

READY... SET...



MAXWELL RENDER 2.5
with Fast Interactive Rendering

WHAT'S NEW IN MAXWELL RENDER 2.5

• MAXWELL FIRE

- New Fast Interactive Rendering technology
- Preview scene lighting and materials in seconds
- Integrated in Plug-ins and Maxwell Studio
- Compatible with all Maxwell Render materials and features

• MATERIALS

- SubSurface Scattering vastly improved in both quality and performance

• CAMERA - MXI - SIMULENS

- Fixed potential crashes merging MXI files
- Fixed problems stopping blow up / region renders
- Fixed MXI file size was growing slightly everytime the file was resumed
- Fixed leak in Simulens scattering
- Fixed Simulens not properly applied to hdr images that were not rendered but external files

• GENERAL

- Fixed artifacts with motion blur in some cases
- Fixes in shadow channel:
 - Fixed scenarios where shadow GI was failing
 - hide to camera
 - matte materials
 - fixed potential crash with SSS + shadow pass
- Fixed generation of artifacts when sky dome was active but the sky color was black.
- Improved error handling when textures are not found
- Fixed rendering at very low resolutions with a very high number of threads could make the process to crash.
- Fixed potential crash merging mxi files manually
- When the Maxwell process was killed from outside (i.e a 3rd party job manager), Maxwell was not saving the output properly. It is fixed now.
- Fixed fresnel and roughness channel format and depth not properly stored into disk
- Fixed little problem in handling of error messages
- Fixed problem in zbuffer range when resuming
- Fixed potential artifacts when rendering using Color Multilight
- Fixed potential crash when launching the About menu if the splash images were not found
- Fixed bug in image viewer when the image was rotated, the rotation was reset to zero after zooming
- Fixed some GUI actions not working in Full screen mode (i.e rotate canvas)
- Fixed emixer horizontal layout
- Fixed saving alpha channel manually not working if the channel was embedded in the image
- Improved reading of eulum files in OSX

• SCRIPTING

- New scripting functions added. Check the manual for details.
- postscript: "C:\Program Files\Next Limit\Maxwell 2\scripts\post_render_script.ms"

● COMMAND LINE PARAMETERS

- New "additional command line options" field added to the render options panel (it is useful to add advanced command line options that are not exposed in the UI - see manual for details)
- Fixed some command line arguments were not properly parsed
- New command line parameter "-dependencies:path" (also "-dep:path" is valid) to specify a path where scene dependencies (textures, realflow files, ies..) are located (the old "-bitmaps:path" parameter still works, although it is deprecated.)
- New command line options:
 - prescript:[script path] to run an script before the render starts
 - postscript:[script path] to run an script after the render finishes
- Improvements in the -renameoutput command line flag, useful for 3rd party job managers. (When this is enabled, Maxwell does not write the MXI file directly in the final path but writes a temporary file instead and renames it after the writing process finishes.) (It prevents an external watcher reads the MXI file when it's being written - it could corrupt the reading process)
- New command line parameter "-nomxi" that when used does not save the mxi file to disk but just the image output. (Sometimes only the images are needed, especially in animations when many large mxi files can overload the hard drive. Remember that using the option "separate" will separate each light in a different file, so using Maxwell postprocessing plugins for Nuke, Photoshop or AfterEffects will still provide a lot of control over lighting as using Multilight with an mxi file This option is also accessible through the sdk function setRenderparameter (DO NOT SAVE MXI FILE)

● SDK

- WriteMXS routine improved. Now Maxwell checks if objects with motion blur enabled have exactly the same values in all the subframes and disables the motion blur for that object. It will improve memory consumption, file size and rendering speed in those scenarios
- Fixed problem when both diffuse and reflection flags were enabled the render could become wrong

● NETWORK

- Improved general stability of nodes
- Error handling mechanisms improved when a render node crashes.
- Improved routines for cleaning temporary files in nodes in animation jobs
- New menu entries for adding/releasing nodes to/from a job
- New option "kill node" that closes the mxnetwork process in the selected node (after finishing the current job if any)
- New error handling control system added to control the number of times a node fails. If one node reaches the maximum number of failures permitted it will be excluded from the network. (It fixes scenarios like a node that quickly fails during an animation job and traverses all the frames making them to fail. By default the maximum number of failures permitted is 3.)
- Fixed display of elapsed time in animations which was not displayed properly when the frame finished
- Fixed elapsed time is refreshed more often, not only when there are changes in SL
- Fixed time left display which was taking into account only the target sampling level but not the maximum time
- "reset_node" routine improved, now the mxi file rendered by the node is safely sent before resetting the node
- The Add Job wizard is scrollable now to avoid display problems at low resolutions
- The Add Job wizard now remembers its window size and position between sessions
- Fixed minor issue parsing command line arguments that contain paths
- Fixed bug in batch render with missing texture files
- Fixed issue resuming animations when frames had different initial sampling levels
- GUI slightly redesigned to improve usability
- New command line parameter: animation string
-a: | - animation: | -frames:
i.e "-a:1-100"
Useful to launch animations from plugins or 3rd party applications

● STUDIO / MXED

- Integration of Maxwell Fire in Studio GUI
- New SSS presets added
- Fixed precision issue when dragging'n dropping color slots
- When dropping an mxs file to the viewport, if the scene is empty Studio does not ask whether it should open or import but it will be directly opened
- Added improvements in the way missing HDR files are searched
- The "copy to all" button in the HDR panel has been replaced with a "Use same as background" checkbox (enabled by default) in each IBL layer
- Fixed color picker eye dropper tool
- Now when the material preview is working it does not block the materials/objects panels

- Viewport now displays RealWave meshes of RFRK objects
- Fixed little GUI issues
- Material Editor GUI slightly improved to have better visual feedback about what elements are enabled/disabled
- Fixed SD meshes can be displayed in wireframe mode
- Fixed render region out of the camera frame was not properly clipped
- Fixed "Reload Preview" was failing when selecting more than one material at the same time
- Now texture buttons in material editor have a menu accessible clicking the right mouse that opens the file location
- The MXM Gallery window is not a modal dialog anymore but it's integrated in the material browser view
- Fixed perspective view jumps when creating new camera
- Fixed anisotropy angle field could become disabled after changing anisotropy map
- Fixed texture picker was not showing pixel rgb values possible
- Fixed some preferences could not be properly read in MXED
- Fixed UNC paths (network paths) were not working properly in Studio under certain scenarios
- Fixed "reload preview" was not working properly at high sampling levels
- Added proxy support for the MXM Gallery (Go to preferences ->mxmgallery and fill the proxy settings with yours)
(It will allow to use the MXM Gallery connection even when the user connects to the web through a proxy. Remember there is a separate setting for Studio and MXED, if you use a proxy you should change both.)
- New "Apply materials by name" option (available through the materials menu)
(It shows a dialog where the user can apply materials to objects depending on naming rules. For example the user can apply the material "Gold" to all the objects that contain the world "Gold")
The rules are evaluated in order, which is very useful for some purposes. For instance you can put first
"Gold" ---> * :It will apply the material "gold" to all the objects of the scene
"Wood" ---> *wood_mesh : It will apply the material "wood" to all the objects with a name that contains "wood_mesh"
However if the rules are set in the opposite order, all the objects of the scene will have the "gold" material applied
This dialog has a couple of additional options:
 - a- Apply rule to:
 - Objects --> it applies the rule to all the objects
 - Groups --> it applies the rule only to objects that have children
 - b- Ignore children --> it applies the rule only to the top level of the object hierarchy
 The dialog now has an option to save/load assignment rules to disk. Assignment rules are simple xml files (with the extension mxrul) that can be edited easily with any text editor. It makes very easy to import/export rules between scenes to make material assignments very automatic
- New viewport shortcuts
 - C for Center Selection
 - Shift+C for Center Scene
- New command line arguments
 - layout:[layout path]
It opens studio loading the layout given as argument. It could be useful for launching Studio from plugins for specific things. (i.e opening studio with an special layout for the interactive engine that just has a viewport, material and sky editors...)

• PLUG-INS

- Maxwell Fire integrated in new versions of plug-ins for Maya, 3dsMax, Rhinoceros and SolidWorks
- Other plug-ins will have Maxwell Fire integrated soon (where possible)



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