

# What's new in Vicon Shogun 1.2?

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## About Shogun 1.2

Shogun 1.2 is the second point release of Vicon's entertainment market software.

It includes significant updates such as the introduction of custom skeleton solving, enabling game or film rigs to be driven and streamed directly in game engines; and support for SDI video cameras.

For a more detailed description, see New features in Vicon Shogun 1.2 on page 4 or watch the videos in the playlist *Shogun 1.2 - New Features*, available on YouTube.

**V** The Shogun 1.2 videos are also available on Vimeo.

This release also benefits from ongoing maintenance, with a large number of issues having been addressed (see Addressed issues in Vicon Shogun 1.2 on page 18).

For information on requirements for installing and running Shogun, see PC requirements in *Installing and licensing Vicon Shogun*, visit the FAQ, 'What is the recommended computer specification to run my Vicon Shogun system' on the Vicon website, or contact Vicon Support.



# About this guide

This guide describes the new features in Vicon Shogun 1.2.

The following documentation is available with Shogun, both as online documentation and as PDFs that you can download from docs.vicon.com:

Document	Description
What's New in Vicon Shogun	Describes new features in the latest release.
Installing and licensing Vicon Shogun	Installation and licensing instructions.
Getting started with Vicon Shogun	Provides an end-to-end workflow overview, and initial capture steps.
Getting more from Vicon Shogun	More advanced information to help you to take your use of Shogun further, for example, to add your own customizations, or to automate capture.
Vicon Shogun Scripting Guide	Scripting guidelines and commands.

For more documentation related to Shogun and other Vicon products, visit docs.vicon. com.



# New features in Vicon Shogun 1.2

For descriptions of the new features in this release of Shogun, see the following topics:

- Shogun 1.2.1 new features on page 5
  - Create and calibrate a subject from the Shogun Live API on page 5
- Shogun 1.2 new features on page 6
  - Custom skeleton solving on page 6
  - Reload subjects in Shogun Live on page 6
  - Batch update subjects on page 7
  - Work with custom props in Shogun Live on page 7
  - Support for SDI video cameras on page 8
  - Specify folders for subjects and props on page 9
  - View unlabeled markers in Data health view on page 10
  - Process in real time in Shogun Live on page 11
  - Improvements to MCP review on page 12
  - Display camera rays in the 3D workspace on page 14
  - New options for batch processing video on page 15
  - Quickly select all child objects on page 15
  - Improved usability of up axis on page 15



## Shogun 1.2.1 new features

## Create and calibrate a subject from the Shogun Live API

You can now run the following operations directly from the Shogun Live API:

- Set name
- Set labeling template
- Set solving template
- Set skin
- Create Subject / Cancel
- Recalibrate Subject / Cancel

For more information, see the Vicon Shogun Live API documentation.



## Shogun 1.2 new features

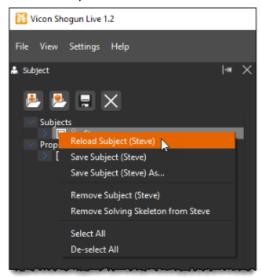
### Custom skeleton solving

You can now create custom skeletons with meshes in Shogun Post. You can then load these custom skeletons into Shogun Live and use them as part of the capture pipeline, including recording to .mcp files. This enables you to drive and stream game or film rigs directly in engines like Unreal, Unity and Motionbuilder.

For more detailed information, see Customizing subjects in *Getting more from Vicon Shogun*.

### Reload subjects in Shogun Live

You can now modify a subject's Solving setup in Shogun Post and reimport an updated subject in Shogun Live by selecting the subject in Live, right-clicking, and then clicking Reload Subject.

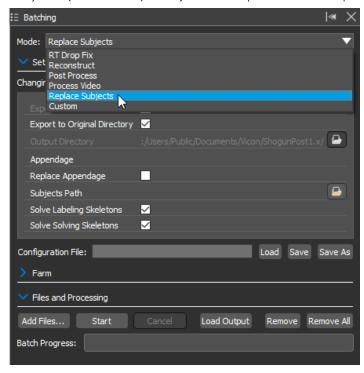




#### Batch update subjects

You can now quickly update subjects in multiple MCP files.

A new feature in Shogun Post enables you to use the Batching panel to replace subjects (VSS or VSK) that you have updated in multiple MCP files.



To specify the location of the updated subject files, in the **Settings** section, click the browse button at the end of the **Subjects path** field.

You can also perform this task by selecting the new ReplaceSubjects pipeline from the Pipelines panel, or by using the new replaceSubjects HSL command.

### Work with custom props in Shogun Live

You can now add custom prop meshes in Shogun Live and manipulate the prop during a shoot. These updates are seen instantaneously in engine, so that you can correctly position props and virtual cameras.

For more information, see Work with custom props and meshes in *Getting more from Vicon Shogun*.



## Support for SDI video cameras

With Shogun 1.2, you can include up to two SDI video cameras in your Vicon Shogun system.





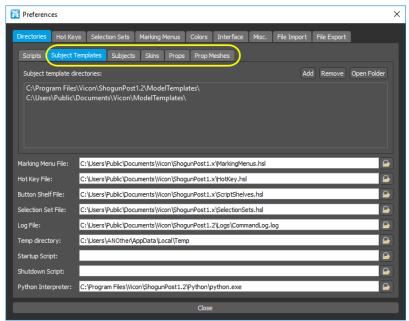
When you have calibrated the SDI video cameras, you can overlay the motion capture data and check the solve against the video. You can also export the calibrated cameras with the image sequence directly into Autodesk® Maya® software as an FBX file.

Blackmagic cameras and capture cards are currently supported. For system setup information and hardware recommendations and tips, see Setting up SDI video in Vicon Shogun Live in *Getting more from Vicon Shogun*.



## Specify folders for subjects and props

In Shogun Post, you can now define folders for subject templates (VST or VSS files), subjects, skins, props and prop meshes. You do this in the Preferences dialog box.



In a similar way to the Scripts tab, the default folders are listed at the top of the tab.

For more information, see Specify folders in Shogun Post in *Getting more from Vicon Shogun*.



### View unlabeled markers in Data health view

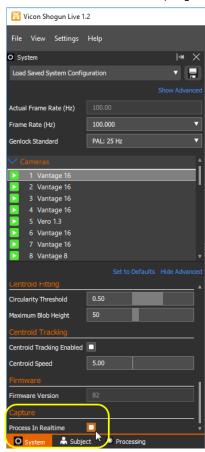
A new Shogun Post option in the Data Health view enables you to view unlabeled markers.





## Process in real time in Shogun Live

An Advanced option in Shogun Live enables you to choose whether to include selected cameras in real-time reconstruction. You can use this option to exclude cameras from reconstruction, while keeping them in the captured X2D and 2D workspace.





#### A Important

Remember that if you use this feature to exclude cameras, their data will not be present in the resulting MCP file. To include the data from excluded cameras, you must instead reprocess from the X2D file.



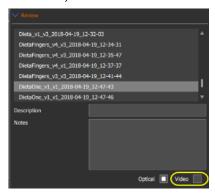
### Improvements to MCP review

MCP review now includes the following improvements:

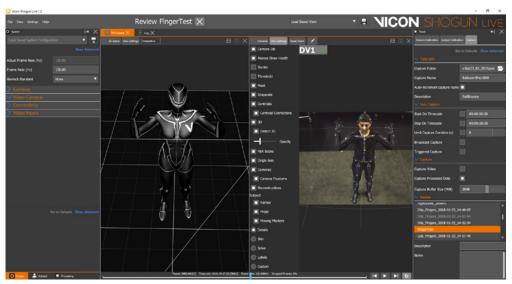
#### Review Vicon Video and SDI video files

You can now check your reference footage against what was captured, including any overlay of the 3D mesh. To do this:

- 1. Load an .mcp file with video data into MCP review (see MCP review in Shogun Live in Getting more from Vicon Shogun).
- 2. On the Capture tab, in the Review section, select Video. (Note that this option is cleared by default, as performance may be affected in files with multiple video cameras.)



3. Play or scrub through the review of the take, which includes data from Vue or SDI video cameras.





#### Review raw camera data

You can now check raw data for captured takes. This can be useful when troubleshooting or investigating possible issues. To do this:

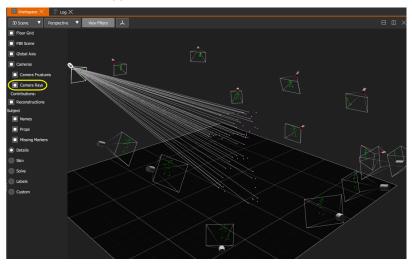
- 1. Load an .mcp file into MCP review (see MCP review in Shogun Live).
- 2. Ensure the View Filters are set as required.
- 3. Play or scrub through the take and review the raw data as required.



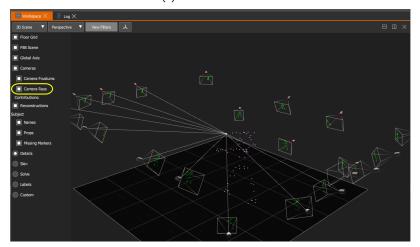
## Display camera rays in the 3D workspace

A new View Filters option now enables you to visualize camera rays in the following ways:

If one or more cameras is selected, this option displays lines to everything the selected camera(s) can see.



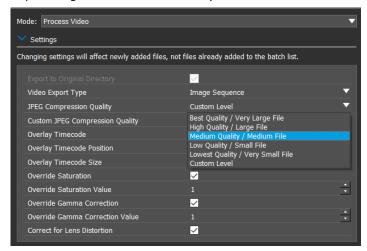
If one or more markers is selected, this option draws lines from all cameras that can see the selected marker(s).





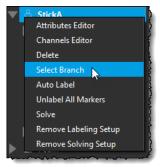
#### New options for batch processing video

New options for batch processing video (.vvid) files include the ability to export as image sequence, a new quality drop down, the ability to overlay timecode, the ability to adjust brightness, and the ability to correct for lens distortion.



## Quickly select all child objects

In Shogun Post, you can now use an object's context menu (right-click or ALT+right-click) and then click **Select Branch** to select all its child objects.



## Improved usability of up axis

In Shogun, you no longer have to specify whether your scene is Y- or Z-Up. You can choose the up axis during export from Shogun Post, or if you are streaming data, for example, into MotionBuilder or Unreal, the Vicon plugin gives you the option to choose the axis or sets it for you.



## Known issues in Vicon Shogun

The following issues are known to exist in Vicon Shogun 1.2:

#### Description

## You have installed prerelease version(s) of Shogun 1.2 and after installing 1.2, pressing the space bar no longer displays the marking menu, or other hot keys don't work in the way you expect.

#### Workaround

As the first workaround preserves any hot keys that are currently defined, try that first, and if that doesn't work, use the second workaround.

 Open the Preferences (General > Preferences) and on the Hot Keys tab, redefine the hot keys as required. For example, to set the space bar to show the marking menu, in the Command/Script column, scroll to showMarkingMenu and click to select it, then in the Hot Key column, double-click to display the Set Hot Key dialog box, press the space bar and click OK.

Or

2. Enable Post to recreate the 1.2 default hot key assignments. To do this, in the *ShogunPost1.x* folder, delete or rename *HotKey.hsl* and restart Post.

The Post solving calibrator may produce different results from those produced from the same data in Live.

To produce results that are consistent with Live, re-run Solve Solving.



#### Description

#### Workaround

In Shogun Post, occlusion fixing across a range is disabled. Occlusion fixing must only be run once on the whole take. If occlusion fixing was turned on during capture in Shogun Live (the default setting) and there are issues with your data, Vicon recommends that you restore the data to its non occlusion-fixed state using the Restore feature in the Marker Editing panel. Then fix any marker issues like swaps or mislabels before re-running occlusion fixing on the whole take by selecting the required option in the Processing panel.

For information on fixing marker issues, see the Vicon videos: 5 - Shogun Post - Labeling Data and 6 - Shogun Post - Marker Editing.

Graphics compatibility mode shortcuts are missing from the Windows Start menu.

You can still run Shogun in graphics compatibility mode by using the appropriate command line flag:

--force-gles

(You may want to use graphics compatibility mode if the machine on which you need to run Shogun does not have a dedicated GPU.)



# Addressed issues in Vicon Shogun 1.2

Vicon Shogun 1.2 resolves a number of issues, including the selection listed here.

- Issues addressed in Shogun 1.2.1 on page 19
- Issues addressed in Shogun 1.2 on page 20



## Issues addressed in Shogun 1.2.1

#### Shogun Live

- Capture now completes even after data discontinuity.
- I You can stop capture after data discontinuity.
- During subject calibration, you can no longer click Accept T-pose without a T-pose being found.
- Subject calibration now has improved booting with shoulder markers.
- Shogun GUI now updates when using the API.
- Clusters are now added and maintained during subject calibration.

#### Shogun Post

- Multi-person FBX now imports into Motionbuilder correctly.
- Camera ray contributions appear over the grid.
- Calibration of multiple actors now takes clusters into account.
- You can now toggle Label cursor text.
- I You can now set hotkeys via the number pad.
- I Timebar selection has been improved.
- Solving using batching no longer hangs.
- Marker size slider now increments correctly.
- Bonita VVID files now un-distort correctly.
- Deleting objects in the selection tree no longer closes the list.
- You can now modify selected attributes including primary selection.
- FBX files are now converted to face Z forwards.



## Issues addressed in Shogun 1.2

#### Shogun Live and Post

- Improved finger solving using new subject models.
- Workspace axis is larger and off to the side.
- Origin is clearly marked on the grid.
- Aligned workspace menu in Live and Post.

#### Shogun Live

- Canceled takes no longer appear in MCP Review.
- Improved alias folder management.
- Improved booting during subject calibration.

#### Shogun Post

- Exporting subjects to a folder now only requires one click and defaults to subjects folder.
- Removed **Keep existing labels** dialog when removing a subject.
- Added a warning window when modifying joint lengths in Post.
- Added option to remove single frame trajectories from MCP files.
- ExportFBX.hsl no longer has the wrong defaults.



# Further resources for Vicon Shogun

You can access further help on using Vicon Shogun from the following resources.

- Vicon Shogun videos on page 22
- Contact Vicon on page 23



# Vicon Shogun videos

You can watch videos that walk you through all aspects of using Shogun on:

- Vicon Shogun playlist on YouTube (all Shogun videos)
  or Vicon Shogun Live tutorials playlist on YouTube (Shogun Live tutorial videos only)
  or Vicon Shogun Post tutorials playlist on YouTube (Shogun Post tutorial videos only)
- Vicon Shogun channel on Vimeo, beginning with 1 Shogun Live Introduction.



## Contact Vicon

If you need more information than that supplied in the documentation or on the Vicon Support web pages, please contact Vicon:

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