# **Update Enhancement List**

# Improvements made in Update 2 build (20110916\_2132):

### Autodesk® Revit® MEP 2012 Enhancements

- Improves stability when routing ducts which utilize an elbow or takeoff to complete the run.
- Improves stability when dragging a Panel Schedule into a sheet.
- Corrects the classification of embedded windows within a curtain wall contained within a linked file which is used as the boundary to create spaces.
- Improves the regeneration time of Ducts after applying a Visibility/Graphics Override.
- Improves stability when creating a new zone in the zone editor and specifying an already existing name in the properties palette.
- Improves performance when adding an air terminal to a system.
- Retains System Type when coping elements from one project to another.
- Retains pipe and fitting connections when moving piping layout to another level.
- Improves the display of duct with insulation and lining for hidden line views when contained within a linked file.
- Improves display of insulation on segments when viewed in ceiling plans.
- Maintains the type parameter values for panel schedules viewed on a sheet.
- Maintains circuits when upgrading Revit MEP 2011 projects in Revit MEP 2012.

### Autodesk® Revit® Platform 2012 Enhancements

- Improves stability when switching the visibility setting of linked file from By Linked View to By Host View.
- Corrects Ambient Shadow on objects which are contained within a mirrored linked file.
- Improves the import of IFC files which contain overlapping walls.
- Improves stability when exporting a project to DXF which contains a dimension style that is referenced more than 255 times within the project.
- Corrects the resolution of the background image when calculating offset and scale.
- Corrects duplicate column creation when using Create columns by Grid when some columns are already created on the grid.
- Improves stability when setting a view to Realistic display mode.
- Improves stability when navigating in 3D view after canceling a Print operation.
- Corrects silhouette display for perspective views in projects with linked files.
- Corrects the angle of Photometric Web based light sources when exported to FBX.
- Retains the original IES files when exporting to FBX.
- Reduces the scenarios where element IDs may become remapped or removed when Synchronizing to Central.
- Improves stability when removing layers from floors, roofs and walls.
- Corrects gbXML export of curtain walls where window openings were classified as air opening when using simple complexity mode.
- Improves stability when accessing Help.

- Corrects mapping of Cable Tray, Cable Tray Fittings, Conduit and Conduit Fittings when exported to IFC.
- Improves the consistency of beams being unique objects when exported to IFC.
- Improves the placement of slabs when exported to IFC.
- Improves the creation of beams, such as length, when imported from IFC.
- Disables switching to 3D view if current view only is set when exporting to IFC.
- Enables the export of filled regions to IFC.
- Enables mass based curtain panels and mullions to be individual elements when exported to IFC.
- Enables Structural Columns to be exported to IFC.
- Allows elements hidden by category to be ignored when project is exported to IFC.
- Enables Unicode support for both Import and Export of families.
- Changes setting for "Export views on sheets and links as external references" to be enabled when exporting to DGN.
- Allows exporting to DWFx if the view is blank.
- Improves stability when exporting to DWG.
- Improves the export of custom wall hatch patterns to DWG.
- Improves stability after displaying a warning message.
- Enables the use of Family Parameter when using the Material Browser Paint tool.
- Improves stability when modifying part assemblies.
- Improves stability when working within the Phases dialog.
- Improves placement of linked point clouds based upon their origin.
- Improves stability when printing to PDF in batch mode.
- Improves stability when saving a family into the same folder as the type catalog.
- Improves stability when upgrading projects.
- Improves stability when setting a workset from Editable to non-Editable.

# Autodesk® Revit® 2012 API Enhancements

- Corrects the sheet size calculation when exporting to one sheet to DWFx.
- Improves stability during Reload Latest/Sync to Central when the document is not allowed to be modified.
- Retains schemas during Sync to Central and allows central file to remain correct.
- Reduces file corruption introduced by extensible storage.

## Improvements made in Update 1 build (20110622\_0930):

### Autodesk® Revit® MEP 2012 Enhancements

- Improves connection consistency when connecting flex pipe to a family with multiple pipe connectors.
- Enhances the support of Phasing when changing type, slope or justification of segments.
- Improves inner diameter accuracy after changing pipe type.



- Improves connection behavior between cap and tee after updating fitting size.
- Improves the text behavior of the header for the phase load columns within a panel schedule.
- Improves family instance behavior when changing a family which does not have the same number of connectors.
- Improves the use of the starting object's Duct Type when routing duct from an equipment object.
- Improves the conversion of an entire placeholder pipe system.
- Improves the placement and orientation, based upon connect duct, when inserting Side Wall
  diffusers.
- Improves connection consistency between transition and cross when the duct run is resized.
- Enhances display of the annotation representation for pipe accessories when connected to flanges.
- Corrects the removal of pipe fittings when routing within an Elevation or Section view.
- Enables insulation and lining values on Duct and Pipe to be exported to IFC format.
- Corrects the updating of the System Browser after modifying space and room information.
- Improves the use of Revit MEP families within groups.
- Improves performance when selecting equipment.
- Improves the placement of cross fittings into slope pipe.
- Improves display of pipes after connecting another pipe to a tee.
- Improves consistency of routing vertical segments within 3D views.
- Improves connectivity between sloped pipe and fittings when moving the connected fittings.
- Improves consistency of extending sloped pipe when using the length grip.
- Improves cable tray orientation when extending in a vertical direction.
- Improves stability when inserting accessories.
- Improves justification consistency while routing duct.
- Places copied Spaces into the default Zone instead of the Zone associated to the originating Space.
- Enhances the detection of upper bounding floor or roof to spaces within a link file when exporting to gbXML or within the Heating or Cooling Loads dialog.
- Allows conductors on wires to have a value of 0.
- Improves stability when routing pipe and choosing to Ignore Slope when selecting to a fixture.
- Improves the consistency of the Voltage Drop and Wire Size values.

Note: To update the calculation results project wide (without having to attempt to select one object on each circuit and update it) would be to change the Max Voltage Drop settings, click OK... the circuits will then be re-computed, then change the Max Voltage Drop setting back.

# Autodesk® Revit® Platform 2012 Enhancements

- Enables visibility of hidden elements from linked files when project is upgraded.
- Improves stability when using Create Similar to add a new railing.
- Improves stability when editing dimension location.
- Corrects the elevation value on Spot Elevations through linked files.
- Improves spacing consistency between the dimension text and leader line.
- Improves performance when working with perspective views.
- Improves hatch pattern display in split section or callout views.
- Improves the visibility of decals in Realistic Materials view mode and Renderings.
- Correctly updates door and window frame when the size of a window or door is modified.



- Improves stability when changing Phase while using the Trim/Extend Multiple Elements tool.
- Improves stability when loading a mass family into a blank project.
- Improves stability when saving project.
- Improves consistency of filters (Views, Layers, etc.) after synchronizing with Central file.
- Improves stability when exporting view to Image when "create browsable web site ...." option is utilized.
- Improves consistency of Arc Length dimensions when exported to DWG format.
- Improves placement of view geometry within exported DWG to limit overlapping geometry.
- Improves stability when exporting a family to SAT format.
- Improves consistency of family parameter behavior for In-place Families.
- Improves stability when creating mass floors from hemisphere shaped mass.
- Ensures that only unused materials will be deleted by the command "purge unused".
- Improves stability while working within the Materials dialog.
- Improves placement of multiple Point Clouds into a single project.
- Improves color assignment to point clouds when imported into a project.
- Improves stability while using Print Preview.
- Improves stability when renaming sheets within the Project Browser.
- Improves performance when regenerating walls.
- Improves consistency of the model view regeneration after changing settings in the Render dialog.
- Improves stability when editing a Topo Surface.
- Improves stability when opening the preview pane while editing a building pad.
- Improves stability when creating a duplicate view.
- Improves performance when changing location of stacked walls.
- Improves accuracy of parts scheduled in multi-category material takeoffs.

### Autodesk® Revit® 2012 API Enhancements

- Corrects an issue where Revit file corruption occurs if Extensible Storage is added to the model and a second schema is instantiated.
- Corrects an issue where extensible storage added to an element type prevented that item from being transferred via Transfer Project Standards.
- Corrects an issue where Analysis Visualization Framework entities attached to structural analytical model element references didn't properly display.
- Enables overload for AnalysisDisplayColorSettings.GetIntermediateColors() which returns the desired color settings.
- Enables the method Document.Import(string, string, DWGImportOptions) to work for DXF files as well.
- Corrects an issue where parameters added to families via the API would not accept negative values.
- Corrects an issue where NewRoom(Room, PlanCircuit) failed due to inproper validation.
- Corrects instability where access to geometry objects would sometimes fail due to memory errors.
   For certain operations where a top-level GeometryElement was returned to an application, which extracted geometry from it, the top-level GeometryElement could be garbage collected prematurely



- while the application was still using some of the extracted geometry. The fix ensures that the garbage collector knows of the relationship among the different geometry objects.
- Corrects instability caused by invocation of the DocumentOpened event when worksets were accessed in the central file. The fix prevents the events from being raised in these situations, which are not true instances of documents being opened in the local session of Revit.
- Corrects documentation for FamilyInstance.FromRoom and ToRoom. These properties access the values similar to what is seen in schedules, and may be modified at will by the user. The previous documentation implied that the values were a result of geometric analysis of the rooms the doors or windows are adjacent to.
- Corrects instability caused by calling PickObject() or similar methods while the MEP System Browser
  was active. Note that the root cause of the issue was the fact that the API commands were even
  enabled when the System Browser is active, and the behavior has been restored to the 2011
  behavior where API commands are disabled in this situation.
- Corrects an issue where NewElbowFitting(), NewTeeFitting() and some other MEP fitting creation methods would fail for connectors which were not in the same horizontal plane. The fix causes Revit to validate the geometry of the connectors are compatible in the correct manner.

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