



DI-Guy 13.8 Release Notes

This release note contains release-specific information for DI-Guy 13.8.

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Systems Supported

For information about platform and system support, see the Product Specifications & Dependencies page on the MAK website at: <https://www.mak.com/mak-one-specs>.

For hardware requirements, visit <https://www.mak.com/mak-one/support/help> and click the Hardware Requirements link.

Compiler Compatibility on Windows

MAK provides versions of product releases that have been compiled with different versions of Microsoft Visual C++. MAK ONE products built with VC++ 14 and later are binary compatible and will work together. When you run MAK ONE products together on the same computer, for example, VR-Vantage, we strongly recommend that you run versions compiled with the same compiler or binary compatible compilers.

MAK RTI HLA 4 binary file names conform to the SISO-REF-075 standard, which includes a compiler marker to specify the compiler version. This prevents HLA applications from loading binary files from non-compatible compilers. The MAK RTI HLA 4 libraries are built using the Visual Studio 2017 compiler and use the vc141 compiler marker.

Renderer

DI-Guy 13.8 supports these renderers for Windows (64-bit): OpenGL, OpenGL Graphics API, OSG Graphics API.

License Manager

DI-Guy 13.8 uses FLEXlm 11.17.1. You must install the license management software to run DI-Guy.

The MAK License Manager files are not part of the DI-Guy installer. You can download them from the MAK ONE Product Downloads page (<https://www.mak.com/mak-one-downloads>).

Installation of the license manager is covered in the *MAK ONE Installation Guide*, available online at <https://mak.com/mak-one-installation-guide>. You can also contact your MAK distributor or use the [Support Portal](https://www.mak.com/mak-one/support/portal) at <https://www.mak.com/mak-one/support/portal> if you need assistance.

Network Compatibility

HLA Only

DI-Guy 13.8 was built against VR-Link 5.10 and is compliant with:

- RPR-FOM 1.0 and 2.0.
 - MAK RTI 4.1 or later.
-

DIS Only

DI-Guy 13.8 supports DIS 4, 5, 6, and 7.

Major Updates

DI-Guy 13.8 has the following new features and updates.

Application Changes

This section describes changes to the DI-Guy products.

- The DI-Guy installer no longer requires that you install a DI-Guy data package in the same directory. The DI-Guy installation now uses the appropriate MAK ONE *./SharedData* directory. For more information see the *DI-Guy Getting Started User Guide*.

DI-Guy Motion Editor

- The in-scene action info display is now positioned above the 3D view, making it easier to see.
- Added a check box for enabling Tracy in the DI-Guy Extras tool.

Character Viewer

- The DI-Guy Character Viewer supports the HLA 4 (IEEE 1516_2025) protocol.

New Content

There is a new soldier character, HumanMale, with an improved skeleton. As part of this update:

- The legacy "human" data loader has been renamed to "human_legacy" to make way for the new "human" loader used with the new human_* character types.
- Naming conventions for new characters, appearances, and so on are switching to a capitalized naming format with mixed case, rather than underscores, in most cases.

Fixed Bugs

Table 1. Fixed Bugs

Key	Summary	Release Notes	Fix versions
DIG-498	Update DI-Guy versioning to match other MAK ONE products (maj.min vs. maj.min.patch)	DI-Guy now uses the same versioning scheme as other MAK ONE products. For example, this release is 13.8 (not 13.8.0) and the file names reflect that.	DIG-IPB20, DIG-13.8
DIG-525	Don't need to package all legacy release notes with product.	The DI-Guy installation now includes only the release notes for the current release. You can find the release notes for this and previous releases at https://www.mak.com/mak-one/support/help/specs/di-guy-sdk .	DIG-13.8
DIG-627	Aiming changes to character aren't applied if character is paused.	Aiming a paused character will now update aim to the requested aim angle without animating the aim.	DIG-IPB20, DIG-13.8
DIG-646	ME doesn't prompt for saving changes if the only thing changed are the blend node layouts	Fixed issue in the Motion Editor where changes to the layout of blend tree nodes didn't flag changes to the Action Table and therefore didn't enable the Save button.	DIG-IPB20, DIG-13.8
DIG-686	Pressing the Shift key while typing in code editor shows skeleton.	Fixed issue where typing in the code editor while using the Shift key would cause the character skeleton visibility to toggle on and off.	DIG-13.8
DIG-714	Fix typo in shader matrix index table (animal_quadraped -> animal_quadruped)	Fixed typo in shader matrix index table for animals, correcting "quadraped" to "quadruped".	DIG-IPB20, DIG-13.8
DIG-721	ME doesn't remember log level between runs.	Updated Motion Editor to remember log level between runs.	DIG-13.8
DIG-735	Reset scenario button doesn't reset chosen action.	Updated reset logic to re-select default action to avoid immediately resuming playback upon reset.	DIG-13.8
DIG-744	Fix facing direction UI labels.	In the Action Metadata tab of the Action Table Editor in the Motion Editor, moved the Facing Direction input fields to a new line to avoid confusion with Travel Direction.	DIG-IPB20, DIG-13.8
DIG-781	Send to timeline from project window sometimes puts motion off end of track.	Fixed bug with Send to Timeline button that would sometimes put motion off the end of the timeline.	DIG-IPB20, DIG-13.8

Table 1. Fixed Bugs (continued)

Key	Summary	Release Notes	Fix versions
DIG-784	Improve link node axis visualization	Adjusted link axis indicators for better visibility in the Motion Editor. All link axes now have their own visibility setting and can be toggled on/off separate from the skeleton. Link axes require skeleton to be visible.	DIG-IPB20, DIG-13.8
DIG-789	Content assist pop-up doesn't close when switching off of code editor window.	Fixed issue in the Character Viewer where the content assist pop-up was staying open when users exited the script editor.	DIG-IPB20, DIG-13.8
DIG-798	Final line ending in config files is necessary or the last config line isn't actually processed.	Updated logic so parse method doesn't error out if data was read during the same parse step when reaching the end of the file.	DIG-13.8
DIG-799	Editing weights on a blend node doesn't indicate that there are changes to save.	Fixed bug where editing weights on a 2-Animation Blend node wouldn't flag the action table as having changes to be saved.	DIG-13.8
DIG-800	Dragging motion arcs up to project window doesn't work.	Improved behavior of the Motion Editor's Project window to ensure handling of drop events from the motion arcs window.	DIG-IPB20, DIG-13.8
DIG-801	Crash when attempting to connect a new motion arc to an existing blend node.	Changed connection logic to update only the motion arc list in the blend node, and make no other changes to the Action Table.	DIG-IPB20, DIG-13.8
DIG-804	Playback reset should also reset blend/aim slider selections and current action.	Updated playback reset button to clear animation velocity and aiming sliders with everything else.	DIG-13.8
DIG-806	Motion arcs filter search is case sensitive, should not be.	The filter now disregards upper- and lowercase letters and simply filters the list based on the letters you enter.	DIG-IPB20, DIG-13.8
DIG-808	Move Add/Remove buttons from top of motion arcs widget.	Motion arc management buttons (Add and Remove) and utility buttons (Send to Timeline and Send to Project) have been moved to the Motion Arcs section of the dialog.	DIG-IPB20, DIG-13.8
DIG-816	Rename source files from cpp to cxx.	Source files have been renamed to .cxx to match other MAK products. If you have any projects directly referencing example source code, you should check whether you need to update them.	DIG-IPB20, DIG-13.8
DIG-829	Turn snap mode in the Motion Editor timeline to be off by default.	Changed default snap mode for the Motion Editor timeline.	DIG-IPB20, DIG-13.8

Table 1. Fixed Bugs (continued)

Key	Summary	Release Notes	Fix versions
DIG-833	Range selector in ME doesn't auto-select entire clip.	Fixed issue with range selection that was resulting in selection of only visible portion of clips in timeline.	DIG-IPB20, DIG-13.8
DIG-838	Move "Display Current Action in 3D" checkbox.	Check box to show or hide action info pane above character has been moved to the 3D view window.	DIG-IPB20, DIG-13.8
DIG-847	Graph doesn't completely redraw when adjusting scale in Outliner.	The graph now updates when the scale changes.	DIG-IPB20, DIG-13.8
DIG-851	Send to timeline doesn't work if there's already a motion in the timeline.	Updated Send to Timeline button to create a new track for additional motions instead of adding multiple motions to the same track.	DIG-IPB20, DIG-13.8
DIG-856	Upgrade Tracy.	Upgraded Tracy to version 0.11.1.	DIG-IPB20, DIG-13.8
DIG-872	Fix dependancy typos.	Fixed "dependancy" typo in diguyScenario::load_package_with_dependancy and the script config line package_dependancies. It is now spelled correctly: "dependency". Any code or scripts using these must be updated. (Older scripts using package_dependancies will still load correctly.)	DIG-IPB20, DIG-13.8
DIG-879	Project window info lines at top space out weird when resizing.	Fixed layout issue with information in the Motion Editor's Project window.	DIG-IPB20, DIG-13.8
DIG-890	Gesture filter applies to action list instead of gesture list	Fixed issue with gesture filter that broke the action filter and made the gesture filter control the actions list.	DIG-IPB20, DIG-13.8
DIG-894	Fix package naming and install location.	Updated the DI-Guy package naming conventions and default installation locations to be consistent with other MAK ONE products.	DIG-IPB20, DIG-13.7.1, DIG-13.8
DIG-897	Rename diguyCharacter::set_shader_matrixes_out_of_date to fix misspelling.	Method has been renamed to diguyCharacter::set_shader_matrices_out_of_date.	DIG-IPB20, DIG-13.8
DIG-898	Weapon grip arm IK remains active when overriding pose.	The IK system didn't have any logic for checking whether link overrides were active before updating IK chains. Added new logic to checks whether any of the links in the chain are overridden before updating IK for the character.	DIG-IPB20, DIG-13.7.1, DIG-13.8
DIG-907	Idealization for up/down actions incorrect on export.	Fixed issue where idealized up/down motions would end up with double vertical motion, resulting in popping when the motion looped.	DIG-IPB20, DIG-13.8

Table 1. Fixed Bugs (continued)

Key	Summary	Release Notes	Fix versions
DIG-908	Update weapon attachment logic so weapons can be used on new soldier.	Added support for specifying the attachment link on equipment to use when attaching the equipment to a character.	DIG-IPB20, DIG-13.8
DIG-914	Add mapping logic for older action names for backwards compatibility.	Action tables now support a <code>compatible_action_names</code> field, which specifies legacy action names that can still be used to refer to a given action.	DIG-IPB20, DIG-13.8
DIG-917	Convert tabs to spaces to match our other products.	Replaced tabs with spaces in cmake files, diguy source, and scripts.	DIG-IPB20, DIG-13.8
DIG-920	Updating hand item appearance in CV saves out broken config	Fixed issue where header wasn't being written to <code>hand_item_appearances.cfg</code> when editing through the Character Viewer.	DIG-IPB20, DIG-13.8
DIG-922	Outliner dialog box goes blank if closed and reopened.	Fixed issue where outliner dialog box would be missing its UI after closing and re-opening it.	DIG-IPB20, DIG-13.8
DIG-924	Appearance map overrides for hand items don't work.	Fixed issue where <code>item_override</code> <code>appearance_maps</code> sometimes wouldn't match expected <code>appearance(s)</code> .	DIG-IPB20, DIG-13.8
DIG-926	Scrubber always disabled in CV	Logic for resetting the Active check box was interfering with normal operations. This is fixed.	DIG-IPB20, DIG-13.8
DIG-928	Add character type mapping for <code>item_override</code> entries.	Added character type option for <code>item_override</code> entries.	DIG-IPB20, DIG-13.8
DIG-929	Texture Viewer doesn't show when selected from menu.	Fixed issue that would prevent the Texture Viewer from showing.	DIG-IPB20, DIG-13.8
DIG-930	Re-exporting motion doesn't correctly update action in action table.	Improved motion reload logic and added notification that existing action is being updated.	DIG-IPB20, DIG-13.8
DIG-931	Timeline range selector breaks when editing timeline tracks.	Fixed issue that was preventing the timeline range selector from working normally.	DIG-IPB20, DIG-13.8
DIG-933	ME Camera Settings dialog produces error about not being able to find character.	Fixed issue preventing camera dialog from locating character for view controls.	DIG-IPB20, DIG-13.8
DIG-934	Fix post-export action table addition logic so it updates existing action (if present).	Fixed action table update after re-exporting a motion to ensure it's reloaded correctly.	DIG-IPB20, DIG-13.8

Table 1. Fixed Bugs (continued)

Key	Summary	Release Notes	Fix versions
DIG-935	Updating BDM used for action doesn't actually update the file used.	Fixed change detection logic for Action Table and ensured changes to the BDM file are saved correctly.	DIG-IPB20, DIG-13.8
DIG-936	Unable to use hand items (rifles) with 1st_person character.	Fixed an issue that caused problems when changing hand items for the first person character.	DIG-IPB20, DIG-13.7.1, DIG-13.8
DIG-938	Preview dialog should be non-modal so user can use other windows.	Updated logic for showing the preview dialog so it's shown non-modally, allowing you to interact with other parts of the interface while it's open.	DIG-IPB20, DIG-13.8
DIG-939	Skeleton link points for gun incorrect.	Fixed issue where skeleton representation didn't accurately reflect hand item position when using an attachment link.	DIG-13.8
DIG-940	Rotation wrong on exported animation.	Idealized export was performing a monotonic adjustment to motions, resulting in position/rotation issues with the exported motion. Monotonic adjustments during export have been disabled.	DIG-IPB20, DIG-13.8
DIG-942	Add right-click menu to action table for 'go to arc' item.	The Action grid now has a context menu.	DIG-IPB20, DIG-13.8
DIG-950	Many gestures are set up for 'all' characters instead of only valid character types.	Updated gestures configured for 'all' character types to enumerate the specific supported character types. This ensures that gestures aren't made available to newly created incompatible types.	DIG-IPB20, DIG-13.8
DIG-952	Gesture dialog save button always saves config to custom directory.	Saving gestures now prompts the user to specify whether they want to save to a custom folder or the main data folder, in the same manner as other save and export dialogs.	DIG-IPB20, DIG-13.8
DIG-954	Choosing BDM for wrong skeleton in gesture setup should throw error.	Added actor compatibility check when choosing BDM for gesture.	DIG-IPB20, DIG-13.8
DIG-957	Gesture list doesn't seem to show all gestures for soldier_17.	Added gregg to legacy actor compatibility check (compatible with greg).	DIG-IPB20, DIG-13.8
DIG-958	Unable to export motions with vertical travel so hip height is preserved.	There is now a Maintain Hip Height at T-In option in the Export Motion dialog box. It is automatically selected when you choose the Up, Down (TZ) Ideal Motion Type export mode.	DIG-IPB20, DIG-13.8

Table 1. Fixed Bugs (continued)

Key	Summary	Release Notes	Fix versions
DIG-961	Appearance lookup during initialization doesn't find correct default appearance.	Updated fallback logic for using default character appearances to behave more consistently.	DIG-IPB20, DIG-13.8
DIG-963	Geometry missing for duffle_bag prop.	Fixed configuration for duffle_bag prop and hand item. These are configured differently and needed some adjustments.	DIG-IPB20, DIG-13.8
DIG-969	diguyCharacter::create_simple_path generates errors about not being able to find path with a different name.	Fixed error with path creation in the path_api example.	DIG-IPB20, DIG-13.8
DIG-970	Appearance upgrades don't respect actor for character type when applying upgrade.	Added actor compatibility check to appearance upgrade system so appearance upgrades aren't applied to character types / actors they're not compatible with.	DIG-IPB20, DIG-13.8
DIG-971	M4 and M16 variants are all different sizes	The sizes of the M4 and M16 variants are now more in line with each other.	DIG-IPB20, DIG-13.8
DIG-972	Documentation not packaged on Linux.	Fixed packaging issue: Linux build now contains documentation.	DIG-IPB20, DIG-13.8
DIG-980	Specifying custom Weapon Supplemental Data overrides all default supplemental data.	Updated custom weapon supplemental data loading to be additive. Existing configuration doesn't need to be duplicated in custom folder when simply adding a new type.	DIG-IPB20, DIG-13.8
DIG-981	Character Viewer logs aren't being written to MAK shared logs folder.	Character viewer logs are now written to MAK shared logs folder (for example, %MAK_INSTALL_DIR%\logs).	DIG-IPB20, DIG-13.8
DIG-982	ME Preview dialog sometimes stops updating character.	Disabled automatic motion LOD switching in the Motion Editor. Was interfering with playback from the preview dialog and could result in inaccurate playback.	DIG-IPB20, DIG-13.8
DIG-986	Re-exporting motion to same file breaks playback.	Fixed arc reload logic that was failing to correctly reload the arc after re-export.	DIG-IPB20, DIG-13.8
DIG-988	Unable to resize motion arc list in action table widget.	Updated motion arcs list so it can be resized.	DIG-13.8
DIG-992	Motion Editor logs aren't being written to MAK shared logs folder.	Fixed issue where Motion Editor log files weren't going to the MAK shared logs directory.	DIG-13.8

Table 1. Fixed Bugs (continued)

Key	Summary	Release Notes	Fix versions
DIG-993	Saving weapon supplemental data changes from CV fails due to bad path.	Fixed file path issue in weapon supplemental data save logic in the Character Viewer.	DIG-IPB20, DIG-13.8
DIG-1001	Creating a diguy with a name longer than supported for marking text prints warning to console.	Fixed issue where entities with names longer than supported for marking text would print warning about the length of the name.	DIG-IPB20, DIG-13.8
DIG-1005	Visible pop when characters switch from instanced to non-instanced.	Added call to ensure non-instanced shapesets are updated when character is no longer instanced to avoid one frame pop if rendered before scenario update.	DIG-IPB20, DIG-13.8
DIG-1006	Improve appearance upgrade logic so a valid appearance for the character can be reached.	Appearance upgrade logic will continue to check for valid upgrades until the application reaches an upgrade that is valid for the current character. Previously, only the first upgrade would be checked, and would be ignored if not compatible with the current character.	DIG-IPB20, DIG-13.8
DIG-1008	Add mechanism for upgrading old hand items to newer ones.	Added hand item upgrade table to the appearance_upgrade.cfg file so hand items can be upgraded similarly to appearances.	DIG-IPB20, DIG-13.8
DIG-1009	Improve character digest so all hand item classes for a given character type are included.	Improved DIGuyDigest logic for writing hand items to digest to handle all item classes for a character instead of just the first one.	DIG-IPB20, DIG-13.8
DIG-1013	Body weight is applied to LODs that don't support it when set.	Added logic to ensure that body weight skinning is applied only when it is applicable to the LOD.	DIG-13.8
DIG-1014	Alphabetical ordering in CV action list splits out capitalized actions differently.	The sorting in the Character Viewer Action list is no longer case sensitive and simply sorts alphanumerically.	DIG-13.8
DIG-1019	Update Content Reference Manual with instructions for customizing and setting up new hand items.	Added information to the DI-Guy Content Reference Manual. See the chapter on customizing content.	DIG-13.8

Table 1. Fixed Bugs (continued)

Key	Summary	Release Notes	Fix versions
DIG-1021	Address Sanitizer reports memory leak in bdiCfgReader::read_entry_header (char const*, bdiString*, bdiString*)	Addressed memory leak in the config file reader.	DIG-13.8
DIG-1022	Reset Values button in the action table window doesn't update aiming when doing so.	Added call to ensure character is updated to new values when resetting the aim sliders.	DIG-13.8
DIG-1023	Some modules won't load due to name lookup error.	Added module name lookup case for loading Visual Studio 2022 (VC17) modules.	DIG-13.8
DIG-1027	Using a_pose in CV loses translation for PalmRight and PalmLeft, pushing them up to the wrist.	Fixed bug with A-Pose in the Character Viewer that was resetting the position of certain links.	DIG-13.8
DIG-1029	Injured soldier not appearing when attached as hand item in CV.	Added wounded carry preview logic to the Character Viewer.	DIG-13.8
DIG-1030	Creating a new character prints IK warning.	Bypass warning on initial character creation (character will never have a valid camera distance set at this point). Warning now occurs only on the first update after the character is fully created.	DIG-13.8
DIG-1031	Crash on shutdown if both base appearance and derived appearance specify character types table.	Fixed crash caused by having a character types table set in multiple places on inherited appearances.	DIG-13.8
DIG-1032	Gazing not supported on new soldier.	Updated gazer logic to work with new HumanMale character type.	DIG-13.8
DIG-1034	Package Adding Content guide with DI-Guy	The Adding Content to MAK ONE Applications Reference Manual is now included with the DI-Guy installation's PDF documentation.	DIG-13.8
DIG-1042	DI-Guy data lookup fails if no data variables are set.	Directory expansion for default MAK install directory (for example, ~/MAK) wasn't working correctly in conjunction with existence checks when verifying data install.	DIG-13.8
DIG-1045	Weapon aiming drifts to the side	Fixed issue preventing aim nodes from being placed under a 2D blend node.	DIG-13.8

Table 1. Fixed Bugs (continued)

Key	Summary	Release Notes	Fix versions
DIG-1046	Motion Editor crashes when you change the Action Table type.	Fixed bug in motion arc unload logic that left arcs in a bad state.	DIG-13.8
DIG-1049	Links are sometimes not unbuilt when switching appearances.	Fixed issue where certain procedural links weren't getting unbuilt when switching appearances.	DIG-13.8
DIG-1052	DIGuyCharacterViewer fails to launch when using the --sharedDataRoot command line argument.	Fixed incorrect data path generation when using the --sharedDataRoot command line option to the Character Viewer.	DIG-13.8

Feature List

Table 2. Feature List

Key	Summary	Release Notes	Fix versions
DIG-365	Set up new soldier character with improved skeleton.	- The legacy "human" data loader has been renamed to "human_legacy" to make way for the new "human" loader used with the new human_* character types. - Naming conventions for new characters, appearances, and so on are switching to a capitalized naming format with mixed case, rather than underscores, in most cases.	DIG-IPB19, DIG-13.7
DIG-563	Update diguy install to use MAK SharedData.	The DI-Guy installer no longer requires that you install a DI-Guy data package in the same directory. The DI-Guy installation now uses the appropriate MAK ONE ./SharedData directory. For more information, see the DI-Guy Getting Started User Guide.	DIG-IPB20, DIG-13.8
DIG-857	Add UI for turning on Tracy in ME	Added a check box for enabling Tracy in the DI-Guy Extras tool of the Motion Editor.	DIG-IPB20, DIG-13.8
DIG-882	Add action info panel above 3D view and turn off in-scene billboard.	In the Motion Editor, the in-scene action info display is now positioned above the 3D view, making it easier to see.	DIG-IPB20, DIG-13.8
DIG-991	Update CV network connections dialog to support HLA 4.	The DI-Guy Character Viewer supports the HLA 4 (IEEE 1516_2025) protocol.	DIG-13.8

Known Problems

For information about resolving issues with running DI-Guy applications, see "[Troubleshooting Display Issues](#)" in the *DI-Guy Getting Started User Guide*.

Problems can arise with any product. MAK has a knowledge base of the problems that we know about, which is always changing as new problems are identified and new solutions are found. To learn how to address known problems with DI-Guy and other MAK ONE products, access the MAK ONE Product Support Knowledge Base: <https://www.mak.com/knowledge>.

If the problem you are experiencing is not addressed in the knowledge base, please contact your MAK distributor or use the [Support Portal](#) at <https://www.mak.com/mak-one/support/portal>.