

The latest versions can be found in the [downloads section](#) of the website.

Version 6.0.1806.01.

(01st Jun 2018)

- New: Support for continuous rotation on Pan/Tilt.
Only when the fixture profile defines it, so for new fixtures.
(If you need an existing profile to have this feature, please make a fixture requests for it and add as info that the continuous rotation needs to be added.)
- Improvement: Symbols in the Fixture tables can now be drawn in the colors of the layer they are on.
- Improvement: The unit conversion of plugins has been improved.
- Improvement: The representation of using 2 prisms at the same time is improved.
- Improvement: The omnidirectional beam (bulbs etc) is improved.
- Improvement: Subtract/Intersect operations in models can now be visualized in non-render modes as well.
- Bug Fix: plugins are now released last when closing down the program to prevent some memory corruption crashes.
- Bug Fix: 3DS Import plugin could crash on names of exactly 16 tokens long.
- Bug Fix: The measurements in Array Copy could be off.
- Bug Fix: Cues in the 3D Visualizer module did not work correctly.
- Bug Fix: Ambient light was not handled correctly when looking from below.
- Several other small improvements and bug fixes.

Version 6.0.1802.28.

(28th Feb 2018)

- Bug Fix: 3D Visualizer could crash when inserting a Scene Block.
- Bug Fix: The patch field in the SideBar could be disabled for all fixtures.
- Bug Fix: The Materials section of the SideBar was not always updated after inserting a Scene Block.
- Several other small improvements and bug fixes.

Version 6.0.1802.21.

(21st Feb 2018)

- New: Support for inserting Object Blocks in the 3D Visualizer.
- Improvement: Rendering of prisms (raytrace). [Pro only]
- Improved: Ambient light calculation has been improved.
- Bug Fix: DWG Export could stop exporting with an error when it encountered an invalid object. [Pro only]
- Start of beam could be incorrect when rendering split-colors. [Pro only]
- Bug Fix: The DirectX 9 Engine could crash on selection boxes.
- Several other small improvements and bug fixes.

Version 6.0.1801.10.

(10th Jan 2018)

- New: VectorWorks 2018 plugin (Windows) [Pro only]
- Improved: DMX-controlled panels are now rendered. [Pro only]
- Bug Fix: The rendering Preview dialog could crash when closing the 3D Visualizer. [Pro only]
- Bug Fix: ArtNet. MSD Registered as multiple ArtNet nodes, but that created problems with some consoles, so we now register as a single node.
- Bug Fix: sACN is now only active if it is selected as the current driver. Also fixed update problems of the sACN information in the SideBar.
- Bug Fix: Accessories could be defined without a Manufacturer, Model and gels, which could cause a crash.
- Bug Fix: There were some errors with normals in the mesh code that could cause problems.
- Bug Fix: Selecting the Fixture Focus tool in the 3D Visualizer (without using it) could cause a crash when changing the selection in M-PC.
- Bug Fix: The focus of manual gobos would not always work.
- Several other small improvements and bug fixes.

Version 6.0.1712.06.

(6th Dec 2017)

- New: Added a DWG Export plugin. (File-Export) [Pro only]
- Improvement: Lux Map now has iso-lines.
- Improvement: When vector properties (Pos, Rot,..) are collapsed, the values are displayed more clearly, and editing the values works the same as editing the 'separate' values.
- Improvement: Group now gets the layer from its content, if all the content is on the same layer.
- Improvement: Luxmap settings are stored in the scene.
- Bug Fix: Loading a file while scanning the fixture libraries could cause a crash.
- Bug Fix: Loading scenes with a lot of fixtures would load very slow due to a bug introduced in the previous version.
- Bug Fix: Group operation left one item selected while in the group.
- Bug Fix: some edit fields would remain empty until value was changed.
- Several other small improvements and bug fixes.

Version 6.0.1711.15.

(15th Nov 2017)

- Improvement: Added tooltips for fixtures, and for (text)items in the SideBar that are clipped.
- Improvement: Changed the look of the start of the beam of LED bars.
- Optimization: sACN driver only initializes when selected.
- Bug Fix: Some of the properties in the SideBar with a button did not function correctly when the button is pushed.
- Bug Fix: The 'Eye Sensitivity' and 'Intensity Correction' settings no longer have any influence on the Lux map mode.
- Bug Fix: The media playback during video generation did not always work.
- Bug Fix: Some internal lists were not released properly on program shutdown, sometimes causing a crash.
- Several other small improvements and bug fixes.

Version 6.0.1710.18.

(18th Oct 2017)

- Bug Fix: Selection to/from M-PC did not always work.
- Bug Fix: Using the 'Focus Beam' operation in MSD to Fan/Focus fixtures did not always work in combination with M-PC, so that M-PC did not receive the updated Fan/Focus positions.
- Bug Fix: Selection order from M-PC to MSD was not always correct.
- Bug Fix: Lux Map could show incorrect values.
- Bug Fix: Plugins could crash due to changed interface.
- Several other small improvements and bug fixes.

Version 6.0.1709.27.

(27th Sep 2017)

- Bug Fix: Materials were not always handled correctly when exporting a VectorWorks file using the VectorWorks Export plugin [**Pro only**].
- Bug Fix: Undo/Redo code could cause a crash when closing the scene.
- Several other small improvements and bug fixes.

Version 6.0.1709.15.

(15th Sep 2017)

- Improvement: Cosmetic changes to the Sidebar to tidy it up a bit.
- Bug Fix: Some color wheels and manual gels were no longer working after the introduction of the split colors in the previous version. Should be fixed now.
- Bug Fix: The geometry orientation of conventional fixtures could be wrong after loading a scene after improvements of the memory usage of these geometries (chaching). This should be fixed now.
- Bug fix: Fixtures with asymmetric beams with a small beam angle could have wrong light distribution.
- Several other small improvements and bug fixes.

Version 6.0.1709.06.

(6th Sep 2017)

- New: Added support for Split Colors in colorwheels [**DX 11 graphics engine only**]. (You need to 'Open & Update' a scene to replace the current fixtures with new versions of the profiles.)

NOTE: *Not all profiles have been updated yet, it is a work in progress. When a fixture has a colorwheel with split colors, you can check in the [Fixture Libraries Overview](#) to see if its profile has a date of August 2017 or later. If so, the split colors should be supported.*

- Improved: Improved memory usage of fixture profile geometry.
- Bug Fix: Rotating when using 'Object Axis Mode' could skew objects.
- Several other small improvements and bug fixes.

Version 6.0.1708.09.

(9th Aug 2017)

- New: Panels are now also used to calculate the Ambient Fixture factor.
- Improved: Changed the order in which fixture modes are displayed, interpreting numbers correctly. (So mode '2 ch' comes before mode '11 ch'.)
- Bug Fix: The Cue ordering in the cue 'Save As..' dialog.
- Bug Fix: The rounding of the ' Feet & Inches' unit has been fixed. (Formatting to 2'-0" instead of 1'-12".)
- Several other small improvements and bug fixes.

Version 6.0.1706.21.

(21st Jun 2017)

- Bug Fix: Framing did not work correctly in the previous release of the 3D Visualizer.

Version 6.0.1706.15.

(15th Jun 2017)

- New: Added Plugin for import of 3DS files in Visualizer. (Pro & Lite)
- New: Added Plugin for import of OBJ files in Visualizer. (Pro & Lite)
- New: DMX controlled Layerstates. Similar to Camera Presets you can now set Layer State Presets, which you can select using a DMX channel.
- Improvements: Smoothing of Polygons in 3D Visualizer.
- Improvements: Loading/Importing Polygons speed improvements.
- Bug Fix: DWG Import: Fixed a problem with the unit. A unit of zero is now detected.
- Bug Fix: The VectorWorks Export plugin would sometimes export hidden classes.
- Bug Fix: Long line segments could crash the Model and ShowDesigner modules. (Usually from imported DWG files for example.)
- Bug Fix: The Visualizer could crash if an object has partial UV coordinates.
- Several other small improvements and bug fixes.

Version 6.0.1703.31.

(31st Mar 2017)

- Improvements: Added User/Standard entries to the Model, Fixture and Material sections in the Sidebar.
- Improvements: Changed code for polygons for optimization.
- Bug fix: 3D rotation of instruments in VectorWorks export plugin could be wrong.
- Bug fix: Circular copy converted the spacing incorrectly.
- Bug fix: multiple duplication sometimes did not update the Preview box.
- Bug fix: Manual zoom capabilities were not updated correctly.
- Bug fix: There were some errors in the color temperature calculation of fixture color calculations.
- Bug fix: Color matching in some LED-fixtures could go wrong.
- Bug fix: Assigning a Material to a Part could fail.

Version 6.0.1701.26.

(26th Jan 2017)

- Improvement [Pro]: The smoothing of polygons has improved in some cases.
- Improvement: The framing control will now always be square.
- Bug fix: [Pro] A new VectorWorks plugin for MSD is included, as the previous update did not contain the correct version.
- Bug fix: Some people experienced problems registering some parts of the new Sketchup import during installation, preventing the Sketchup import from working.
- Bug fix: The preview-box of the duplication operation was not updated when the last copy changed (Pan/Tilt for instance).
- Bug fix: Accessories (Scrollers) did not always work correctly, as the internal patch could be incorrect.
- Several other small improvements and bug fixes.

Version 6.0.1701.11.

(11th Jan 2017)

- New: Sketchup import 2017
(As Sketchup has stopped support for 32-bit platforms, we still install the 2016 version of Sketchup Import on 32-bit versions of Windows OS, but this means that you will not be able to import 2017 version models of Sketchup on 32-bit Windows platforms)
- Bug fix: The Search filter of the 3D Visualizer did not show (all) the matching fixtures.
- Bug fix: [Pro] The Render Client did not set the camera angle correctly for render files created by the 3D Visualizer module. (The render files are correct, but the Render Client did not handle the 'normal' camera mode correctly, so you can use the render files to render the images again correctly.)
- Bug fix: [Pro] The VectorWorks plugin for MSD contained an incorrect identifying string in its resources, sometimes preventing VectorWorks from 'seeing' the plugin when trying to add the plugin.
- Several other small improvements and bug fixes.

Version 6.0.1701.04.

(4th Jan 2017)

- Bug fix: Failing to load very large bitmaps could cause the scene not to load correctly or not load at all, causing a crash later on.
You will now get an error in the report that a texture could not be loaded or created, but the scene will load correctly.
- Several other small improvements and bug fixes.

Version 6.0.1612.21.

(21st Dec 2016)

- New: (Pro) New plugin for VectorWorks 2017
- Improvement: The Copy routine has been overhauled to more easily copy and keep copying (optionally with restraining on distance and along the axis).
- Improvement: Mousewheel can be used to zoom in the 'Look through Fixture' window.
- Bug fix: Improved the Sketchup import because the SkpImage was not imported correctly.
- Bug fix: Using the cursor-keys for Move/Rotate/Scale could cause problems.
- Bug fix: The Gel color (for conventional filter gels) was not always set correctly.
- Bug fix: Failing to load very large bitmaps could cause a crash.
- Bug fix: Sometimes selecting the External Driver was not possible.
- Several other small improvements and bug fixes.

Version 6.0.1611.04.

(4th Nov 2016)

- New: Added sACN driver with network card selection and choice of which senders to follow.
- New: 'Look through Fixture' option in the Operations menu.
When a Fixture is selected, this option will open a window where you can 'look though' the fixture to aim it and set its parameters to fine tune aim, zoom, etc.
- New: Move, Rotate and Scale operations now support the arrow keys.
In combination with the SHIFT key, the 'steps' of the keys will increase.
And the CTRL key in combination with the Rotate operations will rotate in steps of 45 degrees, making it easy to flip fixtures and objects to the right orientation.
- New: Managing (Importing and deleting) Materials in the SceneContents area in the SideBar
- Improvement: When using CIP Media connections you can now choose a preview size.
- Improvement: The number of visible DMX Parameters in the SideBar in increased.
- Improvement: Loading of Mesh objects has been improved (speed).
- Improvement: Color matching when RGBAW LED fixtures for example have an RGB control mode.
- Improvement: When working in a multi-view mode, clicking in a non-active view will only activate the view (but not pick) so you can easily change the active view without changing the selection. (Clicking in the active view will work as it always did.)
- Improvement: When working in a multi-view mode, you can use the mouse scroll wheel of the mouse in any of the views, without having to change the active view.
- Improvement: Fixtures that can have 2 prisms active at the same time are now supported.
- Bug fix: Move and Rotate operations now use the World axis/Object axis mode.
- Bug fix: Deleting objects from the SceneContents area in the SideBar failed.
- Bug fix: DMX-controlled panels with a virtual colorwheel override can now work correctly.
- Bug fix: After Fast-Switching to the 3D Visualizer module, the 'Save As...' did not work.
- Bug fix: Sometimes layers added in the ShowDesigner did not show up in the 3D Visualizer.
- Several other small improvements and bug fixes.

Version 6.0.1609.02.

(2nd Sep 2016)

- New: (Pro version only) Video can now be generated up to 4K resolution.
- New: It is now possible to generate a 360° video, so that (with the right playback software) you can look around (from the camera viewpoint) in the scene while playing the video. (The Video Settings window has an extra option called 'Movie Effect' where you can select '360 degrees' besides the default 'Normal' mode.)
- Improvement: The fixture libraries (version 6.0.1609.01. or newer) are scanned/loaded more quickly.
- Bug fix: Some light distributions of LED fixtures were not done correctly, and sometimes the light of LED fixtures were off when they were actually on due to an overflow (fixed now).
- Bug fix: Colors in effect wheels were ignored.
- Bug fix: If there were Audio Tracks in a scenefile, loading the file would not load this information.
- Several other small improvements and bug fixes.

Version 6.0.1608.04.

(4th Aug 2016)

- Bug fix: Loading scenes in the ShowDesigner could a crash when lthe scene contains fixtures that can change lenses using DMX.
- Several other small improvements and bug fixes.

Version 6.0.1607.21.

(21 Jul 2016)

- New: DWG / DXF Plugin in the 3D Visualizer module (*MSD Pro only*)
You can now directly import DWG (and DXF) files into the scene.
(You can find the Import plugin in 'File – Import' sub-menu.)
- Improved: Camera zoom in/out operations are handled better.
- Improved: Memory management by handling large arrays better for example.
- Bug fix: Explode function in ShowDesigner module handles Materials better than it used to.
- Bug fix: A bug in the 64-bit version of the RenderServer could cause it to crash in certain cases.
- Bug fix: Triangulation in DX11 engine failed in certain cases.
- Bug fix: Zoom angles were not adjusted if the lens system was changed using DMX.
- Several other small improvements and bug fixes.

Version 6.0.1603.25.

(21 Jul 2016)

- Bug Fix: The Copy operation of an assembly could go wrong, corrupting the copied assembly.
- Bug Fix: The indicator boxes of the multiple copy operation were no longer visible due to a change in the code.
- Several other small improvements and bug fixes.

Version 6.0.1603.22.

(21 Jul 2016)

- Improved: Performance of the graphics engine.
- Improved: Length of beams. (Sometimes the reach was too short.)
- Improved: Martin USB-DMX Box driver now works when Martin M-PC 3.50, Lightjockey 2.110.2 or later versions are installed on the same PC.
- Bug Fix: DMX Controlled focus did not update.
- Bug Fix: Auto-Save could stop functioning.
- Several other small improvements and bug fixes.

Version 6.0.1602.11.

(21 Jul 2016)

- Improved: Import of Sketchup 2016 files is now supported.
- Improved: VectorWorks 2016 plugin added.
- Bug Fix: 'Auto Save' could become active while the document was being loaded, which could cause a crash.
- Bug Fix: When changing scene files, MSD could crash.
- Bug Fix: MSD Compact would delete model objects that are used as Panel shape.
- Several other small improvements and bug fixes.

Version 6.0.1602.03.

(03 Feb 2016)

- Bug Fix: 'Auto Save' could crash if the folder where the program is trying to backup the scene does not exist.
- Bug Fix: A problem with IDs within Fixture blocks.
- Bug Fix: Document was not set to 'changed' when the Fast-Patch operation was used.
- Several other small improvements and bug fixes.

Version 6.0.1601.13.

(13 Jan 2016)

- Improved: Added mouse Scroll-Wheel support to the Time-Line.
- Bug Fix: A bug in DMX-Controlled Panels could corrupt memory when using these panels in a scene, causing a crash.
- Bug Fix: A bug could cause the Logo control (Preferences) to disappear when changing a scene and could also cause problems when cleaning up when closing down the program, sometimes causing a crash.
- Several other small improvements and bug fixes.

Version 6.0.1601.08.

(08 Jan 2016)

- Improved: Added mouse Scroll-Wheel support to the Time-Line.
- Bug Fix: Fixed the Array-Copy section in the Sidebar, which had a wrong header, causing the size of the dialog to be incorrect, and hiding the Apply and Cancel buttons.
- Bug Fix: Manual Gobos were not correct loaded when creating a render (raytrace) scene.
- Several other small improvements and bug fixes.

Version 6.0.1512.23.

(23 Dec 2015)

- Improved: The Fast NetRender Server now comes in 2 versions (32-bit and a 64-bit).
- The installer will detect what version OS is installed and based on that, the correct Fast NetRender Server is installed.
The 64-bit version can make better use of all the available memory.
- Improved: The 3D Visualizer and the Fast NetRender Server are using improved code, making the rendering (raytracing) faster.
- Improved: The 3D Visualizer now also has an Auto-Backup feature (like the ShowDesigner and Model modules).
You can easily switch it on and off in the Statusbar, and set the time interval in the Preferences. These settings can also be stored in Workspaces (Preferences).
When AutoBackup is enabled, a backup of the scene is stored in the MSD User Folder 'Other' as long as the programs runs, refreshing it every now and then (interval), and which is removed after the program closes.
- Improved: Setting the Manual Color (Gel) of a fixture now allows selection from a list of known gels (just like in a scroller accessory).
- Bug Fix: Fixed some issues when moving the application to another monitor, which could cause problem with LED fixtures.
- Bug Fix: Fixed some issues with Fixture Blocks (Materials, IDs, etc.).
- Bug Fix: Camera Animation in the timeline is now shown in the active viewport instead of the first viewport.
- Bug Fix: Rendering of conventional fixtures could have the lens in the wrong location.
- Bug Fix: Several Memory leaks were fixed.
- Several other small improvements and bug fixes.

Version 6.0.1512.01.

(01 Dec 2015)

- Improved: If a camera effects is active, it is used when creating a Render Preview of File.
- Improved: Material Edit section of Sidebar: The previews are buffered to improve performance.
- Bug Fix: LED Fixtured sometimes rendered (raytraced) with a wrong color, giving the color a distinct red shift.
- Bug Fix: Panels with a custom lens geometry could show the geometry wrong (missing parts).
- Several other small improvements and bug fixes.

Version 6.0.1511.11.

(11 Nov 2015)

- New: DMX interface for the Camera, so it can be operated from a console. (Information on the DMX layout of the camera interface can be found in this document: [Shortcuts-Mouse-CameraDMX.pdf](#).)
- Improved: Mouse scroll events are now handled by the control 'under' the mouse.
- Improved: SideBar
 - Added 'collapse all' button to the Sidebar header.
 - Changed 'open/close' arrow directions to be compatible with windows and other programs.
 - Rearranged Material Edit section, and added Previews/Tooltips for the images.
 - Less 'flickering' while using the SideBar.
 - Added animation to scroll an opening section into view.
 - Mouse wheel scroll can now be used to set the properties in the SideBar.
 - Added an 'Shadows always' option to the 'Options' section of the Render Preview dialog.
- Bug Fix: Trailing 'Rubber banding' artifacts while moving an undocked SideBar.
- Bug Fix: Texture 'wrapping' was not set correctly when switching devices (monitors).
- Bug Fix: Fixed some other bugs that could occur during switching devices.
- Bug Fix: Entering a filter string that resulted in an empty list could hang the program.
- Bug Fix: Fixed some memory leaks.
- Bug Fix: Recording of a DMX Show could crash.
- Bug Fix: Material mask 'wrapping' was not done correctly.
- Bug Fix: Material assigned to the 'Default' part would ignore the lock-settings when rendering (raytracing).
- Several other small improvements and bug fixes.

In the document [Shortcuts-Mouse-CameraDMX.pdf](#) we have also included a list with the shortcut keys in the MSD 3D Visualizer module, and how the different camera operations can be used.

An M-Series camera profile which is called '**Camera Control**' can be found in the standard libraries (with '**MSD**' as manufacturer).

Version 6.0.1510.01.

(01 Oct 2015)

- Bug fix: Adding 2 new materials could create an endless loop, crashing the program.
- Bug fix: The program could hang if a video source could not be found or is invalid (or has zero length).
- Several other small improvements and bug fixes.

Version 6.0.1509.14.

(14 Sep 2015)

- Improved: Shortcut keys now also work (in most cases) if the focus is on the Sidebar.
- Changes: Updated the way the Camera operations on the middle and right mouse buttons work.
New Assignments :

| | No key | Shift | Ctrl | Shift+Ctrl | Alt | Double-click |
|----------------|---------|---------|---------|------------------------|----------|--------------|
| 2D View/Middle | Move XY | Move XY | Move XY | Move F/B | Zoom | Full view |
| 2D View/Right | Rect Zm | Move XY | Move XY | Move XY | Move F/B | Full view |
| 3D View/Middle | Inspect | Move XY | Swivel | Move F/B | Zoom | Full view |
| 3D View/Right | Rect Zm | Move XY | Swivel | Inspect new picked obj | Move F/B | Full view |

- Bug fix: Intensity of Omnidirectional fixtures was incorrect (DirectX11).
- Bug fix: Fixed problem with Video Textures (DirectX9).
- Bug fix: Fixed bug which would inadvertently move the toolbar after opening a sub-menu.
- Bug fix: Renaming a material would not update the material related lists.
- Bug fix: Changing a material would update all objects using the material incorrectly. (Individual mapping was ignored.)
- Bug fix: Imported objects with texture coordinates would always use these coordinates (even when instructed not to).
- Bug fix: Single copy in a 2D window will set the 'missing' coordinate the same as the original (instead of zero).
- Several other small improvements and bug fixes.

Version 6.0.1507.01.

(01 Jul 2015)

- Bug fix: There was a problem with bulb fixtures in the DirectX11 engine, causing a wrong intensity, which was the same for all.
- Bug fix: Importing a fixture from an external library in the 3D Visualizer would crash the program.
- Several other small improvements and bug fixes.

Version 6.0.1506.26.

(26 Jun 2015)

- Improvement: Added filters to the Object list and Fixture list in the Library Contents section of the Sidebar.
- Improvement: Improved the feedback of the drivers status light:
 - **Red [DMX OFF]** : DMX Connection Disabled.
 - **Orange [DMX ON]** : Not receiving DMX.
 - **Green [DMX ON]** : Receiving DMX Data.
 - **Green [DMX ACT]** : Receiving DMX Changes. (If connection supports detection of changes.)
- Improvement: Array Copy switches off after apply. (Operation works once.)
- Improvement: Array Copy has a new 'advanced' option 'Select the copies', which (as the name suggest) selects the copies after the operation is applied. (This way you can directly group the original with the copies, or control them for example.)
- Bug fix: Fixed ambient lighting of the viewports.
- Bug fix: Dynamic objects (and their 'purple' helpers) were always visible, even if the layer they were on was turned off or the 'Show dynamic helpers' option was off.
- Several other small improvements and bug fixes.

Version 6.0.1505.29.

(29 May 2015)

- A number of bug fixes and maintenance of code.

Version 6.0.1505.11.

(11 May 2015)

- Improved: Added properties in the Sidebar to be able to change the PanTilt Swap, PanInvert and Tilt Invert.
- Bug fix: The 'Current Camera' media source did not work correctly.
- Bug fix: Projection on the backside of a (semi)transparent surface was not visible.
- Several other small improvements and bug fixes.

Version 6.0.1503.24.

(24 Mar 2015)

- Improved: The transparency of Effects is now determined by the color difference between a pixel and the background color (background color is determined by the upper left corner pixel), allowing for green-screen videos as well as black-background videos to be used.
- Improved: The default threshold values (low and high) for effects can be overwritten using the media command functions of the Video Controller 'fixture'.
- Improved: Improved accuracy of the shadows. (Sometimes the light went 'to far'.)
- Several other small improvements and bug fixes.

Version 6.0.1503.09.

(09 Mar 2015)

- Bug fix: At the very end of generating a video, the program could hang.
- Several other small improvements and bug fixes.

Version 6.0.1502.12.

(12 Feb 2015)

- Bug fix: A bug was found in the previous (removed) version 6.0.1502.04. of the 3D Visualizer. This bug could cause the program to hang during loading (in new optimization code). (This problem could occur if the scene contains Hoist Platforms.)

Version 6.0.1502.04.

(04 Feb 2015)

- Bug fix: A bug was found in the previous (removed) version 6.0.1502.02. of the 3D Visualizer. This bug could corrupt the scene during loading (in new optimization code).

If you have such scenes (problem scene, which was opened and saved in the 3D Visualizer version 6.0.150202), you can open and save it with this new version, and that should make the scene workable again. (This 'recovery' process may have replace corrupted assemblies with groups.)

Version 6.0.1502.02.

(02 Feb 2015)

- Improved: Some optimizations have been made to the internal structure to improve speed.
- Improved: Some code optimizations have been make to speed up the group/assembly operations on Fixtures.
- Bug fix: Unexplainable shadows in the center of the beam when the beam was hitting the base of the fixture have been fixed.
- Bug fix: Fixtures with (noticeable) leak light could have beams that started out larger than the lens diameter.
- Bug fix: Fixture IDs could be cleared.
- Bug fix: Changing zoom angle operations did not always update the view correctly. (For example while using the mouse scroll wheel, causing the grid to be displayed in the wrong place.)
- Bug fix: Improved handling of scenes when some Materials were not stored correctly due to an earlier bug. We now try to recover the Material where possible during loading of the scene file.
- Several other small improvements and bug fixes.

Version 6.0.1501.06.

(06 Jan 2015)

- Bug fix: Loading a scene while the 3D Visualizer has multiple views open could cause strange effects in the viewport(s).
- Bug fix: Creating a Render scene (while starting a Render Preview) could cause a crash with some panel type fixtures.
- Bug fix: The material library in a scene file was sometimes not saved correctly, which would cause a failure to load materials when loading the scene again in MSD.
- Several other small improvements and bug fixes.

Version 6.0.1412.19.

(19 Dec 2014)

- Updated: MSD 6 now supports Sketchup 2015 files.
- Bug fix: Undo / Redo could cause a crash and undetermined behavior.
- Several other small improvements and bug fixes.

Version 6.0.1412.16.

(16 Dec 2014)

- Bug fix: Fast Patch did not patch conventional fixtures.
- Bug fix: Fast Patch settings were not correctly initialized.
- Several other small improvements and bug fixes.

Version 6.0. 1411.26.

(26 Nov 2014)

- Improved: ArtNet drivers - Selection of network interfaces and better cooperability with other ArtNet users.
(In both the MSD 3D Visualizers internal ArtNet driver and the external ArtNet driver.)
- Several other small improvements and bug fixes.

Version 6.0.1411.13.

(13 Nov 2014)

- New: Added support for a new type of panel fixture, which will turn its lens towards the camera (sometimes called 'billboarding').
This can be especially useful for effects, always showing the effect video towards the camera, making the effect look less '2D' and more '3D'.
- New: The new Display Mode option called 'Lux Map' is now also available for the DirectX 9 Engine.
(Activating this option will show the illuminance in false color.)
- Bug fix: Intensity calculation of LED fixtures was incorrect, which could result in low output at short distances.
- Bug fix: Panel fixtures with a an override of the default lens shape did not show correctly.
- Bug fix: Initialization of the DirectX 11 engine could crash while detecting if the graphics card(s) support DirectX 11 (instead of presenting the user with the option to switch to the DirectX 9 engine).
- Several other small improvements and bug fixes.

Version 6.0.1411.07.

(07 Nov 2014)

- New: Added a new Display Mode option called 'Lux Map' [DirectX 11 Engine only].
(Activating this option will show the illuminance in false color.)
- Improved: Media mapping can now also be applied to a Group of fixtures, mapping the panels as one big panel.
- Several other small improvements and bug fixes.

Version 6.0.1410.24.

(24 Oct 2014)

- Improved: Added more commands to the Video/Effect playback, including a 'go to' command.
- Bug fix: Video recording did not work with the Video/Effect playback commands.
- Several other small improvements and bug fixes.

Version 6.0.1410.21.

(21 Oct 2014)

- New: Added support for DMX control of Video/Effect playback using a special 'controller' fixture.
- Bug fix: Transparent objects were not handled correctly, sometime 'occluding' other transparent objects.
- Bug fix: The Smoke animation could stop when moving window to second monitor.
- Several other small improvements and bug fixes.

Version 6.0.1410.09.

(09 Oct 2014)

- New: VectorWorks plugins for VectorWorks version 2015.
(Both 32-bit and 64-bit versions of the plugin are available.)
- New: Effect media source.
This is the same as a Video media source, but for the Effect, the transparency is set by the intensity of the color. This allows you to use videos of pyro etc (with a dark background) to simulate effects.
- Bug fix: The minimal camera front distance has changed from 1 cm to 25 cm. This fixes some issues with the depth buffer. (We also added a setting in the Camera section where you can tweak this value if necessary.)
- Several other small improvements and bug fixes.

Version 6.0.1410.03.

(03 Oct 2014)

- New: You can now create and apply license request and license update files directly from the MSD 3D Visualizer.
- Bug fix: The Pick and selection are visible again in the Scene Contents.
- Bug fix: Several memory leaks.
- Several other small improvements and bug fixes.

Version 6.0.1409.10.

(10 Sep 2014)

- Improvement: The DMX shows can now store 64 universes (was 32 universes).
- Bug fix: Compact could crash on certain scenes.
- Bug fix: Fixed a few memory leaks in the graphics engine(s).
- Bug fix: Fixed a problem with monitor switching where the scene window turned black.
- Several other small improvements and bug fixes.

Version 6.0.1409.01.

(01 Sep 2014)

- Bug fix: Fixed a problem in de Media servers (CITP) in the DirectX11 engine.
- Bug fix: Fixed a memory leak in the DirectX11 engine which sometimes occurred using LED Panels.
- Bug fix: Fixed a problem in replacing Fixture blocks.
- Bug fix: Fixtures on layer where visibility is turned off did not update from DMX.
- Several other small improvements and bug fixes.

Version 6.0.1408.15.

(15 Aug 2014)

- Bug fix: Workspaces did not work correctly.
Due to change in code from MSD 5 to MSD 6, a bug was introduced which corrupts the stored data for the workspaces, which causes problems when restoring them.
The bug has been fixed, but because the stored workspaces have corrupted data, the list of workspaces is cleared and you need to build a new list of workspaces, sorry for that.
- Bug fix: Several issues with Fixture Blocks have been fixed:
 - Patch could not be changed on Fixture Blocks.
 - Camera Inspect operation, with a picked Fixture Block inspected around (0,0,0) instead of insertion point.
 - Fixture Blocks could not be inserted in the Visualizer.
 - Auto patching did not work correctly.
- Several other small improvements and bug fixes.

Version 6.0.1408.04.

(04 Aug 2014)

- Changed: The 3D Visualizer build-in ArtNet driver has been improved to get better connection with M-Series software.
- Changed: All MSD programs, drivers and installers now have a digital signature from Lighthouse Holland Sales BV.
- Several other small improvements and bug fixes.

Version 6.0.1407.21.

(21 Jul 2014)

- Changed: M-PC and MSD have both been updated.
This means that for M-PC version 3.40 (from V3.40.358.0 and up) you will need at least MSD 6 version 6.0.1407.21. (or up) to get a correct DMX connection.
- Bug fix: Shutter blades were very jagged.
- Bug fix: Video panels had an incorrect offset. (Paper).
- Several other small improvements and bug fixes.

Version 6.0.1407.10.

(10 Jul 2014)

- Improved: (*MSD 6 Pro*) Pick and selection are cleared when you start creating a video.
- Correction: (*MSD 6 Lite*) Some DMX connections were not included in previous installs.
- Bug fix: Mirrored objects were not handled correctly for lighting.
- Bug fix: Objects close to a fixture would not cast shadow.
- Bug fix: Fixed a bug which could cast light behind the fixture.
- Several other small improvements and bug fixes.

Version 6.0.1407.04.

(04 Jul 2014)

- Bug fix: 3D Visualizer hanging at the end of the timeline.
- Bug fix: Issues with the online help file.
- Several other small improvements and bug fixes.

Version 6.0.1406.18.

(18 Jun 2014)

- Bug fix: DMX Controlled LED Panels/Strips did not always map the leds to the right channels.

Version 6.0. 1406.12.

(12 Jun 2014)

- Updated: The grandMA driver has been updated.
For more information, please see the [grandMA DMX Connection](#) forum topic.
- Bug fix: The update check in the 3D Visualizer module did not work correctly.
- Several other small improvements and bug fixes.

Version 6.0.1406.05.

(05 Jun 2014)

- Updated: The Sketchup import of the Modeler has been updated to be able to import models made with the 2014 version.
- Bug fix: DMX Controlled LED Panels/Strips did not always map the leds to the right channels (in the DirectX11 Engine).
- Bug fix: Other minor changes to the initialisation of the DirectX11 Graphics Engine.
- Several other small improvements and bug fixes.

Version 6.0.1405.23.

(23 May 2014)

- Bug fix: The beams (smoke) are visible again.

Version 6.0.1405.22.

(22 May 2014)

- Improved: M-PC DMX data can now again be received without having to make a connection from within M-PC.
- Bug fix: Video mapping on objects used as lens of panel fixtures was calculated incorrectly.

Version 6.0.1405.21.

(21 May 2014)

- Bug fix: VectorWorks plugins should now work again.
- Bug fix: The license problems of the plugins have been fixed.

Version 6.0.1405.14.

(14 May 2014)

- Bug fix: The M-PC driver only supported 2 universes when connected to a free M-PC version, now it supports 64 universes again for visualizing.