

FEATURE	DESCRIPTION	ARCH	MEP	STRUCT
Align in 3D	<p>Align in 3D views in Project Environment: Customer can use the align tool (Found in the modify gallery) on vertical surfaces in 3D views. Examples include aligning the tops of walls with one another (and locking that relationship) or aligning surface patterns from adjacent walls to one another.</p> <p>Align in 3D views in Conceptual Design Environment: Customer can use the align tool (Found in the modify gallery) in a very robust way in the Conceptual Design Environment. Customer can align almost any element to another element and lock the relationship. Examples include: point, line, face, edge, vertex, ref plane, level - all and any of these can be aligned to one another.</p>	x	x	x
Cable Tray and Conduit Modeling	<p>Can create and modify cable tray/conduit and relevant fittings in plan/section/elevation/3D view.</p> <p>Can add cable tray surface or point connector and conduit connector in Family Editor.</p> <p>Can connect conduit to cable tray.</p> <p>Can connect conduit to an equipment anywhere surface with conduit/cable tray surface connector.</p> <p>Define bend concept for cable tray/conduit without fittings type.</p> <p>Can schedule cable tray/conduit, fittings and run.</p> <p>Variable radius bends for conduit/cable tray.</p> <p>Definable conduit materials with specified inside/outside diameters.</p> <p>Conduit Surface Connectors can be added to an equipment in the family editor. They seem to allow for an infinite amount of individual connectors along a surface, each placed in a sketch mode showing the conduit location in elevation. Option to select between Surface and Individual conduit connector types is found in the Options Bar. Connector will host to the center of the face.</p>		x	
Conceptual Design	<p>Accessed through the Massing families, subprojects are Divided Surface Improvements (Intersects), Form Element Improvements (dissolve, workplane viewer, form element sketch editing), and Adaptive Components.</p> <p>New Annotation category "Adaptive Points" to create components that need to adapt to unique conditions. Geometry is drawn by snapping to these points.</p>	x		
Convert Lines	Convert Model lines into Detail/Symbol lines, and vice-versa	x	x	x

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Copy/Monitor - MEP fixtures	Revit MEP now has enhanced copy-monitor features		x		
	Plumbing fixtures, air terminals, mechanical equipment and lighting fixtures may now be copy-monitored from a linked model		x		
	Fixtures may all be copied at once using the new Batch Copy functionality (only applies to MEP fixtures)			x	
	Fixtures from linked models may be mapped to host families or copied directly into the host project via the "Copy Original" setting				x
Display	Ambient Occlusion	x	x	x	
	Accessed via the Graphics Display Options Dialog box.	x	x	x	
	Only available when Hardware Acceleration is enabled.	x	x	x	
	Realistic View	x	x	x	
	Accessed via the Visual Styles button on the View Control Bar.	x	x	x	
	Elements that have material definitions assigned will display texture maps in real time.	x	x	x	
	Only available when Hardware Acceleration is enabled.	x	x	x	
	Consistent Colors View	x	x	x	
	Accessed via the Visual Styles button on the View Control Bar.	x	x	x	
	Displays faces of elements in flat color; faces of elements that are oriented at different angles to the camera will display in the same shaded color.	x	x	x	
Duct - Oval Duct	Flat Oval duct is now an option when creating duct within a project.		x		
	When upgrading projects Oval Duct will not be available until Project Standards are transferred from the 2011 template.		x		
DWG Export	In this release improvements have been made to the Export to DWG feature.	x	x	x	
	You should see increased visual fidelity when export Revit files to DWG.	x	x	x	
	Export option for True Color from Revit to DWG has been added.	x	x	x	
	Export option for Text treatment from Revit to DWG has been added.	x	x	x	

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Electrical - Panel Schedules and Demand Factors	Panel Schedule Template editing		x	
	Panel Schedule Views		x	
	Load Classifications:		x	
	Load Classification parameters may not display correctly when load are updated and LCs are added/removed.		x	
	Ability to add Spares and Spaces without adding a physical object to the circuit.		x	
First experience	Initial Opening Window:	x	x	x
	What's New? - This link will contain a list and brief descriptions of new features for Revit 2011.	x	x	x
	Videos - This page will include several dozen short videos about the product.	x	x	x
	Help Drop-Down Menu (Within the InfoCenter):	x	x	x
	What's New? - This link will contain a list and brief descriptions of new features for Revit 2011.	x	x	x
	Videos - This page will include several dozen short videos about the product.	x	x	x
	Documents on the Web - This link will point to the Revit 2011 documentation site, as well as include links for various languages and previous releases.	x	x	x
Guide Grids	Customers can display "Guide Grids" in Sheet Views only by going to the "View Tab", "Sheet Composition Panel", Guide Grid.	x	x	x
	There can be multiple types of Guide Grids with different grid spacing stored in the project and applied to Sheets via element properties of the Sheet.	x	x	x
	The Guide Grid can be used to align Views placed on sheets consistently. The Guide Grids can be snapped to Grid Lines, Levels, Ref Planes, View Ports.	x	x	x
HVAC - Heating and Cooling Loads	New setting for "Use Load Credits"...function is unclear.		x	
Keyboard Shortcuts	A new Keyboard Shortcut dialog facilitates the assignment and management of hot keys for most Revit tools and commands.	x	x	x
	New shortcuts are available immediately, without having to restart Revit.	x	x	x
	Access: Open the dialog by typing KS (its default shortcut) highlight the tool/command, then type up to 5 alphanumeric keys, press Assign and OK; or click AppMenu > Options > User Interface > Keyboard Shortcuts > Customize.	x	x	x

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Linked Files Tagging and Reference Management	<p>New functionality around interfacing with linked models includes:</p> <p>Tags may now be placed on elements in a linked model with the exception of areas, zones, spaces, keynotes, floor span symbols, path reinforcement span symbols, area reinforcement span symbols or the multi-tag beam annotations</p> <p>Tags and face based elements which have been hosted on elements of a linked model will now be flagged and collected in a new browser which may be accessed on the collaborate tab via the new "Reconcile Hosting" command.</p>	x	x	x
Linked Model Workset visibility and control	<p>Several enhancements to treatment of linked model have been implemented - These include:</p> <p>Linked Revit model viewed "By Host" will set the visibility of linked model worksets which share the same name as host model worksets to the visibility of the host model worksets in that view.</p> <p>In view Visibility Graphics under the Linked Revit Models tab, linked model worksets can be individually turned on or off</p> <p>Linked model worksets may now be opened or closed from the "Manage Links" dialog by selecting "Manage Worksets"</p>	x	x	x
Location	<p>The old "Manage Place and Locations" dialog is now called "Location Weather and Site"</p> <p>The former "Place" tab is now titled "Location", and contains a new map-based method of specifying a project's location, as well as the exiting list-based selection method.</p> <p>The former "Locations" tab is now titled "Site"; its functionality remains unchanged.</p>	x	x	x

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Parameters	<p>Reporting Parameters: Customer can now apply a "reporting parameter" to reference elements in family templates. Reference elements are walls in a wall hosted family template (such as door or window family) or default reference planes in family templates. Reporting Parameters are "read only" and can be used in formulas and displayed in schedules (if they are "shared parameters").</p> <p>UI Improvements and Defaults: Parameter Properties creation dialog has been organized to improve workflow. Default Parameter type is now set to Length. There is now a mapping between type of parameter and Grouping of parameter.</p> <p>Loose Labeled Dimensions: Improvements to in canvas workflows from Conceptual Design environment in 2010 are now in other Family categories in 2011. Customer can lock parameters in the types dialog. Customer can also drag geometry or references that are controlled by parameters without getting a "Constraints not Satisfied" error. The Family environment is easier to work in without having to enter the Family Types dialog as often.</p> <p>Editing Labeled Dimensions in Canvas: Customer can now click on a parameter (labeled dimension) and input a new value. This will save time by avoiding the family types dialog.</p>	x	x	x
Performance	<p>Model Open: a portion of model open is now executed in multiple threads. File must be already saved in latest format. Upgrade is not multi-threaded.</p> <p>View Open: time to open views has been reduced, especially large complex 3D views.</p> <p>Curtain Wall manipulations: changes to curtain walls that propagate to many elements have been improved.</p> <p>Sync with Central: Links should not trigger regeneration if they remain unchanged.</p>	x	x	x
Piping - Companion Flanges	<p>Flange content is not combined with other Fittings content, but instead can be found in:</p> <p>[Revit Path]\[library]\Pipe\Fittings\Gray Iron Flanges</p> <p>[Revit Path]\[library]\Pipe\Fittings\Steel Flanges</p>		x	x
Repeat Last Command	<p>Customers can now use the "Enter" key, or Right Click context menu to repeat the last command used.</p> <p>Customers can right click and view the last 5 commands used and then they can Repeat Recent Commands.</p>	x	x	x
Rendering	<p>Customer can specify Background Image for Rendering: The customer can now browse to an image file to display as a background in their rendering. There are various controls for sizing, fitting, and adjusting the image to the crop region of the view being rendered.</p> <p>Rendering engine now utilizes more than 4 cores</p>	x	x	x

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Select All Instances	Right-click menu now has two options for "Select All Instances": Visible in View In Entire Project	x	x	x
Sheet List	Creation of Placeholder Sheets: Customer can create a sheet list and add "Placeholder" sheets to represent consultant sheets that could not otherwise be displayed in the Revit file. The Placeholder sheets have the same editable parameters as normal sheets, but do not show up in the Project Browser. Turning Placeholder Sheets into Real Sheets: The Placeholder sheet functionality can also be used to create multiple sheets quickly. When making a new sheet using the "Sheet" command the list of Placeholder Sheets is displayed - these can be multi-selected and assigned a titleblock - thus creating many sheets at once.	x	x	x
Structural - Analysis	Several structural analysis enhancements have been implemented - These include: Horizontal projection from columns and beams Horizontal projection from the center of a wall core Vertical projection auto detect behavior of columns Vertical projection from beams Manual analytical adjustment of columns Rigid Links enhancements between Beams & Columns			x x x x x x x
Structural - Beam System	Several beam system enhancements have been implemented - These include: Specify Beam Direction with walls and beams Specify Beam Direction from an independent sketch line Remove the Beam System while retaining beam elements			x x x x
Structural - Concrete Join/Cleanup	Several concrete end joins and cleanup conditions have been improved for: Curved beam Variable beam profiles			x x x
Structural - Connection Symbol	Several connection symbol enhancements have been implemented - These include: Load new connection symbol families Load and manage connection symbol families More choices for connection symbols are allowed for structural columns and framings			x x x x

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Structural - Reinforcement	Several structural reinforcement enhancements have been implemented - These include: Reinforcement for Spiral Reinforcement project units Reinforcement of Slab Edges Configuring rebar sets Additional hook bend radius for rebar Concrete host cover reference has configurable object style Concrete host cover reference visibility Major spacing of area reinforcement in tags Reinforcement with spiral rebar			x x x x x x x x x x
Structural - Slanted Column	Several slanted column enhancements have been implemented - These include: Plan view placement Column end geometry position control when attached to a beam Cut column tangent to an attached structural floor Unattached column end cut appearance Beam join elevation on resized columns			x x x x x x
Structural - Truss	Several truss enhancements have been implemented - These include: Bottom chord attaches to structural floors and foundation slabs Sketch chords on attached trusses Remove the truss family while retaining beam elements			x x x x
Sun Path and Sun Settings	The existing "Sun and Shadow Settings" dialog is now titled "Sun Settings", and has been revised to work with the new Sun Path functionality. Sun Path can be turned on from the View Bar and in the Properties Palette (checkbox under "Graphics"). With SunPath visible, user can "grab" the Sun with their mouse and "move" it to a desired location. They may also enter a time and date in text boxes adjacent to the Sun and its Daily Path. The Sun's time and date can also still be set in the Sun Settings dialog.	x x x x	x x x x	

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Tags	<p>Tag on Placement is now enabled for most Categories of objects in MEP: The Tag on Placement functionality is a toggle button found in the ribbon when placing new elements (from Revit Architecture: Doors, Windows, and Rooms). Now Revit MEP allows Tag on Placement when placing Plumbing Fixtures, Conduit, Light Fixtures etc - If there is not a tag currently loaded for the object being placed - Revit will prompt you to load one with a dialog.</p> <p>User can re-locate a tag without restarting Tag by Category tool: On the Annotate Tab there is a tool called "Tag by Category". When tagging an element the customer now has the opportunity to move the new tag (by clicking on the cross hairs and dragging it). Moving the Tag does not exit the Tag by Category command - and user can continue tagging and adjusting Tag location if desired.</p>		x	
Tags - Custom Elevation	<p>User can create and customize Elevation Tags: Customers can edit their elevation tags in a manner similar to customizing section marks. There are two new annotation templates: an Elevation Body and an Elevation Pointer. The pointer family must be nested into the body family. Once the pointer is nested, it can be copied, rotated, and mirrored to represent the desired elevation tag. There is not a limit to the number of Elevation pointers that an elevation body can host.</p>	x	x	x
Temporary Dimension	<p>User Controlled Appearance of Temp Dims: Customer can now access and change the background of a temporary dimension (between transparent and opaque), as well.</p> <p>Edited References are Remembered: Customer can grab the blue grips defining what a temporary dimension is measuring and place them onto other more important references. This edit is then remembered the next time an object is selected and Temporary Dimensions are displayed. The system remembers these edits until the Revit document is closed.</p>	x	x	x
Text Enhancements	<p>Added the ability to create text notes with bullets and numbering (see new ribbon controls).</p> <p>Added the ability to specify leader attachment points on a text note (see new ribbon controls and instance properties).</p> <p>Added the ability to put a box around a text note (see type properties).</p> <p>Added the ability to adjust the distance between the leader end and the text note (see type properties).</p> <p>Added Find/Replace text functionality (see new ribbon control).</p> <p>Added options for exporting text to CAD formats to maintain Visual or Functional fidelity.</p>	x	x	x
UI - Contextual Tab display	<p>By default a contextual tab will display when an element is selected, but users may now choose to keep the current tab active instead.</p> <p>Access: Click AppMenu > Options > User Interface > uncheck Display the Contextual Tab on Selection.</p>	x	x	x

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UI - Contextual Tab Display behavior	<p>After creating an element, clearing a selection, or exiting from a tool, the ribbon can now be set to either return to the previous tab (the default behavior in the Project environment) or to stay on the Modify tab.</p> <p>Access: Click AppMenu > User Interface > Tab Display Behavior.</p>	x	x	x
UI - Modeless Properties Palette	<p>Revit now displays instance properties of views and elements while you are working in a project. This modeless palette also hosts the Type Selector (which can still be added to the QAT by right-clicking on it).</p> <p>By default, it is docked above the Project Browser on the left side of the screen, but it can be docked in other locations or completely undocked (floated) elsewhere on the screen or another monitor.</p> <p>Use the Element Filter drop-down (immediately below the Type Selector) to display/change parameters for the view or for currently-selected elements.</p> <p>During sketch modes (roof, floor, etc) you can use the palette to change the properties for the element being created.</p> <p>Access: The Properties palette can be toggled on/off via the Properties button, or keyboard shortcut (PP, VP, or Ctrl-1).</p>	x	x	x
UI - Modify Tab is both static and contextual	<p>The Modify tab is now available without having first selected an element (static). When an element is selected or a placement/creation tool is launched, all Modify tools remain in the same location and the element-specific panels are added to the end (contextual).</p> <p>Access: Click on Modify tab.</p>	x	x	x
UI - Modify Tools improvements	<p>Many tools in the static Modify panel may now also be used without first selecting an element.</p> <p>Access: With nothing selected, click a modify tools (such as Move, Rotate, etc) and the cursor will change to indicate the tool. Select the elements you wish to modify (hold down the Ctrl key to add more elements or the Shift key to remove elements) then finish the selection via Enter, Spacebar, or the contextual (right-click) menu.</p>	x	x	x
UI - Quick Access Toolbar customization	<p>The QAT has new customization control (tool order, spacers, etc) via the Customize Quick Access Toolbar dialog.</p> <p>Tools added to the QAT in one environment (say the Project) will now be added to other applicable environments (say the Family Editor, etc).</p> <p>Access: Click on drop-down arrow at the end of the QAT > Customize Quick Access Toolbar; or right-click on any item in the QAT.</p>	x	x	x

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UI - Resizable Dialogs	Many dialogs are now resizable - These include: Visibility Graphics, Manage Links, Object Styles, Worksets, View Templates, New Schedule, New Material Takeoff, Phasing, Loaded Tags, Design Options, Insert Views, Export CAD, Manage Place and Location, Materials, Mechanical Settings, Electrical Settings, Building / Space Type Settings, Schedule Settings, Edit Circuits, Select Panels, Select Connector.	x	x	x
UI - Worksets and Design Options	In addition to the ribbon, new controls for Worksets and for Design Options now appear in the Status Bar at the bottom-right of the Revit window. These tools will display, and allow you to change, the current active settings. Access: View tab > Windows panel > User Interface button.	x	x	x
Workset Visibility Enhancements	Workset visibility has been given greater control on a project-wide basis: Worksets dialog now offers the option to change the visibility of a workset globally Worksets tab in individual views has been enhanced to allow the per view workset visibility to be visible, not visible or to follow the global setting (from the worksets dialog)	x	x	x
		x	x	x
		x	x	x