

Solstice 2.1 Reference Guide

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Introduction

The Solstice Reference Guide covers the steps required to set up a Solstice display as well as how to connect, share and control posts to the Solstice-enabled display using laptops, mobile devices and the display user interface. Solstice works with any display including projectors and flat panels.

Key Terms

Solstice-enabled display – The shared screen or monitor that is connected to a PC with Solstice display software installed, enabling users to share media posts.

Solstice display software – Application installed on the computer connected to the display.

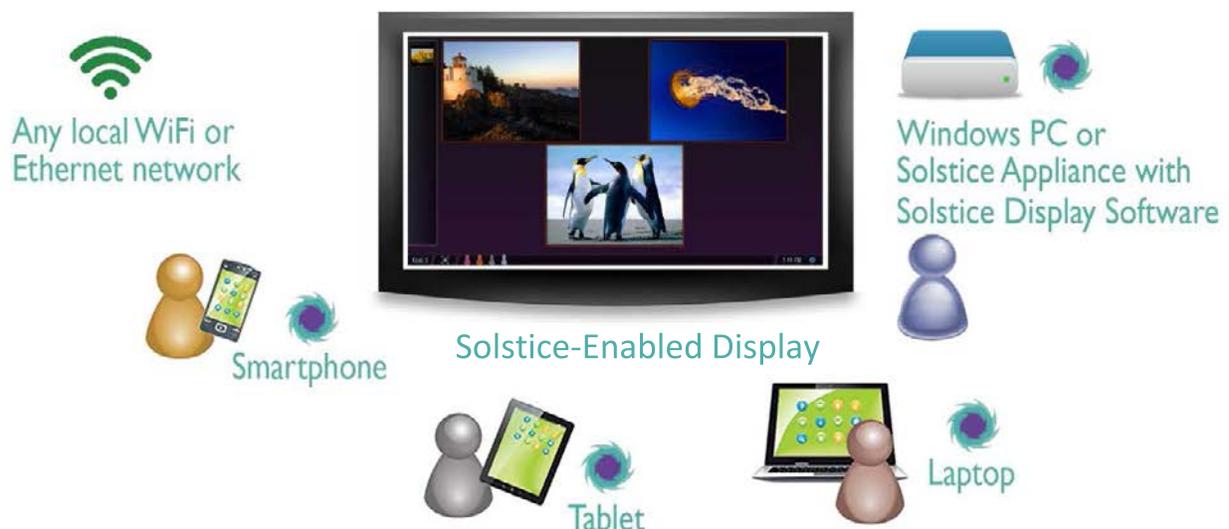
Solstice display host computer – The Windows computer connected to the Solstice-enabled display with Solstice display software installed on it.

Solstice client software – Application installed on laptops and mobile devices used to access the display.

Posts – The individual pieces of media or content published to the Solstice-enabled display.

Software Installation

An overview of a typical Solstice-enabled conference room setup is shown in the figure below. The requirements for an operational system are straightforward. First, a display connected via video cable to a Windows computer is needed. Any PC or laptop running Windows 7 or 8 with a DirectX 10.1 supported graphics card and a network card will work. The computer connected to the display must be on the same network used to route Solstice media. Then laptops and mobile devices on that network can connect to the Solstice-enabled display.



There are two software programs that work in tandem to set up Solstice for meetings.

Solstice display software is installed on a Windows computer connected to the display. This requires a license available for purchase from Mersive or one of its authorized resellers. For more information on licensing, refer to the licensing section below.

Solstice Display Software is not supported in a virtual machine (VM) environment or while using terminal services.

Solstice client software is installed on Windows or Mac laptops, Windows 8 tablets, or Android or iOS mobile devices that you want to use to connect and share media to the Solstice-enabled display. Solstice client software is free and can be accessed by entering the IP address of the Solstice display host computer – visible on the Solstice display – into a web browser on the client device. Alternatively, Solstice client software can also be downloaded and installed from www.mersive.com/get-solstice. All laptops and mobile devices need to be connected to the same network as the computer running the Solstice display software.

Solstice client software for Windows and Mac laptops can also be run from a USB dongle, with no installation and no dependencies or libraries required on the client laptop. Instructions for creating Solstice dongles are available at www.mersive.com/get-solstice.

Solstice Network Setup

Solstice software operates over standard TCP/IP networks. Solstice software is flexible, and the particular network configuration details should be determined by business needs and existing network IT policies.

Here are examples of three network configurations that support different enterprise needs and network topologies.

Business Scenario	Solstice Network Configuration
A room is used in isolation from the existing corporate network, such as a customer briefing center. Users' devices contain the data to be shared, and access to the corporate network is not required.	Solstice is isolated to a VLAN or is set up on its own in-room Wi-Fi network.
Meeting rooms are wired for access to the enterprise network, and all users who will be accessing the shared Solstice display can access that same enterprise network.	Solstice is installed on a PC that resides on the enterprise network.
Users on different networks need to connect to the meeting room display. For example, both guest and enterprise networks exist and users on each need to collaborate in a meeting.	Solstice receives traffic from multiple networks via dual NICs or routing IP traffic, depending on network requirements.

In all configurations it is recommended that any computer running either the Solstice display

software or the Solstice client software set up the firewall to open the following ports: 53100, 53101, 53102, 53200, and 55001. If these ports conflict with other ports in use, the Solstice display configuration panel allows an IT administrator to change the base port address.

Solstice Licensing

The Solstice display software is a licensed Mersive product. Free trial versions are available as well as permanent licenses for purchase from Mersive or its authorized resellers. Solstice client software is free. With a full Solstice license, you can set up an unlimited number of clients/users. With a Solstice a Small Group Edition (SGE) license, up to four clients/users can connect to the display at one time.

Upon purchase of Solstice, you will receive a welcome email with login credentials to the [Mersive Download Center](#). Once logged in, select the link to start the download. After the download is complete, follow the prompts to install and then launch the software.

If you have a Solstice trial, you will see the reminder screen every time you start the Solstice display software until it expires in which case the expiration notice will not go away. Once you have purchased, you will receive an activation code via email. Input this activation code as it appears in the email into the license key box that appears when you start Solstice. You will also receive access to the [Mersive Download Center](#), through which updates and new versions of the product will be delivered. You will be notified when updates are available by email sent to the email address associated with your account.

Starting a Solstice Display

In order to start a Solstice-enabled display, simply launch the Solstice display software on the Windows display host computer connected to the Solstice-enabled display. Solstice can be set to open full screen, in a window, or specify a fixed size for the display via the configuration panel. See [Configuring a Solstice Display](#) for more information. When set to open in a window, pressing 'ESC' on your keyboard will toggle the software interface between full screen mode and windowed mode.

Getting Started with the Solstice Display Splash Screen

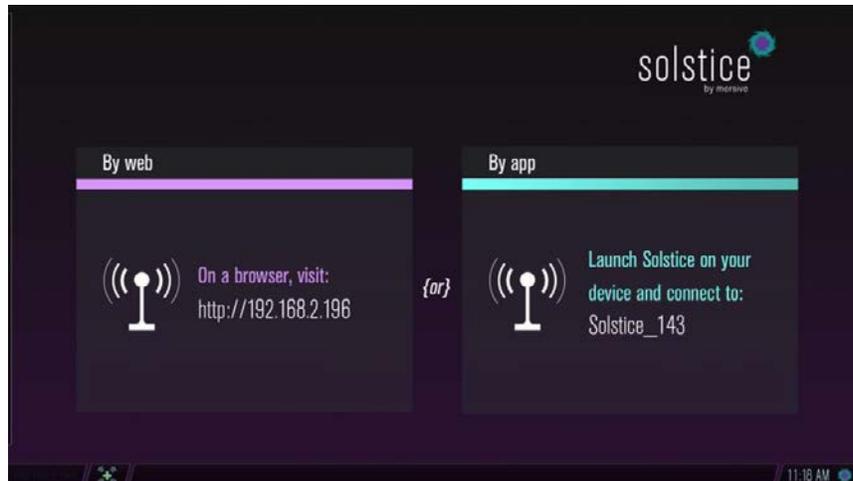


Figure 1: Solstice Display Splash Screen

Upon system launch, Solstice has a built-in splash screen that informs users how to access the display and the Solstice client software from client devices. This splash screen can be turned off or replaced in the configuration panel. See [Configuring a Solstice Display](#) for more details.

Accessing the Solstice Display Menu

To access the menu when the Solstice display software is running, click the Solstice icon in the bottom right corner of the display. Menu options include 'Access Control' (visible only when Access Control is set to 'Determine at Runtime' in the Solstice Configuration Menu), 'Lock', 'Disconnect All Users', and 'System'.



Figures 2 & 3: Solstice Display Menu

Access Control options are only visible when access control is set to 'Determine at Runtime' in the Solstice configuration panel. When visible, there are four access control settings:

Open allows anyone to join the session, post media and control the display.

Screen Key allows only those who can see the screen key in the bottom left corner of the Solstice-enabled display to connect to the session.

Password allows only those with the password – set in the Solstice configuration panel – to connect to the session.

Moderated requires users to request to join the session as Hosts or Guests. To join as a Host, the user will need the session password, which is set in the Solstice configuration panel. Hosts have full sharing rights and control of the display during the session. Users that do not have the session password can request to join as Guests and must be approved by a Host to join the session. Further Hosts will review and approve or reject media posts submitted by Guests, and Guests do not have control of posts on the display.

Lock disables access to the display by any new users for the remainder of the session. Only users already connected to the display can share media.

Disconnect all Users disconnects all users from the session and removes all media posted by the users.

System provides access to the configuration panel and control of the Solstice display software application from the Solstice display host PC.

Minimize/Hide minimizes the Solstice display window to allow access to the Windows desktop.

Configure opens the Solstice configuration panel. See [Configuring a Solstice display](#) for more information.

Exit Solstice removes all posts, disconnects all clients and closes the Solstice display software application.

Configuring a Solstice Display

To access the Solstice configuration panel, first ensure Solstice display software is running. Then select 'System' and 'Configure' from the Solstice display menu in the bottom right corner of the Solstice display interface. The Solstice configuration panel will appear.

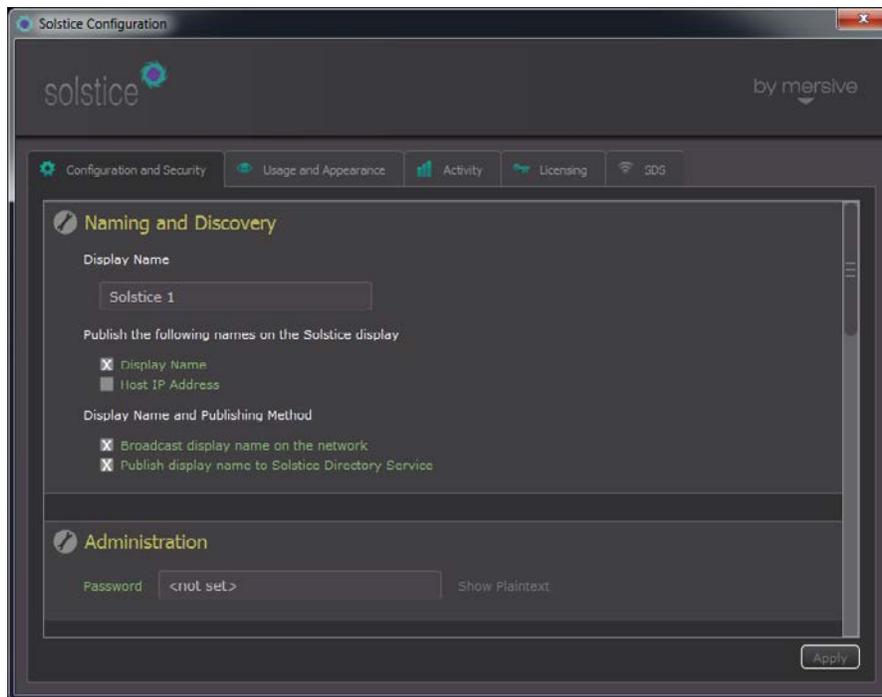


Figure 4: Solstice Configuration Panel

There are five tabs on the top: Configuration & Security, Usage & Appearance, Activity, Licensing, and SDS.

The **Configuration and Security** tab allows the administrator of the display to change several settings and is divided into six sections:

Naming and Discovery allows the administrator to name the Solstice display and configure how the name appears on the screen and on the network. The name of the display appears in the lower left corner of the Solstice-enabled display when Solstice is running and is what will appear in the list of available displays when users connect. This can be a name, an IP address, or the screen will alternate between the two when both options are selected. It also allows the administrator to set the methods for accessing the Solstice display.

Administration allows the administrator to password-protect access to the Solstice configuration panel, restricting access to the configuration options or locking a specific configuration.

Network allows the administrator to edit and configure the base ports over which Solstice traffic will be transported. Solstice will use the port defined in this field as well as the next

two in sequential order. The Primary SDS Host port can also be designated here in order to enable click-to-connect capability for the display.

Access Control designates how users will access the Solstice session, post to the display and restrictions to accessing the display. The Access Control options include:

Open allows anyone to join the session, post media and control the display.

Screen Key allows only those who can see the Screen Key in the bottom left corner of the Solstice display to connect to the session by entering the key.

Global Password allows only those with a non-visible password, set in the Solstice configuration panel, to connect to the session.

Moderated allows anyone to connect to the session, but only those with the Moderator Password, set in the Solstice configuration panel, have full sharing rights and control of the display. Non-moderator 'Guest' users can request to join the session, but both joining and sharing media posts must be approved by a Moderator, and Guest users do not have control of posts on the display.

Determine at Runtime allows the user to select the Access Control setting for each session from the Solstice display menu in the bottom right corner of the Solstice-enabled display.

Video Feeds allows the admin to configure the Live Sources settings. To enable or disable a Video Feed, select the box in the Enabled column. To change the name of the Video Feed, double click in the space in the Nickname column and enter the desired name. If the frame grabber or capture card supports audio, select the box in the Audio column. To change the resolution of the external source, double click the Resolution column. Click on the arrow and a dropdown menu will give options for resolution.

The **Usage & Appearance** tab allows the administrator to edit the settings for the appearance of the Solstice-enabled display, configure sharing options, set the preferences for launching the software, and enable the display-side video folder.

Sharing Control enables the administrator to designate what types of posts users can share to the Solstice display, set the maximum number of connections (client devices), and set the maximum number of posts that may be simultaneously shared on the Solstice-enabled display. It also allows you to specify the maximum number of AirPlay® connections and the size at which Solstice will automatically resize images. For Solstice Small Group Edition (SGE), the maximum number of connections (devices) is limited to four.

Appearance allows the administrator to edit and adjust settings for how the Solstice display application will appear. Solstice can run in full screen, in an adjustable application window, or in a fixed-size window which the administrator specifies. When set to open in Windowed mode, hitting 'ESC' on the display host PC will toggle the Solstice software application window between full screen and windowed.

This tab is also where the administrator can set or change the Display Theme image that appears as the background when Solstice is running, and turn on, turn off, or change the Getting Started Splash Screen, which informs users of how to connect to the display.

Auto Launch lets the administrator configure the auto-launch options of Solstice. It can be configured to launch at login to Windows or at client connect. It can also be configured to

hide on last client disconnect. Deselect all Auto Launch options to disable all auto-launching.

Display Side Video Folder is where the administrator can designate and enable or disable users' access to a video folder on the display host computer. When this function is enabled, users can access video content in the folder designated here from their client devices.

The **Activity** tab tells the administrator information about what is happening on the display, including number of users, number of posts, bandwidth usage, and live sources in use.

The **Licensing** tab provides details about your current Solstice display software license, including version, expiration date, and fulfillment ID. It also lists the most recent versions of Solstice that are available for both the display software and the different client versions.

The three boxes on the bottom of the licensing tab allow an administrator to push a Solstice license to that display by entering an activation key, update the version of display software running on that display, and recall a license that is installed on that machine to use on a different machine later.

The **SDS** tab shows options for Solstice Directory Service (SDS), provides an IT-friendly mechanism for display discovery (i.e. click-to-connect capability) throughout an enterprise. SDS is a complimentary software program that runs in tandem with Solstice display software on the network. See the Solstice Directory Service (SDS) User Guide and the Solstice Dashboard User Guide for more details about SDS and the SDS tab in the configuration panel.

External Video Feeds aka Attached Sources & Using Frame Grabber

Solstice is able to integrate with external video sources using a frame grabber or capture card. Using the Video Feeds feature from the Solstice configuration panel, a Solstice session can include live feeds from any video source connected to the display host computer. External video feeds could include video conferencing equipment, DVD/Blu-ray players, video recorders, etc.

It is recommended that users connect USB video sources to integrated USB slots on the host computer's motherboard, rather than stand-alone USB cards, to reduce the processing and memory demands on the computer. Generally, integrated USB slots are located on the back of the host machine.

To utilize attached video sources, the Solstice display host computer – connected to the display by a video cable – must have a DirectShow compatible frame grabber or capture card. Install the card per the manufacturer's specifications. Install the drivers that came with the card.

Please note that audio is only supported on certain frame grabber cards. Check the manufacturer's specs to determine if the card supports audio. For Apple TV or HDCP-protected content to be shared, a Datapath frame grabber card is required.

Once the card is installed and the external source is connected to the display host computer, launch Solstice. Access the configuration panel via the Solstice display menu, and then under the first tab, scroll down to the Video Feeds section, and check the box in the *Enabled* column to activate.

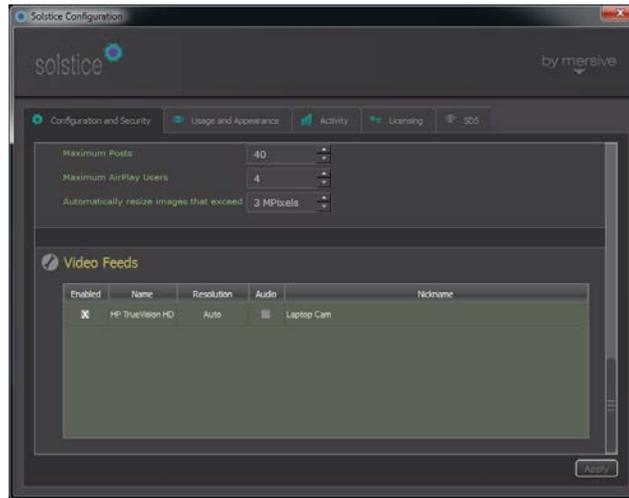


Figure 5: Video Feeds in Solstice configuration panel

Once the Video Feed is enabled in the Solstice configuration panel, click Apply. Then, on the Solstice display interface, click the Share Media Button in the bottom left corner, then click 'Attached Sources' and select the name of the Video Feed you just enabled in the Solstice configuration panel.

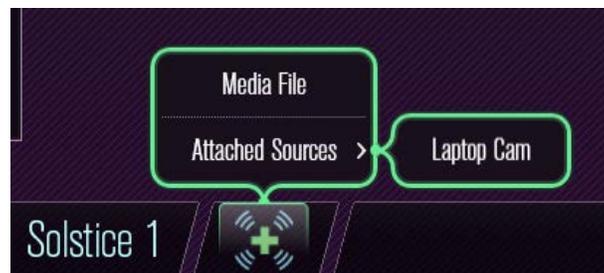


Figure 6: Share Attached Sources Video Feed

Connecting to the Solstice-Enabled Display from Client Devices

In order for users to connect to the Solstice display, ensure Solstice display software is running on the display host computer. To launch the software, either click the desktop icon or select the Solstice application from the program list. Also, ensure that the client devices are connected to the same network as the Solstice display host computer via Wi-Fi or an Ethernet connection.

With Solstice display software running, users can connect in two ways from their client devices as described on the Solstice display splash screen. If they are connecting for the first time and have not previously installed the Solstice client software on their device, they can simply open a browser on their device and enter the IP address visible on the Solstice display. Clicking 'Connect' will download the client application, or it will redirect iOS users to the App Store and Android users to the Google Play store to download the client software. Once downloaded, open the app by clicking on the download or app icon.

Alternatively, if the Solstice app is already installed on the client laptop or mobile device, the users can launch the app and select the display to connect to. The client software will be added to the system tray in the lower right corner of the desktop on Windows laptops, and to the upper right corner of Mac desktops, where it can be accessed.

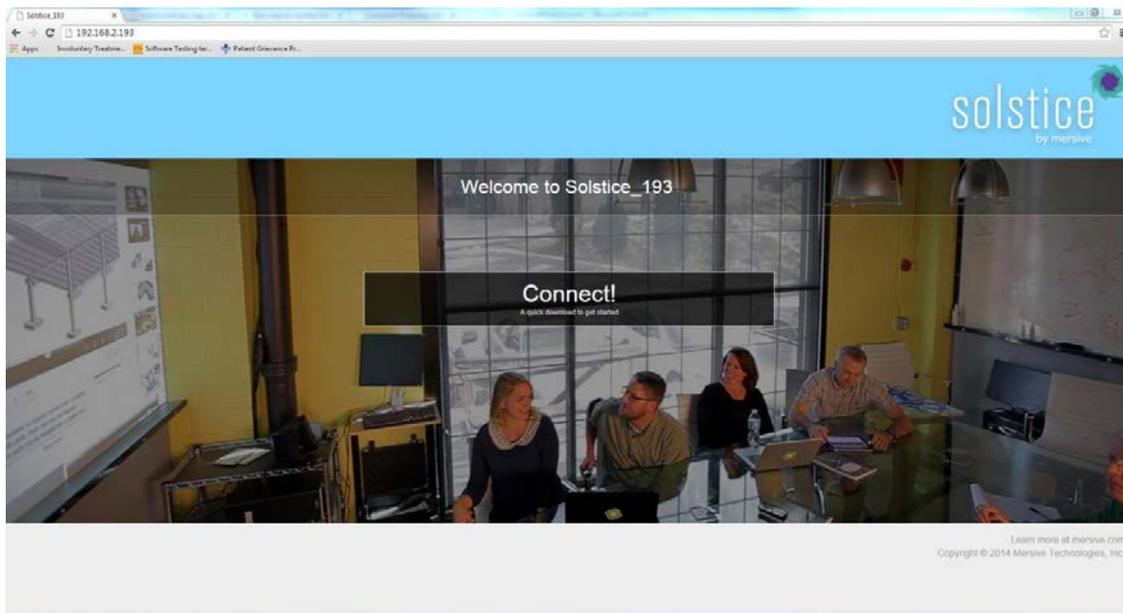


Figure 7: Solstice Browser-Launched Connect Screen



Figure 8: Solstice Client Software Connect Screen (Windows Client)

Once Solstice client software is open, the user will see the Solstice client connect screen, showing a list of displays available to connect to on the network, as well as an 'Enter IP' tab and a settings button designated by a gear icon in the upper right corner of the user interface.

Settings options include dock/undock the client software window to/from the system tray (Mac and Windows devices), designate the user's name, 'Clear Recent Displays' list, enter Solstice Directory Service IP address (advanced setting – consult you IT department for details), and notification settings.

To connect, select a display from the list provided or click the 'Enter IP' tab, and enter the display's IP address. If the Access Control setting is set to Open, the client will automatically join the session with full posting and control rights. If the Access Control setting is set to Screen Key or Password, the user will have to enter the Screen Key (visible on the Solstice Display) or Password (designated in the Solstice configuration panel) to access the session. If the Access Control setting for the session is set to Moderated, the user will be prompted to join the session as a Host or a Guest and enter the Host password or wait for a session Host to approve the request to join as a Guest. If the session is set to Lock, no new users will be able to join.

Once connected to a Solstice display, there are two types of sessions with unique sharing and control rights for users. Full Collaboration sessions provide all members of the session with equal rights to share and control the display. These include sessions with Access Control set to Open, Screen Key, or Password. For these sessions, any user that attains access to the session has equal sharing and control rights. Moderated sessions – with Access Control set to Moderated – allow one or more Host users to lead the session by controlling what is published to the display and the layout of posts. In these sessions, non-Host users can request to join as Guests with restricted sharing and control rights.

Solstice Client Software during Full Collaboration Sessions

When users launch the Solstice client software and connect to a display, they will see the sharing panel with the available sharing option as well as the user’s session information.



Figures 9: Solstice Client Share Panel (full collaboration session)

The sharing panel provides the user options for sharing different types of posts to the display. Not all sharing options are available on all devices. The sharing options available for Windows and Mac laptops include:

Desktop – stream the desktop view of the Windows or Mac laptop.

App Window – stream a single application window open on the Windows or Mac laptop.

Media File – access and share media, including images and videos, from the device.

Public File – browse to and share media in the designated public folder on the Solstice display host PC.

The sharing options users see can be enabled/disabled individually in the configuration panel or remotely using the Solstice Dashboard.

Users can also share media to the display from the control panel just like from the share panel. To share from the control panel, click the 'Share +' button in the upper right area of the client interface and select the type of item you’d like to share. Not all sharing options are available on all devices. Further, the sharing options available to users can be configured in the Solstice configuration panel or remotely via the Solstice Dashboard.

When files, documents, etc. are posted to the display in the room, the posts are not static images; they are a live feed from the client device. Any edits made to the documents or files will be visible on the shared Solstice-enabled display in real-time, but the original document/data never leaves the original device. So everyone can share and collaborate without compromising the security of their documents and data.

NOTE: The Windows 7/8 Solstice client app requires a Windows Aero theme be selected/enabled in order to share an application window. The Solstice client app will prompt the user to select an Aero theme if one is not already selected. Alternatively, the user can also enable an Aero theme by right clicking on the Windows 7/8 desktop, clicking 'Personalize' and selecting an Aero theme.

In addition to sharing options, the sharing panel consists of 'Disconnect' and 'Go to Display View' buttons. Selecting 'Disconnect' will disconnect the user from the Solstice session. 'Go to Display View' replaces the sharing panel with a control panel where users get a what-you-see-is-what-you-get interface with options for controlling the media on display. See *Managing Media Posts on the Solstice Display* for more details about the control panel.

The client software control panel (see Figure 10) enables users to control media on the display in a number of ways. Media items can be rearranged, moved on/off screen, and deleted. The layout can also be changed to/from grid and freeform modes. In freeform mode, media can be scaled and rearranged arbitrarily to create custom layouts to meet the needs of the unique session. Lastly users can share new media items from the control panel, similar to sharing from the share panel. Features of the control panel are covered in detail in *Managing Media Posts on the Solstice Display*.



Figure 10: Solstice Client Control Panel (full collaboration session)

To access the control panel from the share panel, select the 'Go to Display View' button in the upper right corner of the share panel. To go back to the share panel, click the 'Back' button in the upper left corner of the control panel.

Solstice Display Interface during Full Collaboration Sessions

Solstice supports display-side interaction via the display host computer running Solstice display software. This enables the display host user controlling the Solstice display host computer to use the host computer as a client in the Solstice session, sharing and controlling media like other users. If the Solstice display is touch-enabled, the user can interact with the display screen directly via touch support.



Figure 11: Solstice Display Software Interface

Display Name – The display name appears in the lower left corner of the Solstice display. The display name can be changed – and preferences for display discovery can be set – in the Solstice configuration panel. See *Configuring a Solstice Display* for more details.

Screen Key – Visible only when the Access Control for the session is set to SCREEN KEY, this key ensures only those in the room with a view of the display can access the session, share and control the display.

Share Media Button – This button enables the display host user to share media to the shared display. The media sharing option include those items on or accessible from the host computer connected to the display and running Solstice display software, as well as the ability to activate Attached Sources (i.e. Video Feeds).

Meeple – Meeple are graphical indicators of session participants located along the bottom of the Solstice display interface.

Meeple Menu (not pictured) – The Meeple Menu, accessed by left clicking on any Meeple icon, provides the display host user access with per-user control over media posts and users of the session, including options to boot user; show, hide, stack, and delete a user's posts; and get session info about the user.

Solstice display menu – This menu, accessed by left clicking the Solstice icon in the lower right corner of the display, provides the display host user control over the session from the display user interface. See *Accessing the Solstice Display Menu* for more details.

On Screen Area – This is the large interactive area with the active posts in view on the Solstice display.

On Deck Panel – This is the smaller interactive area along the left side of the Solstice display that shows media posts not currently in view on the shared display. Media posts in this area are 'on deck'. The on deck panel will be empty until a post is moved from the display onto the panel. The on deck panel will auto-hide after a short period of inactivity. To access the on deck panel when hidden, simply mouse over the left border of the Solstice display.

Managing Media Posts on the Solstice Display

With Solstice, users can not only share media to the display, but they have a large amount of control over the media shared, regardless which user shared it (unless the session Access Control is set to Moderated). Further, media and the display layout can be controlled display-side by the display host user or by users on their client devices.

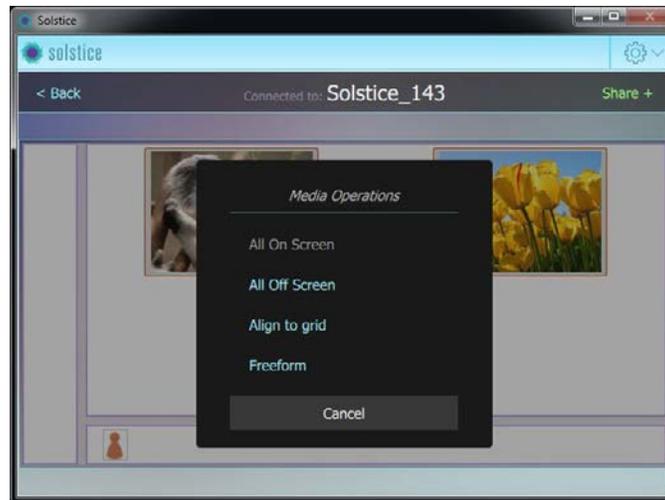


Figure 12: Display Layout and Media Controls (from the Solstice Client Software)

Layout Control. There are two layout modes that can be designated by accessing the On Screen Area menu. To access the menu, right mouse click anywhere in the On Screen Area *that is not covered by a media post* (client or display). The On Screen Area menu will appear. From here, the user can select 'All On Screen', 'All Off Screen', 'Align to Grid', and 'Freeform' options. Posts can also be dragged and dropped between the On Deck Panel and the On Screen Area individually, as well as rearranged within the On Screen Area by clicking and dragging. In freeform mode, posts can also be scaled. Pinch to zoom on touch-enabled clients and hosts, or use the mouse wheel to scale media in and out. These are the basic layout control options.

Media Actions. There are specific actions available for each media post which are accessible by right-clicking on the media post:

Delete removes the media post from the session completely.

Create Stack enables the user to organize multiple media items into a single post on the display. Items can then be flipped through within the position of the single post.

Fullscreen publishes the media post to a full screen view and moves all other posts in the On Screen Area to the On Deck Panel.

Flip toggles to a view of the media item that provides information about the post and the user.

Preview enables a user to enlarge a post to nearly-fullscreen size – by double left mouse clicking the post – without moving other posts in the On Screen Area to the On Deck Panel.

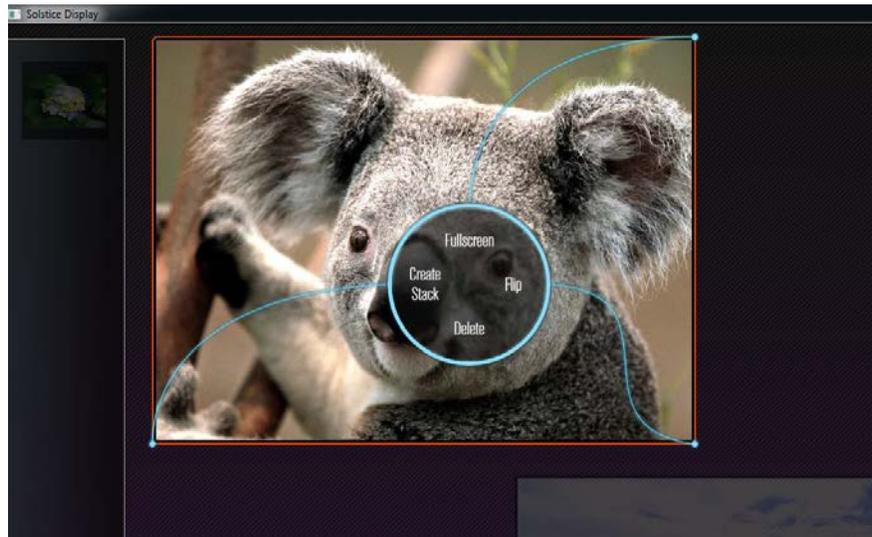


Figure 13: Media Actions on the Solstice Display

Stack Actions – When multiple posts are compiled into a stack on the display – which is indicated by a small number in the top right corner of the post – there are specific actions available which are accessed by right-clicking on the stack:

Fullscreen publishes the media stack to a full screen view and moves all other media posts in the On Screen Area to the On Deck Panel.

Flip toggles to a view of the media item that provides information about the stack and the user.

Delete All removes all media posts within the stack from the session completely.

Unstack makes each component piece of media in the stack its own post on the display.

Edit Stack enables the user to add and remove media posts from the stack.

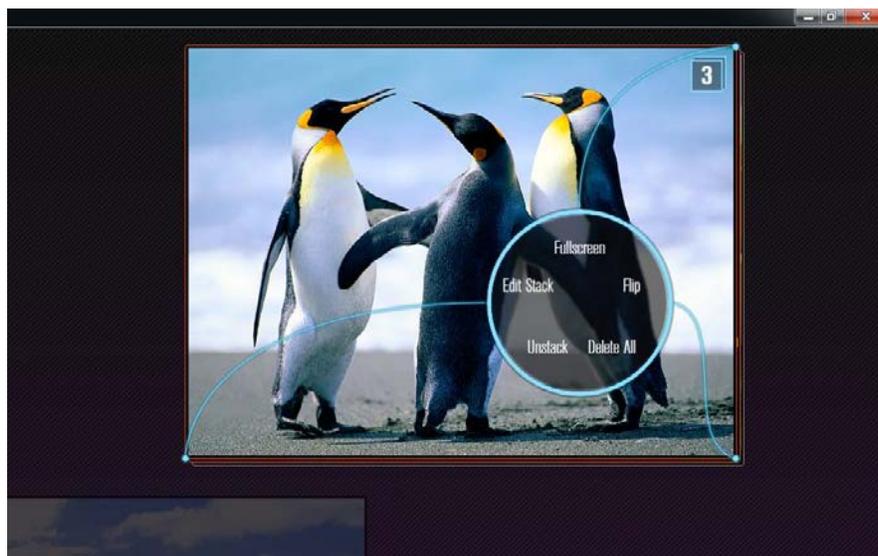


Figure 14: Stack Actions on the Solstice Display

Video Posts on Solstice – Solstice supports video posts up to 1080p at 30fps or higher with synchronized audio. A video posted to the display during a session will auto-play with audio. When moved from the On Screen Area to the On Deck Panel, the video will auto-pause and auto-mute. Users can control video(s) posted to the display with the Solstice video player. The Solstice video player functions similarly to other video players, with play/pause buttons, as well as volume control, mute/unmute, fast-forward/rewind, and loop options. As with all Solstice media posts, any user with session access can control any video posted to the display. Solstice will only play audio from one source at a time. If multiple videos with audio are posted to the display On Screen Area, audio from the first video only will play. Other audio sources will be auto-muted.

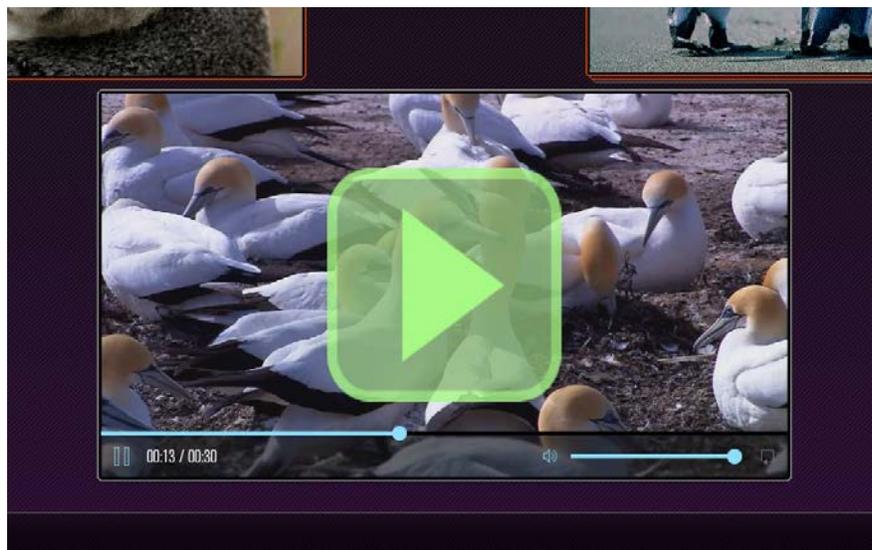


Figure 15: Video Post on the Solstice Display

NOTE: Solstice supports a broad range of video types, but not all video files are supported. If a video file is shared but does not post correctly to the display, the user can open and play the video from their desktop, and share/mirror their desktop to the display. When a video is shared to the display via the Solstice client app's 'Share Desktop' option, audio will not be shared.

Multi-Touch Support – Solstice display software supports multi-touch for touch-enabled displays. When using a touchscreen as the Solstice display, a single tap is equal to a left mouse click, a double tap is equal to a double left mouse click, and a tap-and-hold is equal to a right mouse click.

Solstice Gesture Controls – Solstice supports gesture controls to move media between the On Screen Area and the On Deck Panel. On a touch-enabled display, drag-and-flick a single media post to move it between these areas or drag-and-flick an empty space between media items to move all media items between the On Screen Area and the On Deck Panel.

Using the Solstice App on Mobile Devices

The Solstice client software app for iOS and Android devices has a slightly different user interface than for Windows and Mac OS X clients.

The apps for iOS and Android look and function very similarly to the Windows and Mac OS X clients with a few exceptions. The most significant difference is the sharing options from mobile devices vs Windows and OS X clients. The Solstice App on mobile devices does not include the Share Desktop or the Share App Window options. Additionally, there are some differences between sharing options from the iOS and the Android Solstice Apps.



Figure 16: Sharing Options on the Android Client App

The Android mobile device app sharing options include:

Media Library – access and share media from the device’s Media Library.

Camera – access the device’s native camera app and take a photo to share to the display.

Take Video – access the device’s native video app and take a video to share to the display.

Stream Webview – browse the web to access the web content you want to share on the display, including cloud applications present on the Webview homepage: Dropbox, OneDrive, SugarSync, Google Search, Google Drive, Facebook, Flickr, Instagram and Box.

Public Media Folder – browse to and share a file located in the public folder of the Solstice display host computer when the option is enabled in the Solstice configuration panel.

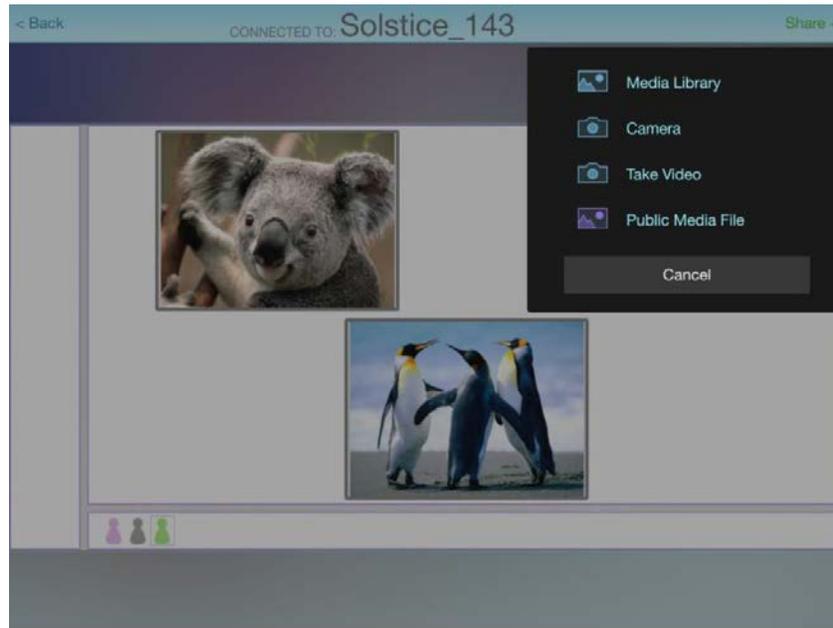


Figure 17: Sharing Options on the iOS Client App

The iOS mobile device client app sharing options:

Media Library – access and share media from the device’s Media Library.

Camera – access the device’s native camera app and take a photo to share to the display.

Take Video – access the device’s native camera app to take a video to share to the display.

Public Media Folder – browse to and share a file located in the public folder of the Solstice display host computer when the option is enabled in the Solstice configuration panel.

AirPlay Mirroring – Although this option is not available from the Solstice iOS app control panel share menu, full iOS mirroring on the Solstice display is supported via the iOS AirPlay protocol. This enables the user to share anything visible on device screen, including a web browser or any application open and visible on the device. See *Mirroring iOS Devices with Apple AirPlay* for instructions on how to use AirPlay mirroring and more details.

Mirroring iOS Devices with Apple AirPlay®

Solstice supports full mirroring of iOS devices (Apple iPhones and iPads) that feature Apple's AirPlay functionality, including devices with iOS 6 and higher. This means that the screen view of iOS devices with AirPlay can be posted to the display, regardless of what is visible on the screen.

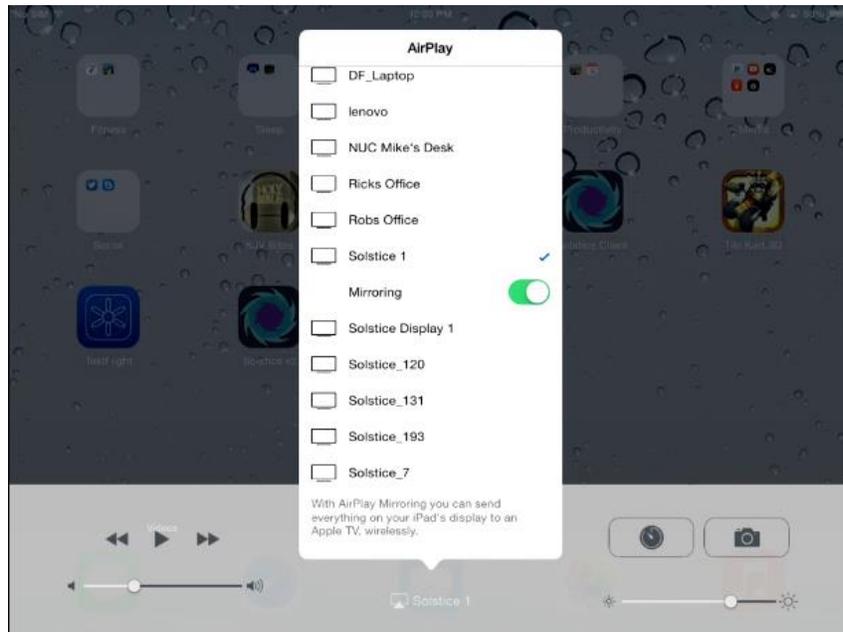


Figure 18: iOS 7 Control Center – Device Mirroring with AirPlay

Airplay mirroring is done outside of the Solstice client app through the device's native AirPlay feature, using the same process you would use to connect to an Apple TV. To mirror your AirPlay-enabled devices, first ensure the device is on the same network as the display PC. Next, install or update to the latest version of Solstice display software – available from the Mersive Download Center. Then follow the steps below for your device's iOS version:

iOS 6: Double tap the home button. Then swipe to the right on your dock (bottom). Select the name of the desired Solstice display and enable mirroring.

iOS 7 & 8: Swipe upward from the bottom of your screen. Then tap the AirPlay icon. Select the name of the desired Solstice display and enable mirroring.

Mirroring with Airplay requires two network conditions to be met. First, Apple's Bonjour protocol for device discovery must be installed on the Solstice display host computer. Bonjour is packaged and installed with the current release of Solstice display software, so no outside action is required. Second, the Bonjour traffic must be allowed through the Windows firewall on the display host computer. The firewall should either be turned off, or a firewall exception must be created to allow Bonjour traffic through.

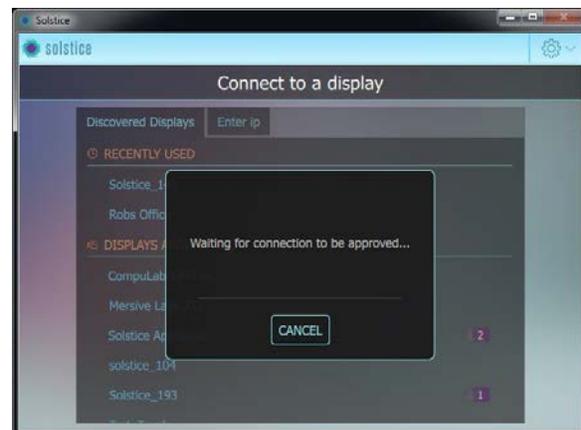
Mac laptops with OS X 10.8 and higher can also be mirrored via AirPlay. However it is

recommended that OS X users mirror to the display via the Solstice client app's 'Share Desktop'.
Solstice Client Software during Moderated Sessions

When the Access Control for a Solstice session is set to Moderated, users are prompted to join the session as a Guest or as a Host when they connect. Connecting to the session as a Host will require the Host password, designated in the Solstice configuration panel, and will provide the user with the same full sharing and control rights as non-moderated sessions. Additionally, any session Host will have the ability to approve or reject Guest requests to join the session and to post media. These requests will appear as alerts next to the Meeple icon(s) in the bar along the bottom of the Solstice client and display interfaces. Joining the session and posting media as a Guest requires approval from a Host of the session. Guests do not have the ability to control layouts or edit/remove posts.



Figure 19: Joining a Moderated Session as a Host



Figures 20 & 21: Joining a Moderated Session as a Guest

There are some changes in the client software interface during Moderated Sessions:

Role – on the share panel, the user’s role is designated as Guest or Host.

Alerts – visible only to Host users, the numeric indicator on the left-hand side of the Meeple menu in the control panel representing Guest users’ requests to join the session and post media.

Meeple Group – a graphical indicator in the lower right corner of the control panel represents the users that have joined a moderated session but are not actively sharing any media posts to the display.

Host Meeple – session Hosts are indicated by the addition of a line below the Meeple graphical indicator on the control panel.



Figure 22: Solstice Client Interface – Moderated Session

Solstice Display Software during Moderated Sessions

The Solstice display interface features minor changes when the Access Control for a session is set to Moderated. The display host computer is automatically a session Host, and therefore the display interface includes features that allow the display host user to Moderate the session. Additionally, the Meeple menu changes to distinguish between users that are actively sharing a post to the display and the Meeple Group, which consists of those users that are participants of the session (Hosts and Guests) but not currently sharing media.



Figure 23: Solstice Display Software – Moderated Session

Alerts – graphical indicator next to the Share Media Button representing user requests to join the session as Guests and Guest requests to post media

Meeple Group – graphical indicator of session participants that are not currently sharing media to the display

Host Meeple – indicated by the addition of a line below the Meeple graphical indicator