

Version by Version Enhancements to TurboCAD Pro and Pro Platinum											
Feature	Description	Pro	Platinum	Pro	Platinum	Pro	Platinum	Pro	Platinum	Pro	Platinum
		19	19	20	20	21	21	2015	2015	2016	2016
Drafting, Detailing, and Usability											
Dual Interface Options	Easily switch between a traditional TurboCAD UI and the more modern TurboCAD LTE UI, which included dynamic input and a command line			●	●	●	●	●	●	●	●
Entity Marks	Create custom marks to track, or count objects, and add information using Property Sets and Multi-blocks. <ul style="list-style-type: none"> Property Set Definitions – Create custom information for objects, and derive custom information from object geometry. Multi-View Blocks – Define composites of blocks that can vary their appearance depending upon viewpoint. 				○		○		○		○
ePack	File packaging, including XRefs, SHX fonts		●		●		●		●		●
Export Coordinate Data	Derive point data from the geometry in models and drawings and export the data in a standard CSV format.				●	●	●	●	●	●	●
Print Window	Effortlessly create printouts by specifying any desired area of a drawing			●	●	●	●	●	●	●	●
Protractor	Rapidly create construction lines in 2D and 3D with a powerful dynamic display.			●	●	●	●	●	●	●	●
Super Selector Modes	<ul style="list-style-type: none"> Window Polygon mode - objects completely inside closed polygon will be selected Crossing Polygon mode - objects crossed by or within a closed polygon will be selected. Fence mode - objects crossed by an open polygon (fence) will be selected. Rectangular mode – the standard bi-directional rectangle selector. 			●	●	●	●	●	●	●	●
Templates	Improved Architectural and Metric templates.					●	●	●	●	●	●
Custom Text for Dimensioning	Customized text formatting for dimensions includes bolding, superscript, subscript, italics, support for multiple font scales, and multi-line.					●	●	●	●	●	●
Move Dimension Text	Edit dimension text from inside the dimension tool using the local menu, for added flexibility and improved productivity.					●	●	●	●	●	●
Area Units	Specify Area Units discretely from Linear Units. Example - Measure area in feet and distance in inches. (Metric also)					●	●	●	●	●	●
Rotate View with Viewport	A new option has been added to synchronize the rotation of viewports and views while retaining the possibility of discreet rotation.					●	●	●	●	●	●
Delta Distance and Delta Move Angle(s)	You can now move a selected object simply by specifying distance and a direction.					●	●	●	●	●	●

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Auto-Shape	Quickly sketch out standard shapes (arc, line, box, etc.) and TurboCAD will automatically create the precision shape.					●	●	●	●	●	●
Arrow Tool	Four new arrow tools (Arrow Arc, Arrow Curve, Arrow Line, and Arrow Polyline) allow you to rapidly draw arrows. Specify the arrow tail and arrowhead or create your own.					●	●	●	●	●	●
Dimensional Updating for Drafting Objects	New TurboCAD 21 offers improved associative interactivity between Drafting Objects and Dimensions, with or without viewports.					●	●	●	●	●	●
Edit Tool option "Node Filter"	On objects with a large number of nodes it allows you to select a subset of nodes to optimize performance and ease of use.					●	●	●	●	●	●
Edit Tool option "Workplane by 3D object"	New option "On/off 'Workplane by 3D object'" was added to the Edit Tool.					●	●	●	●	●	●
Conceptual Selector	Transcends state of the art manipulation of 3D objects and editing. A totally flexible design allows you to customize the selector to any visual and editing parameters that are available in the application eg. move, scale, rotate.							●	●	●	●
Nudge functionality	Improvement to existing nudge functionality for more efficient pick-up and placement of selected object(s) using the numbers pad.							●	●	●	●
Block/Group Editing	While in block/group edit mode you can now snap to objects outside the block or group							●	●	●	●
User Interface	User can now resize all dialog boxes as need for their design environment. Eg. screensize, resolution. Works for General property pages + Multiline Text + Dimensions, Programm setup and Drawing options pages.							●	●	●	●
Contact Manger & File Sharing	Ability create and maintain contact lists and send files to individuals or groups							●	●	●	●
Format Painter Tool	Ability to use Format Painter to transfer Custom Properties and Property Set Definitions (PSD) from one object to another. A crucial feature for extending your BIM/IFC models.							●	●	●	●
Dimension Text	Dimension Text as Non-rotatable. This property was added for the dimension text (similar to the simple text)							●	●	●	●
Sorted Layers in Drop down lists	SORTED LAYERS IN DROP DOWN LISTS. The Layers in the drop down and simple lists are sorted as per Design Director If you change the control view order in Design Director the same ordering will be in all other Layer controls.							●	●	●	●
Trim tools	Ability to trim hatched or closed objects and maintain the hatch or closure.							●	●	●	●
Dimension units format By Drawing	Dimension units format By Drawing. You can now globally define the dimension units at the drawing level.							●	●	●	●
Join Polyline Tool	The join polyline tool now works on bezier and splines without converting them to polyline. Their original curve status is maintained.							●	●	●	●

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Offset with Law	Two options were added to Offset tool: - Use law - tells if law should be used for offsetting (if it can be applied to offsetting entity) - Edit law - Allows user to enter the law he wants entity to be offsetted with.										●	●
Point Cloud - Subset Point Cloud	Ability to extract a Surface from subset of a point cloud data set											●
Point Cloud Import/Export	.PCD, .PCG, .TXT point cloud file support											●
Point Cloud Triangulation	Ability to extract a Surface from point cloud data set											●
Quick Pull Tool	A powerful tool to dynamically modify fillets, bends, and/or cylindrical radii. Latest updates to manipulate multiple co-planar faces simultaneously, thicken ACIS surfaces, and dynamically switch between Quick Pull and Imprint modes					○	○	●	●	●	●	●
Revolve Face	Functional variation on sweeping.										●	●
Slots Tools	Slot Tools (Big benefit to woodworkers and furniture makers, inventors) - Circular Slot - Circular Slot By Center and Radius										●	●
Smooth Surface Meshes, Design and Editing tools	A set of tools for editing SMESH as symmetrical models		○		○		○		●			●
Surface with Laws	Generate an entirely new surface object with a formula.										●	●
Thread Tool	Easily create threaded 3D objects. The pitch and height of threading are parametrically defined and editable... plus 3 modes of display.		●		●	●	●	●	●	●	●	●
Tweak Face	Tweaks a face of solid body to sheet face										●	●
Twisted Extrude	Simple Extrude with added parameters: Twist angle, Distance type, Normal, Full height, Twist to top, Twist start distance, Twist end distance, Twist continuity.		●		●	●	●	●	●	●	●	●
Unbend Sheet Tool	New Get Bend Lines option							○	○	○		●
Warp Entry by Law	Plug a formula into TC (like a trig formula) and TC will quick the 3D object and apply the formula to it.										●	●
Wire Wrapping	Wrap a wire around a 3D solid for use as an extrusion or sweep path.							●	●	●	●	●
Rendering/Visualization												
Redsdk Display Engine	A hardware accelerated (GPU) 2D/3D and Photorealistic display engine	○	○	○	○	●	●	●	●	●	●	●
UV Mapping	Create more realistic and varied materials for rendering by mapping bitmaps onto 3D. Proportional editing introduced with v21 to edit the mesh which defines the relationship between the UV Map and the mapped image.				●		●	●	●	●	●	●
Create Segment by Edges	Refined method for defining segments used in UV Mapping						●	●	●	●	●	●

