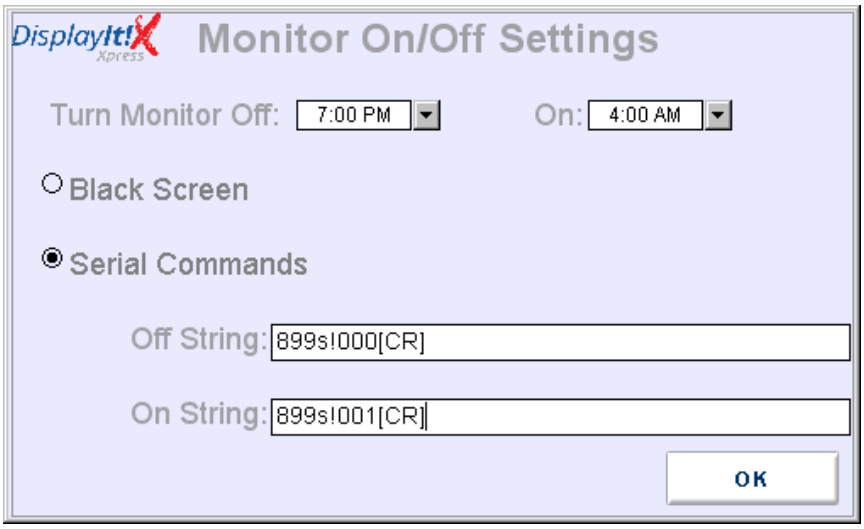
If you have a serial output port, or a USB to Serial Port converter, you may use serial commands to control the display. This is a better method because the backlight of the display will also be turned off, making the screen completely black.

In the example below we have entered the commands for the ViewSonic Commercial Monitor line:



Click the OK button to close the dialog box, then click the Save button to save display information. This information will be communicated to the display the next time the content is modified and sent to the player.

Set the resolution to a non-standard setting

You may set the resolution for ***DisplayIt!X***press to operate to something other than the screen resolution of the primary monitor. Some users use this feature to display content across two screens mounted side by side or one above the other.
To do this, create a text file named "forcescreenresolution.txt" and place it inside the DisplayItX folder on the player PC.

The contents of the text file are the width and height (in pixels separated by a pipe delimiter) that you want ***DisplayIt!X***press to operate at. For example:

```
3840|1080
```

This would set the resolution to twice the normal width of a display. Useful if you have a two-monitor configuration. Note that the resolution of displayed content may not be optimum if you stretch it across two screens this way.

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Configuration of ViewSonic Android Media Players

To access Android on the ViewSonic NMP-series, first complete the following 4 steps:

1. On the Basic Settings screen, confirm the Ethernet settings, and press the Advanced link
2. On the Advanced Settings screen, select the Content option, and then the AppStart option
3. In the AppStart section, expand the Advanced options, clear all five fields, and enter the following settings
    a. URL: leave blank
    b. Package Name: com.bestwave.displayitx.launcher
    c. Class Name: com.bestwave.displayitx.launcher.ActivityMain
    d. Action: android.intent.action.MAIN
    e. Type: leave blank
4. Press the Set button
5. Click the cursor three times in the bottom right corner on the Advanced/AppStart screen to access the Android desktop

For Ethernet Networking on the NMP-series, complete the following 9 steps:

1. From the Android desktop, access the Settings screen
2. On the Settings screen, turn OFF the Wi-Fi setting
3. Select the Ethernet option
4. Enable the Use Ethernet checkbox
5. Select the Static IP Settings option
6. For the Use Static IP checkbox, disable for DHCP or enable for Static IP
7. If using Static IP, enter the following information
    a. IP address
    b. Gateway
    c. Netmask
    d. DNS 1 (required)
    e. DNS 2 (optional)
8. Press the SAVE button in the upper right of the screen
9. Confirm that it says “Connected” below the Use Ethernet option

For Wi-Fi Networking on the NMP-series, complete the following 9 steps:

1. From the Android desktop, access the Settings screen
2. On the Settings screen, select Ethernet
3. Disable the Use Ethernet checkbox

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4. Confirm that it says “Unconnected” below the Use Ethernet option
5. Turn ON the Wi-Fi setting and select the Wi-Fi option
6. Wait for Wi-Fi list to populate and select a Wi-Fi network
7. Enter the Wi-Fi network password and press the Connect button
8. Wait for the Wi-Fi network to automatically obtain an IP address
9. Confirm that it says “Connected” under the Wi-Fi network

For Time Zone and Time/Date settings, complete any of the following options:

1. From the Android desktop, access the Settings screen
2. On the Settings screen, select Date & Time
    - For automatic date & time, enable the checkbox
    - For automatic time zone, enable the checkbox
    - For manual time zone
        1. Disable the automatic time zone checkbox
        2. Select the time zone option
        3. Select a time zone
    - For a 24-hour time format, enable the checkbox
    - For a different date format
        1. Select the choose date format option
        2. Select one of the date format radio buttons

For Language settings, complete the following 4 steps:

1. From the Android desktop, access the Settings screen
2. On the Settings screen, select Language & Input
3. To change the current language, select the Language option
4. Select a language

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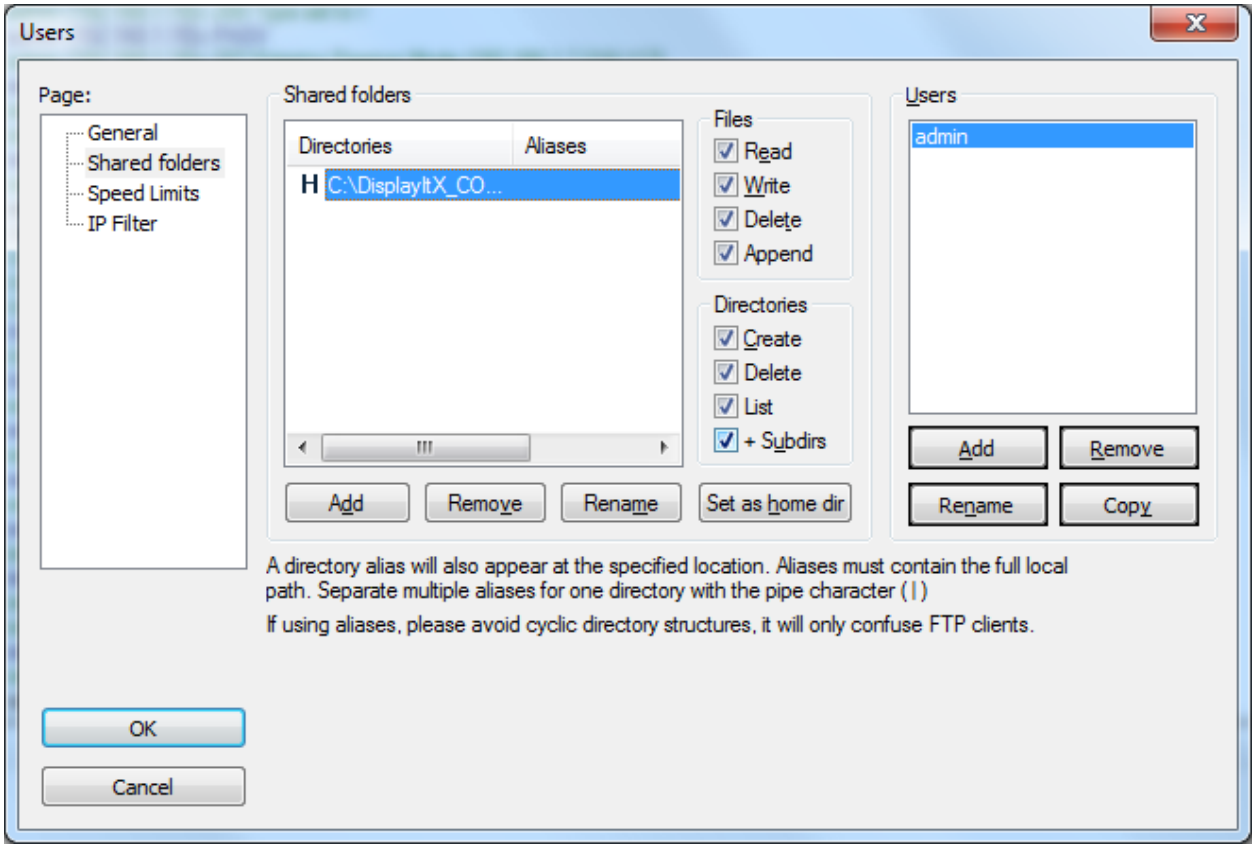
Android Player Pull from FTP Server

To configure Player Pull from FTP Server on an Android Media Player, complete the following 5 steps:

1. Android Media Player
    a. Start the DisplayIt!Xpress Launcher app
    b. Write down the IP and MAC Addresses
    c. Select the Player Pull from FTP Server button
2. Management Console
    a. From the Add/Edit Displays tab, find or manually add display with Player Pull from FTP Server option and MAC Address from Step 1
    b. Open the Settings menu and confirm or select and save FTP server root folder
3. FileZilla Server
    a. Install the FileZilla Server software
    b. Create a User Account
    c. Set the Username and Password (default on Android player is admin/admin)
    d. Set the Home Directory in the Shared Folders tab to be the same as the Management Console FTP Server path. Make sure that all of the check-boxes for permissions are checked as shown here:



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e. Turn off any Firewalls on the computer or set exceptions as needed
f. Write down the IP Address of the computer
g. Ping the Android Media Player with the IP Address from Step 1

4. Android Media Player
    a. Enter your Email Address
    b. Enter the IP Address of the FileZilla Server computer from Step 3
    c. Enter the Username and Password of the FileZilla Server account from Step 3
    d. Press the Done button or Enter key
    e. The Activation Status should be either Valid or Added
    f. A default “Blue Sky” image should appear
5. Management Console
    a. From the Manage Content tab, create a playlist for the Android Media Player display
    b. From the Monitor & Update tab, update the display
    c. The Android Media Player will download the media content and start the new playlist

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Interactive PowerPoint (Windows Players Only)

DisplayIt!Xpress allows interactive content to be created inside of PowerPoint using Actions, which means no programming is required to implement this feature. DisplayIt!Xpress has a unique feature that enables the PowerPoint to escape from a "walk away" where someone leaves the display standing at a menu.

Here are the building blocks for creating a PowerPoint for interactive use. You may use some or all of them depending upon your particular application.

Any graphical object, text box, or shape can be made interactive in PowerPoint. Create and place the object, then right click and choose "Add Action" – this will allow you to specify what happens when someone clicks (touches) the object.

1. Attract loop

   A good kiosk application attracts viewers to interact with it. In PowerPoint you can do this by making an attractive series of slides, typically the first 5 or 10 in the PowerPoint stack, that advertise specials, show products, and repeatedly advise passerby they can "Touch the screen to learn more!"

   To make the attract loop interact, the graphic(s) on each slide need to have an action that branches to the main menu slide. Use the same procedure mentioned earlier, right click and select "Add Action."

   Time saving tip: if you have a lot of graphics and text on each of the screens of the attract loop, it could be time consuming to add actions to all of the elements… Instead of making every graphical element have an action, you can add a rectangle shape over the entire slide. Make it transparent with a transparent border. Add the "Go to main menu slide" action to that object.

2. Menu items

   You can have one or more slides be a menu. Make these slides just like any other slide, but set the time to advance to the next slide to 30 or 40 seconds. You want PowerPoint to stay put until someone chooses a menu item, or "time out" after 30 or 40 seconds if nothing is happening.

   Any graphical object, text box, or shape can be a menu item. Create and place the object, then right click and choose "Add Action" – this will allow you to specify what happens when someone clicks (touches) the object. Typically you will select Go to Slide… and choose a slide that has the content for that menu item.

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3. Escape from a menu after the “Time Out” period

Sometimes a person will touch an attract loop screen to see what’s there, but then walk away without selecting anything. This will leave your kiosk showing the main menu indefinitely instead of going to the attract loop, which would be preferable.

To solve this issue, DisplayIt!Xpress has a hover feature that allows you to send the PowerPoint to the attract loop or main menu after the time out period.

To implement this feature, select your menu slide. Then click the Add Slide button, and select “Duplicate Selected Slide” from the pop-up menu. On the duplicate menu slide, add a rectangle shape 1/3 of the way down the side of the slide on the right-hand side. Make the shape transparent, and give it no border… so it is invisible. Right-click that shape and add an action that goes to slide 1 of the attract loop.

There are two choices when adding an Action, Mouse Down and Mouse Over. For this action, choose Mouse Over.

While DisplayIt!Xpress is displaying a PowerPoint, it is continually moving the invisible cursor on the right hand edge of the screen. It will go 1/3 of the way down from the top of the screen, then 1/3 of the way up from the bottom of the screen, always at the far right edge.

By making a Mouse Over action that “sees” the cursor hover over it, the action will be triggered and the PowerPoint will return to the attract loop as you want it to do.

This technique will also work for escaping from the end of a series of content slides, or any other time you want to force the presentation to go to a specific place. Remember to advance the previous slide after the timeout period you want, duplicate that slide, and add the mouse over action to the duplicate slide, 1/3 of the way from the top at the far right. You can even extend the invisible rectangle over the right edge to make sure that the cursor goes over it.

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Radar Weather from the National Weather Service

The US National Weather Service provides weather radar functionality at no cost. You can find this service at https://radar.weather.gov
Note: You must use Firefox, Edge or Google Chrome with this service.

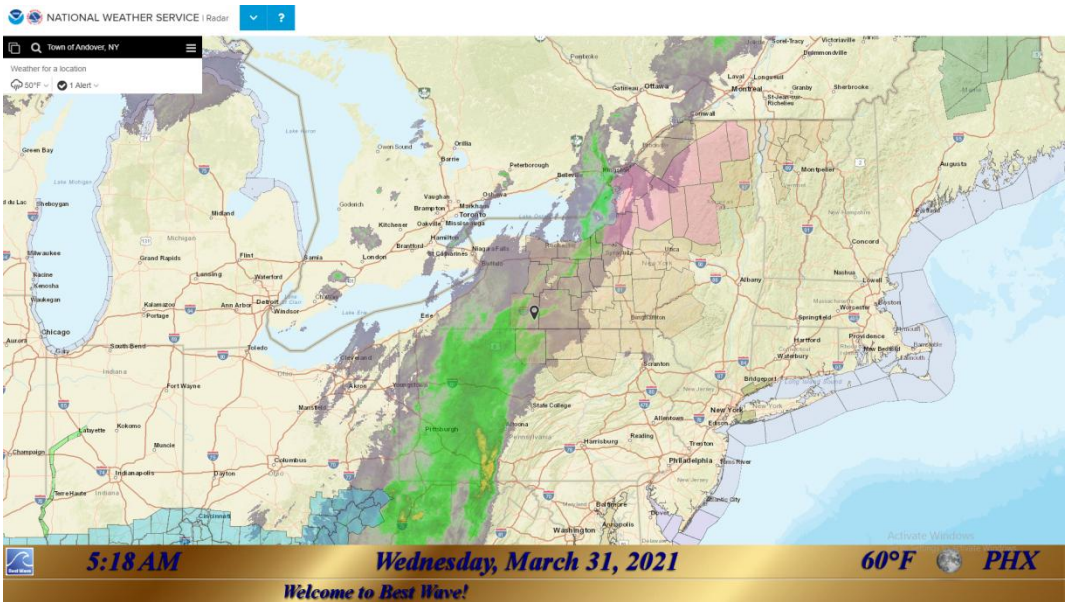
To display the content from that page, your players must:

1) Be Windows PC media players
2) Have Google Chrome web browser installed
3) Be running revision 11.0v05 of DisplayIt!Xpress
4) Your Management Console must also be 11.0v05 or newer
5) You must have access to a URL shortening service like Bit.ly.

Begin by selecting the location and view of the weather radar you want. Then, copy the URL from the address bar of your browser. The URL will be longer than the 250 character limit for DisplayItXpress. Use a URL shortening service to shorten the URL. Bit.ly is a free service that works well for this purpose.

In the Manage Content tab of the DisplayIt!Xpress Management Console, select the display and click the Add Web Page button. Type the word 'CHROME:' followed by the short URL. For example, CHROME: https://bit.ly/3tXLBqj
Be sure and set the duration to at least 60 seconds as it takes time for the map to be overlaid with the weather radar information.

Note: Google Chrome opens on the display in a full-screen 'kiosk' mode. That means that any Widgets you use like the DisplayItXpress panels will be on top of the web page as shown in this example:



Simple Interactive Kiosk

DisplayIt!Xpress currently allows a simple interactive kiosk with a main menu that plays videos when buttons are touched.

Here is an example main menu. The file is named "KioskMainMenu.JPG" and is added to the playlist like any other image file:

Each of the areas where you see a "picture" with a play button on it represents a "hot spot" which means that touching the screen in that area results in a movie being played full screen. The hotspots are defined in PhotoShop, by noting the locations of the corners of each. Then that data is loaded into a text file named "HotSpots.txt" which can be created in WordPad.

Here is a line from the hotspots.txt file for the above main menu.

```
69|786|349|945|Clemson Player Outreach.mp4|
```

This hotspot references the button in the bottom-left corner. The top-left corner of the button is 69 pixels from the left edge of the jpg, and 786 pixels from the top of the jpg. The bottom-right corner is 349 pixels from the left edge of the jpg and 945 pixels from the top of the jpg. That is where these values are from: 69|786|349|945|

After that, we put the video file name that should play when that button is touched. One line like the above is needed for each of the buttons on the screen, in this case 7. Remember to add the hotspots.txt file and each of the videos that might play to the playlist as well. Send it to the player and restart the system. It will stay in "kiosk mode" until the content is modified and the system is again restarted.

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Easter Eggs (hidden but useful features)

DisplayIt!Xpress allows the configuration of several parameters through the use of text files. These text files are placed in the C://DisplayItX folder on the Windows PC player.

Volume.txt If present, the system volume will be set when the player starts up to a level between 0 (muted) and 255 which is the maximum volume. The contents must be an integer value between 0 and 255.

Forceresolution.txt Forces the resolution to the width and height specified rather than the settings from the actual monitor. This is especially useful in multiple-display situations like video walls. The contents of this file must be two integers, the first is the width, and the second is the height of the display and they are separated by a pipe '|' character. Example: 1920|1080

HideIP.txt This will hide the IP address and MAC address when the player software starts up. This is done for enhanced security. The file's contents are not significant.

NoCursor.txt If present, the cursor will be set to a crosshair or invisible cursor (depending on the version of Windows) and will be locked to the very bottom-right corner of the display. To move the mouse from that location, you must hold down the shift key. IMPORTANT NOTE: Using this feature will defeat the automatic hover that is used in interactive PowerPoint touch screen applications. In other words, the cursor will no longer move up and down the right side of the display. That behavior is used in PowerPoint to escape from a menu when a touch screen user leaves the display. File contents are not significant.

Touchscreen.txt If present, the software will not stop when the CTRL key is depressed alone. You must hold down both the CTRL and the SHIFT at the same time to stop the player software. Alternatively, you can right-click the mouse to stop the software. This feature is used to prevent the CTRL character (which is used by some touch drivers) from stopping the software. File contents are not significant.

PanelLocation.txt If present the location of the small panel will be set according to this file instead of at the top or bottom of the display. The format is: TOP|1000|BOTTOM|1060 where 1000 is the desired top and 1060 the desired bottom of the panel.

FTPInterruptsOff.txt Management Console. If present in the same folder as the ManagementConsoleUI.exe application, it will prevent the software from notifying you if there are too many FTP communication errors and quitting.

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