

BuildIT 2016.5 Release Notes

Installation Notes

In order to install all the associated drivers properly, right-click on the setup file and select “Run as administrator”.

This installation does not overwrite installations of previous versions. You may continue to use any previous version alongside this one.

Contact us if you have any questions regarding versions and licensing.

System requirements

	Minimum	Recommended
Processor	Intel Pentium 4 or equivalent	Intel Core i7 or equivalent
Operating system	Windows 7	Windows 7, 64-bit
Memory (RAM)	512MB	16GB
Disk space	1GB free for program files	250GB or more
Graphics card *	512MB OpenGL 2.0 (released in 2005)	nVIDIAQuadro (preferred) or AMD FirePro

We recommend updating the video driver to the most recent released version from the manufacturer website.

Windows XP and Vista

This release of BuildIT does not support Windows XP or Windows Vista as an operating platform. This is in line with Microsoft's decision to discontinue support for the platform starting April 2014.

You may use BuildIT 2014 SP3 on XP and BuildIT 2014.5 SP4 on Vista for as long as you like and support will be provided, as per your support contract and compatible service packs (SP) may be released to address specific issues, but there will be no version upgrades to support this platform.

Enhancements and Problem Fixes

2016.5 SP3

Enhancements

BITS-3696 Add support for FARO Array Imager (Cobalt)

Problem Fixes

BITS-3859 Fixed an issue with needle annotations on curve analyses not being created on the selected needle

2016.5 SP2

Enhancements

BITS-3750 Updated CATIA V5 model export to no longer generate hybrid bodies

Problem Fixes

- BITS-3777 Fixed an issue in deviation analysis reports with an incorrect negative tolerance value for pass/fail analyses
- BITS-3708 Fixed an issue in needle annotations where the creation was not restricted to the active analysis
- BITS-3793 Fixed an issue which incorrectly-imported un-equally disposed surface profile tolerances in large models
- BITS-3798 Fixed an issue with Record Level Plane using Leica EMSCON trackers where the orientation was incorrect
- BITS-3720 Fixed an issue in alignments reports where the order of points was inconsistent
- BITS-3907 Fixed an issue when connecting to a laser tracker in a process where the IP address was not taken into account

2016.5 SP1

Enhancements

- BITS-2874 Added support for FARO Cobalt 3D Imager. (Beta)
- BITS-3432 Significantly improved down sampling performance for distance based cloud reduction.
- BITS-3562 Included the Leica AT930/960 redistributables in the installer.
- BITS-3435 Enabled merging half cylinders whose parameters differ at the sub-micron level.
- BITS-3460 Added support for (U) modifier on GD&T surface profile tolerance when importing CATIA models with FTA.
- BITS-3473 Completed the improvement for the Auto-Associate command.
- BITS-3570 Updated Leica AT960 / AT930 SDK (v1.3).
- BITS-3594 Allowed muting Leica AT402 connection error messages to be non-blocking during playback.
- BITS-3647 Updated the Planes tangent to 2 cylinders process to have multiple cylinders as input.

Problem Fixes

- BITS-3446 Fixed a crash with Circle Deviation Analysis when points are rectangle-selected in the viewport.
- BITS-3477 Fixed an issue where importing a IMW file did not recall the alignment of the devices.
- BITS-3485 Fixed an issue where a DRF Alignment of A(Plane)-B(Cylinder)-C(Plane) gave wrong results.
- BITS-3508 Fixed an issue where Actual CS associations to measurements disappeared after aligning its device.
- BITS-3520 Fixed a crash when trying to save a process with an empty variable.
- BITS-3539 Fixed an issue where Point Inspection Annotation to Actual Points gave wrong values.
- BITS-3544 Fixed a crash when importing a file with Japanese characters in its pathname.
- BITS-3555 Fixed break out of loop on error functionality for process operations.
- BITS-3600 Fixed a crash that occurred with Select All Annotations in the 3D view's contextual menu.
- BITS-3638 Enabled creating slot features with surfaces that do not line up perfectly with one another.

2016.5

Enhancements

- BITS-119 Replaced positive/negative tolerances with upper/lower tolerances.
- BITS-147 Added auto-complete functionality for variables in the Process Editor.
- BITS-159 Added a new flag "In Active CS" for Coordinates and Vectors (components) in processes.
- BITS-183 Modified rectangular positional tolerances to report the deviation only along a single vector.
- BITS-199 Implemented GD&T support for Groove/Tab/Slot features.
- BITS-204 Added Find and Replace in the Process Editor.
- BITS-291 Improved the Zoom to target option by making the view perpendicular to the target.
- BITS-295 Improved cloud scanning by making the Viewport follow the scanner's orientation while measuring.
- BITS-308 Added support for the straightness tolerance.
- BITS-551 Enabled emScon probe list prior to connection.
- BITS-1159 Enabled multi-selection of lines in Construct: Point: Line-Surface intersection.
- BITS-1717 Improved Status bar so that rolling over a cloud provides the point index and coordinates in addition to the cloud name.
- BITS-1822 Added mesh compatibility to surface deviation analyses.
- BITS-2025 Improved battery status icon in device brokers.
- BITS-2093 Added the ability to drag and drop files from supported CAD formats.
- BITS-2117 Improved surface point grid by allowing using a 3D density parameter rather than UV quantities.
- BITS-2231 Added different methods of determining plane boundaries for Record Plane and Construct Plane Fit.
- BITS-2241 Improved indentations in features' frameboxes.
- BITS-2308 Enabled dissolving single-child groups when importing models.
- BITS-2453 Added support for axis suppression for all geometry types in Best-Fit alignment command.
- BITS-2484 Added multi-touch capability for view manipulation.
- BITS-2537 Added the enclosed volume in the mesh properties.
- BITS-2553 Added the ability to Compute and Restore alignment from DRF entity in Manager.

- BITS-2564 Added a filter to inspect Cylinder axes in Inspect Geometry.
- BITS-2628 Added automation for entity-based reporting.
- BITS-2654 Added annotations, circle analyses and paraboloid to entity-based reporting.
- BITS-2655 Added support for the FARO Scene file format (FLS).
- BITS-2669 Added the ability to import mesh vertices as measured points.
- BITS-2678 Added a new command for mesh smoothing.
- BITS-2704 Fixed an issue where object picking did not work if it was obstructed by an object that was not allowed by the filters.
- BITS-2826 Added Cylinders and Cones to Curve inspection annotations.
- BITS-2833 Added support for variable substitution for tolerances in Distance Report command.
- BITS-2840 Linked the Help (?) button in processes to the "Overview of BuildIT Processes" page.
- BITS-2850 Removed "Treat deviations as absolute" from surface deviation analyses and reviewed histograms.
- BITS-2868 Added support for including external files in reports.
- BITS-2888 Added the option to display the content of the Note tab in reports.
- BITS-2934 Added the ability to play a process while recording a process.
- BITS-2935 Improved Construct Actual Geometry option to fit secondary and tertiary datums while constrained with other datums.
- BITS-2936 Improved Datum Based Alignment to fit plane features by mating envelope (3 highest points).
- BITS-2937 Added the ability to select geometry directly in for Distance tolerances.
- BITS-2956 Improved recalling predefined views by preserving projection type (perspective/orthogonal).
- BITS-2979 Added new device interface: Nikon arm.
- BITS-3002 Added support for pop-up message boxes in processes (an extension to Display Message).
- BITS-3045 Restored the list of custom views in the Views toolbar.
- BITS-3070 Improved Saved Views so that they apply their settings to objects created after being saved.
- BITS-3071 Added the ability to save the position and visibility of annotations with saved views.
- BITS-3074 Added the ability to evaluate a feature cylinder as a circle when measured points are coplanar.
- BITS-3103 Improved the point selection panel in Delete Points in cloud and Extract Surfaces.
- BITS-3141 Added the ability to create datums with longer strings and numbers.
- BITS-3171 Set the Open process browser in process editor to start at the current process' location.
- BITS-3176 When aligning, warnings for losing unsaved alignments from multiple devices are combined into a single message.
- BITS-3190 Reorganized Evaluate menu to bring analyses and annotations to the main level.
- BITS-3207 Improved the feedback for Inspect Fit Points with Auto Alignments.
- BITS-3230 Added persistence for Bundling Registration command's Points filter.
- BITS-3238 Added an option to create inspection annotations in GD&T Analysis.
- BITS-3243 Updated Point Inspection Annotations when using XYZ toleranced points.
- BITS-3289 Added new report formats for Standard CSV and custom forms in Excel and PowerPoint.
- BITS-3308 Improved number of decimal places for composite tolerances imported from CATIA FTA.
- BITS-3310 Added a Margin parameter to the Construct: Line: Fit command.

- BITS-3316 Improved Bundling Registration by creating bundled points as associated Actual points.
- BITS-3377 Re-introduced Curve Deviation Analysis needle contour lines.
- BITS-3389 Added the IP Address parameter to the Device_Connect automation step.
- BITS-3472 Updated the entity-based blueprint format so that a border is also drawn on the first page.

Problem Fixes

- BITS-1398 Fixed an issue when opening a model where a curve's width was not correctly applied.
- BITS-1570 Fixed an issue with Leica emScon trackers where the weather info was not updated immediately after connection.
- BITS-1653 Fixed an issue where the Cut command did not clear the selection when cancelling.
- BITS-2317 Disabled performing Surface Deviation Analysis twice in a row with the middle mouse button.
- BITS-2425 Fixed an issue where the vector direction preview did not update when switching between different vector panels.
- BITS-2608 Fixed an issue where the actual value for distance tolerances was blurry in the viewport.
- BITS-2667 Fixed an issue when trying to move annotations and they would move unexpectedly far to the right.
- BITS-2755 Fixed an issue when saving a model while an analysis was being previewed would corrupt the file.
- BITS-2774 Fixed an issue in automation where File New while recording would flush the current process.
- BITS-2849 Fixed some issues with the Sentinel Driver installation.
- BITS-2880 Fixed an issue in the Manager where the Rename option from the contextual menu did not always work.
- BITS-2882 Fixed an issue in Inspect Targets where negative out-of-tolerance annotations were not always displayed in red.
- BITS-2894 Fixed an issue when importing a BuildIT model in a specific CS with Actual geometry associated to measurements where the geometry would be transformed twice.
- BITS-2941 Fixed an issue where feedback was missing when attempting to create an illegal DRF with a process.
- BITS-2973 Fixed an issue where color patch size options did not work after switching back from User Defined.
- BITS-2992 Fixed an issue in Inspect Geometry where the Build Arrow settings for curves were also being used for surfaces.
- BITS-2994 Fixed an issue caused when fitting a cone with Minimum Zone fitting option.
- BITS-2999 Added an error message for when Export DML was not successful.
- BITS-3000 Fixed an issue in Construct: Cone: Fit where in some cases a sub-optimal solution was returned.
- BITS-3031 Fixed an issue in the Manager where a double-click on an object would work if it was previously selected.
- BITS-3033 Fixed an issue that prevented picking points using their labels when it was over a surface.
- BITS-3038 Fixed the rounding display error in some GD&T commands panels.
- BITS-3042 Fixed an issue in the Zoom Window where it stayed active after use.
- BITS-3056 Fixed an issue where actual value digits were not part of the tolerance's picking area.
- BITS-3058 Fixed an issue where outer and inner limits both got overwritten when switching "Analysis type".
- BITS-3061 Fixed an issue in Inspect Sphere Point automation where the measurement name was not recorded correctly.
- BITS-3062 Fixed an issue in the new reports where the output was almost empty when all job information was removed.
- BITS-3066 Fixed an issue in Inspect 2D/3D Hole automation where the auto triggering and accepting options were not always obeyed.
- BITS-3090 Fixed an issue in Construct: Cylinder: Fit where some points were incorrectly rejected when specifying the

radius.

- BITS-3107 Fixed an issue in Record Sphere automation where the Specify Radius parameter was not recorded properly.
- BITS-3112 Fixed an issue in the new reports when the model or report name contained illegal characters for a file name.
- BITS-3114 Fixed the link to Online Help in Best-Fit Alignment command.
- BITS-3143 Fixed an issue in deviation analyses where the upper tolerance value was not labeled in the histogram.
- BITS-3156 Fixed an issue in Delete Points in Cloud and Extract Surface where the preview of the selection was difficult to see.
- BITS-3185 Fixed an issue in GD&T evaluation of diameter using local sections only (no envelope) when the actual axis was heavily curved.
- BITS-3197 Fixed an issue in automation where Aim commands using a Leica AT960 tracker were not recorded.
- BITS-3224 Fixed an issue in the Curve Deviation Analysis where editing an analysis would give an incorrect scale after preview.
- BITS-3272 Fixed an issue where Inspect Fit Points did not auto-update when using "Find all points".
- BITS-3315 Fixed an issue where a cloud's bounding box was not updated after being split.
- BITS-3358 Fixed an issue where a 3-plane GD&T alignment didn't have two points of contact with the secondary datum.
- BITS-3359 Fixed an issue where Surface Profile gave sub-optimal results when its DRF was hypostatic or had a modifier.
- BITS-3363 Fixed an issue where Construct Fit commands did not create Nominal geometries although the input points were Nominal.
- BITS-3371 Fixed a crash caused by deleting a group in the object manager.
- BITS-3392 Fixed an issue where the Auto-Associate command did not use the specified "Exclude points farther than" value.
- BITS-3394 Removed redundant warning message when creating a distance tolerance from two non-parallel planes.
- BITS-3396 Fixed an issue in Surface Deviation analysis where the patch color sometimes did not correspond to the color bar.
- BITS-3400 Fixed an issue where Construct Fit Plane 3-highest-points returned bad results when RMS deviation was low.
- BITS-3404 Fixed a crash in some commands caused by a missing initialization in coordinates panels.