

# *DisplayIt!*~~X~~ Xpress Management Console



## *DisplayIt!*~~X~~press Installation and User Guide

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### Corporate Headquarters:

Best Wave, LLC  
10575 N. 114 Street, Suite 103  
Scottsdale, AZ 85259  
USA  
Phone: 480 368-8900  
Fax: 480-368-8905  
Web site: [www.bestwave.com](http://www.bestwave.com)

Support: [support@bestwave.com](mailto:support@bestwave.com)

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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. "Just add 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, pct, tif, and png formats.

**PowerPoint** - saved as pptx (PowerPoint) or ppsx (PowerPoint Show) files.

**Excel** - saved in xls,xlsx, xlsm (Macro enabled) formats.

**Digital video** - wmv, avi, mov, mp4, and mpg formats are supported.

**PDF** - Adobe PDF files are supported although they cannot be stretched to fit.

**Web** - Internet addresses (URLs).

**Flash** - swf files created with Adobe Flash.

**Flypaper** - a special type of Flash file created using Flypaper Content Creator.

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 any display. In just a few seconds you can incorporate a clock (digital or analog), calendar, weather from almost 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 now supports updates of displays over a network, using a cloud service like Google Drive, 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 true 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!X<sub>press</sub>* must be connected to the Internet while in operation. It checks with our server several times 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)

## Installation of DisplayIt!X<sub>press</sub>

**IMPORTANT NOTE:**

Download and install the Management Console software on your desktop computer before you install the player software. The Management Console will automatically take you to the software activation screen, where you can register your installation. Make sure you enter your email address in all lower case characters. You will receive a confirmation e-mail.

### Installation of *DisplayIt!X<sub>press</sub>* software on Windows media players

The Windows PC(s) that you are using as a media player(s) must be connected to the Internet. Download the installer from the [www.bestwave.com](http://www.bestwave.com) > Products > *DisplayIt!X<sub>press</sub>* 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!X<sub>press</sub>* and then minimize itself to the task bar. After that, it will check that *DisplayIt!X<sub>press</sub>* 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.

To stop the software, hold down the Ctrl key until all of the *DisplayIt!X<sub>press</sub>* programs have stopped. Otherwise, the system will restart automatically. Once you see the blue sky image with the Best Wave watermark, installation is complete.





## 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.




### IMPORTANT NOTE for the ViewSonic NMP-302w only

To access Android on the NMP-302w, 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. Click the cursor three times in the bottom right corner on the Advanced/AppStart screen to access the Android desktop

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](http://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.

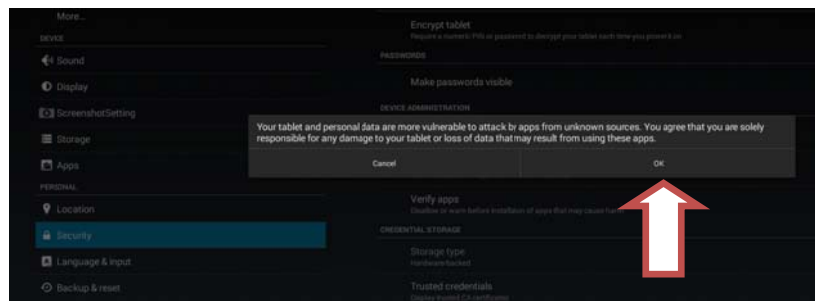
Select the Android App Drawer icon  on the main Desktop screen again and then select the Downloads app  or  on the App Drawer screen. In the Downloads app, select the DisplayItXInstaller.apk file.

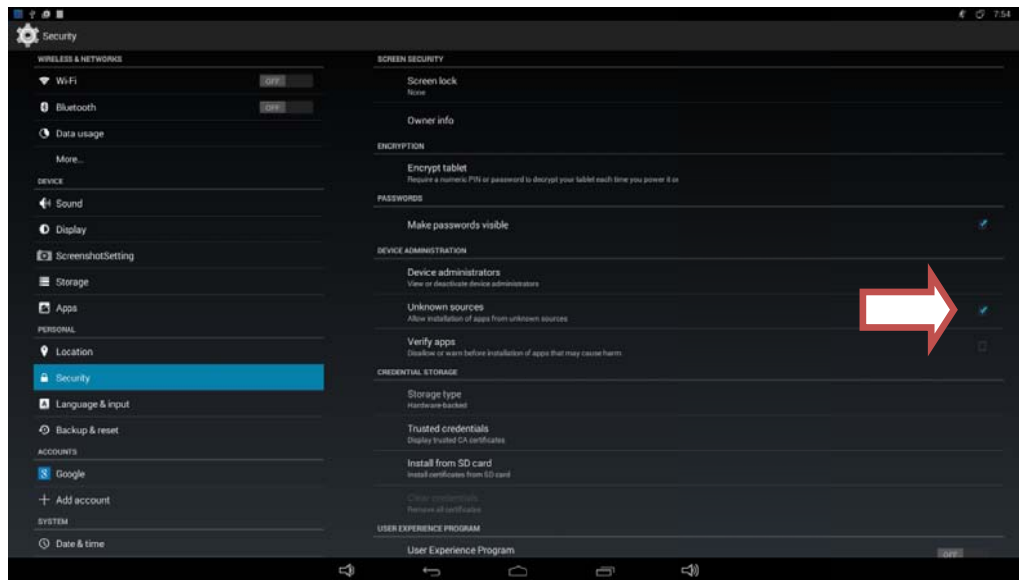


If an Install Blocked window appears, press the Settings button. On the Security screen (Settings screen on the NMP-302w), turn on the Unknown Sources options and press the Ok button. Confirm that the Unknown Sources option has been enabled. See the screen shots on the next three pages for examples of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

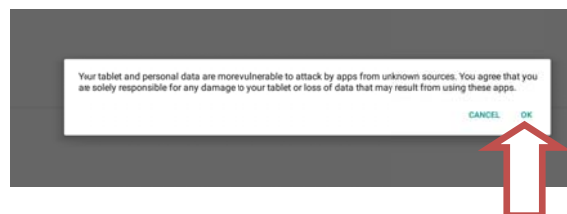
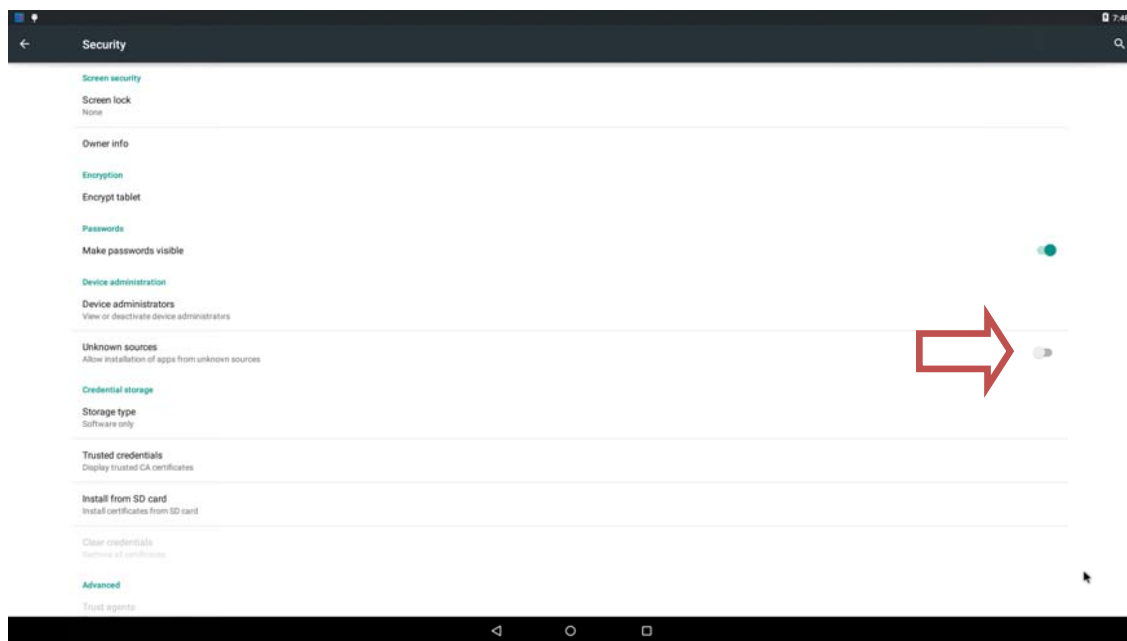


Android 4:

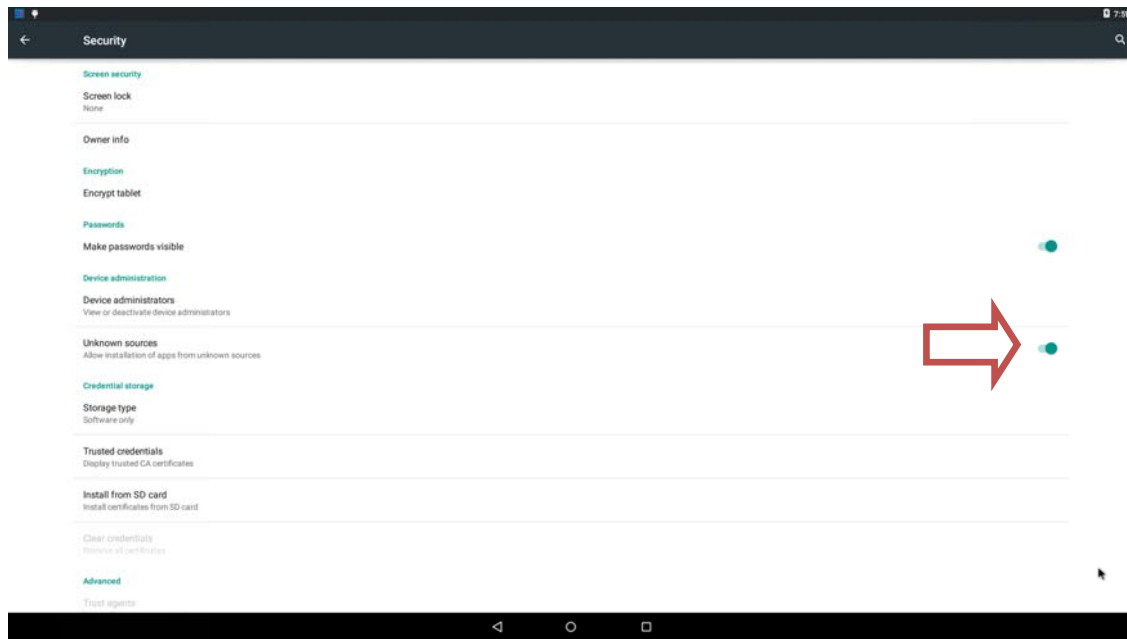






Android 5:

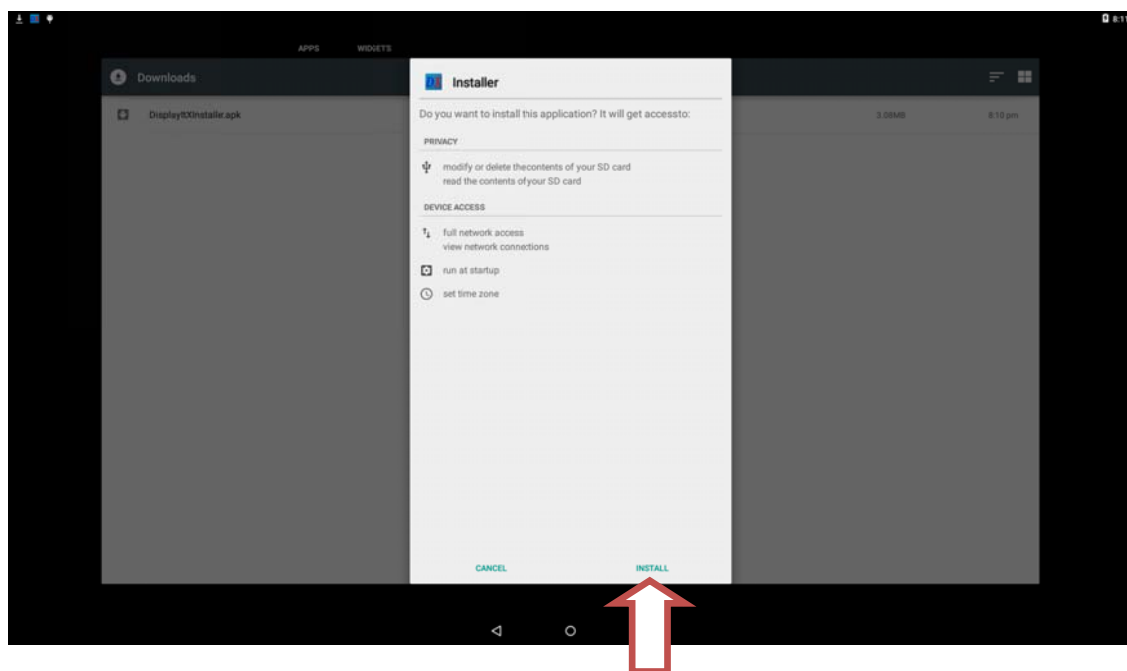


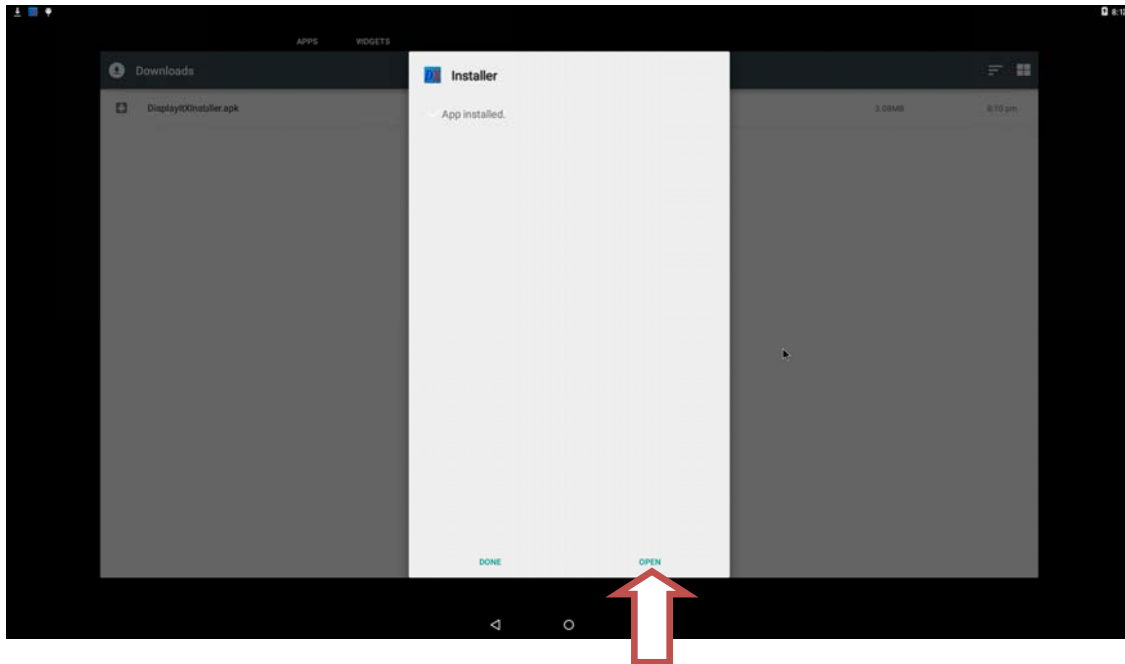




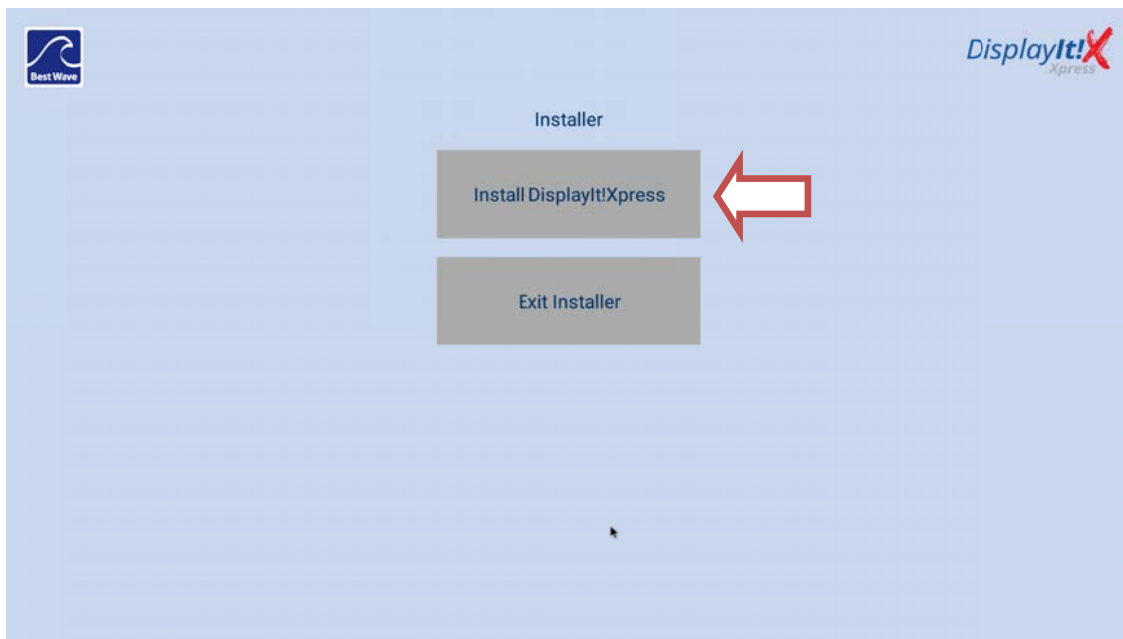
Press the Escape key on the keyboard or the Back button  or  on the touch screen to return to the Downloads app and select the DisplayItXInstaller.apk file again.

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.

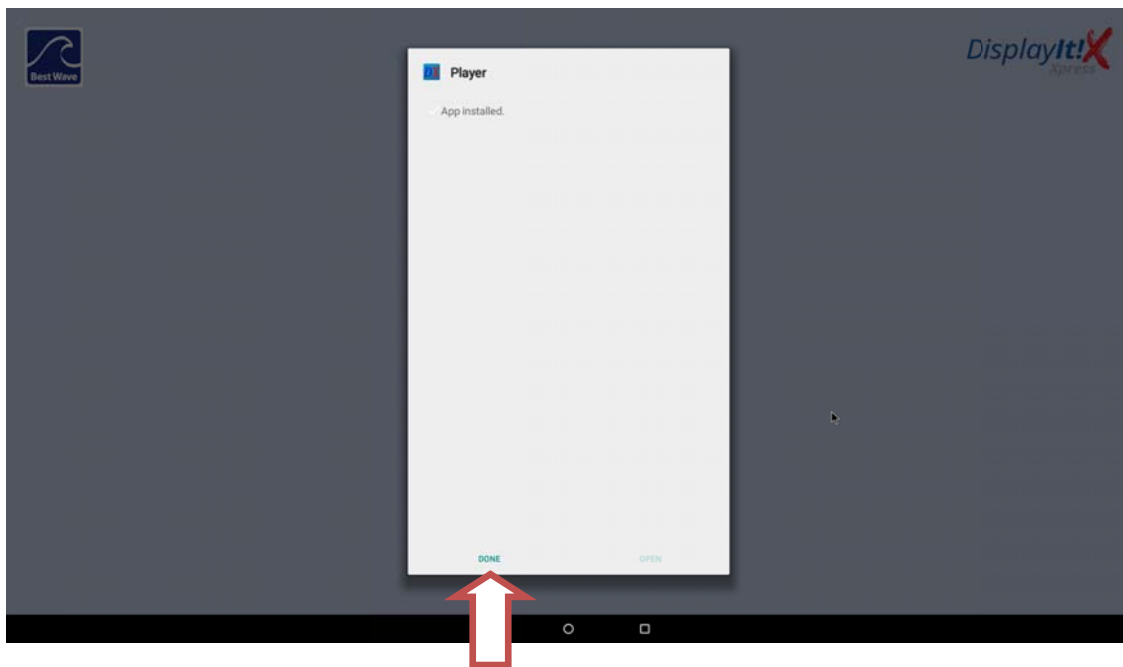
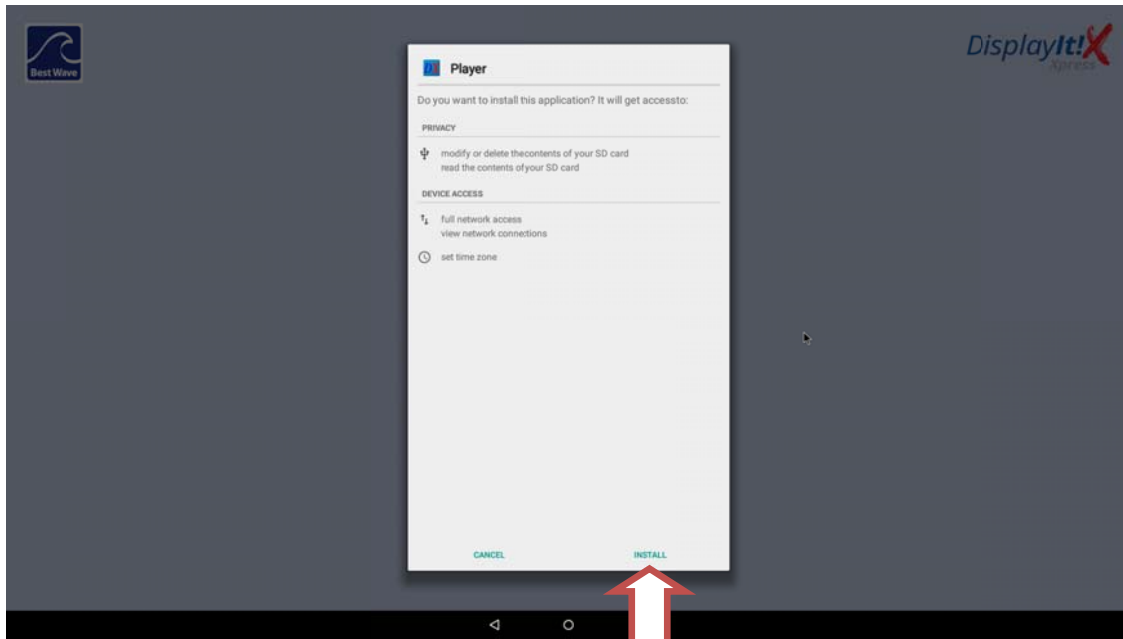


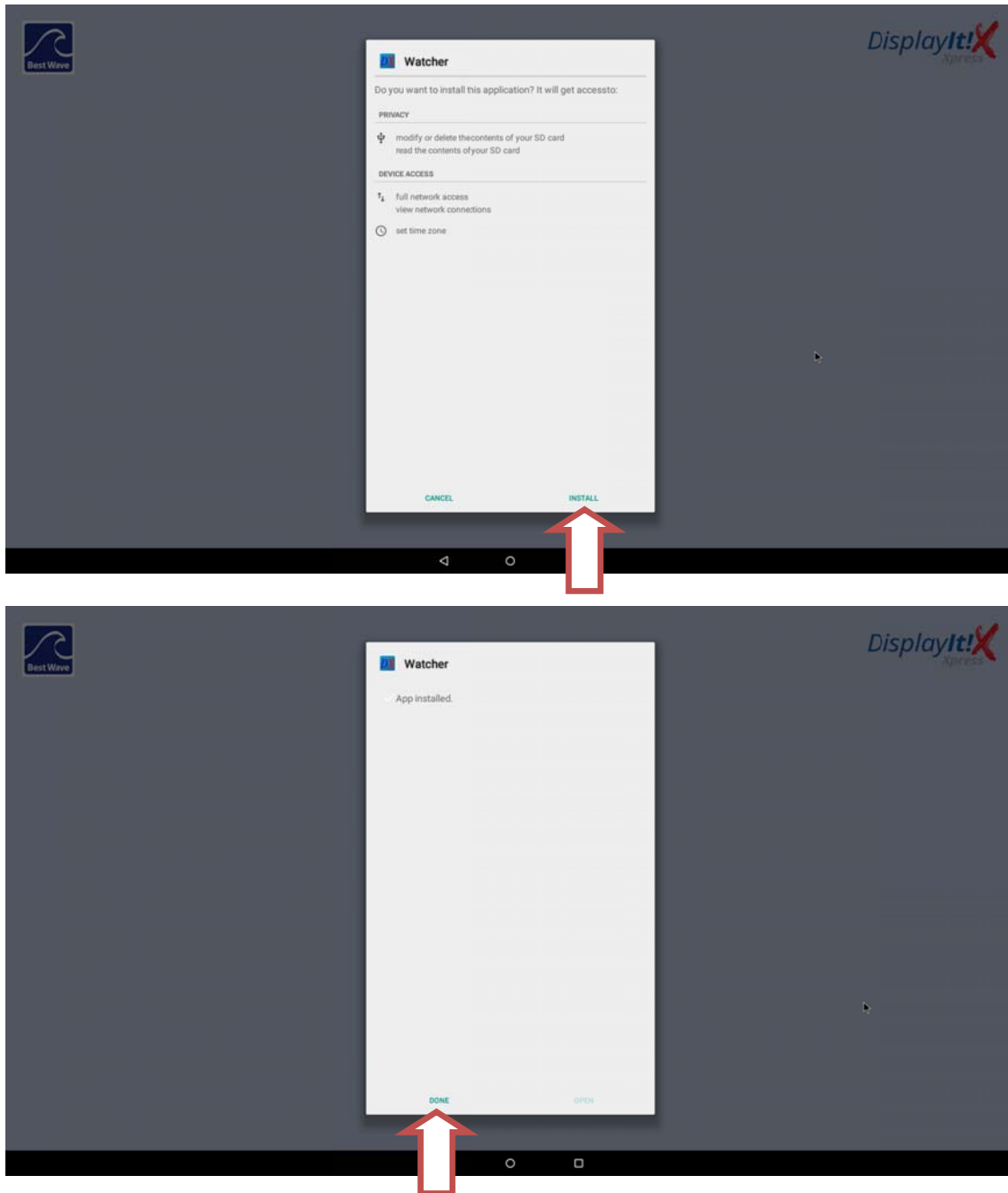


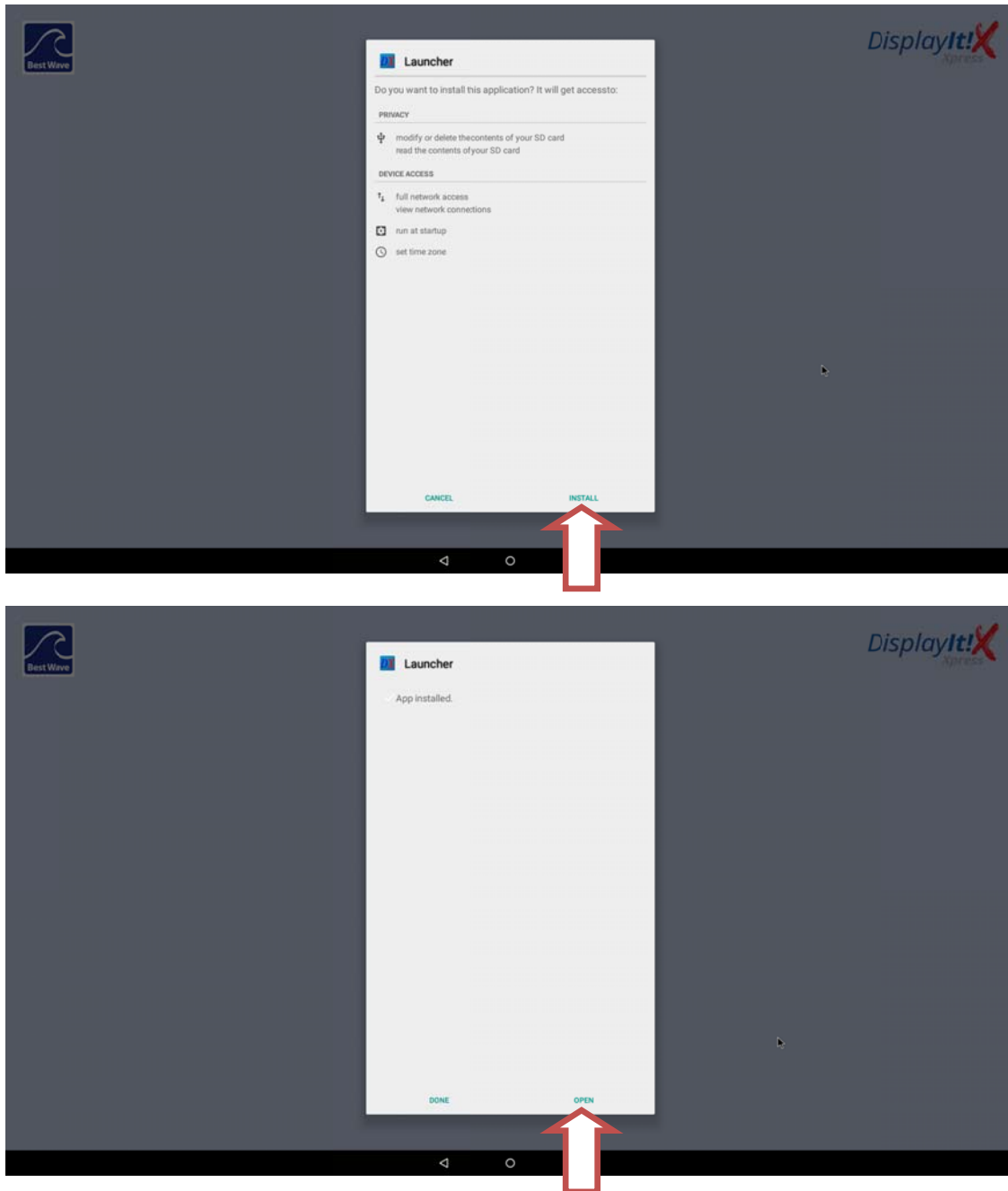
In the Installer app, press the Install *DisplayIt!Xpress* button to continue the installation process.



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.







After the Launcher app appears, follow the remainder of the Android setup in the "Start up and Activation - Android Players" section on page 16.

## 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).



The first time that *DisplayIt!Xpress* is run, you will have 60 seconds to enter your email address. All correspondence about the product will go to this email address, so please enter it carefully. Best Wave will send new version announcements and other correspondence to this email. **The email addresses must be entered using only lower case characters.**



The second field is the room name for Outlook Personal Edition, the Room Resource email address for Outlook Exchange, or blank if you will be managing content via the Management Console. In most cases, you will leave it blank.

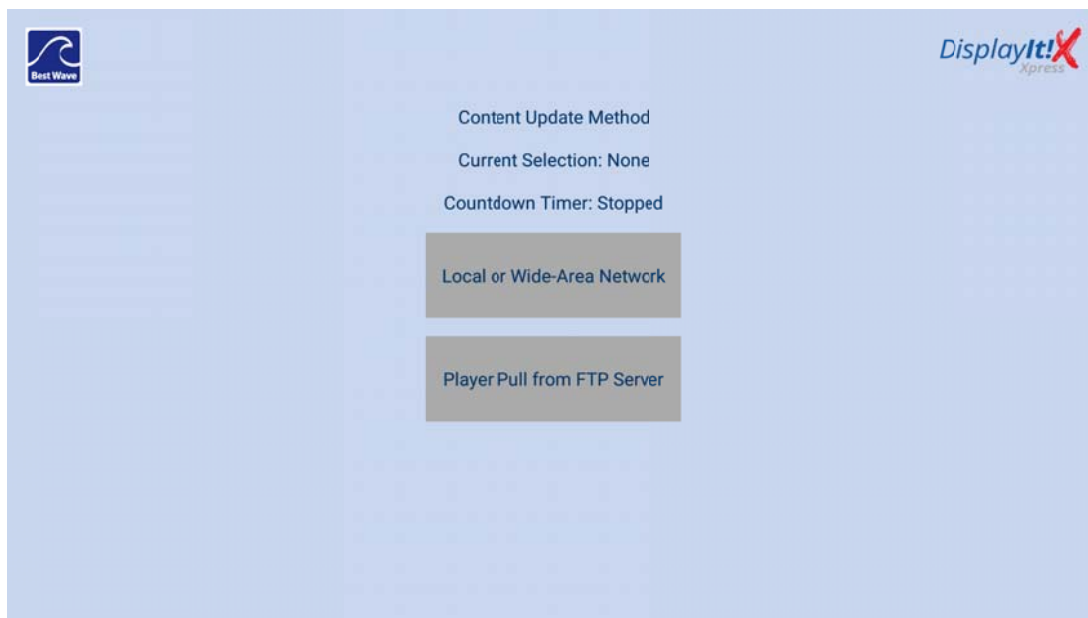
## Start up and Activation - Android Players

If you will be using Android media players with DisplayIt!Xpress, you should download and install the Management Console before setting up your players.

When you first run the Management Console, you will be prompted to enter your activation information. That will set up your free 30-day trial by recording your name, email address, and the number of media players you will be using in our Activation Server. Remember **email addresses must be entered in all lower case characters.**

Then, on the players, when DisplayIt!Xpress runs, you will see the following screen where you may select the method of updating that you will be using.

Currently there are two options, Local or Wide-Area Network and Player Pull from FTP server. Click or press the appropriate button to go to the next screen:



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 intermediate 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.

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

Software Activation		Software Validation
Countdown Timer	Stopped	Status
IP Address	192.168.168.104	Trial Expiration
MAC Address	00-19-B8-01-EA-22	Maintenance Expiration
Email Address	None	Licenses
Server Username	admin	Android Version (Newest)
Server Password	admin	Android Version (Current)

Write down the IP Address and MAC Address of the player so that you can enter this information in the Management Console. Fill in the email address with the same email address you used for registration on the Management Console. Remember **email addresses must be entered in all lower case characters**.

The default FTP Username and Password are 'admin' and '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:

Software Activation		Software Validation
Countdown Timer	Stopped	Status
MAC Address	00-19-B8-01-EA-22	Trial Expiration
Email Address	None	Maintenance Expiration
Server IP Address	None	Licenses
Server Username	None	Android Version (Newest)
Server Password	None	Android Version (Current)



Write down the MAC Address of the player so that you can enter this information in the Management Console. Fill in the email address with the same email address you used for registration on the Management Console. Remember **email addresses must be entered in all lower case characters**. 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.

You will have a certain amount of time to complete this screen so be ready to type the information as soon as you start the player.

### IMPORTANT NOTE:

If you want to use Outlook Exchange to manage your digital signs, please request the [DisplayIt!Xpress Outlook User Guide](#) from support@bestwave.com.

There are also three buttons on this screen:

DisplayIt!X registered E-Mail Address: \*

Select Cloud Update Folder    Reset Registration E-Mail Address    Test Outlook Connection

**Outlook room location or room resource e-mail:**

1) enter room resource e-mail for Outlook Exchange  
2) enter room location for Outlook Personal Edition  
3) *leave field blank to use the Management Console, or to update via a shared folder, cloud service, or USB drive.*

Starting in: 14

The first, Select Cloud Update Folder... is only used if you are using a cloud synchronization service, like Google Drive to update this display. It allows you to choose the folder that is going to be synchronized. That folder must have the same name as the Display Name you define.

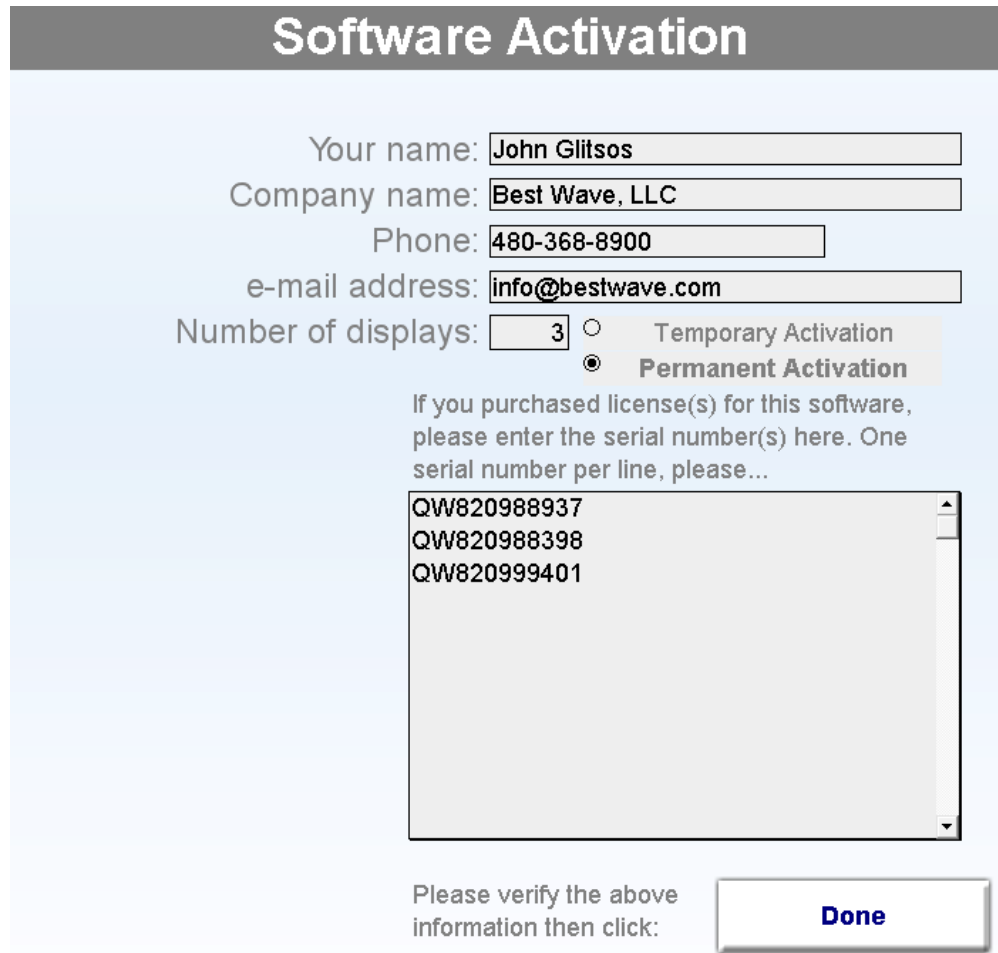
The second button, Reset registration E-Mail allows you to change or correct the email that is being used for this software. Remember **email addresses must be entered in all lower case characters**.

The third button is, Test Outlook Connection. For clients using Outlook to update their display content, this button allows the entry of a room resource email - which is tested to make certain that a connection to Outlook can be made and data can be fetched from that connection.

If you are using any other update method, such as the Management Console, do not use the 'Test Outlook Connection' button.

## Activating DisplayIt!Xpress

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



The image shows a 'Software Activation' window. At the top is a dark gray header with the text 'Software Activation' in white. Below the header, on a light blue background, are several input fields and options. The fields are: 'Your name:' with 'John Glitsos', 'Company name:' with 'Best Wave, LLC', 'Phone:' with '480-368-8900', and 'e-mail address:' with 'info@bestwave.com'. Below these is 'Number of displays:' with a text box containing '3'. To the right of this are two radio buttons: 'Temporary Activation' (unselected) and 'Permanent Activation' (selected). Below the radio buttons is a text instruction: 'If you purchased license(s) for this software, please enter the serial number(s) here. One serial number per line, please...'. This is followed by a text area containing three lines of serial numbers: 'QW820988937', 'QW820988398', and 'QW820999401'. At the bottom left, it says 'Please verify the above information then click:'. To the right of this is a button labeled 'Done'.

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.

After you click Done, the activation process should be completed in a few seconds, and you will be returned to the main page. The countdown will resume and software will start running. If for any reason you want to change the email address for software registration, click the "Reset Activation" button to clear the old value.

**IMPORTANT NOTE:**

Software activation can also be done via the Management Console. You must use the Management Console for activation if you will be using any Android players in your digital signage network.

## Using the Management Console

### Installation

To install the Management Console, download it from the [DisplayIt!Xpress](http://www.bestwave.com) page at [www.bestwave.com](http://www.bestwave.com). It is a standard Windows software application that will run on every Windows operating system from Windows 97 - 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 on the Settings screen.

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 Manage Content tab.

### IMPORTANT NOTE:

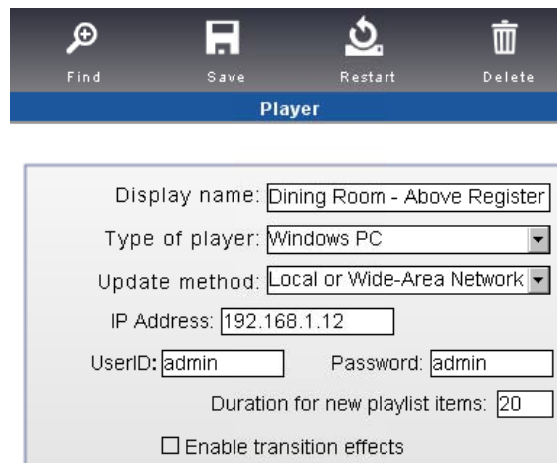
The actual displays will not be updated until you go to the Update and Monitor tab. **No updates occur while you are on the Add/Edit Displays or the Manage Content tabs.**

## Add/Edit Displays

### Searching for compatible Displays (Local Area Networks only)

If you have already installed the **DisplayIt!Xpress** player on one or more computers, and they are connected to your local network (in the same subnet), you may use the “Find Players” feature to discover them. This will verify important 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.



The screenshot shows the 'Player' management interface. At the top is a toolbar with four icons: a magnifying glass labeled 'Find', a floppy disk labeled 'Save', a circular arrow labeled 'Restart', and a trash can labeled 'Delete'. Below the toolbar is a form titled 'Player'. The form contains the following fields and controls:

- Display name: Text box containing 'Dining Room - Above Register'
- Type of player: Dropdown menu showing 'Windows PC'
- Update method: Dropdown menu showing 'Local or Wide-Area Network'
- IP Address: Text box containing '192.168.1.12'
- UserID: Text box containing 'admin'
- Password: Text box containing 'admin'
- Duration for new playlist items: Text box containing '20'
- Enable transition effects: A checkbox that is currently unchecked.

### IMPORTANT NOTES:

The User ID and Password fields are set to admin and admin during installation of the **DisplayIt!Xpress** player software. If you change these in the Filezilla Edit Users menu, you should have written them down as you changed them. 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 this should be a good, general rule of thumb i.e. 10, 20, or 30 seconds.

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.

### 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.

### Seeing what is playing on an existing Display

The **DisplayIt!Xpress** software on Windows PCs, 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 any display name. This works for some updating methods, Network, Shared Folder, but not for others like USB drive.

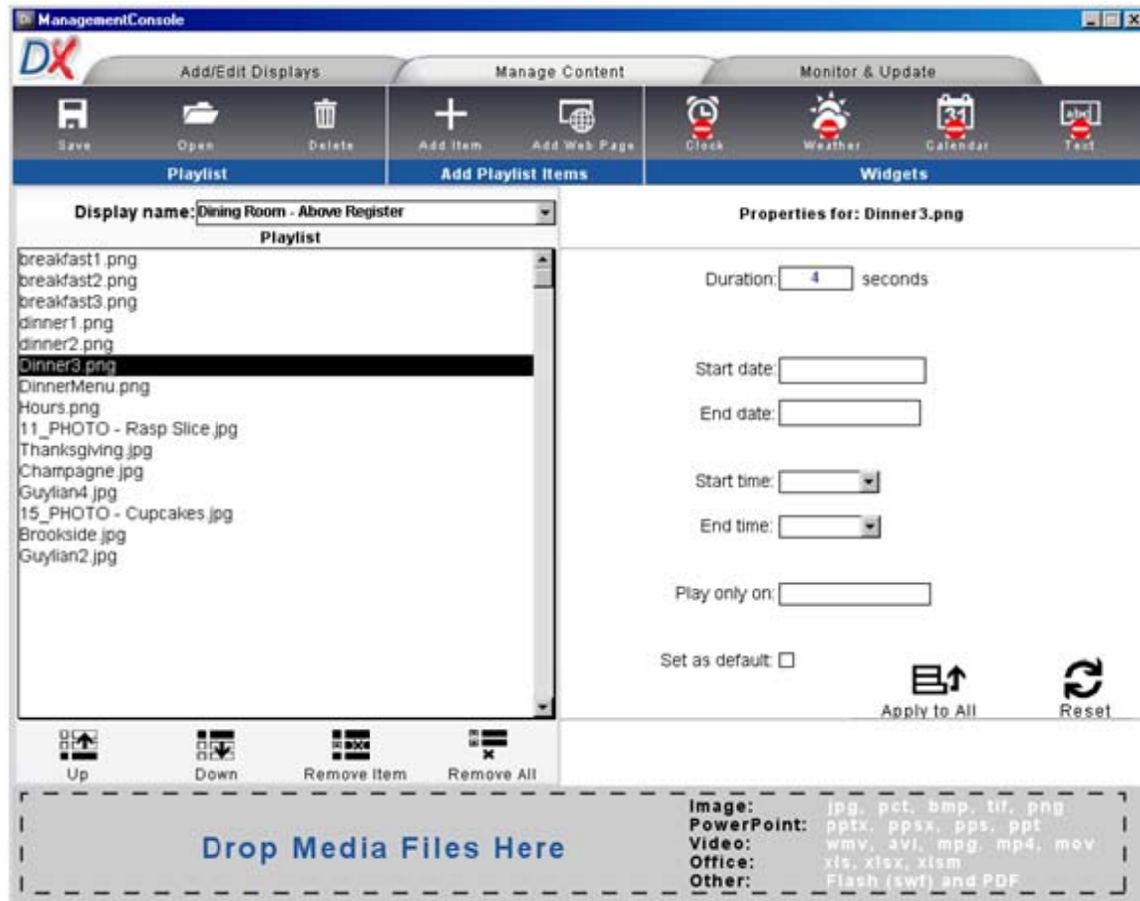
Here is a typical screenshot. *The date, time, IP address, and Mac Address of that particular display have been stamped on the picture for your information.*  
**The Timestamp data is not being displayed on the actual display screen.**



## 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.

## 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 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 the file so that it is highlighted. The Playback Properties window will appear like this:

Duration:  seconds

Start date:

End date:

Start time:

End time:

Play only on:

Set as default ☐



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\_slideshow.pps) the duration field will have that timing in it. You may change the timing for the file here without changing the name of the file.

**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.

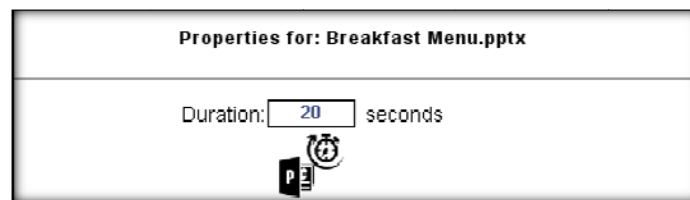
The start time and end time will control the time of day that a file plays. If you want the same file to play at two different times, put two of the same file into your playlist (i.e. Announcements\_AM.jpg and Announcements\_PM.jpg). Then set the start and end times for each one.

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, 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:



This button is for determining the approximate duration of a PowerPoint file. For most PowerPoint files, this estimate will be reasonably accurate. Some transitions like “Random” may take more or less time than estimated.



**IMPORTANT NOTE:**

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 and deleting it when it is no longer needed. 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 the playlist.

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**

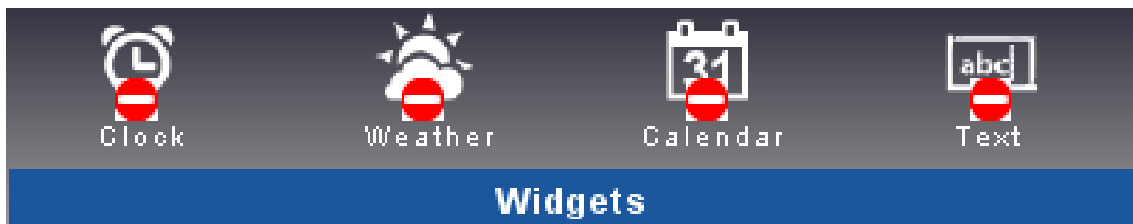
Click the Open button to select a saved playlist and begin using it. You will be asked if it is OK to replace the current playlist with the stored one. Be careful not to use playlists created for Windows players on Android media players. There are several types of media that only work on Windows PC players,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

## Adding Widgets to the Display

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

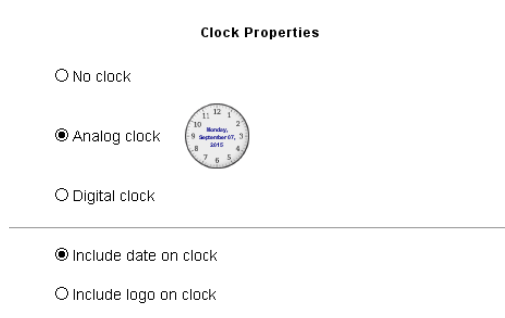


There are 4 Widgets, Clocks, Weather, Calendar, and Text/News Feeds. Initially, all of them will be off - which is shown by the red marker at the bottom of each icon. Click on any of the icons to add it.

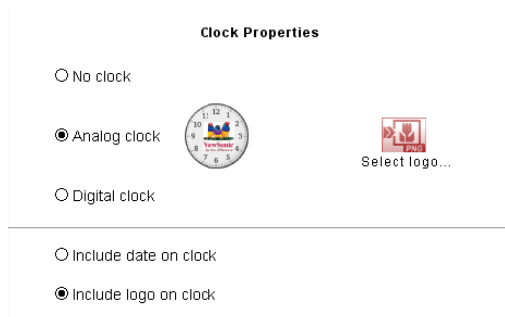
When a Widget is enabled, a green checkmark will appear at the bottom of the icon. Click on the icon to edit its properties.

### 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.



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:

**Clock Properties**

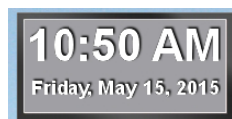
☐ No clock

☐ Analog clock

☒ Digital clock    12:00 Grey

☒ Include date on clock

So the clock would look like this on the screen:



## Weather


The weather gadget 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.

To use the weather gadget, select it from the gadgets menu, and set its color and weather locations:

**Weather Properties**

☐ No Weather


 Grey

☒ United States    Select State

☐ Canada

☐ Other countries    Select Location

LAX	LOS ANGELES
NYC	NYC/CENTRAL PARK

 Clear

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 2<sup>nd</sup> location. You may select up to 5 weather locations.

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

## Calendar

The calendar gadget 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 gadget 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.

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:

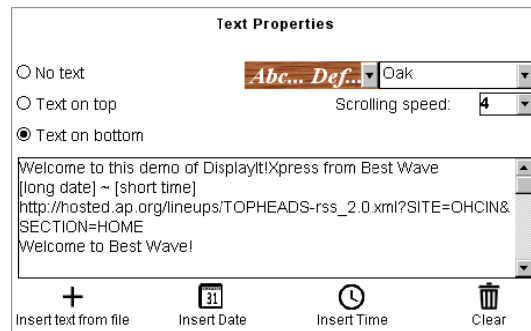
[long date] Wednesday, September 23, 2015

[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 gadget icons on the top-right and then adjust its properties as shown here:



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.

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 buttons along the bottom of this area allow you to insert text, such as news feeds or text you use over and over again into the field. You can also insert the date or the time using the next two buttons. And, you can 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 Gadgets

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



In this example, we have a full set of gadgets in use. You can reposition by dragging from one target to another, or on top of an existing gadget - 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 gadgets 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 on the interface. The changes will not appear on the display until you go to the Monitor and Update tab, which is discussed in the next section.

## Updating the displays

Updating will only occur when you are at the Monitor and Update tab.

When you define or change the media or gadgets 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.

[illegible]

## 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 gadget 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 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.

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.

## Updating Methods

There are 5 update 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 2221 to pull content from an FTP server like Filezilla. You must install Filezilla on the same computer as the Management Console to use this method. 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. This works only with Windows PC media players. There is more information on this method in the next section.
- 5) USB Sneaker-net. This works only with Windows PC media players. 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 there for the update to occur.

### Changing Content via the Cloud (Windows PC players only)

The folder that holds content on the media players may be set to use Google Drive, Own Cloud, Drop Box or other cloud-based file systems for updates.

DisplayIt!Xpress will ignore most of the "placeholder" files that these systems generate.

To use this feature, you must select a specific folder on the Management Console side to be synchronized. That folder is called CLOUDSYNC. You will find it in the location where your content is being stored (which is shown on the splash screen when the Management Console is started up).

Take a look inside the CLOUDSYNC folder. You will find a sub-folder for each display that you specified Cloud-Based updating for. You can set one or more players to synchronize with each of these sub-folders.

On the player side, you will select a sub-folder, corresponding to the specific display that you want used for that player. That means that one "Display" on



the player end may correspond to dozens or even hundreds of physical displays on the other end.

In that case your display names in the Management Console should be descriptive of the real-world use. For example, you might want to name your displays, "California Factory Floors", "California Employee Lounges", "California Main Lobbies", and so forth. That allows the person setting content for those displays to easily distinguish the location and use case for each.

### E-Mail notifications

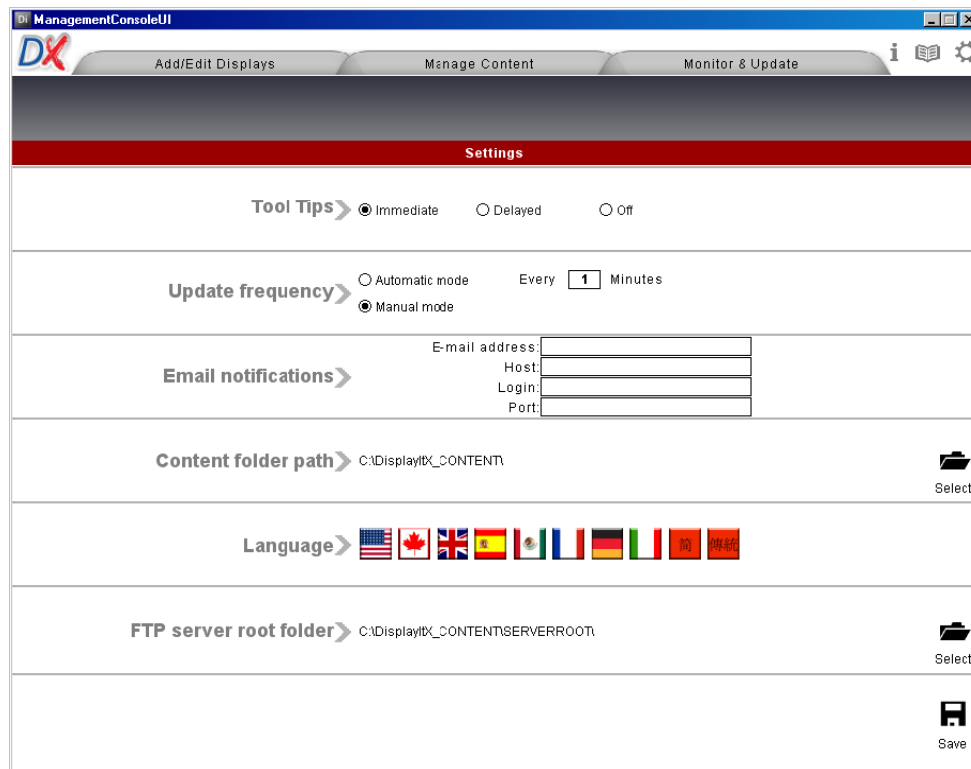
DisplayIt!Xpress can notify someone when there is a problem communicating with any display. Go to the settings screen to set up email notification. Settings are discussed in the next section

## 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:

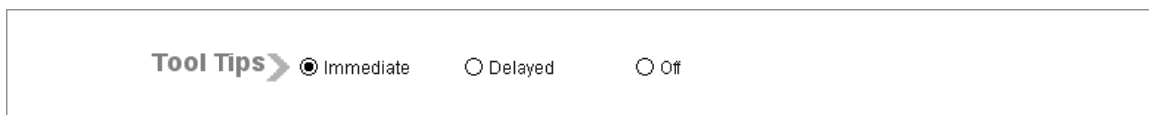


The screenshot shows the ManagementConsoleUI window with the Settings tab selected. The interface includes a top navigation bar with 'Add/Edit Displays', 'Manage Content', and 'Monitor & Update'. The Settings section is divided into several categories: Tool Tips (Immediate, Delayed, Off), Update frequency (Automatic mode, Manual mode), Email notifications (E-mail address, Host, Login, Port), Content folder path (C:\DisplayItX\_CONTENT), Language (flags for US, Canada, UK, Spain, France, Germany, Italy, Japan, Korea), and FTP server root folder (C:\DisplayItX\_CONTENT\SERVERROOT). A 'Save' button is located at the bottom right.

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 Tool Tips settings section shows three radio button options: Immediate (selected), Delayed, and Off.

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

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.

**Update frequency** > ☒ Automatic mode      Every  Minutes  
☐ Manual mode

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:

<b>Email notifications</b> >	E-mail address:	info@bestwave.com	 Save
	Host:	smtp.cox.net	
	Login:	mail.bestwave.com	
	Port:	43	


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.


<b>Content folder path</b> >	C:\Documents and Settings\Administrator\Application Data\BestWave\	 Select
------------------------------	--	---

### 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

<b>FTP server root folder</b> >	C:\DisplayItX_CONTENTSERVERROOT\	 Select
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If you are using "FTP Pull" updating (required for Android players), then you must select the folder that is set as "Home" or "Root" in the server software.

## 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.

### PowerPoint

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

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 control the placement and timing of your show, you will need to save your PowerPoint as a PPS or PPSX file. PPS stands for PowerPoint Show. PPS is found in the "Other File Formats" area under the "Save as..." option.

Before you save your presentation, 1) set the slide show to play in Kiosk mode and 2) set all of your slides to advance automatically. You can set each slide to a different number of seconds by using the "Animation" feature of PowerPoint.

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

- 1) On Windows PC media players, the PowerPoint Viewer and SP2 Update must have installed successfully. If SP2 does not install, there is also an Office SP3 update that will work.
- 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.

### Excel (Windows PC Players only)

You may use any Excel spreadsheet as content with *DisplayIt!Xpress* including Macro Enabled sheets (.xlsm). The sheet that will be shown on the display is the one that was showing 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.

### 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:** The K-Lite full Codec Pack is included with *DisplayIt!Xpress*. Learn more about it at: [http://www.free-codecs.com/K\\_Lite\\_Codec\\_Pack\\_download.htm](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 Excel, or Word documents on a sign. Make sure the fonts and document settings are as large as possible so that the viewer can see the information being presented.

### 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.

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.

### 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.