Introduction

Projects

Aetria Designer is a tool that enables users to design Aetria based control room environments simply and easily. The software allows users to design video walls and operator workstations, deciding which screen technology to use for each location and how each one will connect to the various sources and feeds the project may require.

Once the design has been completed a recommended Bill of Materials is generated detailing the minimum system requirements based on the users wall design in order to assist in any purchasing decisions. Optional devices may be added to the Bill of Materials for example wall controllers, capture and graphics cards.

As projects are designed, each one can be saved, exported and printed for future reference.

Menu

The Menu located at the top left of the Design work area allows the user to quickly access common project commands throughout the design process.

Getting Started - Creating a New Project

This help topic provides the user with a quick summary on the stages required to create a new Aetria Designer project.

After logging on the user is directed to the Projects dialog. Click on New Project at the bottom left and give your new project a name.

Once a project name has been entered, click on Create Project and the Add New Wall dialog is displayed. This allows the user to create a wall and assign it to a specific location or create a new location.

- Location - A location is an area into which you can organize walls and workstations. Use the Location dropdown list to select a location for the new wall. To create a new location, type in a name and this will then be added to the list.
• Enter a name for the wall - This is the name that will be associated with this particular wall throughout all the Aetria applications.

• Select a physical wall type - Use the dropdown list to select the type of wall or workstation required:
  
  WallControl Walls
  Arqa OneControl Group
  Aetria Workstation
  Aligo Wall
  Aligo OneControl Group

  For workstations select either Arqa OneControl walls, Aligo OneControl Group or Aetria Workstations.

• Select a Display Mode - Select the quality to output to the wall. This can affect the number of cards or devices that will be required to drive the displays.

Once all the fields in the details page have been entered, click Next to move on to step 2, the Display page. It should be noted that all fields need to be completed to move on to the next step.

**Step 2 Displays**

The display page allows the user to select the manufacturer and model of the displays being used on the wall and also create a display layout.

Display – Use the dropdown list to select the manufacturer and model of the displays to be used for the new wall.

If the displays are not listed, click on Add a display and a new dialog is opened which allows the user to input the details of the displays that are going to be used for the wall. It is recommended that, if possible, the manufacturer’s datasheet is used as reference for inputting the required data.

• Display type – Select the type of display, Monitor, Projector or LED Sender.

• Manufacturer – Use the dropdown list to select the display manufacturer.
- Model – Enter the displays model number or model name.
- Resolution – Enter the resolution of the display.
- Display Area – Add the size of the display area. Unit of measurement can be changed in the application settings.
- Bezels – Enter the measurements of each bezel. Unit of measurement can be changed in the application settings.
- Refresh Rate – Enter the refresh rate of the monitor.

Display Layout – Select a display layout by clicking the mouse inside a cell, a single cell represents one display. To select multiple displays for the layout, left click the mouse inside the cell and drag the mouse horizontally and vertically across the cells to create a representation of the physical wall layout.

Angle – Select an angle at which the physical displays will be positioned.

Spacing/Overlap – If projectors are being used to display content set the toggle to Overlap, if spaces are being used between displays select Spacing.

Once all fields have been addressed, click **Next**.

**Step 3 Hardware**

The Hardware page allows the user to select a wall controller that will be used to drive the new wall. Use the dropdown list to select a connected wall controller. Wall controllers can be added by selecting **+ Add New Wall Controller**, this opens a new dialog where the user needs to enter details for the new Wall Controller.

Users can configure the type of Aqua or Workstation to be used.

**Enter Wall Controller Details**

Wall Controller Name – Enter a name for the wall controller.

Select Device – Use the dropdown list to select the model of wall controller required for the project. Care should be taken to ensure the correct wall controller is selected, offering
sufficient number of PCI slots to accommodate the number of input and output cards needed to complete the project.

Expansion Chassis - Expansion chassis can be used to extend the number of cards which can be supported by a wall controller.

Enable High Availability – If a backup wall controller is required to ensure continued use should the main controller fail, enable the high availability by clicking on the toggle control. This will automatically create a second wall controller of the same specification. Once the details have been entered, click on Next to add the input sources.

Select Input Sources (Optional) – Click on “+” and the Add Controller Inputs dialog is displayed. Use the dropdown menu to select the type of input required for the wall controller, for example Aligo or Arqa products. Enter the number of devices required then click on Add. The selected devices will be displayed within the Add Wall Controller dialog, click Next to add output connections.

Select Output Connections (Optional) - Click on “+” and the Add Wall Controller Outputs dialog is displayed. Use the dropdown menu to select the type of output required for the wall controller. Enter the number of devices required then select the type of device that will be used for the inputs, for example Aligo QTX100. Enter the device count which is the number of devices needed to display the number of sources. Click on Add. The selected devices will be displayed within the Add Controller dialog, click Next to add output connections.

Select Cards (Optional) – If the wall controller will be using PCI cards to drive the system the user can select the graphics and capture cards required for the project:

Select Graphics Cards - Click on “+” and the Add Graphics Cards dialog is displayed. Use the dropdown menu to select the model of output card required for the wall controller, for example Image4K or Image2K. Enter the number of devices required then click on Add. The selected devices will be displayed within the Add Wall Controller dialog.

Select Capture Cards - Click on “+” and the Add Capture Card dialog is displayed. Use the dropdown menu to select the model of capture card required for the wall controller, for example VisionSD8 or ActiveSQX/ActiveSQX2. Enter
the number of devices required then click on **Add**. The selected devices will be displayed within the Add Wall Controller dialog.

When the cards have been selected, click **Next** and a dialog is displayed confirming the settings of the wall controller including the input and output devices that have been selected. Click on **Complete** and the Add New Wall dialog is displayed.

**Step 4 Confirm**

The confirm page displays details of the properties of the newly created wall which includes a graphical screen layout. The user should check the details carefully and should any element be incorrect, click on **Previous** and go back through the wizard to the point where amendments are required. If all the details shown are correct, click on **Complete** and the new wall details will be added as a new project in the content tree on the left.

**Design Tools**

Along the top of the design surface are tools allowing the user to add a new item, view measurements and system requirements, zoom in and out of the design surface, reset parameters, select specific displays or pan the design surface.

**New**

Click on **New** and the user is presented with a choice of opening the following:

Network Sources - Select Network Sources and the **Add Network Sources** dialog is displayed. Enter the required fields and click Save and the new Network Sources will be available.

Wall Controller - Select Wall Controller and the **Add Wall Controller** dialog is displayed. Enter the required fields and click **Next**.
Workstation Controller - Select Workstation Controller and the Add Workstation Controller dialog is displayed. Enter the required fields and click Next.

Location - Select Location and the Add a New Location dialog is displayed. Enter a location name and click on Create Location. The new location will be added to the content tree.

Wall - Select Wall and the Add New Wall dialog is displayed. Enter the required fields and click Next.

Measurements

Click on Measurements and a drop down list is displayed containing three options.

Show Location Measurements - When a show location measurements is selected, the measurements of the total area of the location including gaps is shown.

Show Display Measurement - When a show display location measurements is selected, the measurement of each display within the location is shown. Select a wall and the measurements are only displayed for that particular wall. The unit of measurement is determined in the settings panel which can be opened by clicking on the settings wheel icon located at the top right corner of the application.

Hide Measurements - When hide measurements is selected, all measurements currently being displayed are removed.

System Requirements

Click on System Requirements at the top of the Design work area to open the system requirements dialog. A list of devices and software is displayed to the right of the dialog and is based on the minimum number of devices and software licenses required to create the design. Device quantities can be increased or decreased at this stage using the "-" or "+" icons. Devices with quantities greyed out cannot be changed. Select Click to Reset to revert device quantities to the minimum numbers required for the design.

On the left is a list of all devices that can be added to Bill of Materials for example a video wall controller can be added to drive a control wall. Video capture cards can be added if there is a requirement to capture and display real time video.

Click on Add to select additional devices for the project.
Click on **Print** and the system requirements can be printed or saved as a PDF.

Click on **Done** and any changes will be saved and the dialog will close.

Once the design is complete it can be saved and exported as an .adf file using the menu dropdown list located top left on the Design work area. The exported file can be imported into the Aetria Command Center application or forwarded to Datapath for validation.

**Zoom**

Use the "-" and "+" function icons to zoom out of and in zoom into the design work area, enabling the user to focus on a specific areas of the design.

**Reset**

Click on the reset icon and the design work area is resized to show all content. The default reset percentage is dictated by the size of the application window,

**Select/Pan**

Click on Select/Pan to toggle between the two functions.

- **Select** - When selected, the user can select a specific display from any wall within the design work area. When a display is selected, the alignment properties and attributes for that display are displayed in the panel on the right hand side of the design work area.

- **Pan** - When selected, the user can move the design work area by clicking on and dragging the cursor.

Once the design is complete it can be saved and exported as a .adf file using the menu dropdown list located top left on the Design work area. The exported file can be imported into the Aetria Command Center application or forwarded to Datapath for validation.

**Getting Started - Import a Project**

Aetria Designer allows projects to be imported, these may be projects that have been shared with other users and updated or simply projects created by other users and sent for review. Files may be imported from a local directory or across a network.
To import a project, click on **Import Project** from the main menu or from Project page and the import project dialog is displayed. Use the browse function to locate the required project file then click on **Import**.

**Problem Importing Projects**

If a project with the same name already exists within the design environment a warning is displayed stating there is a duplication. This can occur if the project has been worked on previously and shared with other users for updates.

Three options are offered in this case:

Keep Original - This selection will override the imported file and open the project stored locally.

Keep New - This selection will open the imported project and overwrite the project stored locally.

Keep Both - This selection will save both files locally annotating the imported project with a bracketed copy number.

Click on the selection required and the project will open on the Design work area.

**Open a Project**

Projects that have already been created and saved or imported are displayed in a list. The **Recent** list displays the last 5 projects that have been worked on. The **All** list displays every available project stored locally on the machine. A search function is available to quickly locate the required project.

From the list, select the required project and click on **Open Project** and the Design work area is opened.
The Design work area is where you can view, manage and develop your projects. A location refers to groups of displays and walls, which are connected together by a single Network Manager. A location can be used to group a number of walls and workstations in one connected environment.

By right clicking on a wall name in the design area, the user will be presented with the context menu with options to move, rotate or remove the wall. By right clicking on a display within a wall, the user can move, rotate or remove an individual display within a wall.

When a single display is selected, its properties are displayed in the Attributes panel on the right.

The display work area can be moved around using the Pan/Select tool located at the top of the design surface. Use the mouse scroll button to zoom in and out of the work area grid. When hovering the mouse over the wall name a tooltip is displayed.

Menu
A menu is located top left of the display grid enabling quick access to a number of commonly used functions:

**New Project** - Create a new project. It should be noted that this will remove any existing unsaved project in progress.

**Open Project** - Open an existing project.

**Copy Project** - Copies the existing project allowing you to make changes to a duplicate whilst maintaining the original.

**Import Project** - Import a Project from another user. Note that Import only supports Aetria Designer Files (*.adf).

**Export Project** - Creates an Aetria Design file (*.adf) that can be sent to other users.

**Import Layout Data** - Import data from a specific layout into the project. The data includes source information including positioning. Use the browse window to locate the required layout data file (.json). It should be noted that layout content will not be displayed in Aetria Designer.

**Print** - Select print and a print dialog is displayed showing the full project in printed format. Using the print destination dropdown menu users are able to select a specific printed format including saving as a PDF.

**Settings**

A settings icon is located in the top right of the application window.

**Units of Measure** - Use the dropdown list to select the required unit of measurement (millimeters or inches).

**Language** - Use the dropdown list to select the required language for the application. Once the language has been selected, reboot the application to affect the change. The help file will also change to the selected language.
**Snap to Grid** - The Snap to Grid function, allows automatic and accurate alignment of displays.

The application version number is also displayed and a link to the end user license agreement is available.

**Content Tree**

Selected projects are displayed in the content tree in the left panel, to open a specific project, click on the Menu icon top left then select Open Project, a list of all projects that have been created is displayed. Select the required project and click on **Open Project**.

When opened, the structure of the whole project is displayed which includes:

**Infrastructure**

This shows that a network manager has been included. If required “High Availability” can be selected for solutions requiring redundancy.
Network Sources

This section is used to indicate the number of video sources that are expected to be on the AV over IP network. Different source resolutions can be selected and collected within a group. Generally HD sources will be managed by Arqa devices, 4K sources by Aligo devices and Network Sources via SQX technologies though different providers may be selected as required.

Open network sources by clicking on the right pointing arrow to the left of Network Sources to display a list of network source groups. Open a group by clicking on the arrow next to the group name to display the type of network source, the number of sources and the type of hardware providing the source. Click on the 3 dots to the right of the source group to rename, edit or remove the group.

To add a new source group, click on the 3 dots to the right of Network Sources and select Add New Source Group and the Add Network Source dialog is displayed.

- Group Name – Enter a name for the network source group, this will be the name displayed in the content tree beneath Network Sources.

- Source Type – Use the dropdown list to do select the type of sources for the group, if HD or 4K is selected, a source provider will be required to allow the source access to the network for example Aligo QTX100.

- Amount – Enter the number of selected source typed to be added to the group.

- Provider – If the source type selected is HD or 4K a provider is required. This is the device that is used to place the source onto the network.

- Device Count - Enter the number of devices needed to display the required amount of sources.

Once all the fields have been entered, click on Save and the new network group is added to the list of network sources.

Wall Controllers

Creating Wall Controllers allows for the specification and configuration of controllers to be created and then assigned to a particular wall or walls. This also allows for additional sources that may be captured to be specified. Wall Controllers may also have ActiveSQX
cards to be included so that Network video sources such as IP streams from cameras can be decoded and displayed.

Open wall controllers by clicking on the right pointing arrow to the left of Wall Controllers to display a list of all the wall controllers associated with the project. To open a specific wall controller click on the arrow next to the wall controller name to display details of the number of inputs and outputs, graphics cards and capture cards contained within the controller. Click on the 3 dots to the right of the controller to rename, edit or remove the controller from the project.

To add a new wall controller to the project, hover the cursor over Wall Controllers and click on the 3 dots to the right and select **Add New Wall Controller** and the Add Wall Controller dialog is displayed.

- **Wall Controller Name** – Enter a name for the wall controller, this will appear throughout the design process.

- **Select Device** – Use the dropdown list to select the model of wall controller required for the project. Care should be taken to ensure the correct wall controller is selected, offering sufficient number of PCI slots to accommodate the number of input and output cards needed to complete the project.

- **Enable High Availability** – If a backup wall controller is required to ensure continued use should the main controller fail, enable the high availability by clicking on the toggle control. This will automatically create a second wall controller of the same specification. Once the details have been entered, click on **Next** to add the input sources.

- **Select Input Sources** (Optional) – Click on “+” and the Add Wall Controller Inputs dialog is displayed. Use the dropdown menu to select the type of input required for the wall controller, for example Aligo or Arq products. Enter the number of devices required then click on **Add**. The selected devices will be displayed within the Add Wall Controller dialog, click **Next** to add output connections.

- **Select Output Connections** (Optional) - Click on “+” and the Add Wall Controller Outputs dialog is displayed. Use the dropdown menu to select the type of output required for the wall controller. Enter the number of devices required then select the type of device that will be used for the inputs, for example Aligo QTX100. Enter the
device count which is the number of devices needed to display the number of sources. Click on Add. The selected devices will be displayed within the Add Controller dialog, click Next to add output connections.

- Select Output Cards (Optional) – If the wall controller will be using PCI cards to drive the system the user can select the required graphics cards and capture cards required for the project:

- Select Graphics Cards - Click on “+” and the Add Graphics Cards dialog is displayed. Use the dropdown menu to select the model of output card required for the wall controller, for example Image4K or Image2K. Enter the number of devices required then click on Add. The selected devices will be displayed within the Add Wall Controller dialog.

- Select Capture Cards - Click on “+” and the Add Capture Card dialog is displayed. Use the dropdown menu to select the model of capture card required for the wall controller, for example VisionSD8 or ActiveSQX/ActiveSQX2. Enter the number of devices required then click on Add. The selected devices will be displayed within the Add Wall Controller dialog.

When the cards have been selected, click Next and a dialog is displayed confirming the settings of the wall controller including the input and output devices that have been selected. Click on Complete and the Add New Wall dialog is displayed.

The Confirm page displays details confirming the properties of the newly created wall which includes a graphical screen layout. The user should check the details carefully and should any element be incorrect, click on Previous and go back through the wizard to the point where amendments are required. If all the details shown are correct, click on Complete and the new wall details will be added as a new project in the content tree on the left.

**Workstation Controllers**

Open workstation controllers by clicking on the right pointing arrow to the left of Workstation Controllers to display a list of all the Workstation Controllers associated with the project. To open a specific workstation controller click on the arrow next to the controller name to display details of the number of inputs, graphics cards and capture cards con-
tained within the controller. Click on the 3 dots to the right of the controller to rename, edit or remove the controller from the project.

To add a new workstation controller to the project, hover the cursor over Workstation Controllers and click on the 3 dots to the right and select Add New Workstation Controller and the Add Workstation Controller dialog is displayed.

- Workstation Controller Name – Enter a name for the wall controller, this will appear throughout the design process.

- Select Device – Use the dropdown list to select the device required for the project. Care should be taken to ensure the correct controller is selected, offering sufficient number of PCI slots to accommodate the number of input sources and output cards needed to complete the project.

- Select Input Sources (Optional) – Click on “+” and the Add Controller Inputs dialog is displayed. Use the dropdown menu to select the type of input required for the wall controller, for example Up to HD or Up to 4K. A provider will need to be configured for the sources to be made available to the network. Enter the number of inputs required then select the type of source to be used as an input to the system. Once selected, enter the number of devices needed to display the required amount of sources. Click on Add. The selected devices will be displayed within the Add Wall Controller dialog, click Next to add cards.

- Select Cards (Optional) - Click on “+” and the Add Graphics Card / Capture card dialog is displayed. Use the dropdown menu to select the card type and number of cards required. Click Next to confirm the selections and settings.

If all the details shown are correct, click on Complete and the new Workstation details will be added in the content tree on the left.

Locations

Open locations by clicking on the right pointing arrow on the left to display a list of locations associated with the project. Each location can be expanded to display all walls created for that location. Click on the 3 dots to the right of the wall to add a new wall, rename the location, copy the location creating another new location, (this is useful when creating multiple locations for a project with the same wall specification), delete a location from the project or print details of the location and the walls within it.
To add a new location to the project, select Add New Location by clicking on 3 dots to the right of the Add a New Location dialog is displayed. Enter a name for the new location then click on Create Location. The new location will be added to the list of locations associated with the project.

Click on the 3 dots to the right of the new location to add a new wall.

**Content Tree Menu**

Right clicking on a location within the content tree presents the user with options to add new walls (multiple and single display), rename (maximum of 50 characters), delete and print groups.

Right clicking on a wall presents the user with options to rename the wall, delete the wall, make a copy the wall to add to the same group or export it to any other group. This is useful if walls of the same specification are required within a group.

**Visualize Walls**

Select Visualize from the wall context menu and a representation of the wall is displayed. Users can select an overlay to be displayed on the wall representation and a background image to show how the wall may look when installed. A bezel correction feature is also available for the overlays.

Users can upload preferred background images (.jpeg); for instance the control room where the wall is to be located can be photographed in imported to create a realistic view of the project.

The wall displayed in the visual representation can be resized by hovering the cursor over the representation and use the mouse scroll button to resize. The wall can also be moved around within the representation by left clicking on it and dragging it to a preferred location.

The visualization can be printed if required.
The Location/Wall tools panel is located to the right of the display work area and contains alignment tools, wall and display attributes and a wall configuration function. The tools panel can be displayed or hidden by clicking on the three horizontal lines located top right of the "Displays" work area.

Alignment

The alignment icons are only active when a group or a wall is selected. Selecting an icon aligns all displays within the selected wall to the right, center or left of the rectangular display boundary.

Set the distance of the of the wall from the vertical axis (x) or the horizontal axis (y). Unit of measurement can be set in the Settings Panel.

Attributes

The attributes panel displays wall attributes and display attributes:
**Wall Attributes**

Select a wall either in the content tree or by clicking on the wall name on the "displays" work area and the attributes panel will display the name of the wall selected, the manufacturer of the displays that make up the wall and the whole display area of the wall in millimetres or inches depending on the preferred unit of measurement.

**Display Attributes**

To view the attributes of a single display, select the location in the content tree and then click on a display. The attributes panel will display the manufacturer, the model, resolution refresh rate, display area and the width of each bezel.

**Design Tools**

Along the top of the Design work area are tools allowing the user to add a new item, show measurements and show connected devices.

**New**

Click on New and the user is presented with a choice of opening the following:

Network Sources - Select Network Sources and the Add Network Sources dialog is displayed. Enter the required fields and click Save and the new Network Sources will be available.

Wall Controller - Select Wall Controller and the Add Wall Controller dialog is displayed. Enter the required fields and click Next.

Workstation Controller - Select Workstation Controller and the Add Workstation Controller dialog is displayed. Enter the required fields and click Next.

Location - Select Location and the Add a New location dialog is displayed. Enter a location name and click on Create Location. The new location will be added to the content tree.

Wall - Select Wall and the Add New Wall dialog is displayed. Enter the required fields and click Next.
Measurements

Click on Measurements and a drop down list is displayed containing three options.

**Show Location Measurements** - When a show location measurements is selected, the measurements of the total area of the location including gaps is shown.

**Show Display Measurement** - When a show display location measurements is selected, the measurement of each display within the location is shown. Select a wall and the measurements are only displayed for that particular wall. The unit of measurement is determined in the settings panel which can be opened by clicking on the settings wheel icon located at the top right corner of the application.

**Hide Measurements** - When hide measurements is selected, all measurements currently being displayed are removed.

System Requirements

When walls have been created within the group, and devices have been configured to them using the **Physical Wall Type** tool the next step it to allocate the hardware to fulfil the requirement.

Click on **System Requirements** at the top of the "Displays" work area to open the system requirements dialog.

On the left is a list of all devices that can be added to Bill of Materials for example a video wall controller can be added to drive a wall control wall. Video capture cards can be added if there is a requirement to capture and display real time video.

Click on **Add** to select additional devices for the project. Users can **Click to Reset** to remove all items already added, allowing new selections to be made.

Click on **Print** and the system requirements can be printed or saved as a PDF.

Once all the devices have been selected, click on **Done**.

Zoom

Use the "-" and "+" function icons to zoom out of and in zoom into the design work area, enabling the user to focus on a specific areas of the design.
**Reset**

Click on the reset icon and the design work area is resized to show all content. The default reset percentage is dictated by the size of the application window.

**Select**

Click on Select/Pan to toggle between the two functions.

Select - When selected, the user can select a specific display from any wall within the design work area. When a display is selected, the alignment properties and attributes for that display are displayed in the panel on the right hand side of the design work area.

Pan - When selected, the user can move the design work area by clicking on and dragging the cursor.
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