

## ArCADia PLUS

Increase your productivity. Integrate your design workflow into an integral BIM project.

Functionality which allows you to do projects according to BIM technology.

The ArCADia BIM PLUS software has all the features of the ArCADia BIM LT and ArCADia BIM software and, in addition, is enhanced with the following functions:

- The option to create and fully edit ACIS solids. ACIS files are based on the block modelling format developed by Spatial Technology Inc.
- It allows for precise work on full solids, penetration, sums, differences, etc.
- File import and export in the SAT format.

ArCADia is a program supporting 2D and 3D design. Due to its operational philosophy and the same data format, namely DWG, working with it is analogous to working in other CAD programs available on the market, such as ZWCAD, GStarCAD, BricsCAD or AutoCAD.



### ArCADia BIM PLUS software FEATURES:

- Layered drawing with the ability to use groups, blocks, external references and raster backdrops.
- Precise drawing: Cartesian and polar coordinates, characteristic points and tracking.
- Work on a real-world model and the print at any scale from a specified sheet of paper.
- Support BIM technology, object-oriented architectural design.
- Ready-made architectural elements: multilayer walls, stairs, bases, columns, chimneys, windows and doors.
- Comparing and merging documents.
- Automatic floor entry, additional support for Teriva floor design.
- Generating statements.
- Ability to create and fully edit ACIS solids.
- Supporting the IFC format.

### Included FEATURES:

- BIM FEATURES
- ADVANCED DRAWING TOOLS

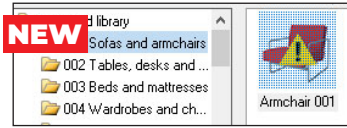
## BIM FEATURES

BASIC TOOLS | ARCHITECTURE | CONSTRUCTION | WATER INSTALLATIONS | SEWAGE INSTALLATIONS | GAS INSTALLATIONS | HEATING INSTALLATIONS | ELECTRICAL INSTALLATIONS | COMMUNICATION

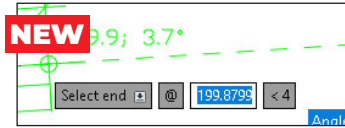
## ArCADia BIM SYSTEM (BASIC TOOLS WHICH ARE INCLUDED IN PRICE)



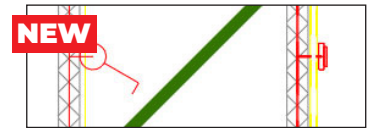
**NEW**  
A change in the program's licensing, introducing network licenses.



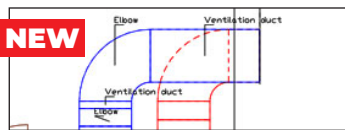
**NEW**  
Changes in the program installation, from now on libraries of surfaces and 3D objects are downloaded as separate installations.



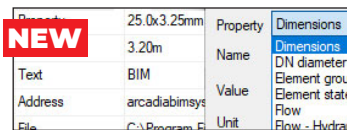
**NEW**  
New version of dynamic coordinate input and a setup window for dynamic input.



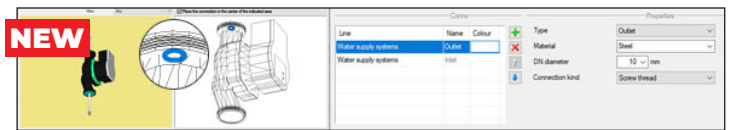
**NEW**  
Introduced a new level of detail mainly used for installation elements.



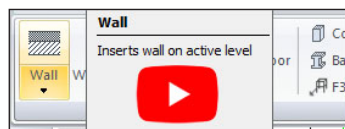
**NEW**  
Changes in creating a level view to facilitate the drawing of installations.



**NEW**  
Expanded element description options.



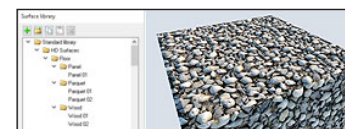
**NEW**  
Option of inserting system objects (devices, fittings) with a user-defined 3D view (based on .dwg, .3Ds, .obj., .O2c, .rvt and .rfa files). The element defined in this way can be connected to the installation being designed in the program through the function of editing the location of connectors.



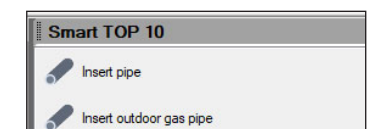
Tutorial videos available at command icons.



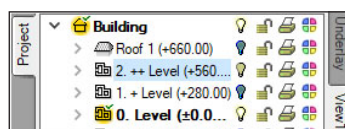
Expanded element description options.



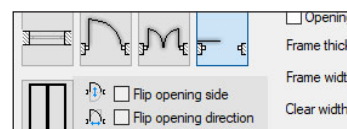
PBR texture library.



**Smart TOP 10**  
A smart list of the most often used commands that are automatically memorized when working on a project, creating a personalized tool palette.



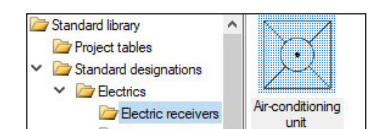
**Project Manager tree**  
Managing views and the displayed information through the clear tree of the Project Manager.



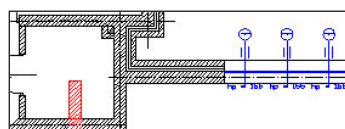
**Walls, windows, doors**  
Inserting elements such as wall, pipe, etc. using the smart tracking function.



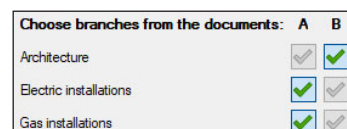
**Visualization**  
Showing elements drawn in the view in a classic or the new 3D view rendered in real time (visualization using a 3D game engine).



**Library**  
Built-in library that allows for detailing with 2D symbols and 3D objects needed in the drawing.



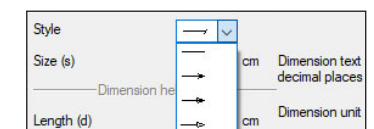
**Comparing**  
The possibility to compare two versions of a project created as an ArCADia system model in the scope of new and modified system elements.



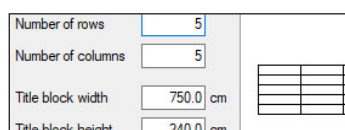
**Merging**  
The possibility to merge the building model from an architectural design with the installation design models to create one complete model of a building project.



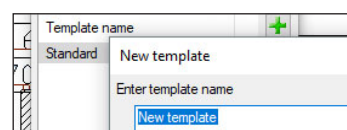
**Collision**  
Collisions list of all or individual ArCADia system elements on a view, 3D view and a clear list.



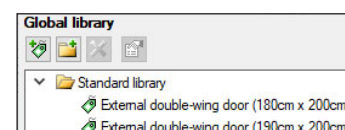
**Dimensioning**  
Possibility of entering linear and angular dimensioning.



**Drawing tables**  
Creating and inserting drawing tables with the option of saving them to the program library.



**Custom setting**  
Saving custom settings for elements (pens, fonts, default element sizes, etc.) in the project template.

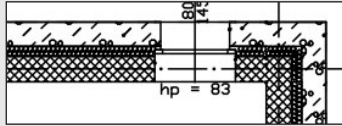


**Elements**  
Built-in library of all elements types, with the possibility of expansion.

## BIM FEATURES

BASIC TOOLS | ARCHITECTURE | CONSTRUCTION | WATER INSTALLATIONS | SEWAGE INSTALLATIONS | GAS INSTALLATIONS | HEATING INSTALLATIONS | ELECTRICAL INSTALLATIONS | COMMUNICATION

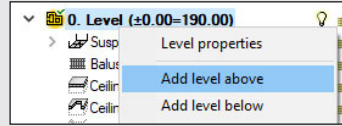
### ARCHITECTURE



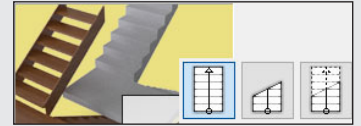
Choice of defined or drawing any multilayer wall. Built-in catalogue of construction materials.



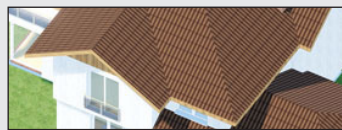
Inserting of window and door and woodwork in a parametric way. Inserting woodwork.



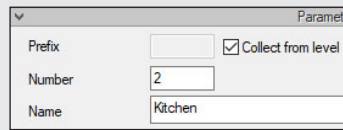
Automatic creation of rooms from the closed outlines of walls and virtual walls, assigning names, functions, temperature and lighting demand.



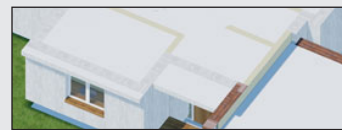
Defining one- and multi-flight stairs and winder stairs in any view.



Inserting an automatic roof on the closed external walls contour. Inserting of roof windows and dormer windows.



Creating a level with the possibility of copying selected elements.



Inserting automatic ceilings on the closed external walls contour.

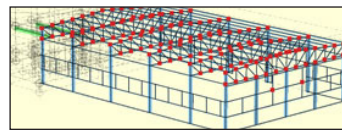
### CONSTRUCTION



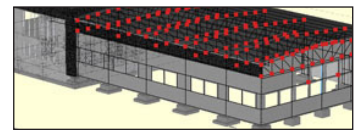
Constructing the structural systems of Teriva ribbed-beam roofs, containing all the basic elements of the system: ceiling beams, reinforcing ribs, hidden ribs, exchanges, supporting mesh and additionally all necessary material lists including the elements needed to make the ceiling, completed with reinforcing steel and monolithic concrete.



Inserting the binding joint with the insertion of longitudinal reinforcement and stirrups.

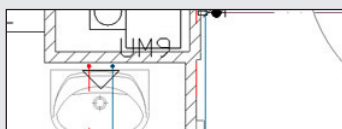


Transferring the location and the material as well as the bar cross-section to the construction view. Passing the remaining elements of the architectural model in the form of a rendered or translucent 3D view, and in the case of modular axes, bar elements and surface elements also in the form of their active underlay.

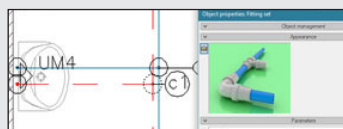


Automatic 3D construction view created on the basis of a three-dimensional architectural model of a building.

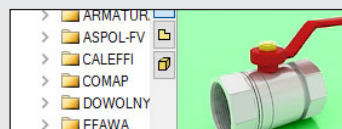
### WATER SUPPLY INSTALLATIONS



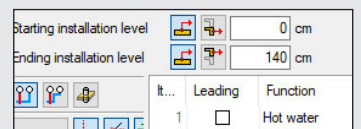
Drawings of the internal water supply system | connection point | water meter set | pipelines.



Automatic generation of connection fittings, creation of point numbering and installation description. Creating own templates.



Inserting fittings and devices from the manufacturers' library. Inserting devices with individually set shapes and dimensions defined by the user (eg DHW heaters). Inserting into the program library typical element systems.



Applying risers and distribution pipes from a library. It is possible to simultaneously run several parallel conduits with different functions and connect them intelligently. Drawing simplifications that allow you to change the level of many elements of the installation at the same time.

⚠	Q	PS1	Level 1	Incorrectly connected
✖	Q	PS1	Level 1	Unconnected pipe
⚠	Q	PS1	Level 1	Incorrectly connected
✖	Q	PS1	Level 1	Unconnected pipe

Checking the installation for connections correctness.

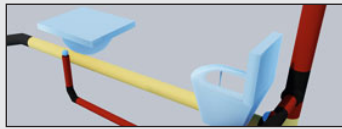
	Shut-off valve
	Sink faucet

Generating ready-made materials lists, devices and connection fittings included in the project.

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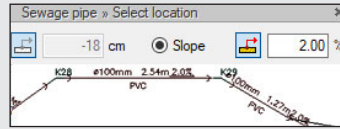
## SEWAGE INSTALLATIONS



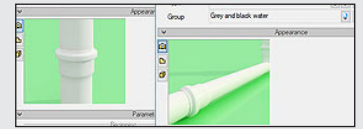
3D installation preview, which facilitates the correcting of irregularities in the pipeline route not shown on the view.

Item	Name	Unit	Quantity
1	Elbow 1° Polyethylene	pcs	1.00
2	Elbow 30° Polyethylene	pcs	8.00
3	Elbow 30° Polyethylene	pcs	8.00
4	Elbow 30° Polyethylene	pcs	8.00
5	Elbow 45° Polyethylene	pcs	8.00

Generating ready-made materials lists, devices and connection fittings included in the project.



Entering the pipeline route of the sewage system with a given slope on the view.



Pipelines with automatic distinction between outflow channels, risers and connecting pipes for accessories.

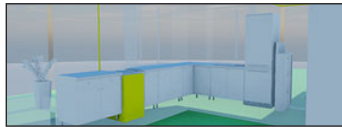
Instalati...	Location	Description
Q	Level	Unconnected pipeline
Q	Level	Unconnected pipeline
Q	Level	Items unconnected to
Q	Level	Items unconnected to

Generating ready-made materials lists, devices and connection fittings included in the project.

Name
Three-way 30 PVC DN100
Elbow 1 PVC DN100

Checking the installation for connections correctness.

## GAS INSTALLATIONS



Drawings of the internal gas installation.



Automatic generation of a set of connection fittings.

Symbol	Name	Quantity	Unit
[Symbol]	Four-narrow collar with rooster, 50 sw, 3/8S, Screw thread	1	pc
[Symbol]	Gas boiler, 3/8 sw, 1/2S, Screw thread	1	pc
[Symbol]	Gas box	1	pc
[Symbol]	Gas valve, 3/8S, Screw thread	1	pc

Ready-made lists of materials and lists of elements.



Fittings and devices from the manufacturer's library.

Instalati...	Location	Description
Q	Ground floor	Unconnected pipe
Q	Ground floor	A appliance or val
Q	Ground floor	Items unconnecte
Q	Ground floor	The element is not

Possibility to easily and quickly enter additional databases to the main library.

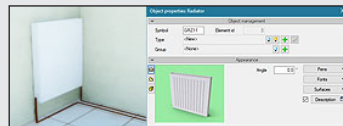
Instalati...	Location	Description
Q	Ground floor	Unconnected pipe
Q	Ground floor	A appliance or val
Q	Ground floor	Items unconnecte
Q	Ground floor	The element is not

Checking the installation for connection correctness.

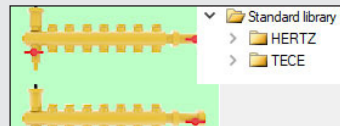
## HEATING INSTALLATIONS

Room number	Room name	Room temperature t [°C]	Receiver power [W]	Type/series of type
Level 2				
10	Bathroom	24.3	506	Lerose LER10SM
11	Room	25.0	750	Typ 20
12	Room	25.0	900	Typ 21
13	Room	25.0	2500	

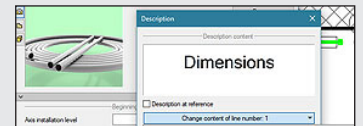
Ready-made materials lists, devices and connection fittings. Lists of receivers in rooms.



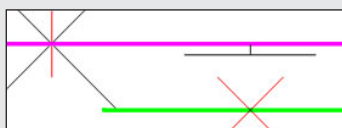
Heat receivers, i.e. panel, ribbed, bathroom and channel heaters, heating pipes, air heaters and fan-coil units.



Fittings and devices from the manufacturer's library.



Automatic creation of point numbering and installation descriptions. Creating own templates.



Inserting the fastening with the possibility of defining parameters characteristic for the fastening used.

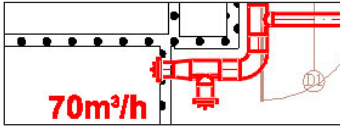
Instalati...	Location	Description
Q	Level 0	The installation de
Q	Level 0	Unconnected pipe
Q	Level 0	Unconnected pipe

Checking the installation for connection correctness.

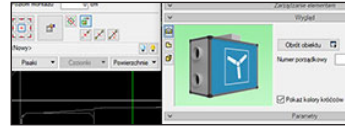
## BIM FEATURES

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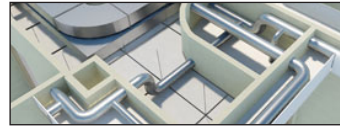
## VENTILATION SYSTEMS NEW



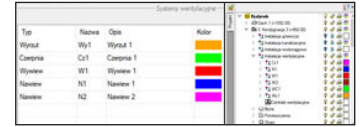
Creating drawings of the internal ventilation system - from intake/exhaust elements, through ventilation devices (fans, heaters, fire dampers, etc.), to the end elements of the installation in the form of air inlets and outlets.



Inserting duct elements and fittings (made of various materials) with round, rectangular and oval cross-sections. Inserting ventilation devices from the manufacturers' library with the option of adding your own objects.



Preview of the installation in 3D view, which facilitates the correction of irregularities in the route of the ducts not shown on the plan.



Possibility to define any number of ventilation systems used in the project and their properties, including air parameters (in terms of temperature and relative humidity).



Preparation of the ventilation flow and usage report based on the object architecture (or user-defined rooms).

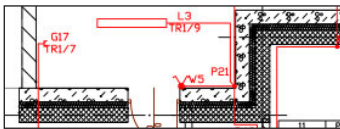
Nr.	Nazwa pomieszc.	Kubatur.	Ogrzewanie	Tem.
13	Pom. biurowe	54.63	Wewnętrzne	
Q 1	Komunikacja	94.63	Wewnętrzne	
Q 2	Pom. biurowe	67.08	Wewnętrzne	
Q 12	Pom. biurowe	34.50	Wewnętrzne	
Q 3	Pom. biurowe	46.16	Wewnętrzne	

Saving layouts made of many elements, e.g. part of the installation, to the program library, in order to reuse it. Creating descriptions and saving your own annotation templates.

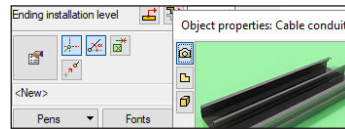
Rysunek	Nazwa	Ilość
	Aneksost	W11-W11 W17-W17
	Centrala nawiewno-wyiewna	CV1

Generating lists of materials and devices included in the project, intended for further processing and for the creation of cost estimates and investment valuations.

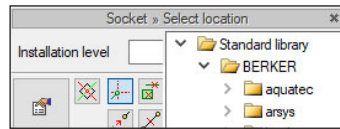
## ELECTRICAL INSTALLATIONS



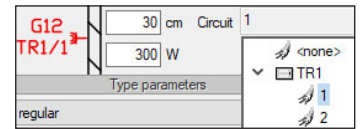
Drawing of internal electrical installations with distribution boards, sockets, connectors, boxes, lighting fixtures.



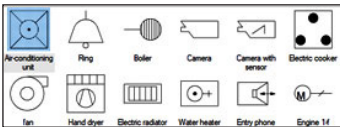
Designation of cable routes.



An extensive library of manufacturers catalogues of electrical installation elements.



Possibility to assign receivers to a particular distribution board (addressing).

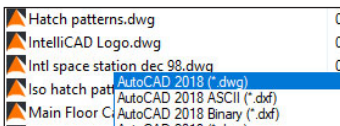


Possibility to modify symbols of entered objects and assign receivers to a particular distribution board.

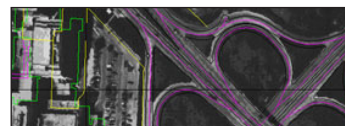
Electric Installation material list	
Item	Name
Ungrouped	
1	Ceiling lamp, IP 20, 1x30W

Generating a list of materials used in the project.

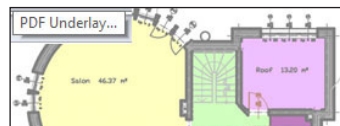
## COMMUNICATION



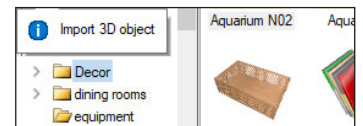
AutoCAD format from 2.5 to 2018 (DWG, DXF).



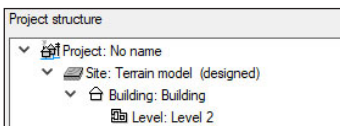
Importing/editing raster images files: JPG, TIF, BMP, PNG.



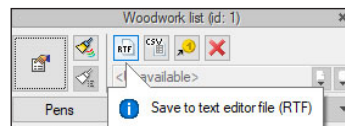
Import PDF files analogously to raster underlays or with conversion to vector elements. Export to PDF file.



Possibility to enlarge the library of 2D / 3D objects with the formats: XOBJECT, ACO, O2C, OBJ, XOBJ3D and DWG.



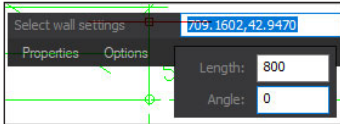
IFC file conversion into ArcCADia's basic objects (walls, windows, doors, ceilings, roofs).



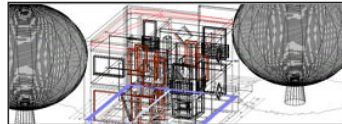
Export of material lists of elements included in the project to RTF, CSV and to the Ceninwest program.)

## DRAWING TOOLS An extended CAD drawing engine

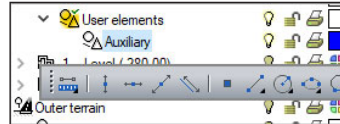
### ADVANCED DRAWING TOOLS



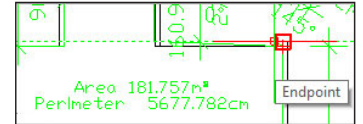
Floating data input window at cursor.



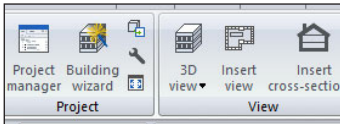
Creating a three-dimensional CAD project from ArcCADia's objects (walls, pipes, cables etc.)



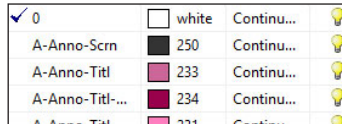
New auxiliary options placed in a special group and easily accessible from the left toolbar.



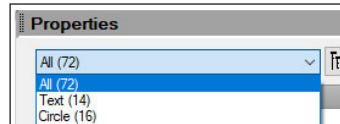
New options for measuring length, area and perimeter.



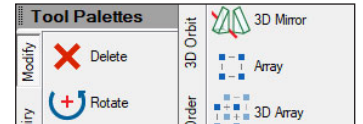
The program window is divided into tabs in which the drawings are successively displayed.



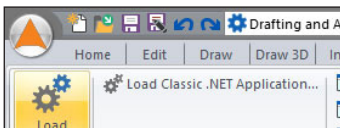
Working on layers. Project management explorer.



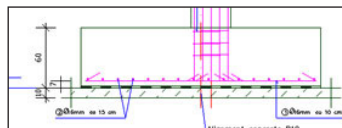
Docked property panel.



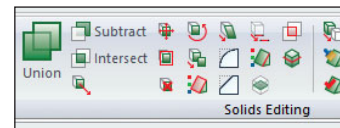
Displaying tool palettes. Dedicated Express tools toolbar.



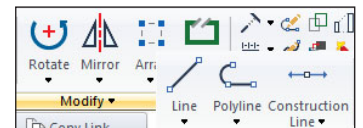
Implemented Lisp programming language interpreter. Possibility to load SDS and IRX overlays.



Basic tools for creating 2D and 3D drawings.



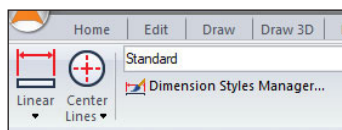
Ability to open and fully edit ACIS solids (format developed by Spatial Technology Inc.). Import and export of ACIS solids in SAT format. **Only in ArcCADia PLUS.**



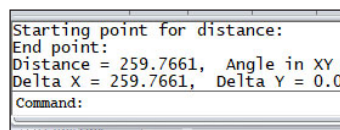
Possibility to fully modify and edit the properties of all drawn elements.



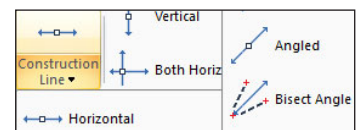
Entering and defining symbol libraries, blocks, simple and complex texts (SHX and TrueType fonts). Additional multiline text editor. New functions of the word editor: columns, scaling, entering text along the arc and borders, text fitting, rotation, auto numbering, etc.



Dimensioning assigned to the element: linear and angular, the ability to define your own styles.



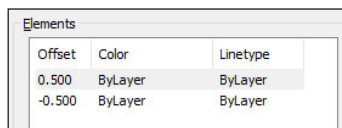
Automatic field and distance measurement, setting coordinates.



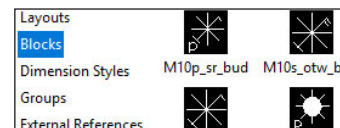
New options for construction lines.



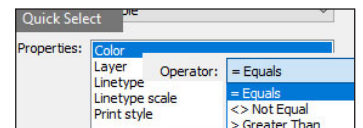
A wide range of hatch patterns. New hatch definition and gradient fill window.



A multiline drawing option.



Enhanced block, reference and dimension support capabilities.

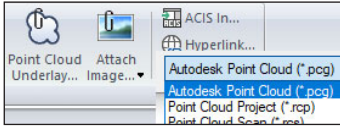


Options: Select similar (with adding to the selection and the settings window), Multiadogy, Multiline editor, Dashed line.

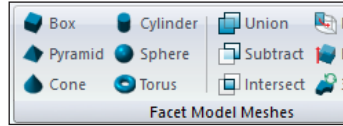
# DRAWING TOOLS

An extended CAD drawing engine

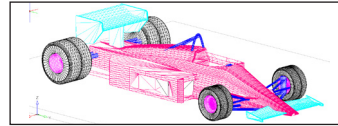
## ADVANCED DRAWING TOOLS



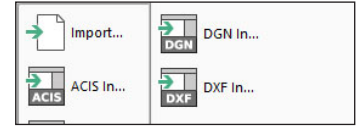
Possibility to add point cloud in RCP / RCS format.



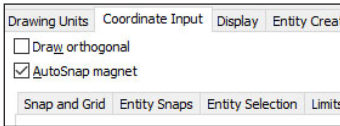
New types of 3D objects (primitives) - Facet Modeler (ODA surface modeler), along with basic editing functions.



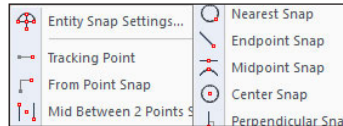
Possibility of photorealistic visualization and rendering. Drawing in hidden line mode and shading in real time.



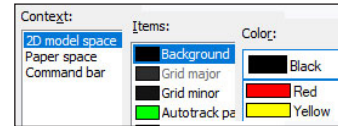
Possibility to open ACIS solids (without option to create and fully editing). DWF, DGN and DAE formats support. Export of STL files.



Auxiliary grid, orthogonal drawing functions, polar tracking.



Extended recognition of snap points (ESNAP), e.g. for lines - center, end points and intersections of lines.



Modification of the top menu, ribbons (panels and tabs), toolbars, command status bar and keyboard shortcuts.



Precise printing by setting all print parameters. Possibility to create a non-rectangular viewport in the paper space.