

## XPression Tessera One Setup

When launching XPression Tessera One for the first time, the setup consists of default presets and settings. If the defaults are changed, this document explains how to check the Tessera One settings and restore defaults.

This document covers the following topics:

[Hardware Setup](#)  2

[Preferences](#)  9

[Tessera Settings](#)  18

[Demo Project Package](#)  19

[Creating a Project](#)  20

[DashBoard](#)  23

[Supported Scaler Configurations](#)  25

## Hardware Setup

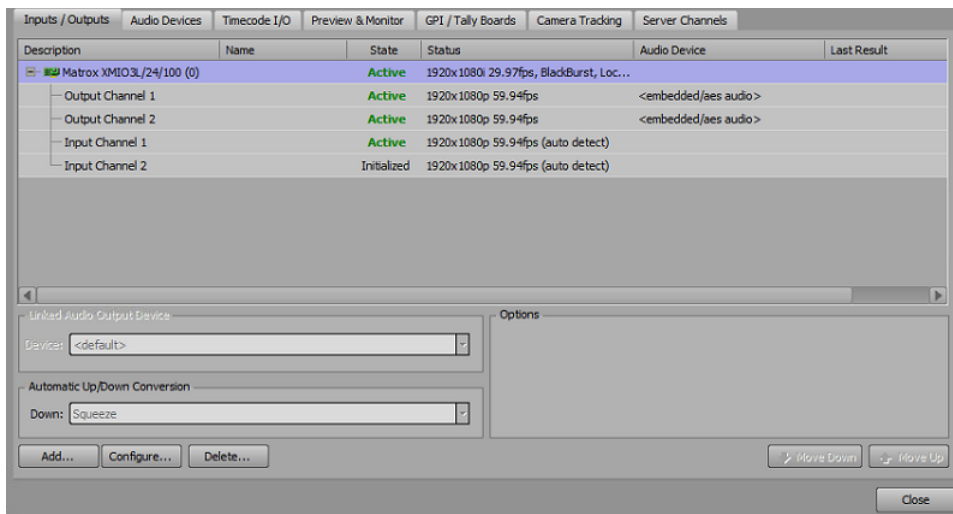
The following settings are required for Tessera One to operate properly using the low latency scaler. They are configured by default but should the settings be changed, use the following procedure to return to the default settings.

Tessera One comes with a default setting of **Fill/Fill** but can be set to **Fill/Key**. There is also an option to purchase two additional fills.

## Inputs

1. In XPression, select **Edit > Hardware Setup**.

The **Hardware Setup** dialog opens.



2. In the **Inputs / Outputs** tab, double-click an input from the I/O list.

The **Matrox DSX - Framebuffer Setup** dialog opens on the **Input** tab for the selected input.

The screenshot shows the 'Matrox DSX - Framebuffer Setup' dialog box with the 'Input #1' tab selected. The dialog is divided into several sections:

- Video Mode:** Contains three dropdown menus: 'Standard' (set to '<auto detect>'), 'Colorimetry' (set to '<from project>'), and 'Transfer Function' (set to '<from project>').
- Input To Output Latency:** A section with a 'Latency' dropdown set to '7' and the unit 'frames'.
- Key Options:** A section with a 'Source' dropdown set to 'None (Fill Only)'.
- Audio Channel Mapping:** A section with a 'Capture' dropdown set to '8 Pairs Embedded (Channels 1..16)'. Below this is an 'AES/EBU Pair Mapping' table with eight pairs of input selections.
 

Pair	Group A, Input	Group B, Input
Pair 1:	Group A, Input 1	Group B, Input 1
Pair 2:	Group A, Input 2	Group B, Input 2
Pair 3:	Group A, Input 3	Group B, Input 3
Pair 4:	Group A, Input 4	Group B, Input 4
Pair 5:	Group B, Input 1	Group B, Input 1
Pair 6:	Group B, Input 2	Group B, Input 2
Pair 7:	Group B, Input 3	Group B, Input 3
Pair 8:	Group B, Input 4	Group B, Input 4
- Misc:** A section with a checked checkbox 'Use GPU Color Space Conversion'.
- On-Board Scaler:** A section with a checked checkbox 'Limit Scaled Input Size to:' and a dropdown menu set to 'HD (1920x1080)'. There is also an unchecked checkbox 'Use Dedimotion to Preview Input:'.

At the bottom of the dialog are three buttons: 'OK', 'Cancel', and 'Apply'.

3. In the **Misc** section, select the **Use GPU Color Space Conversion** checkbox if it is not already selected.
4. In the **On-Board Scaler** section, select the **Limit Scaler Input Size to** checkbox if it is not already selected and use the drop-down to select a scaler size.

The default is **HD (1920x1080)**.

5. Select **Apply** and then select **OK**.

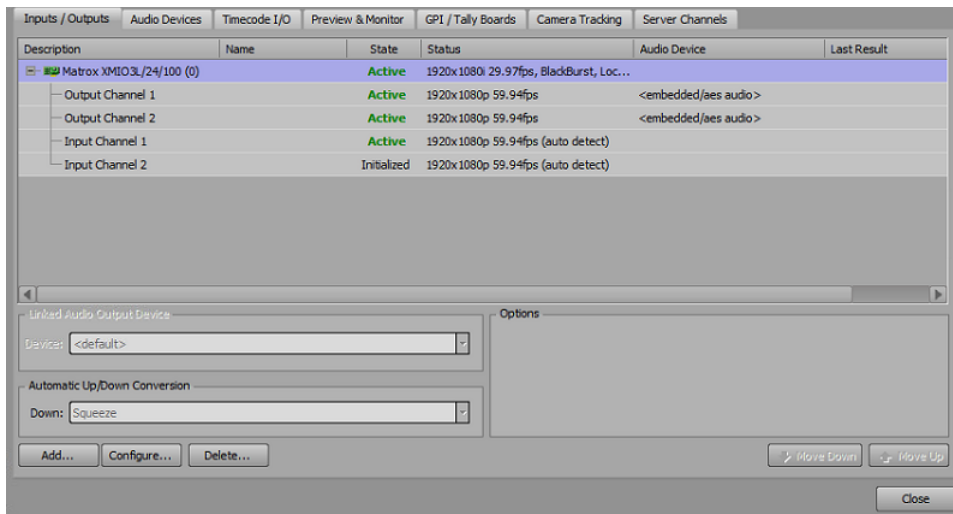
The **Matrox DSX - Framebuffer Setup** dialog closes.

6. Repeat steps 2 to 5 for any other inputs.

## Outputs

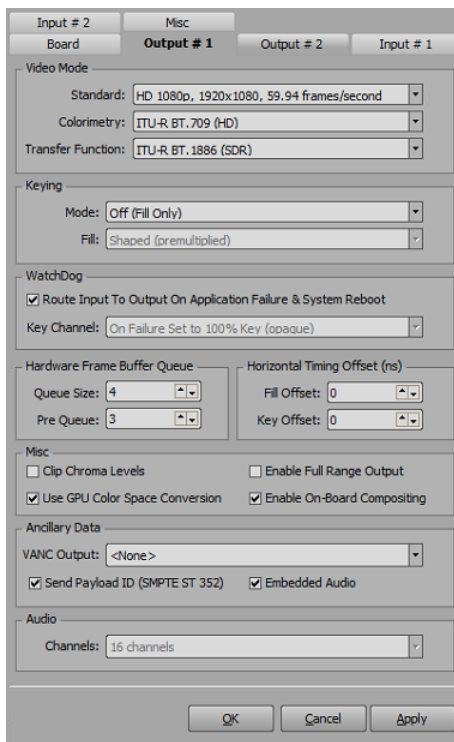
1. In XPression, select **Edit > Hardware Setup**.

The **Hardware Setup** dialog opens.



2. In the **Inputs / Outputs** tab, double-click an output from the **I/O** list.

The **Matrox DSX - Framebuffer Setup** dialog opens on the **Output** tab for the selected output.



3. In the **Misc** section, select the **Use GPU Color Space Conversion** checkbox if it is not already selected.
4. Select the **Enable On-Board Compositing** checkbox if it is not already selected.
5. Select **Apply** and then select **OK**.

The **Matrox DSX - Framebuffer Setup** dialog closes.

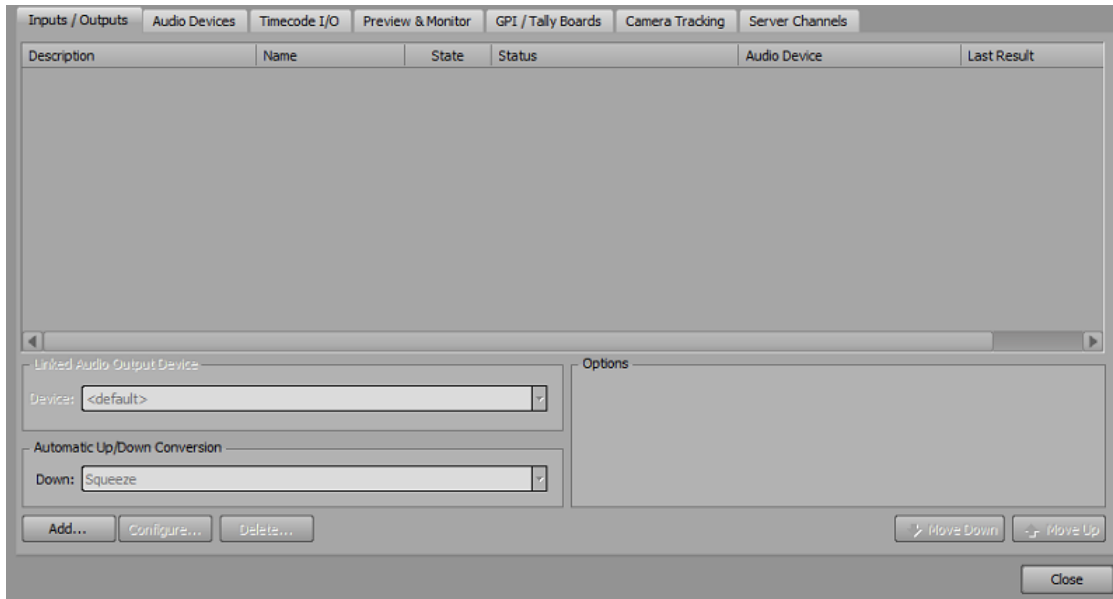
6. Repeat steps 2 to 5 for any other outputs.

## RossTalk GPI

The RossTalk GPI settings are configured by default, but should the settings be changed, use the following procedure to reconfigure the RossTalk GPI settings.

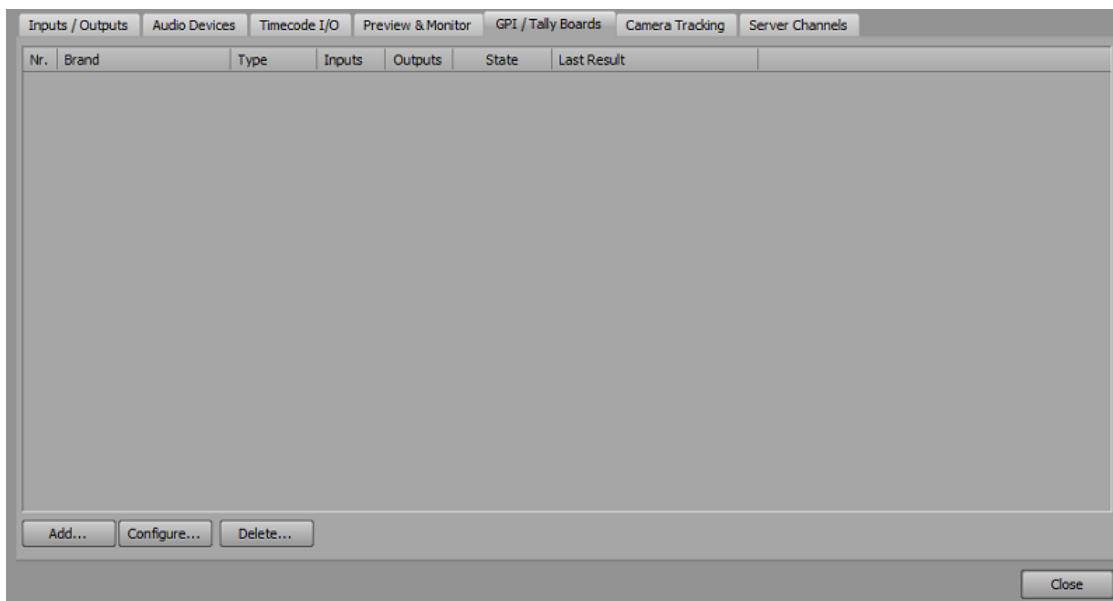
1. In XPression, select **Edit > Hardware Setup**.

The **Hardware Setup** dialog opens.



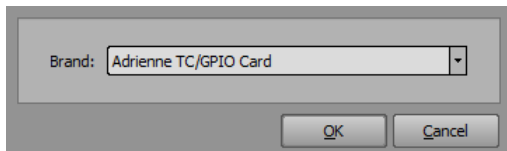
2. Select the **GPI / Tally Boards** tab.

The **GPI / Tally Boards** section is displayed.



3. Select **Add**.

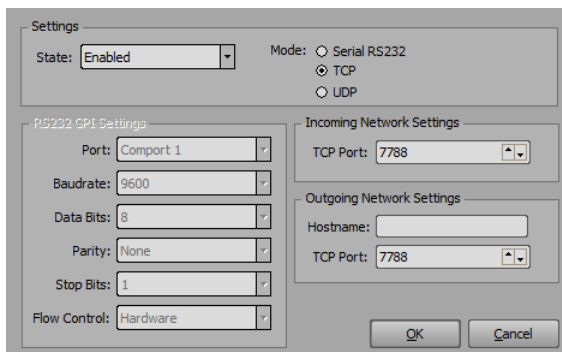
The **Add New GPI Board** dialog opens.



4. From the **Brand** drop-down, select **Smart GPI / RossTalk**.

5. Select **OK**.

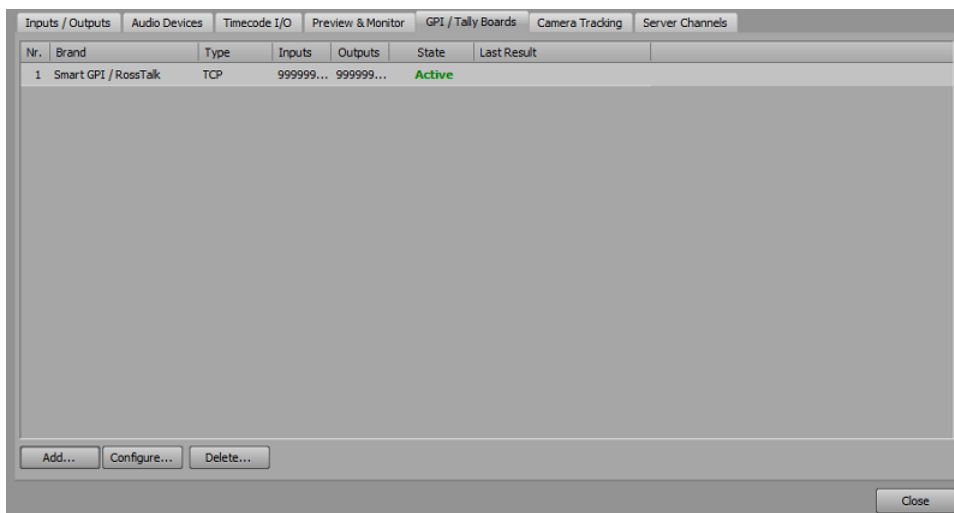
The **Smart GPI / RossTalk Setup** dialog opens.



The default settings for the RossTalk setup are used for Tessera One.

6. Select **OK**.

The **Smart GPI / RossTalk Setup** dialog closes and the **Smart GPI / RossTalk** board is added to the **GPI / Tally Boards** list.



7. Select **Close**.

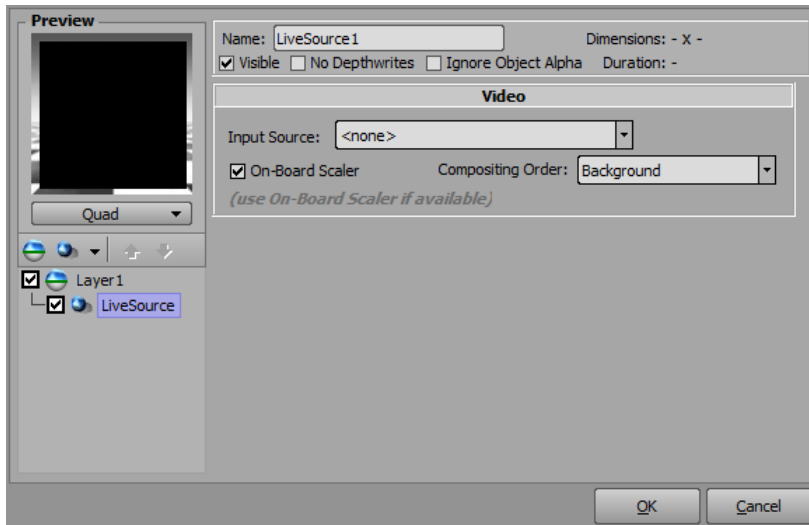
The **Hardware Setup** dialog closes.

## Low Latency Scaler Live Source Material

With the on-board scaler enabled in the material, all other live source options are disabled and the material can only be applied to quad and background objects.

1. In the **Material Manager**, right-click on a Live Source material and select **Edit**.

The **Material Editor** opens for the selected Live Source material.




2. In the **Video** section for the Live Source material, select the **On-Board Scaler** checkbox if it is not already selected.
3. Select **OK**.

The **Material Editor** closes.

4. Repeat steps 1 to 3 for any other Live Source material.

### For More Information on...

- creating a Low Latency Live Source material, see [Creating a Low Latency Scaler Material](#) .



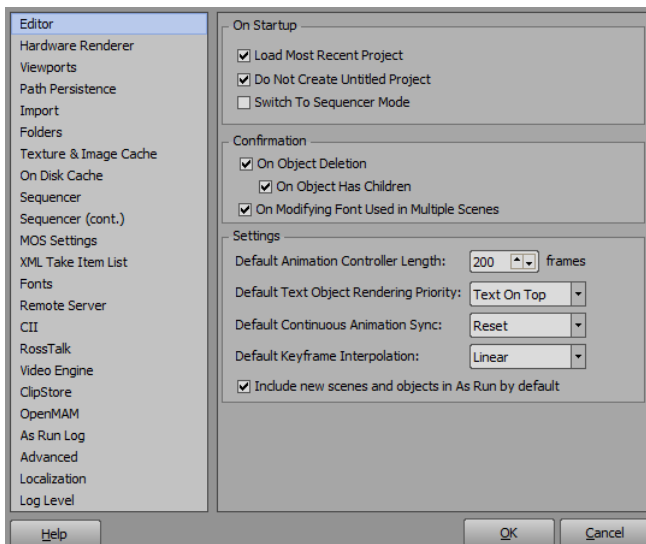
## Preferences

The following preferences settings are required for Tessera One to operate properly. They are configured by default but should the preferences settings be changed, use the following procedure to return to the default settings.

### Hardware Renderer

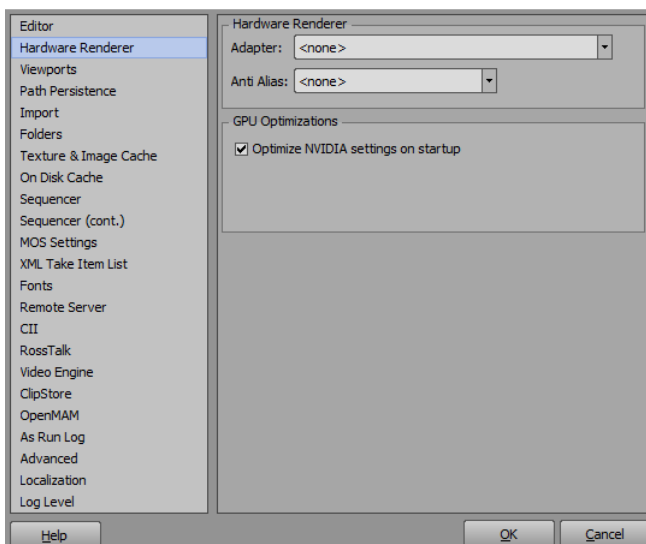
1. In XPression, select **Edit > Preferences**.

The **Preferences** window opens.



2. From the left column, select **Hardware Renderer**.

The **Hardware Renderer** panel is displayed.



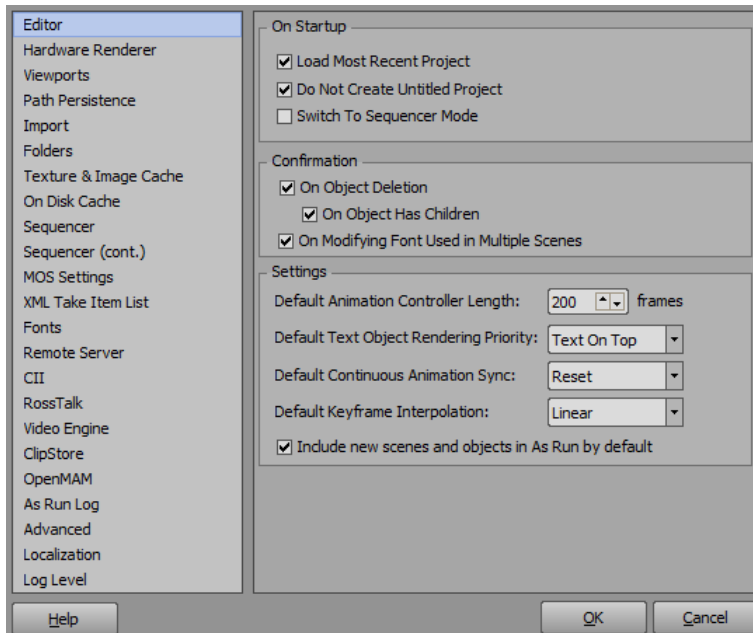
3. In the **Hardware Renderer** panel, from the **Adapter** drop-down, select **NVIDIA Quadro RTX 4000**.
4. From the **Anti Alias** drop-down, select **8x CSAA High Quality**.
5. Select **OK**.

The **Preferences** window closes.

## Sequencer

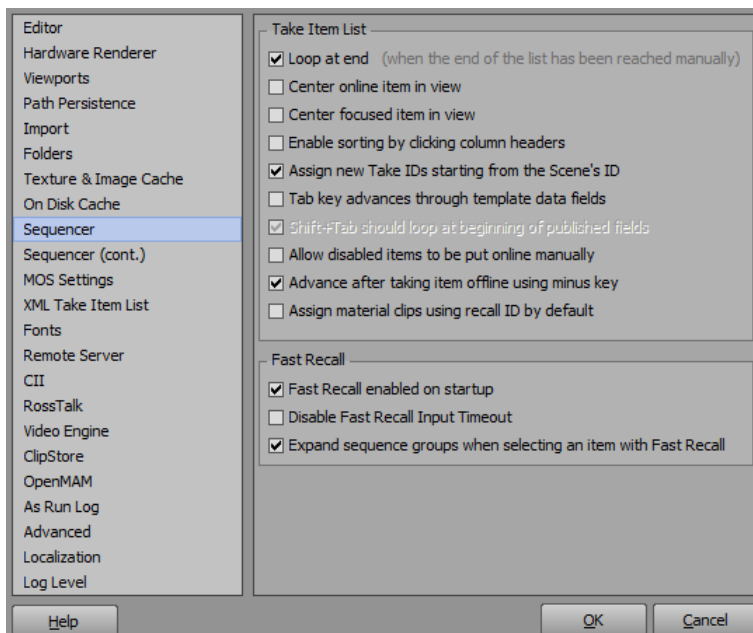
1. In XPression, select **Edit > Preferences**.

The **Preferences** window opens.

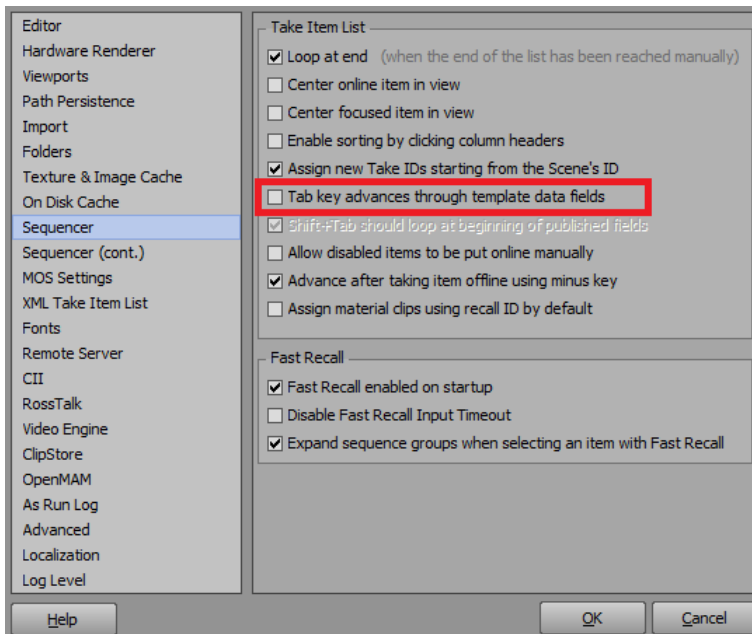


2. From the left column, select **Sequencer**.

The **Sequencer** panel is displayed.

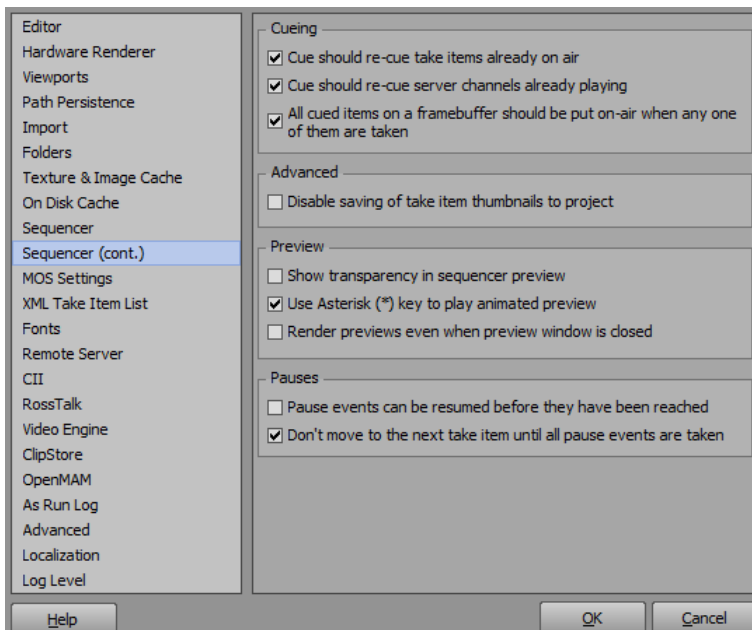


3. In the **Take Item List** section, select the **Tab key advances through template data fields** checkbox if it is not already selected.



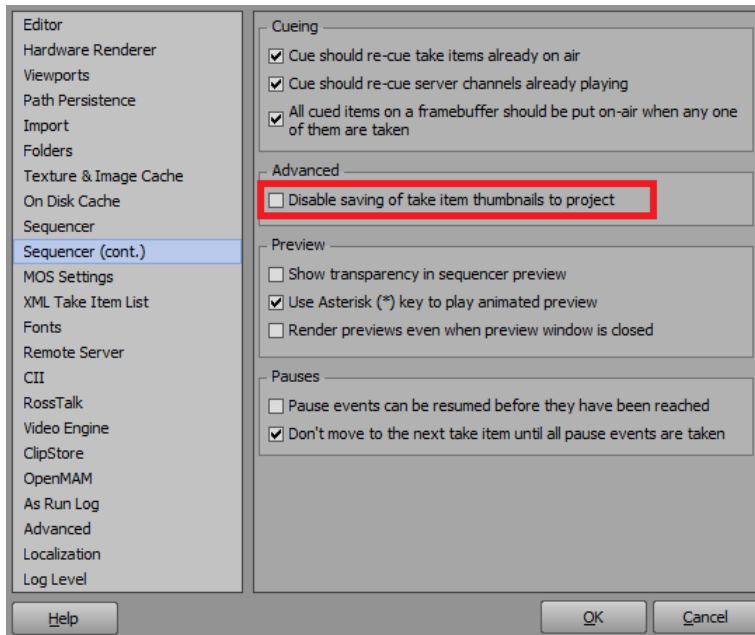
4. From the left column, select **Sequencer (cont.)**.

The **Sequencer (cont.)** panel is displayed.



5. In the **Advanced** section, select the **Disable saving of take item thumbnails to project** checkbox if it is not already selected.

This increases the speed of project save and load times.



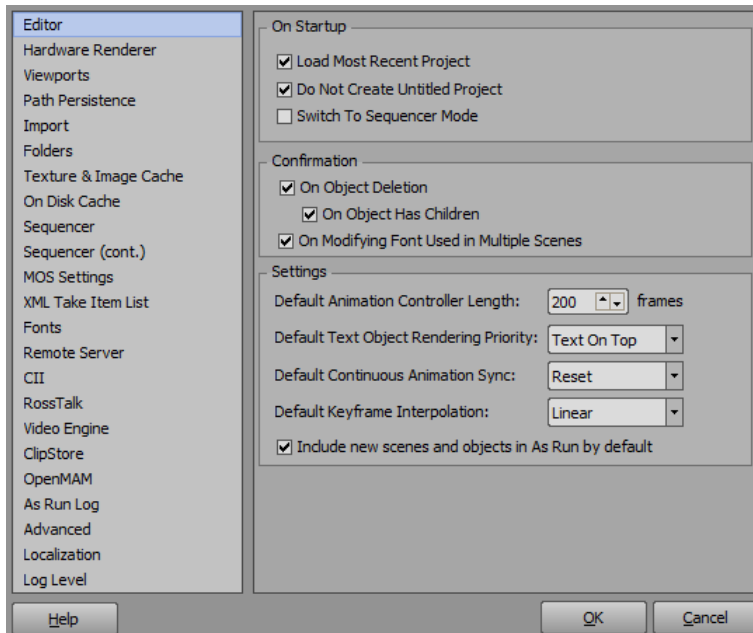
6. Select **OK**.

The **Preferences** window closes.

## Video Engine

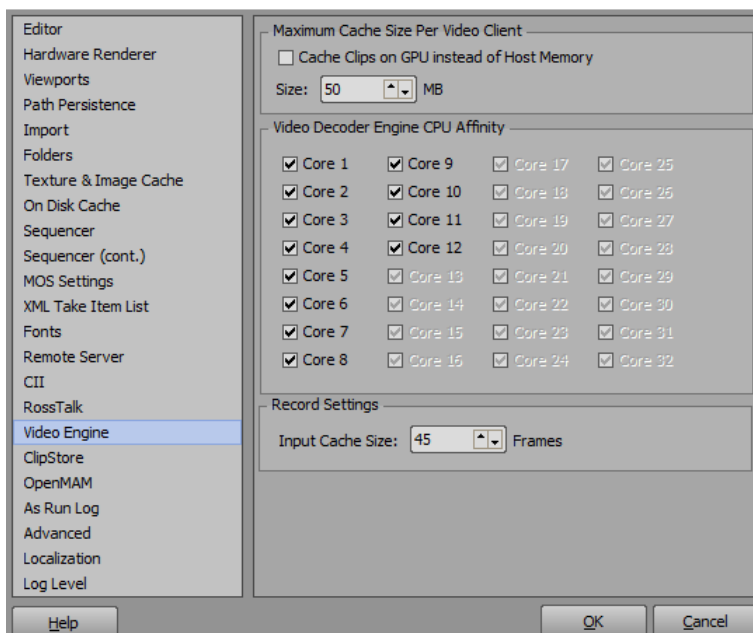
1. In XPression, select **Edit > Preferences**.

The **Preferences** window opens.

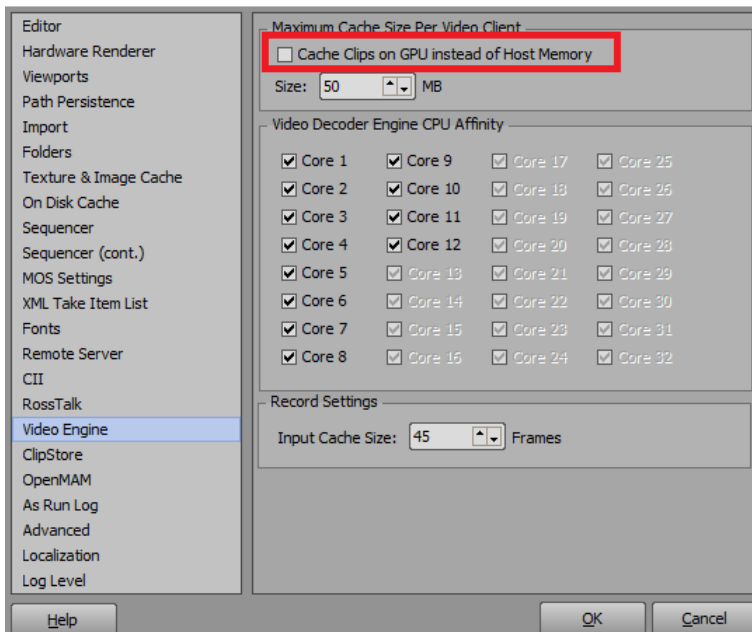


2. From the left column, select **Video Engine**.

The **Video Engine** panel is displayed.



3. In the **Maximum Cache Size Per Video Client** section, ensure that the **Cache Clips on GPU instead of Host Memory** checkbox is not selected.



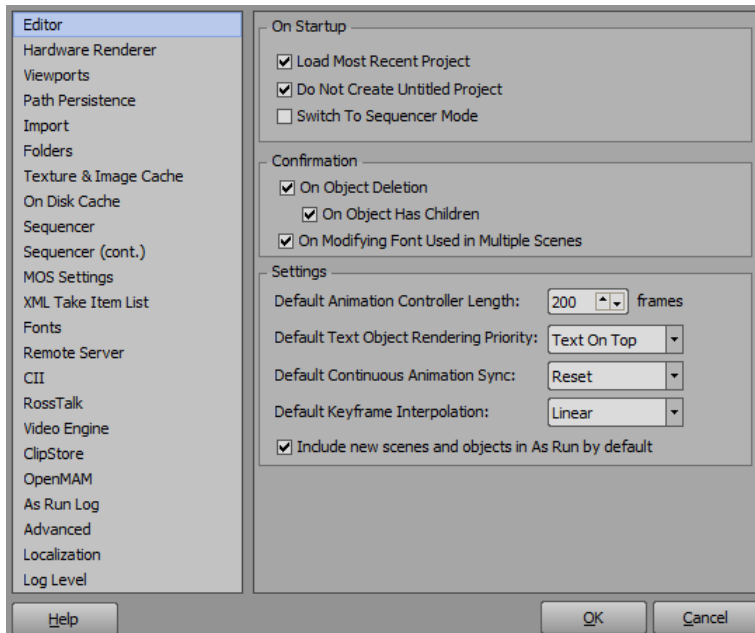
4. Select **OK**.

The **Preferences** window closes.

## As Run Log

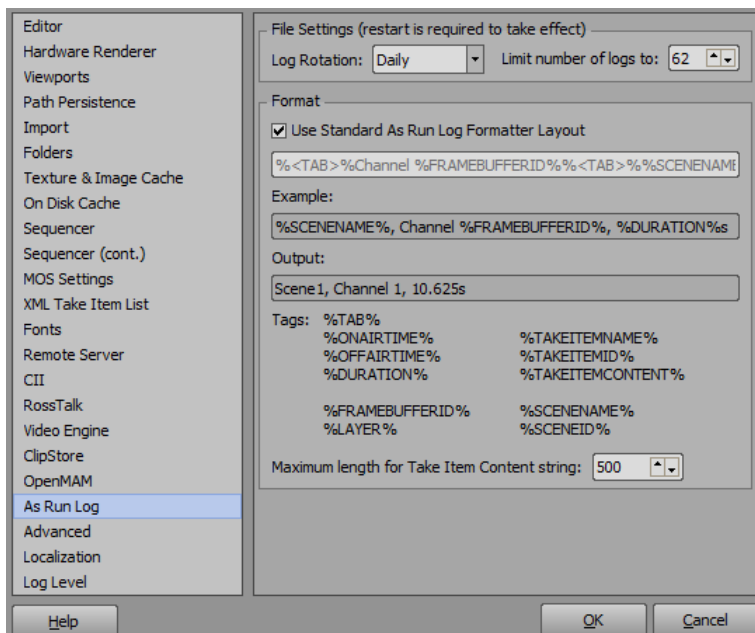
1. In XPression, select **Edit > Preferences**.

The **Preferences** window opens.



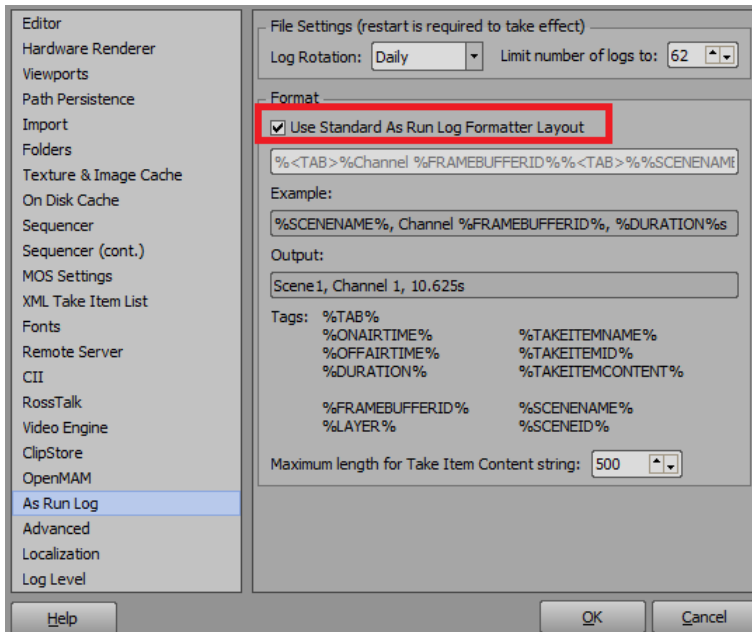
2. From the left column, select **As Run Log**.

The **As Run Log** panel is displayed.





3. In the **Format** section, select the **Use Standard As Run Log Formatter Layout** checkbox if it is not already selected.



4. Select **OK**.

The **Preferences** window closes.

## Tessera Settings

The following Tessera settings are required for Tessera One to operate properly. They are configured by default but should the Tessera settings be changed, use the following procedure to return to the default settings.

★ Tessera One operates by default in single engine mode and cannot be changed.

### To return to default Tessera settings:

1. In XPression, select **Edit > Tessera > Settings**.

The **Tessera Settings** dialog opens.

The screenshot shows the 'Tessera Settings' dialog box with the following fields and options:

- General**: Mode: Single Engine (dropdown)
- Tessera NET**: NET ID: 1 (spin box)
- Master**: Primary Clock Node ID: 1 (spin box), Backup Clock Node ID: 2 (spin box). A note next to the Primary Clock Node ID says '(output node acting as clock generator)'.
- Output Node**: Engine ID: 1 (spin box)
- Region Map Selection**: ☒ Use Global Region Map, ☐ Use Region Maps from Projects
- UDP Network**: Broadcast Mode: Broadcast IP (dropdown), IP Address: (text field), Port: 7575 (spin box). There is a 'Retrieve' button next to the IP Address field.

At the bottom are 'OK' and 'Cancel' buttons.

2. If controlling multiple Tessera One systems using Remote Sequencer, in the **Tessera NET** section, in the **NET ID** field, enter a NET ID for the machine.
3. In the **Region Map Selection** section, select one of the following options:
  - **Use Global Region Map** — use one map that multiple projects share.
  - **Use Region Maps from Projects** (Tessera One default setting) — use maps specific to each project.
4. Select **OK**.

The **Tessera Settings** dialog closes.

## Demo Project Package

Tessera One comes with a pre-loaded demo project with pre-configured scenes, scripts, sequencer layout, Tessera region mapping, ClipStore content, and INcoder watch folders, as well as a custom DashBoard panel demo for playout (Tessera One - User Panel.grid). These demo projects are a good resource for learning how to create Tessera One scenes, how to use DataLinq, how to set up a custom DashBoard panel for Tessera One operation, and more.

### To access the demo project for Tessera One:

1. In XPression, select **File > Open Project**.  
The **Open** browser opens.
2. Locate the Tessera One v1 demo project file in **D:\XPression Projects\Tessera One v1.xpf**.
3. Select **Open** to open the demo project.

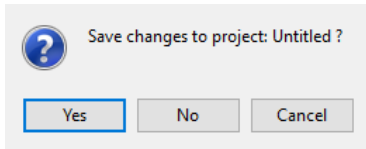
## Creating a Project

This section covers [creating a new project](#)<sup>[20]</sup> and [configuring a low latency scaler material](#)<sup>[21]</sup>.

### To create a new project:

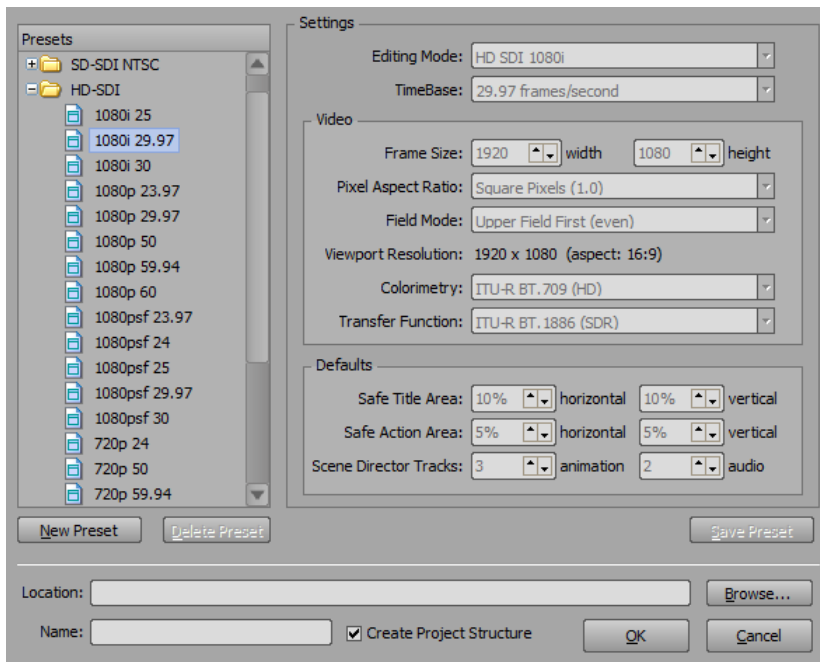
1. In XPression, select **File > New**.

A confirmation dialog opens.



2. Select **Yes** to save the current project or **No** to continue without saving the current project.

The **New Project** window opens.



3. In the **Presets** section, select a video format suitable for the project.
4. Select **Browse** to select the **Location** for the project.

The **Select Project Folder** file browser opens.

5. Select or create a folder for the project.

It is recommended to save each project in its own folder.

6. Select **Select Folder**.

The **Select Project Folder** file browser closes.

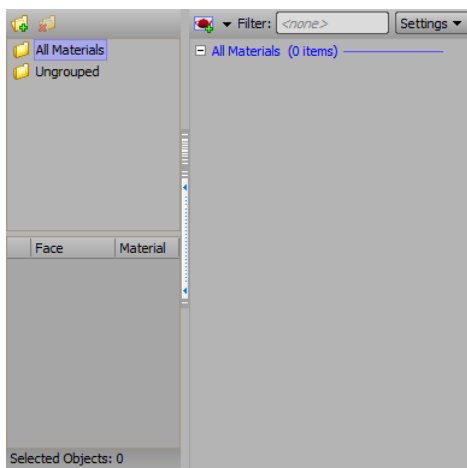
7. In the **New Project** dialog, in the **Name** field, enter a name for the new project.
8. Select **OK**.

The **New Project** window closes and the new project is created.

## To create a low latency material:

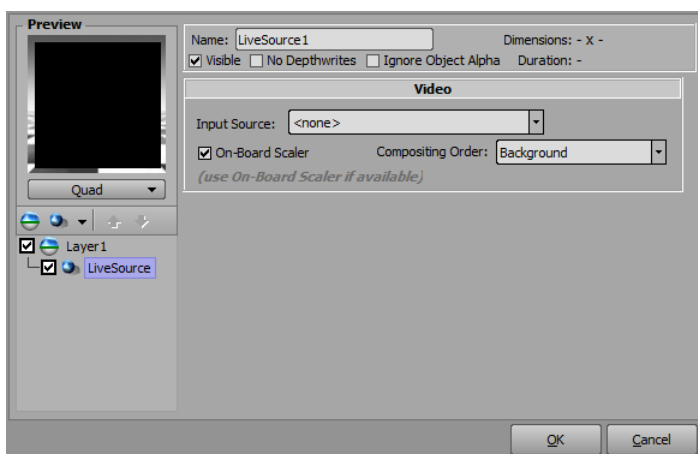
1. Press **Ctrl+M** to open the **Material Manager** (or select the **Material Manager** tab).

The **Material Manager** opens.



2. In the **All Materials** list, right-click and select **Add New > Live Source**.

The **Material Editor** opens with the **Live Source** material option selected.



3. In the **Video** section, from the **Input Source** drop-down, select a video input.
4. Select the **On-Board Scaler** checkbox if it is not already selected.

This enables the low latency material scaler.

5. From the **Compositing Order** drop-down select one of the following options:


- **Background** — layer the scaled input behind the graphics.
- **Foreground** — layer the scaled input over the graphics.

6. Select **OK**.

The **Material Editor** closes.

7. Apply the new material to an object.

**For More Information on...**

- configuring the low latency scaler, refer to [Low Latency Scaler Live Source Material](#) .

## DashBoard

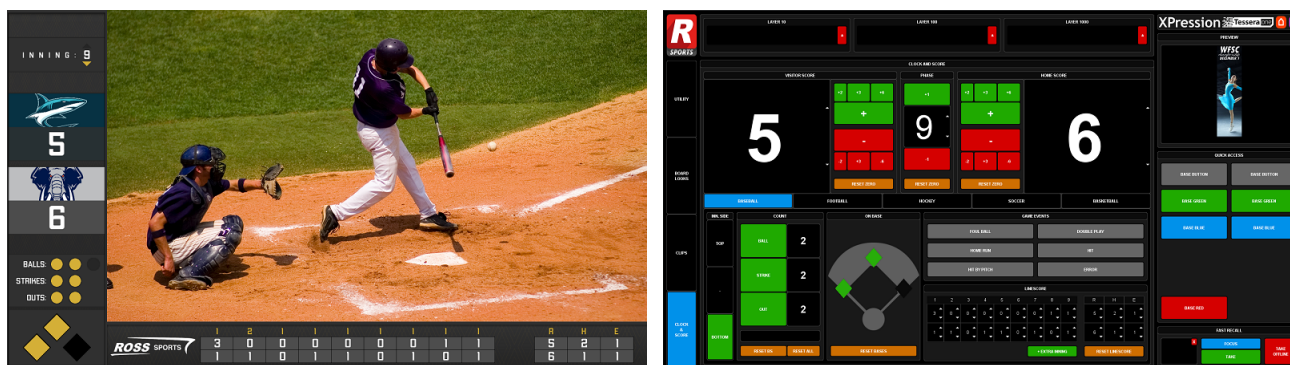
Optionally, users can use DashBoard custom panels as customizable graphical user interfaces to control Tessera One. DashBoard custom panels are opened using the DashBoard client software. If DashBoard is not installed on the system, navigate to the DashBoard downloads page on the Ross Video website to download the software: <https://www.rossvideo.com/support/software-downloads/dashboard/>. The system ships with examples of these custom panels that can be used as training resources or can be modified for user specific needs. The custom panel package can be found here: D:\Dashboard Applications\Tessera One - User Panel\Tessera One - Control.grid

The DataLinq default port number is 2021.

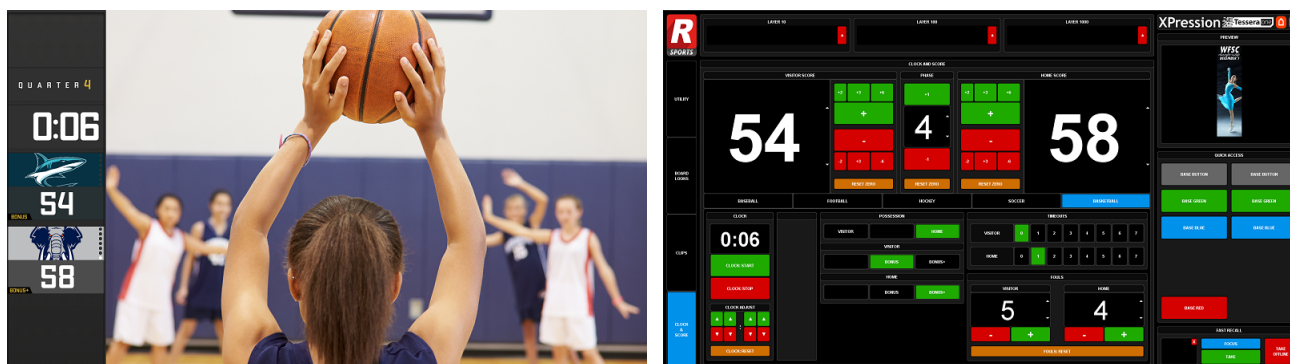
The XPression Tessera One device IP and port parameters are:

- TesseraOne\_IPAddress = localhost
- TesseraOne\_RossTalkExPort = 8020
- TesseraOne\_RossTalkPort = 7788

## Baseball



## Basketball

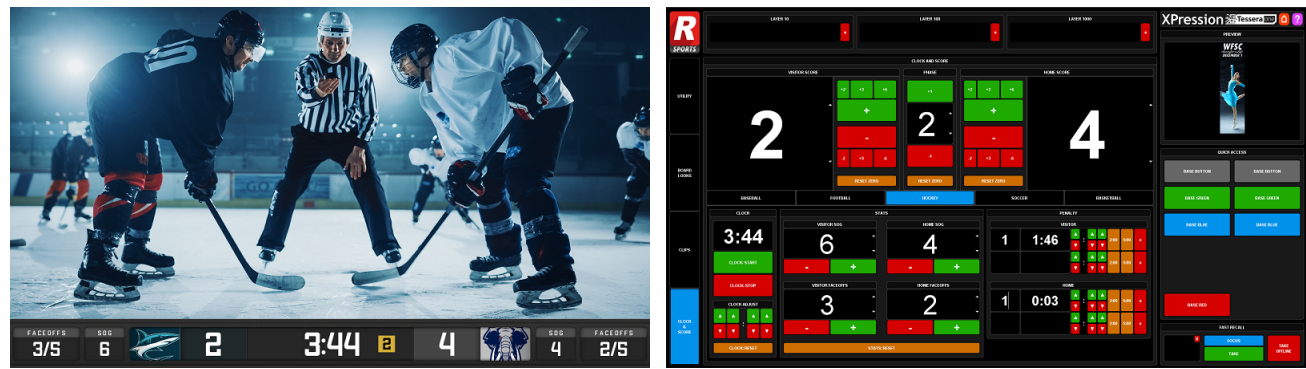




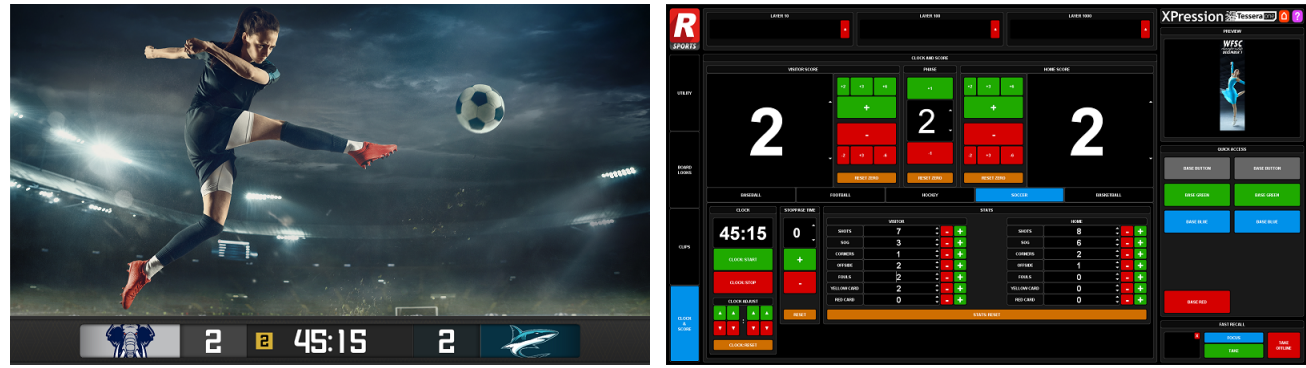
Football



Hockey



Soccer

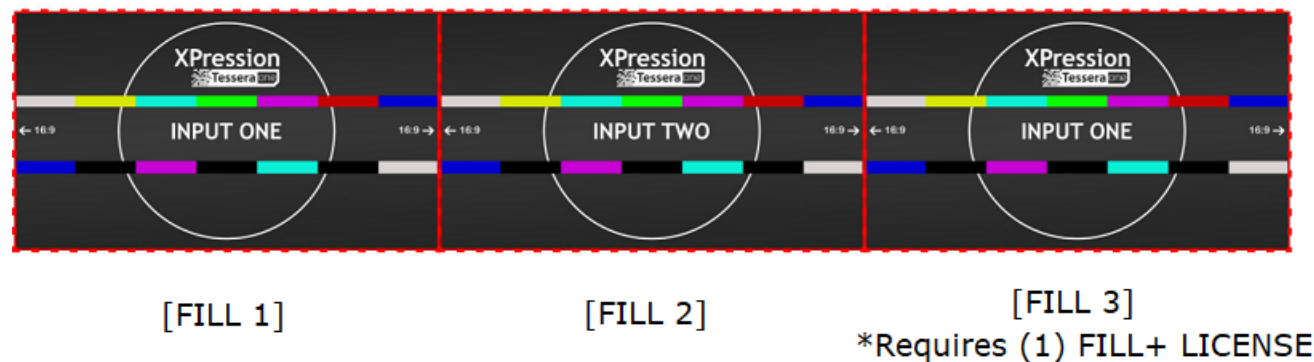




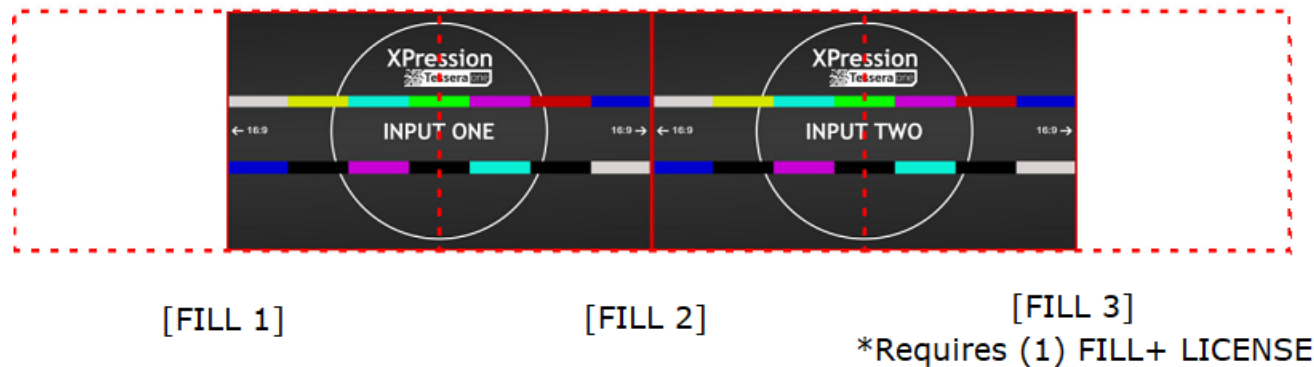
# Supported Scaler Configurations

The following diagrams illustrate the supported scaler configurations for Tessera One.

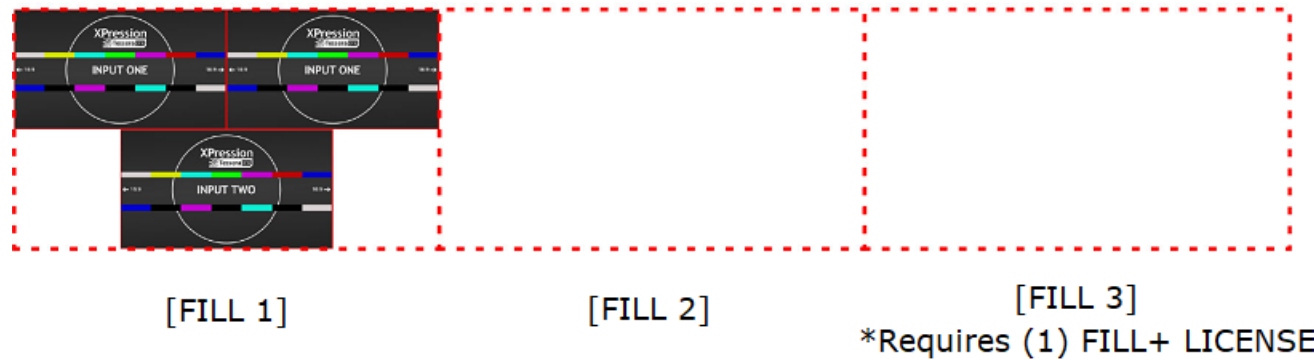
## ONE FULL RESOLUTION SCALER AVAILABLE ON UP TO THREE FILLS



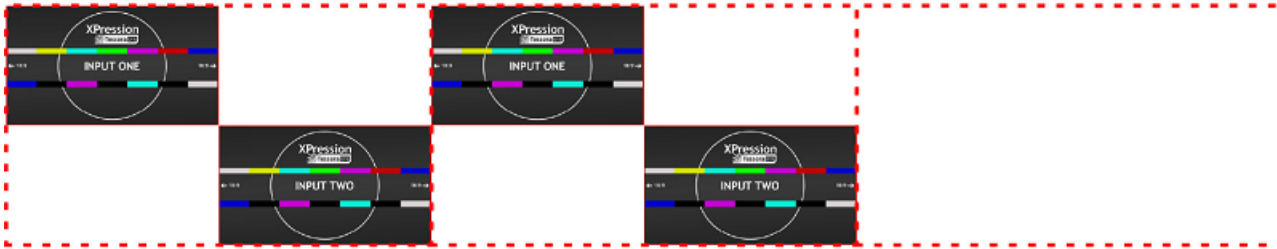
## TWO FULL RESOLUTION SCALERS SPANNED ACROSS THREE FILLS



## THREE HALF RESOLUTION SCALERS AVAILABLE ON ONE FILL



## TWO HALF RESOLUTION SCALERS AVAILABLE ON UP TO TWO FILLS



[FILL 1]

[FILL 2]

[FILL 3]

\*Requires (1) FILL+ LICENSE

## TWO HALF RESOLUTION SCALERS AVAILABLE ON ONE FILL ONE HALF RESOLUTION SCALER SPANNED ACROSS TWO FILLS



[FILL 1]

[FILL 2]

[FILL 3]

\*Requires (1) FILL+ LICENSE