

Dualz

Software bv



Multiviewer Screens

User manual

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INTRODUCTION

This document describes how to setup MOSAIC screens. This configuration is done only once, and doesn't need any changes, if the number of screens or their location does not change.

INSTALLATION

INSTALLATION PROCEDURE

Install MOSAIC multiviewer: Setup.exe

If a previous installation was done on your system, please uninstall that instance first.

CONFIGURATION

CONFIGURATION FOLDER

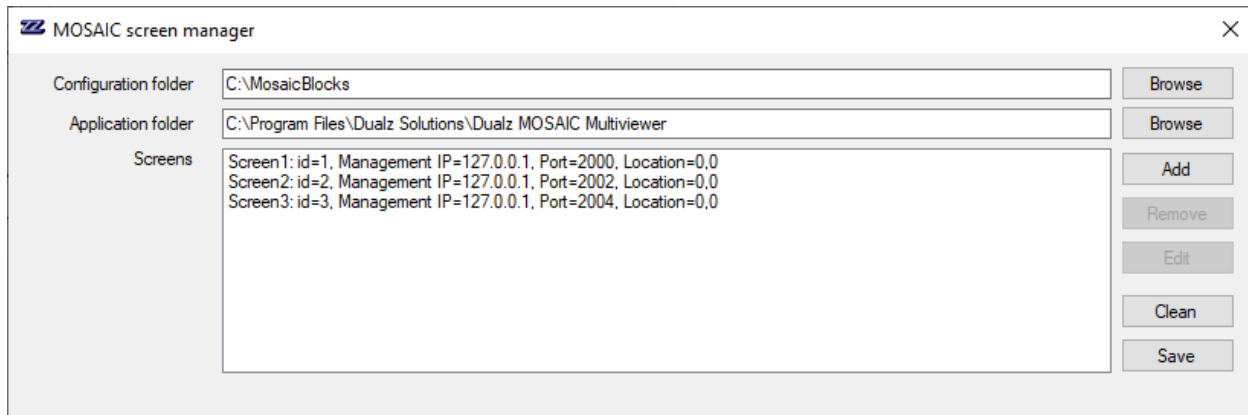
During installation the configuration directory needs to be created on the mosaic server, recommended "C:\MosaicBlocks". This folder keeps all the data that is needed to configure the screens setup.

SCREEN MANAGER

The screen manager can be started via:

Program menu -> Dualz Software BV -> MOSAIC screen manager

The following form is shown:



Configuration folder	Application folder
C:\MosaicBlocks	C:\Program Files\Dualz Solutions\Dualz MOSAIC Multiviewer

Screens

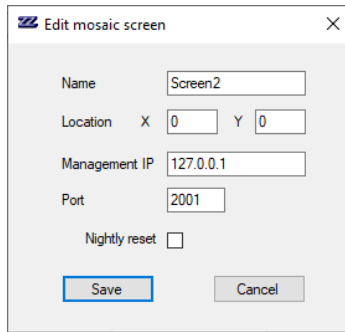
- Screen1: id=1, Management IP=127.0.0.1, Port=2000, Location=0,0
- Screen2: id=2, Management IP=127.0.0.1, Port=2002, Location=0,0
- Screen3: id=3, Management IP=127.0.0.1, Port=2004, Location=0,0

It is important to enter the correct Configuration folder (that was entered during startup).

The Application folder is the installation folder of the Multiviewer (player).

Screens can be added, removed or edited.

Per screen, the following settings can be given:



Name: Name of the screen

Location: Location on your windows desktop, can be on extended monitor, for example (1920,0).

Management IP: The management network IP address, the editor must be in the same LAN. If the editor runs locally (on the same system), localhost 127.0.0.1 can be used here. Recommended to use "0.0.0.0" (any card).

Port: Network port, used for communication with the editor, must be unique per system.

Nightly reset: Specify whether, and if enabled at what time a complete screen reset must be done.

SHORTCUTS

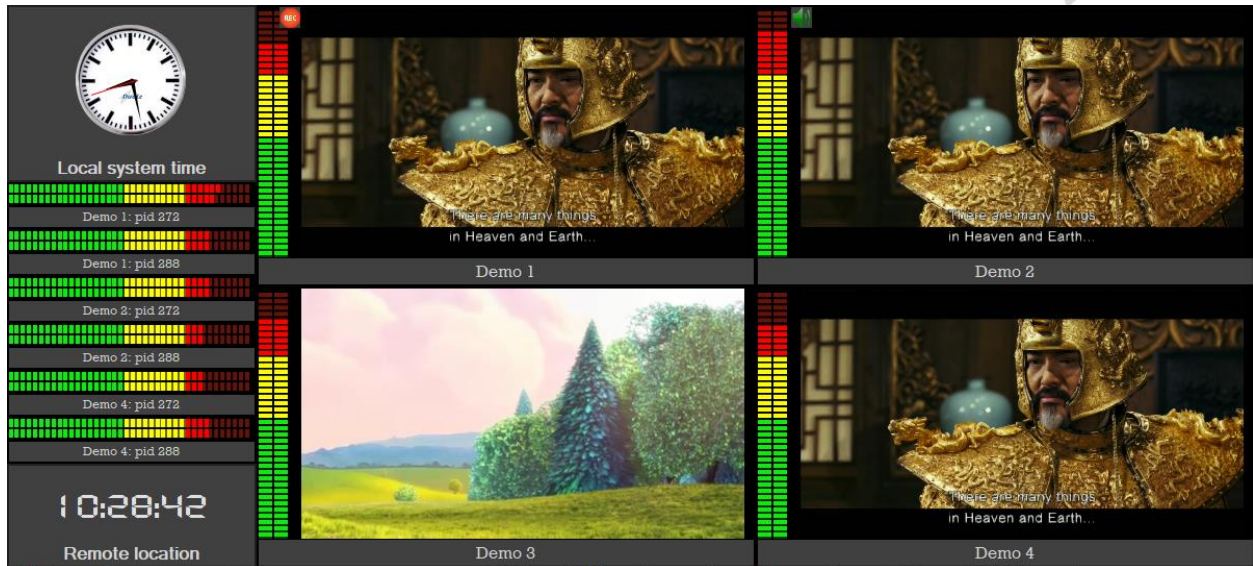
During saving the screen list, the screen manager shall request for saving shortcuts to the desktop. With these shortcuts the screens can easily be started, or added to the startup folder, in order to start automatically after system startup.

The configuration folder is the location where the mosaic configuration and temporary files are stored. We recommend to not change the default configuration folder, unless there is a reason for it.

MULTIVIEWER SCREEN

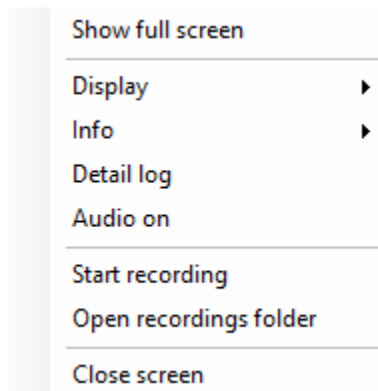
In order to run a multiviewer screen, select the corresponding MOSAIC multiviewer shortcut on the desktop.

If needed, push the new configuration from the editor to the multiviewer via "Update all multiviewers".



POPOP MENU

If you right click on a tile, the popup menu appears.



The following functions are available:

- Display rebuild: Resets this tile, in case a problem occurred.
- Show full screen: Shows this channel in full screen and audio over speaker (same as double click on tile)
- Info:
 - Channel properties: information on the channel settings
 - Show alarms: Shows current alarms
 - Show statistics: Shows channels statistics, like number of frames and audio samples
- Detail log: For analysis purpose, create more logs temporarily..
- Audio on/off: Enables or disables audio over speaker. In case audio is on, the 'audio' indication is shown.

- Start/Stop recording: Starts or stops recording of this channel (license needed). The recording creates a .ts file of max 50 MB, the recording stops automatically when 50MB has been reached. During recording the 'recording' indication is shown.
- Open recording folder: Opens recording folder in file explorer
- Close screen: Closes this screen.

OUTPUT STREAMING

If output streaming is enabled in the license key, and configured in the editor, the multiviewer signal is encoded and send over UDP (TSoIP). The destination can be a streaming engine (Wowza, NGINX, AWS live streaming, ...). This way the multiviewer can be presented as a high resolution or adaptive web stream.

For example, install a local NGINX docker image in Windows, using Docker Desktop for Windows. The system accepts the incoming UDP streams form the screens and presents them, using HLS for example. View the streams from anywhere on any device (PC, tablet, phone).

TROUBLESHOOTING

UDP/RTP STREAMS NOT SHOWN

Check your Firewall! You can quickly check this to turn of your Firewall, and if this is the problem, enable the UDP port through the firewall, preferably on application level.

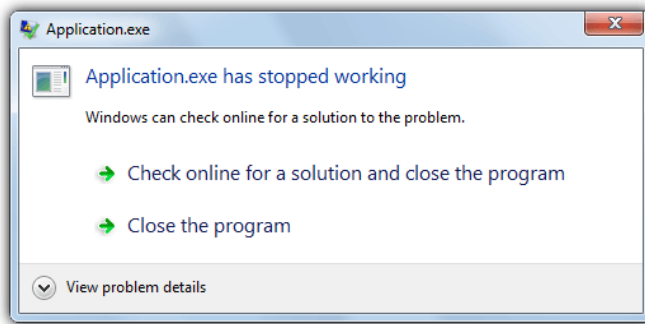
IMAGE QUALITY ON SMALL TILES

If image quality shows in small tiles anti-aliasing issues, this might be caused by scaling algorithm, in combination of high resolution and sharp contrast images. This can be solved in 2 ways:

1. In case of RTSP cameras, get sub streams (instead of main high quality stream) from camera carrying lower resolution.
2. Use smoothing algorithm (block setting). Note that this setting improves the anti-aliasing issue, but has a performance penalty. Video acceleration advantages are lost (less GPU capabilities) and smoothing is done in CPU, extensive CPU processing.

APPLICATION HAS STOPPED WORKING MESSAGE

The MOSAIC application has a built in crash recovery mechanism. This algorithm requires Windows not to show the "has stopped working" window, when a program does not respond.

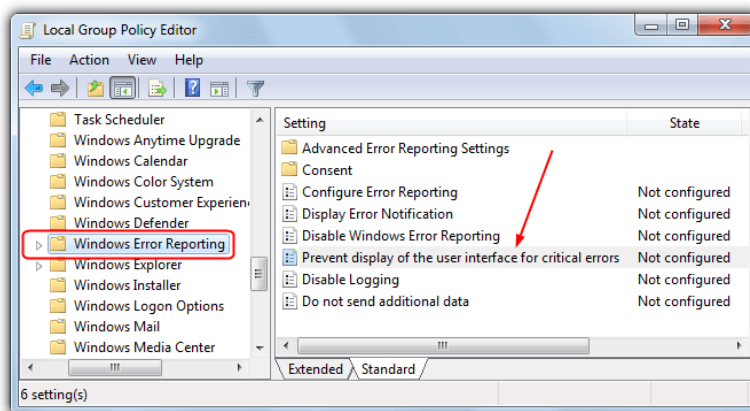


In order to disable the Windows popup message, there are several options to accomplish this:

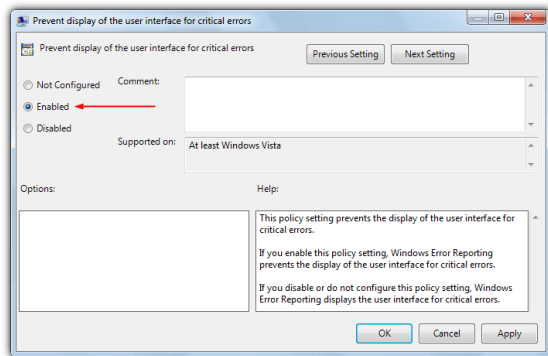
TURN OFF THE ERROR DIALOG THROUGH THE GROUP POLICY EDITOR

This method is obviously useful if you have the group policy editor available in your version of Windows because it doesn't involve any manual registry editing. GPEdit is not available in Home or Basic versions of Windows.

1. Open the Group Policy Editor by typing **gpedit.msc** into the Start search box or the Run dialog.
2. Navigate to Computer Configuration > Administrative Templates > Windows Components > Windows Error Reporting. Double click on "Prevent display of the user interface for critical errors" in the pane on the right.



3. Click on the radio button **Enabled** and then press OK.



For some Windows versions, the location in the Group Policy Editor is slightly different. Go to Computer Configuration > Administrative Templates > System > Error Reporting, and enable the option for Display error notification in the right pane.

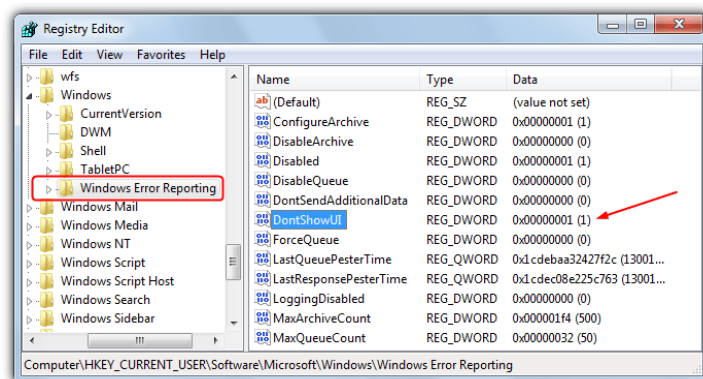
TURN OFF THE ERROR DIALOG VIA THE REGISTRY

Although editing the registry manually is not recommended for average users, sometimes there isn't a choice because something like the Group policy Editor might not be available in your version of Windows or the group policy method itself doesn't work. This works on Windows Vista and above.

1. Open the Registry Editor by typing **regedit** into the Start search box or the Win+R Run dialog.
2. Navigate to the following registry key:

HKEY_CURRENT_USER\Software\Microsoft\Windows\Windows Error Reporting

3. Double click the **DontShowUI** entry (or create new DWORD value) on the right and change its value to **1**, then close the registry editor.

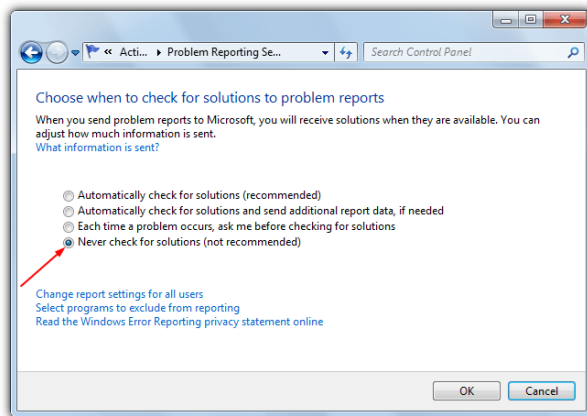


DISABLING WINDOWS ERROR REPORTING

Although you might have disabled the program has stopped working dialog from appearing altogether, if Error Reporting is set to automatically check for solutions, Windows will still send data to watson.microsoft.com in the

background. This may delay the restarting of any scripts you are running or software to automatically restart the program in the event of a crash. In this case it will be a good idea to turn Error Reporting off.

1. Go to Control Panel > Action Center > Change Action Center settings (top left) > Problem reporting settings.
2. Select “**Never check for solutions**” and click OK. Ask before checking also works because the dialog won’t appear to ask you.



The above is the safest way to turn Error Reporting off, but if you want, it can also be controlled from the registry and is a value called **Disable** found in the same registry key as DontShowUI. For ease of use, below we have provided some registry files in a zip that will both enable the DontShowUI value in the registry to turn off the dialog box, and also set Error Reporting to Disabled.

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