APLUS

Autodesk AutoCAD Add-on

USER'S GUIDE

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ABOUT APLUS

WHAT IS APLUS?

APLUS is an add-on for Autodesk AutoCAD. It enhances it functionality by adding new commands written to speed up drafting. APLUS comes as a package with both new commands for AutoCAD and set of dwg blocks ready to use with APLUS BIINDEX menu.

WHY DID WE CREATE APLUS?

While we were working in architectural offices across the Europe we have noticed that most AutoCAD users waste a lot of time doing boring and time-consuming tasks. In 2005 we started to write AutoLISP commands to ease work for such users. Later on as we were distributing our commands to some architectural offices we were asked to write more and more commands. In 2006 set of commands had turned into full AutoCAD add-on. Since then we have been adding new features to our software as well as improving old ones.

WHO NEEDS APLUS?

Basically APLUS is designed for and by architects, however we have satisfied customers in other branches of engineering (constructors, hydraulic designers etc.).

HOW DOES IT WORK?

APLUS is a set of AutoCAD commands that is added into it's context by adding two new menus. Basic APLUS menu contains shortcuts to commands grouped into categories such as POLYLINE, ARCHITECTURAL or HATCH. Each command has it's own shortcut to make it easier to remember it (for example: command that fillets polyline has shortcut FPL and command that chamfers polyline has shortcut CHAPL). Second menu is called BIINDEX and it is designed to help you insert blocks from customizable library (basic set of blocks is installed with APLUS).

CHAPTER I: INSTALLING APLUS

SYSTEM REQUIREMENTS

To run APLUS software, the following software and hardware are required:

Software:

- Windows NT, Windows 95, 98, 2000, ME, XP or Vista
- Microsoft Internet Explorer 5.0 or later to take advantage of the Internet-enabled features and updates
- TCP/IP or IPX protocol (for network installation only)

Hardware:

- 128 MB of RAM (minimum), 512 MB of RAM (recommended)
- 50 MB of hard disk space (minimum)
- 128 MB of disk swap space (minimum)
- 50 MB of free disk space in your system folder
- Intel Pentium III 500 MHz, or compatible processor
- Network Interface Card (for network installation only)
- Modem or access to an Internet connection (in order to complete registration process)

BEFORE INSTALLATION

To make sure that APLUS installation will complete without any complications make sure that you have turned off AutoCAD or any other Autodesk product. If you encounter any error while starting installation, read CHAPTER IV: TROUBLESHOOTING IN APLUS.

INSTALLATION

Follow instructions which appear during installation process to complete it. We strongly recommend to leave default installation path (e.g. C:\Program Files\APLUS). You can select which AutoCAD profile should have APLUS installed (you may select all of them).

AFTER INSTALLATION

After installing APLUS it should start with those AutoCAD profiles that were specified while installation process. If not refer to CHAPTER IV: TROUBLESHOOTING IN APLUS.

REGISTER / BUY APLUS

After first use of APLUS 30-day trial period begins. Complete registration process by using APLUSREGISTER command in AutoCAD. You have to fill form on our website to get licence file. To buy commercial licences you can use APLUSBUY command or contact us at aplus@cadaplus.com email address. Current pricing table is available on our website at:

www.cadaplus.com/pricing.php

CHECK FOR UPDATES

We recommend to update APLUS as soon as possible. Newer versions of our add-on have a lot improvements and bug-fixes. By using older versions of APLUS you agree to encounter some of already fixed problems.

IF YOU NEED TO UNINSTALL APLUS

If you need to uninstall APLUS you may do it by using Uninstall APLUS shortcut from Windows Start Menu > APLUS or form APLUS installation folder.

Alternatively you can remove APLUS manually:

1. Run AutoCAD and type _APPLOAD in commandline
2. Remove aplus.vlx from startup suite
3. Turn off AutoCAD
4. Remove APLUS folder.
5. Remove APLUS from Windows Start Menu.

CHAPTER II: APLUS BASICS

How to use APLUS with Autodesk AutoCAD

APLUS integrates it's menus into AutoCAD upper menu and APLUS toolbar. Commands are grouped into categories so it is easy to find one when needed. Each command comes with it's own icon and shortcut (both can be found in upper menu). APLUS toolbar shows only icons, however you can find command description both in the bottom-left bar of AutoCAD and context help as you move across icons.

Show and hide APLUS side menu

To show or hide APLUS toolbar use APLUST command in commandline. All commands are still accessible from upper menu.

For more information

For more informations visit our website at:

http://www.cadaplus.com

Access online help

Online help is available at following address:

http://www.cadaplus.com/help

Search user's guide for answers

To search this guide for help use SEARCH TOOL (ctrl+f by default) and type what are you searching for. You may also use bookmarks to navigate through.

Contact us

You can contact us at following address:

aplus@cadaplus.com

or you may use contact form at our website in CONTACT section:

http://cadaplus.com/contact_form.php?lang=en

CHAPTER III: APLUS COMMANDS

HOW TO RUN APLUS COMMAND

There are three basic methods of engaging APLUS command:

1. Use AutoCAD > APLUS upper menu to find command
2. Use APLUS toolbar (if you wish to turn it on type APLUST command)
3. Type command (or its shortcut, look below) directly in AutoCAD command line.

CREATE YOUR OWN SHORTCUTS

You can create your own shortcuts for APLUS commands just the same way you do with standard AutoCAD commands. In order to add shortcuts, edit acad.pgp file (in latest versions of AutoCAD there is a shortcut for this file which can be found in TOOLS > CUSTOMIZE > EDIT PROGRAM PARAMETERS (acad.pgp).

TRY EVERYTHING FOR YOURSELF

Best way to learn APLUS is to try everything for yourself. Sometimes combination of certain commands may help you out with your work.

LAYERS

NLL — CREATE NEW LAYERS

commandline entry: **NLL**
menu: **APLUS > LAYERS > NLL**

Command restores previous layers state (current layer, visibility etc.)

LL — RESTORE PREVIOUS LAYER STATE

commandline entry: **LL**
menu: **APLUS > LAYERS > LL**

This command will really quick create new layer - without autocad panel which is loading to long, inquiry order:
1. Name
2. Color
3. Lineweight

If layer with specified name exists, will set this layer as current.

LP — RESTORE PREVIOUS LAYER STATE

commandline entry: **LP**
menu: **APLUS > LAYERS > LP**

Command restores previous layers state (current layer, visibility etc.).

LLF — RESTORE PREVIOUS LAYER STATE

commandline entry: **LLF**
menu: **APLUS > LAYERS > LLF**

Select layers that you want to freeze. Action will be done immediately.

LLO — TURNING OFF SELECTED LAYERS

commandline entry: **LLO**
menu: **APLUS > LAYERS > LLO**

Select layers that you want to turn off. Action will be done immediately.

LLI — ISOLATE SELECTED LAYERS

commandline entry: **LLI**
menu: **APLUS > LAYERS > LLI**

Select layers which you want to isolate. Other layers will be turned off.

LLL — LOCK SELECTED LAYERS

commandline entry: **LLL**
menu: **APLUS > LAYERS > LLL**

Select layers to lock them.

LLU UNLOCK SELECTED LAYERS


commandline entry: **LLU**
menu: **APLUS > LAYERS > LLU**

Select layers to unlock them.

LLN INVERSE LAYERS VISIBILITY


commandline entry: **LLN**
menu: **APLUS > LAYERS > LLN**

Command inverses visibility of layers in current drawing.

LLON TURN ON SELECTED LAYERS


commandline entry: **LLON**
menu: **APLUS > LAYERS > LLON**

Command turns on selected layers. If there is more than one layer to turn on, you can specify them from list.

LLT UNFREEZE SELECTED LAYERS


commandline entry: **LLT**
menu: **APLUS > LAYERS > LLT**

Select layers to unfreeze them.

LLONA TURN ON ALL LAYERS


commandline entry: **LLONA**
menu: **APLUS > LAYERS > LLONA**

Command turns on all layers in current drawing.

LLTA UNFREEZE ALL LAYERS


commandline entry: **LLTA**
menu: **APLUS > LAYERS > LLTA**

Command unfreezes all layers in current drawing.

LLONT TURN ON AND UNFREEZE SELECTED LAYERS


commandline entry: **LLONT**
menu: **APLUS > LAYERS > LLONT**

Command turns on and unfreeze specified layers.

LLFP FREEZE LAYERS WITH SPECIFIED PREFIX


commandline entry: **LLFP**
menu: **APLUS > LAYERS > LLFP**

Command freezes all layers with specified prefix.

LLFW FREEZE LAYERS WITH SPECIFIED WORDS

commandline entry: **LLFW**
menu: **APLUS > LAYERS > LLFW**

Command freezes all layers containing specified words.

LLFS FREEZE LAYERS WITH SPECIFIED SUFFIX

commandline entry: **LLFS**
menu: **APLUS > LAYERS > LLFS**

Command freezes all layers containing specified words.

LLFN FREEZING LAYERS OF OBJECTS NESTED IN BLOCKS/XREFS

commandline entry: **LLFN**
menu: **APLUS > LAYERS > LLFN**

Select object in block or xref (external reference) to gain ability to freeze its layer.

LLFRF FREEZE XREF IN CURRENT VIEWPORT

commandline entry: **LLFRF**
menu: **APLUS > LAYERS > LLFRF**

Command freezes selected xref object in current viewport. To do so, just click on external refference.

Command doesn't work in Modelspace!

LLOP TURN OFF LAYERS WITH SPECIFIED PREFIX

commandline entry: **LLOP**
menu: **APLUS > LAYERS > LLOP**

Command turns off all layers with specified prefix.

LLOW TURN OFF LAYERS WITH SPECIFIED WORDS

commandline entry: **LLOW**
menu: **APLUS > LAYERS > LLOW**

Command turns off all layers containing specified words.

LLOS TURN OFF LAYERS WITH SPECIFIED SUFFIX

commandline entry: **LLOS**
menu: **APLUS > LAYERS > LLOS**

Command turns off all layers with specified suffix.

LLOFN TURN OFF LAYERS OF OBJECTS NESTED IN BLOCKS/XREFS

commandline entry: **LLOFN**
menu: **APLUS > LAYERS > LLOFN**

Select object in block or xref (external reference) to turn off its layer.

LLORF TURN OFF ALL XREF LAYERS


commandline entry: **LLORF**

menu: **APLUS > LAYERS > LLORF**

Click on any part of external reference (xref) to turn off all it's layers.

LLIP ISOLATE LAYERS WITH SPECIFIED PREFIX


commandline entry: **LLIP**

menu: **APLUS > LAYERS > LLIP**

Command isolates all layers with specified prefix.

LLIW ISOLATE LAYERS WITH SPECIFIED WORDS


commandline entry: **LLIW**

menu: **APLUS > LAYERS > LLIW**

Command isolates all layers containing specified words.

LLIS ISOLATE LAYERS WITH SPECIFIED SUFFIX


commandline entry: **LLIS**

menu: **APLUS > LAYERS > LLIS**

Command isolates all layers with specified suffix.

LLIN ISOLATE LAYERS OF NESTED OBJECTS IN BLOCKS/XREFS


commandline entry: **LLIN**

menu: **APLUS > LAYERS > LLIN**

Select objects in block or xref (external reference) to gain ability to isolate their layers.

LLIRF ISOLATE XREF LAYERS


commandline entry: **LLIRF**

menu: **APLUS > LAYERS > LLIRF**

Use this command to isolate xref layers.

LLINR ISOLATE LAYERS CONTAINING SPECIFIED NUMBER OF OBJECTS


commandline entry: **LLINR**

menu: **APLUS > LAYERS > LLINR**

Command isolates layers that contain specified number of objects. Options:

< less than
= equal number
> more than

If number of objects matches your criteria, layers will be isolated.

LLONC TURN ON CURRENT LAYER.


commandline entry: **LLONC**

menu: **APLUS > LAYERS > LLONC**

Command turns on current layer.

LLONP TURN ON LAYERS WITH SPECIFIED PREFIX


commandline entry: **LLONP**

menu: **APLUS > LAYERS > LLONP**

Command turns on layers with specified prefix.

LLONW TURN ON LAYERS WITH SPECIFIED WORDS


commandline entry: **LLONW**

menu: **APLUS > LAYERS > LLONW**

Command turns on layers containing specified words.

LLONS TURN ON LAYERS WITH SPECIFIED SUFFIX


commandline entry: **LLONS**

menu: **APLUS > LAYERS > LLONS**

Command turns on layers with specified suffix.

LLTP THAW LAYERS WITH SPECIFIED PREFIX


commandline entry: **LLTP**

menu: **APLUS > LAYERS > LLTP**

Command thaws layers with specified prefix.

LLTW THAW LAYERS WITH SPECIFIED WORDS


commandline entry: **LLTW**

menu: **APLUS > LAYERS > LLTW**

Command thaws layers containing specified words.

LLTS THAW LAYERS WITH SPECIFIED SUFFIX


commandline entry: **LLTS**

menu: **APLUS > LAYERS > LLTS**

Command thaws layers with specified suffix.

LLTRF THAW LAYERS IN REFERENCE FILE


commandline entry: **LLTRF**

menu: **APLUS > LAYERS > LLTRF**

Command thaws layers in reference files.

LLRF ISOLATE ONE REFFERENCE DRAWING

commandline entry: **LLRF**
menu: **APLUS > LAYERS > LLRF**

Select one refference from list to isolate it's layers. Other refferences layers will be turned off.

LLLA LOCK ALL LAYERS

commandline entry: **LLLA**
menu: **APLUS > LAYERS > LLLA**

Command locks all layers in current drawing.

LLUA UNLOCK ALL LAYERS

commandline entry: **LLUA**
menu: **APLUS > LAYERS > LLUA**

Command unlocks all layers of current drawing.

LLONRF TURN ON REFFERENCE LAYERS

commandline entry: **LLONRF**
menu: **APLUS > LAYERS > LLONRF**

Select refference from list to turn on all it's layers.

LEGEND CREATE LEGEND OF DRAWINGS LAYERS

commandline entry: **LEGEND**
menu: **APLUS > LAYERS > LEGEND**

To create layers legend:
1. Specify origin
2. Specify scale of the legend (width)

Legend includes colors and names of particular layers.

COLORLL MOVING OBJECTS TO LAYERS BY THEIR COLOR.

commandline entry: **COLORLL**
menu: **APLUS > LAYERS > COLORLL**

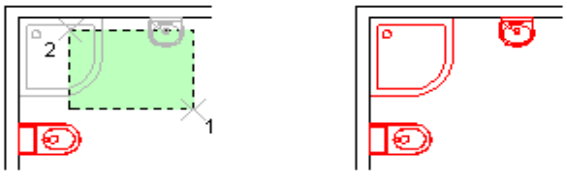
Select objects to move them to layers depending on their color. Command creates new layers with color numbers as their names.

LAYERS TOOLS

MLL MOVE TO SPECIFIED LAYER

commandline entry: **MLL**
menu: **APLUS > LAYERS TOOLS > MLL**

To move objects to specified layer:
1. Choose destination layer
2. Select objects



MLL0 MOVE TO LAYER 0

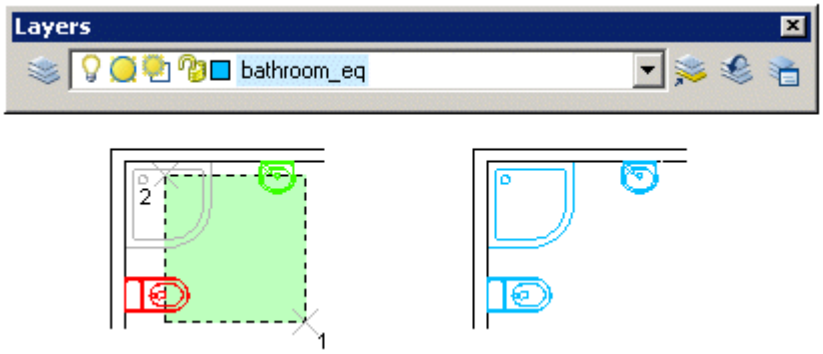
commandline entry: **MLL0**
menu: **APLUS > LAYERS TOOLS > MLL0**

Select objects to move them to layer 0.

MCLL MOVE TO SPECIFIED LAYER

commandline entry: **MCLL**
menu: **APLUS > LAYERS TOOLS > MCLL**

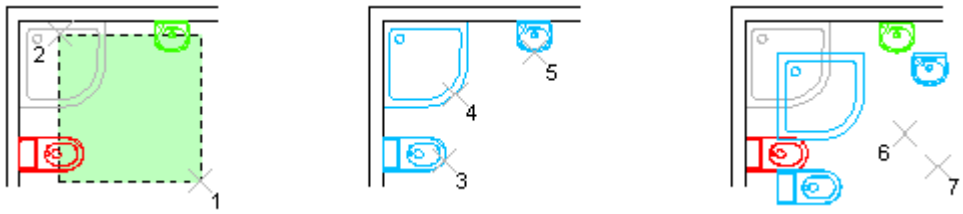
Select objects to move them to current layer.



COLL MOVE TO SPECIFIED LAYER

commandline entry: **COLL**
menu: **APLUS > LAYERS TOOLS > COLL**

To copy objects to specified layer:
1. Choose destination layer from list
2. Select objects



Command creates duplicate of selected objects in the same place. You can move them later using command ***MBLL*** moving objects from specified layer.

LLD DELETE SPECIFIED LAYER

commandline entry: **LLD**
menu: **APLUS > LAYERS TOOLS > LLD**

Select object to delete its layer. APLUS will show number of deleted objects in commandline.

LLM MERGE LAYERS

commandline entry: **LLM**
menu: **APLUS > LAYERS TOOLS > LLM**

To merge layers:
1. Select first layer
2. Select layer you want to merge.

LLR CHANGE LAYER`S NAME

commandline entry: **LLR**
menu: **APLUS > LAYERS TOOLS > LLR**

To change layers name:
1. Select object on the layer
2. Type new name

LLRP ADD PREFIX TO LAYERS NAME

commandline entry: **LLRP**
menu: **APLUS > LAYERS TOOLS > LLRP**

To add prefix to layers name:
1. Select object on the layer
2. Type prefix

APLUS adds underscore (_) between old name and prefix.

LLRS ADD SUFFIX TO LAYERS NAME

commandline entry: **LLRS**
menu: **APLUS > LAYERS TOOLS > LLRS**

To add suffix to layers name:
1. Select object on the layer
2. Type suffix

APLUS adds underscore (_) between old name and suffix.

LLC SET LAYER`S COLOR

commandline entry: **LLC**
menu: **APLUS > LAYERS TOOLS > LLC**

To set layers color:
1. Select layer
2. Select color.

LLCA ASSIGN RANDOM COLORS TO LAYERS

commandline entry: **LLCA**
menu: **APLUS > LAYERS TOOLS > LLCA**

Assigns random colors to layers with default color set to 0.

LLWE CHANGE LAYER'S LINEWEIGHT

commandline entry: **LLWE**
menu: **APLUS > LAYERS TOOLS > LLWE**

To change layer's default lineweight:
1. Pick object on the layer
2. Select new lineweight from list

LLPS CHANGE LAYER'S PLOT STYLE

commandline entry: **LLPS**
menu: **APLUS > LAYERS TOOLS > LLPS**

To change layer's default plotstyle:
1. Pick object on the layer
2. Select new plotstyle from list

LLSS SAVE STATE OF LAYERS

commandline entry: **LLSS**
menu: **APLUS > LAYERS TOOLS > LLSS**

Specify name to save visibility state of layers.

If you want to restore saved state use command ***LLSL***

LLSL LOAD STATE OF LAYERS

commandline entry: **LLSL**
menu: **APLUS > LAYERS TOOLS > LLSL**

Select previously saved layer visibility state to restore it. Layer states are saved with command ***LLSS***

LLW LAYER WALK

commandline entry: **LLW**
menu: **APLUS > LAYERS TOOLS > LLW**

Use command to browse trough layers. All layers except current will be turned off,

use SPACE BAR to move to next layer.

If you want to restore layers visibility use command ***LP***

You can set layer to be visible while browsing with command ***LLWS***

If you want to change browsing direction, use command ***LLWT*** .

LLWS SET VISIBILITY WHILE LAYER WALK (SHOW)


commandline entry: **LLWS**
menu: **APLUS > LAYERS TOOLS > LLWS**

Command makes current layer visible while using layer walk command ***LLW***

To make layer hidden while layer walk use command ***LLWO***

LLWO SET VISIBILITY WHILE LAYER WALK (HIDE)


commandline entry: **LLWO**
menu: **APLUS > LAYERS TOOLS > LLWO**

Commands sets layer that is visible while layer walk (command ***LLW***) back to be hidden.

If you want to set back layer to be visible while layer walk use command ***LLWS***

LLWT CHANGE DIRECTION OF LAYER WALK (LLW)


commandline entry: **LLWT**
menu: **APLUS > LAYERS TOOLS > LLWT**

Use command while walking through layers (***LLW***), to change browsing direction.

LLLIST LAYERS LIST


commandline entry: **LLLIST**
menu: **APLUS > LAYERS TOOLS > LLLIST**

Command makes list of layers and number of objects in them.

TOF MOVE TO TOP


commandline entry: **TOF**
menu: **APLUS > LAYERS TOOLS > TOF**

Command moves selected objects to the top.

TOB MOVE TO BOTTOM


commandline entry: **TOB**
menu: **APLUS > LAYERS TOOLS > TOB**

Command moves selected objects to the bottom.

TOFL MOVE LAYER TO TOP


commandline entry: **TOFL**

 menu: **APLUS > LAYERS TOOLS > TOFL**

Command moves selected layer to the top.

TOBL MOVE LAYER TO BOTTOM

 commandline entry: **TOBL**
 menu: **APLUS > LAYERS TOOLS > TOBL**

Command moves selected layer to the bottom.

BLOCKS

QB DEFINE BLOCK (QUICK ONE)

commandline entry: **QB**
menu: **APLUS > BLOCKS > QB**

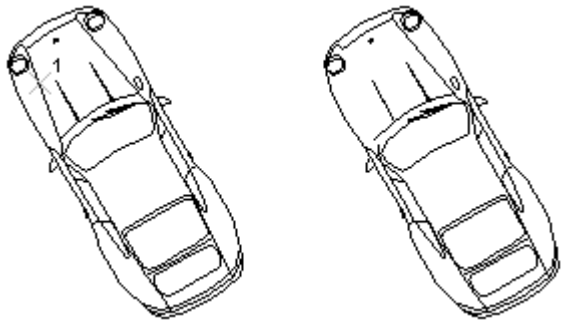
To define block quickly:
1. Select objects
2. Specify insert point
3. Type blocks name

BEN ERASE NESTED OBJECT FROM BLOCK

commandline entry: **BEN**
menu: **APLUS > BLOCKS > BEN**

To erase object nested in block:
1. Select block's instance
2. Select nested object

Nested object will be erased from all instances of selected block.



BADD ADD ELEMENTS TO BLOCK

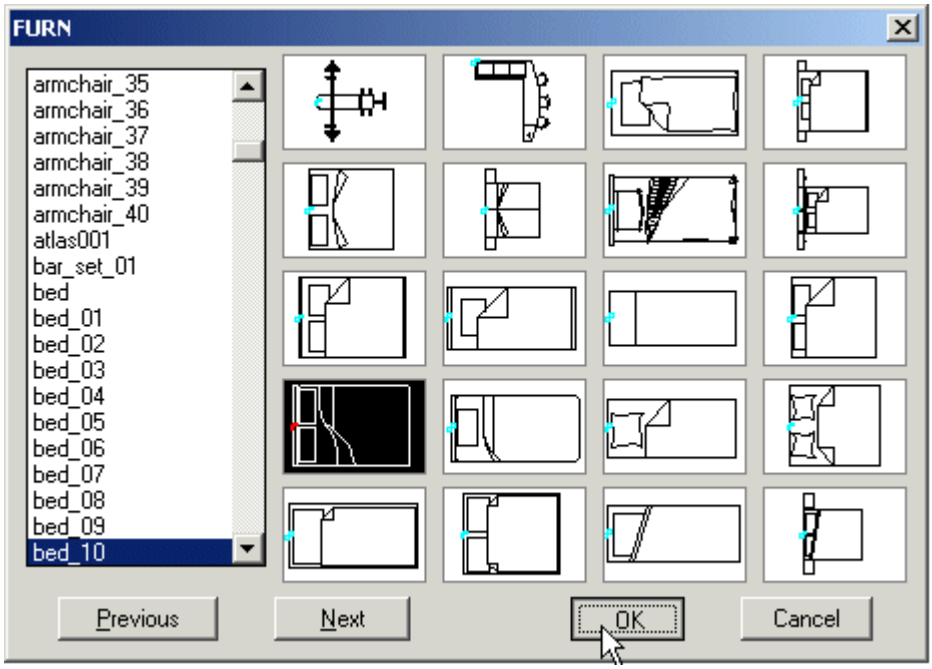
commandline entry: **BADD**
menu: **APLUS > BLOCKS > BADD**

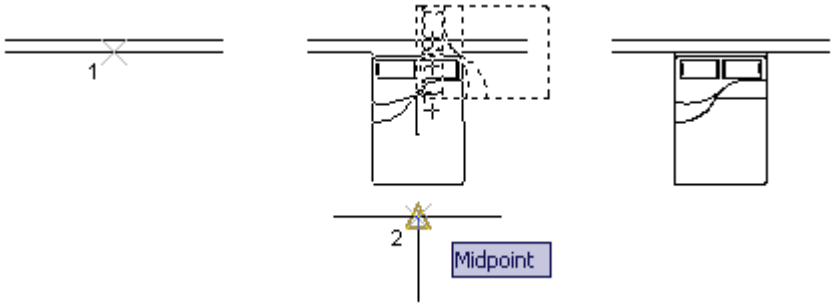
To add elements to block:
1. Select source block
2. Select objects you want to add into selected block

BI INSERT INDEXED BLOCK

commandline entry: **BI**
menu: **APLUS > BLOCKS > BI**

To move objects to specified layer:
1. Choose destination layer
2. Select objects





Size of inserted blocks depends on APLUS units setting (by default - meters ***AUM*** , you can also set centimeters ***AUCM*** and millimeters ***AUMM***

To repeat inserting selected block use command ***BIL***

BIS INSERT ONE OF MOST COMMON BLOCKS

commandline entry: **BIS**
menu: **APLUS > BLOCKS > BIS**

To insert a common block (one from APLUS/BLOCK folder)
1. Select block from a list
2. Specify insertion point
3. Specify insertion angle

BRI REDEFINE BLOCK WITH IMPORTED ONE

commandline entry: **BRI**
menu: **APLUS > BLOCKS > BRI**

To redefine block:
1. Select block you want to redefine
2. Select dwg file from your disk

BIL INSERT LAST BLOCK

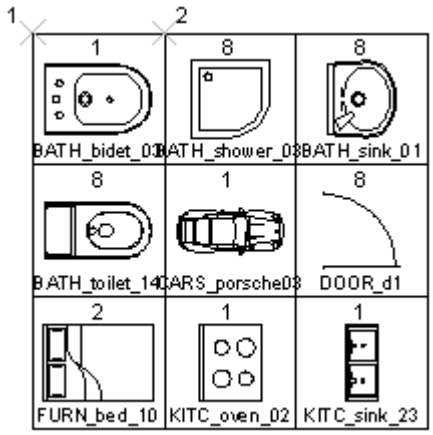
commandline entry: **BIL**
menu: **APLUS > BLOCKS > BIL**

Command repeat inserting last block, done by command ***BI***

BINDEX VISUAL LIST OF BLOCKS IN CURRENT DRAWING

commandline entry: **BINDEX**
menu: **APLUS > BLOCKS > BINDEX**

To create visual index of blocks:
1. Specify size of indexes grid
2. Specify number of colums
3. Specify insertion point



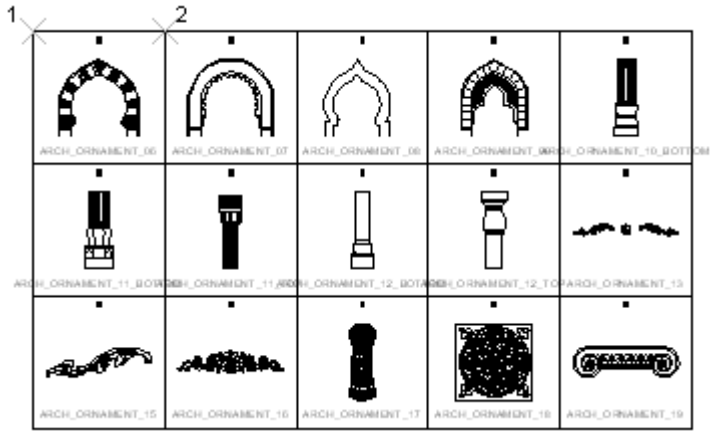
Before creating grid, APLUS will ask whether to index all blocks or only those, that exists on specified area.

Indexes grid includes:
1. Blocks visual representation
2. Number of objects
3. Name

BIINDEX VISUAL LIST OF AVAILABLE BLOCKS

commandline entry: **BIINDEX**
menu: **APLUS > BLOCKS > BIINDEX**

To create visual index of blocks:
1. Specify size of indexes grid
2. Specify number of colums
3. Specify insertion point

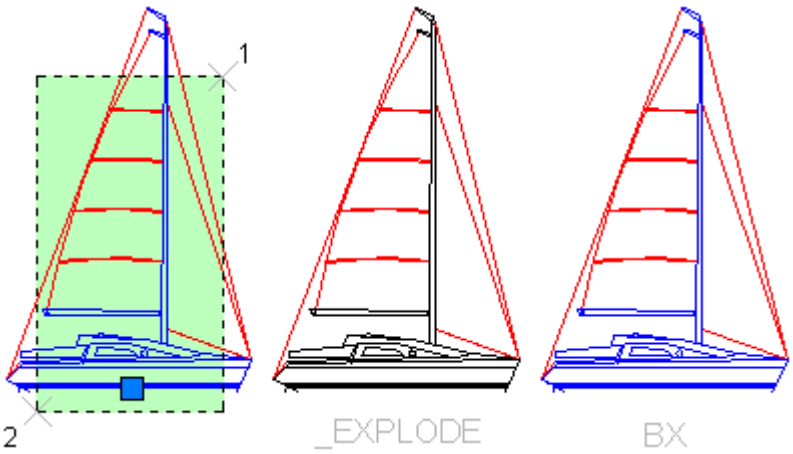


Indexes grid includes:
1. Blocks visual representation
2. Number of objects
3. Name

BX EXPLODE BLOCK AND MOVE CONENTS FROM LAYER 0 TO BLOCK'S INSTANCE LAYER

commandline entry: **BX**
menu: **APLUS > BLOCKS > BX**

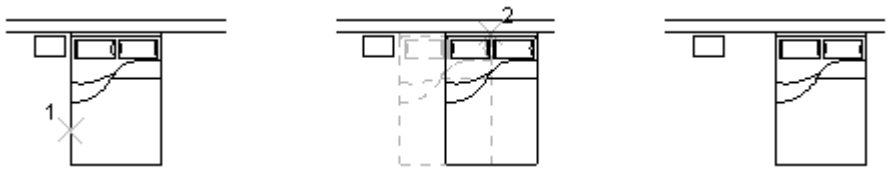
In AutoCAD when you EXPLODE block, elements which are on layer 0 in block's definition, will be moved back to layer 0. BX command explodes block and keeps those elements on current layer after explosion.



BM MOVE BLOCK

commandline entry: **BM**
menu: **APLUS > BLOCKS > BM**

To move selected block:
1. Specify source point
2. Specify destination point

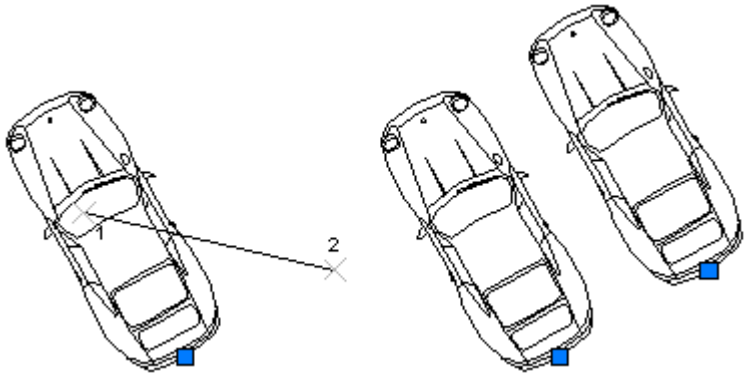


BCO COPY BLOCK

commandline entry: **BCO**
menu: **APLUS > BLOCKS > BCO**

To copy block
1. Select block you want to copy
2. Specify destination point

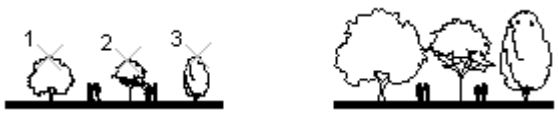
Block's insert point is a default base point for this command.



BSC SCALE BLOCK

commandline entry: **BSC**
menu: **APLUS > BLOCKS > BSC**

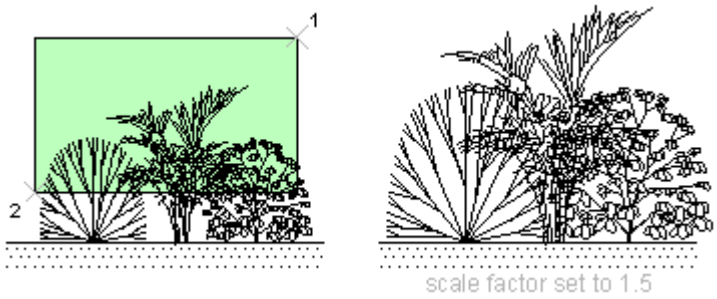
To scale selected blocks:
1. Specify scale (for example 10 for 10x enlargement)
2. Select blocks



BSCA SCALE ALL SELECTED BLOCKS

commandline entry: **BSCA**
menu: **APLUS > BLOCKS > BSCA**

To scale multiple blocks:
1. Select blocks you wish to scale
2. Specify scale factor

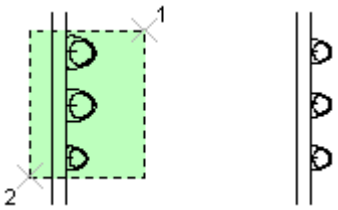


Block's insert point is a default base point for this command.

BSC1 RESTORE BLOCKS SCALE

commandline entry: **BSC1**
menu: **APLUS > BLOCKS > BSC1**

Select blocks to restore their default size.



BRO ROTATE BLOCK

commandline entry: **BRO**
menu: **APLUS > BLOCKS > BRO**

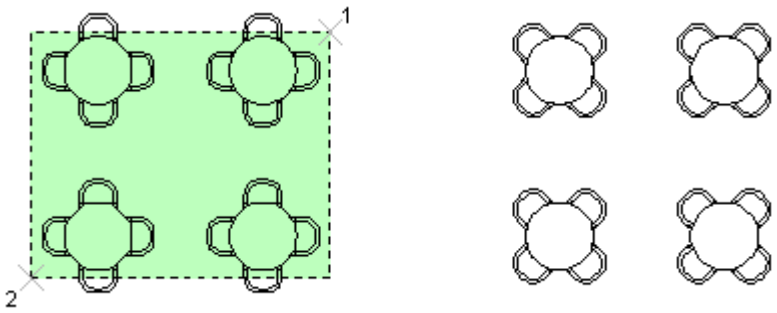
To rotate selected blocks:
1. Select block
2. Specify rotation angle

Insertion point will be treated as a base point for rotate action.

BROC BATCH ROTATE OF BLOCKS

commandline entry: **BROC**
menu: **APLUS > BLOCKS > BROC**

To rotate multiple blocks at one time:
1. Specify rotation angle
2. Select all blocks you want to be rotated

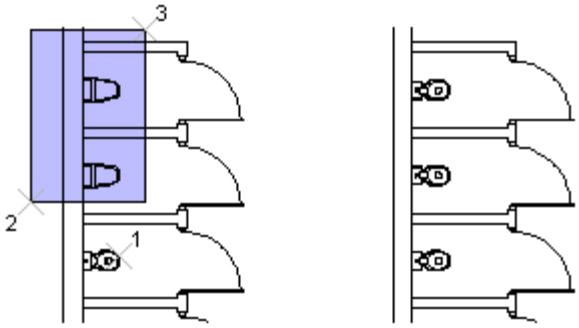


Blocks will be rotated around their insertion points.

BRE REPLACE BLOCKS

commandline entry: **BRE**
menu: **APLUS > BLOCKS > BRE**

To replace blocks:
1. Select source block
2. Select blocks you want to be replaced

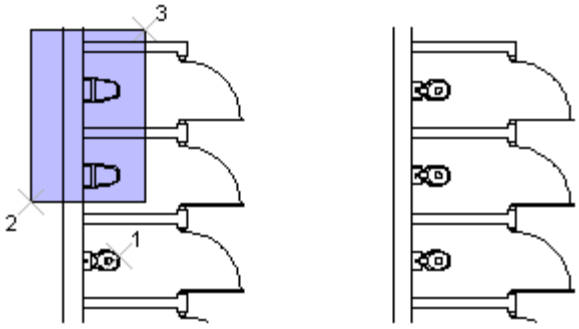


Insertion points will be preserved.

BRE2 REPLACE BLOCKS (WITHOUT ATRIBUTES)

commandline entry: **BRE2**
menu: **APLUS > BLOCKS > BRE2**

To replace blocks:
1. Select source block
2. Select blocks you want to be replaced

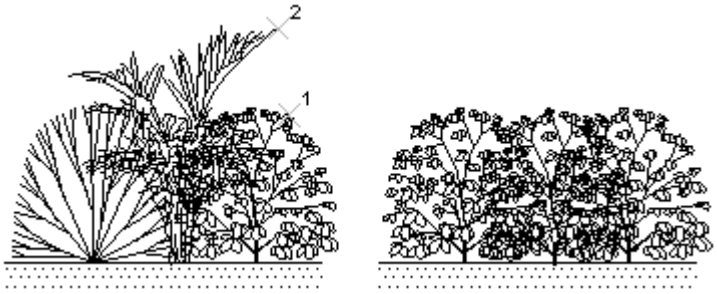


Insertion points will be preserved. Atributes will not be preserved.

BREA REPLACE ALL BLOCK DEFINIOTIONS

commandline entry: **BREA**
menu: **APLUS > BLOCKS > BREA**

Select block to replace all other blocks with it.



BREGEN REGENERATE ATTRIBUTES

commandline entry: **BREGEN**
menu: **APLUS > BLOCKS > BREGEN**

Select blocks to regenerate their attributes.

BRENAME CHANGE BLOCK`S NAME

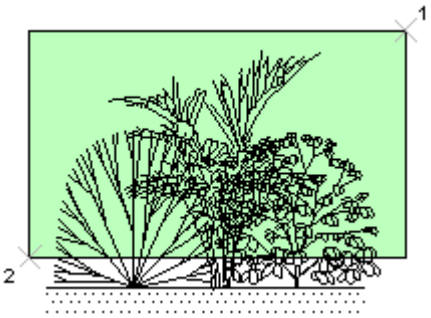
commandline entry: **BRENAME**
menu: **APLUS > BLOCKS > BRENAME**

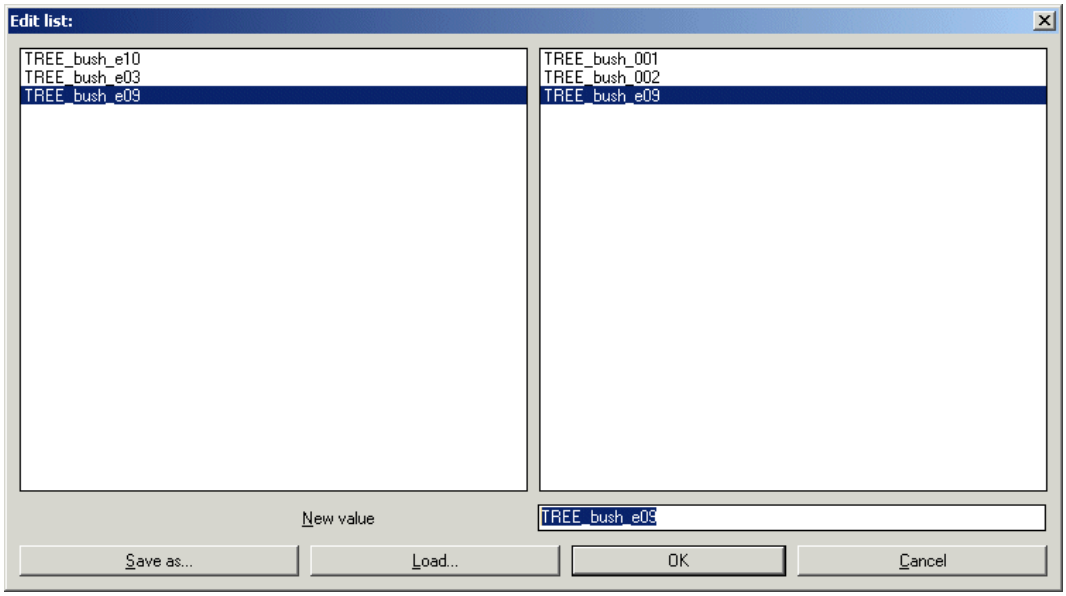
To change blocks name:
1. Select block
2. Type new name

BRENAMEA RENAME ALL SELECTED BLOCKS

commandline entry: **BRENAMEA**
menu: **APLUS > BLOCKS > BRENAMEA**

To rename selected blocks:
1. Select group of blocks you want to rename
2. Selet block in a list and type it's new name
3. Press OK when done

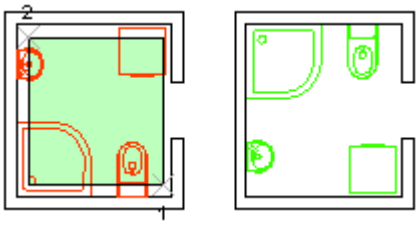




BLL MOVE ALL INSTANCES OF A BLOCK INTO SPECIFIED LAYER

commandline entry: **BLL**
menu: **APLUS > BLOCKS > BLL**

To move instances of a block to a specified layer:
1. Select destination layer from a list
2. Select one of block instances



All other properties of blocks will remain untouched (e.g. linewieght)

BLL0 SET EVERYTHING IN BLOCK TO 'BY LAYER'

commandline entry: **BLL0**
menu: **APLUS > BLOCKS > BLL0**

Select blocks to set all of their attributes to 'ByLayer' and to move everything to Layer 0.

BEX EXPORT BLOCK

commandline entry: **BEX**
menu: **APLUS > BLOCKS > BEX**

Select block you want to export

Default save path is:
APLUS_path\BLOCKS\filename.dwg

If you want to move created block into specified category, name block with appropriate prefix (for example KITC_sink4). Block will be saved in KITC folder.

BEXS BATCH BLOCKS EXPORT TO APLUS\BLOCKS DIRECTORY

commandline entry: **BEXS**
menu: **APLUS > BLOCKS > BEXS**

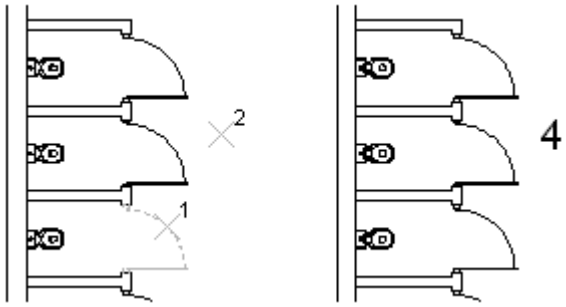
Command exports all selected blocks as DWG files. Block names will be used as file names.

APLUS\BLOCKS is a default save path. For blocks with 4-letter/digit prefixes, blocks will be saved in directory with this 4 character name.

BCOUNT BLOCK COUNTER.

commandline entry: **BCOUNT**
menu: **APLUS > BLOCKS > BCOUNT**

To use block counter:
1. Select block
2. Specify insertion point of attribute with number of blocks



Inserted attribute is linked with current number of block instances, so you can automatically update it with command ***BCU***

BCU UPDATE BLOCK COUNTER

commandline entry: **BCU**
menu: **APLUS > BLOCKS > BCU**

Use this command to update attribute with number of instances of particular block.

BCU1 UPDATE BLOCK COUNTER -1

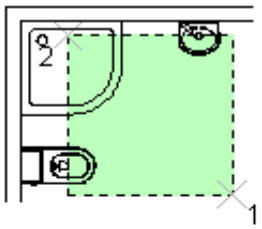
commandline entry: **BCU1**
menu: **APLUS > BLOCKS > BCU1**

Command updates number of blocks created with ***BCOUNT*** and subtract 1 form result (in case you have for example put instance of a block in a table or anywhere outside else outside project itself)

BLIST MAKE LIST OF BLOCKS

commandline entry: **BLIST**
menu: **APLUS > BLOCKS > BLIST**

To make list of blocks:
1. Specify area, from which blocks will be listed
2. Select format of the list (plain text or Microsoft EXCEL file)



AutoCAD Text Window - D:\aplus\instrukcja\instrukcja.dwg

Edit

```
Name                 NR   ORG     X     Y    XY    AN
-------------------------------------------------------
BATH_SHOWER_03        1     1     0     0     0     0
BATH_SINK_01          1     1     0     0     0     0
BATH_TOILET_14        1     1     0     0     0     0

You want to export this file to TXT/EXCEL (T/E):
```

BEE BLOCK EDITOR

commandline entry: **BEE**
menu: **APLUS > BLOCKS > BEE**

Select block to run block editor.

BMIP MOVE INSERT POINT

commandline entry: **BMIP**
menu: **APLUS > BLOCKS > BMIP**

To move blocks insert point:
1. Select block
2. Specify new insertion point (APLUS will draw line linking cursor with old previous point)
3. Select whether to preserve location of all instances of particular block or not

BROIP ROTATE BLOCK AROUND INSERT POINT

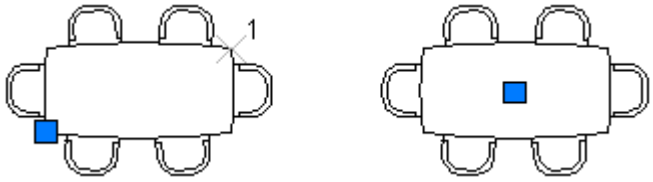
commandline entry: **BROIP**
menu: **APLUS > BLOCKS > BROIP**

To rotate block definition around its insert point:
1. Select block
2. Type rotation angle
3. Specify whether to rotate instances of the block or not

BCEN CENTER INSERT POINT

commandline entry: **BCEN**
menu: **APLUS > BLOCKS > BCEN**

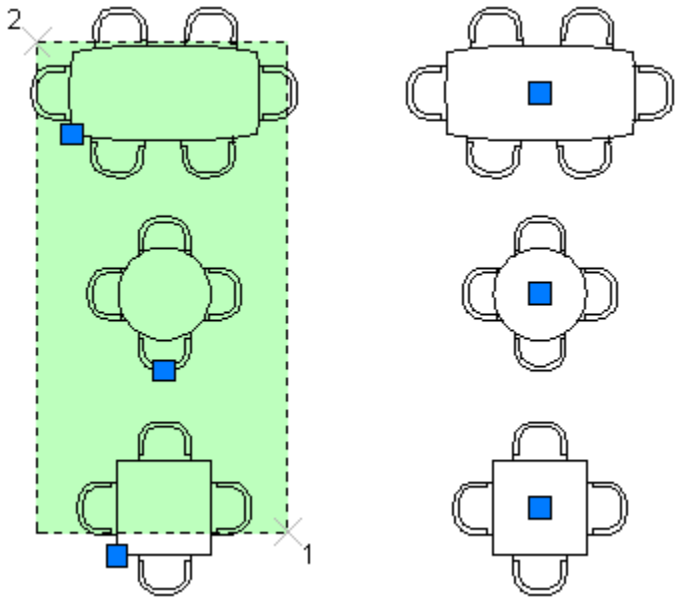
Command centers insert point of selected block. Options:
1. Center in X axis
2. Center in Y axis
3. Center in both axises (XY or MC)
4. Insertion point in corner (TL - top left, TR - top right, BL - bottom left, BR - bottom right)
5. Insertion point in middle of the edge (TC - top center, ML - middle left, MR - middle right, BC - bottom center)



BCENA CENTER INSERT POINT OF MULTIPLE BLOCKS

commandline entry: **BCENA**
menu: **APLUS > BLOCKS > BCENA**

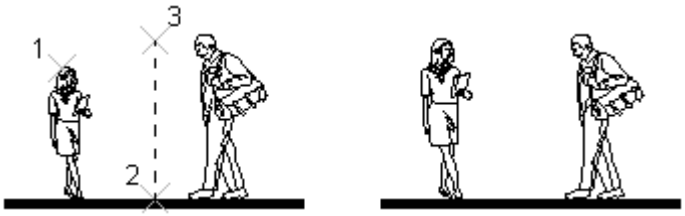
Command centers insert point of selected blocks. Available options:
1. Center insert points in X axises
2. Center insert points in Y axises
3. Center insert points in both axises (XY or MC)
4. Insertion points in corners (TL - top left, TR - top right, BL - bottom left, BR - bottom right)
5. Insertion points in middle of the edges (TC - top center, ML - middle left, MR - middle right, BC - bottom center)



BSIZE CHANGE BLOCKS SIZE (DEFINITION)

commandline entry: **BSIZE**
menu: **APLUS > BLOCKS > BSIZE**

Change block's definition size. Available options:
1. DX - set new length
2. DY - set new height
3. SCALE - specify scale factor.



All instances of the block will be scaled automatically.

BSIZEA CHANGE SIZE OF BLOCKS

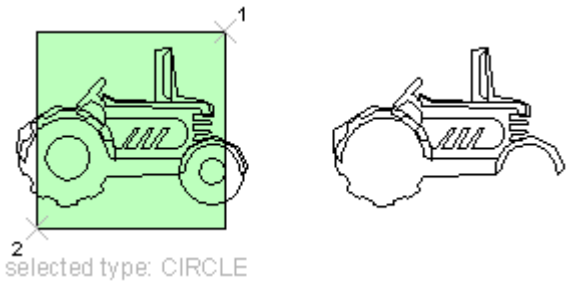
commandline entry: **BSIZEA**
menu: **APLUS > BLOCKS > BSIZEA**

Change size of defined blocks. After specifying scale factor, all instances of the block will be automatically scaled.

BETYPE ERASE OBJECTS OF SPECIFIED TYPE FROM SELECTED BLOCKS

commandline entry: **BETYPE**
menu: **APLUS > BLOCKS > BETYPE**

To erase objects of specified type:
1. Select objects type from a list
2. Select blocks

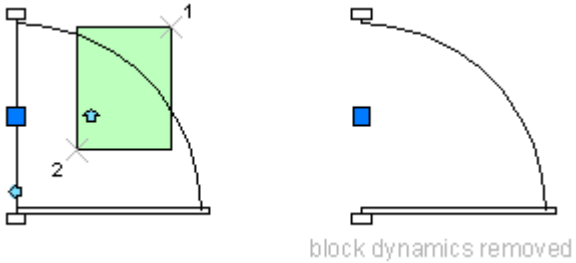


Command updates block definitons, so all instaces will be changed.

UNDYN REMOVE BLOCK DYNAMICS

commandline entry: **UNDYN**
menu: **APLUS > BLOCKS > UNDYN**

Select block to remove its dynamics



You don't have to be worried about loosing dynamics in other instances of selected block. APLUS makes a copy before removing dynamics form block.

BET ERASE BLOCK'S INSTANCES AND DEFINITION

commandline entry: **BET**
menu: **APLUS > BLOCKS > BET**

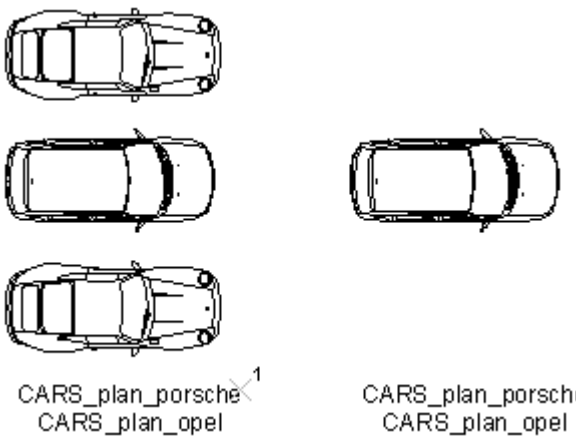
Select block to completely wipe it out from drawing.

Command search and erases all instances of selected block. It also deletes block definition from a file.

EBLOCK ERASE BLOCK FROM A DRAWING

commandline entry: **EBLOCK**
menu: **APLUS > BLOCKS > EBLOCK**

Select block to erase it form drawing



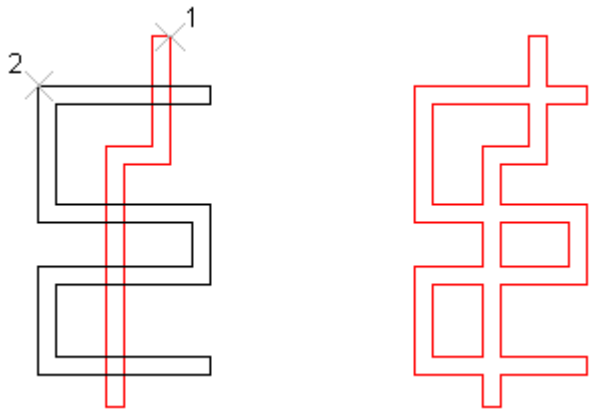
Command search and erases all instances of selected block. It also deletes block definition from a file.

POLYLINES

PLU UNION POLYLINES

commandline entry: **PLU**
menu: **APLUS > POLYLINES > PLU**

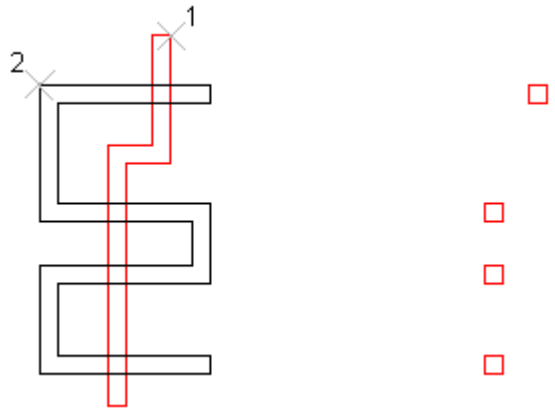
Select two intersecting, closed polylines to union them. From these two APLUS will make one, which will be sum their shapes.



PLI POLYLINES INTERSECTION

commandline entry: **PLI**
menu: **APLUS > POLYLINES > PLI**

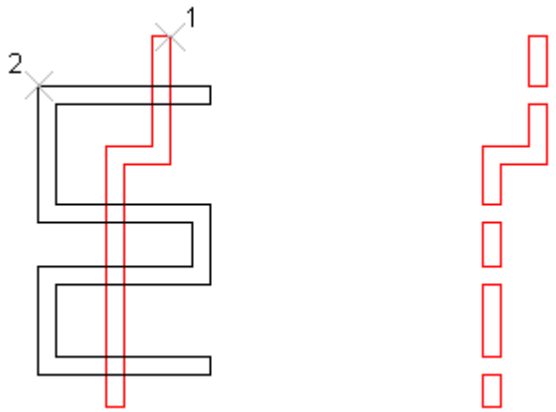
Select two intersecting, closed polylines. APLUS will make new object from their common part.



PLS SUBTRACT FROM POLYLINE

commandline entry: **PLS**
menu: **APLUS > POLYLINES > PLS**

To subtract area from polyline:
1. Select object from which you want to subtract
2. Select subtracting polyline

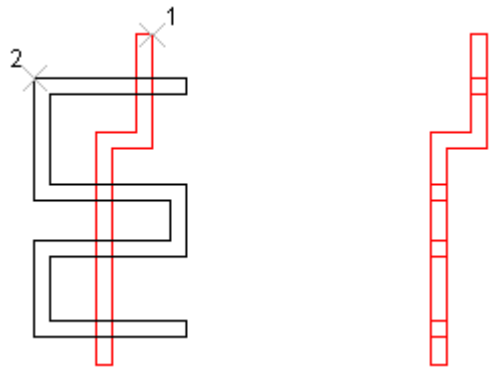


If subtracting polyline splits base one, you will get two objects.

PLD DIVIDE POLYLINE'S AREA

commandline entry: **PLD**
menu: **APLUS > POLYLINES > PLD**

To divide polyline's area:
1. Select first closed polyline
2. Select second closed polyline

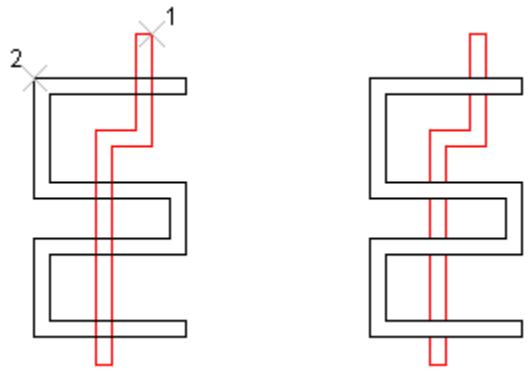


Area of the first polyline will be divided with area of the second.

PLT TRIM POLYLINE`S AREA

commandline entry: **PLT**
menu: **APLUS > POLYLINES > PLT**

To trim areas of closed polylines:
1. Select polyline which you want to trim
2. Select trimming polyline

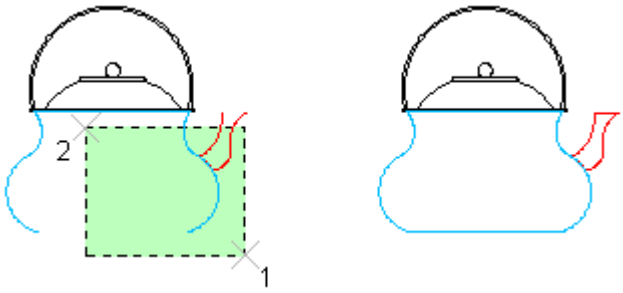


Area of the second polyline will be cut from the first. If needed, it will be divided into two new objects.

PLC CLOSE POLYLINE

commandline entry: **PLC**
menu: **APLUS > POLYLINES > PLC**

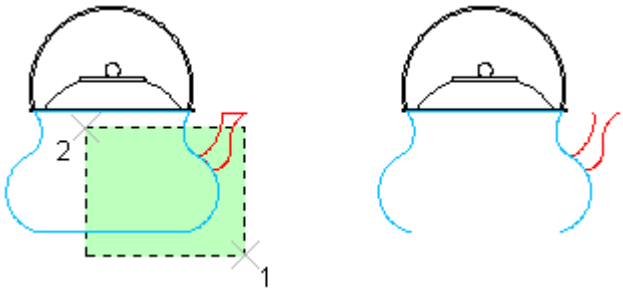
Select opened polyline to enclose it.



PLO OPEN POLYLINE

commandline entry: **PLO**
menu: **APLUS > POLYLINES > PLO**

Select closed polyline to open it.

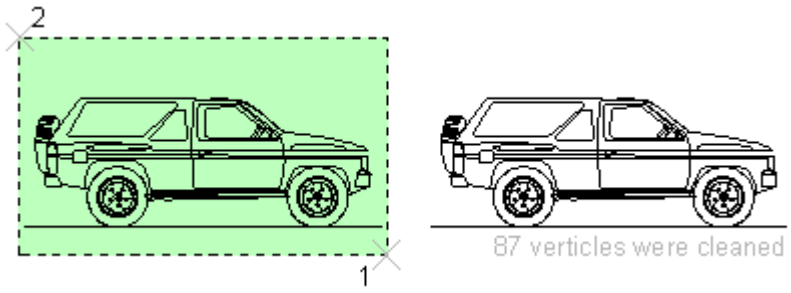


By default polyline get opened by erasing it`s last segment.

PLP PURGE POLYLINE

commandline entry: **PLP**
menu: **APLUS > POLYLINES > PLP**

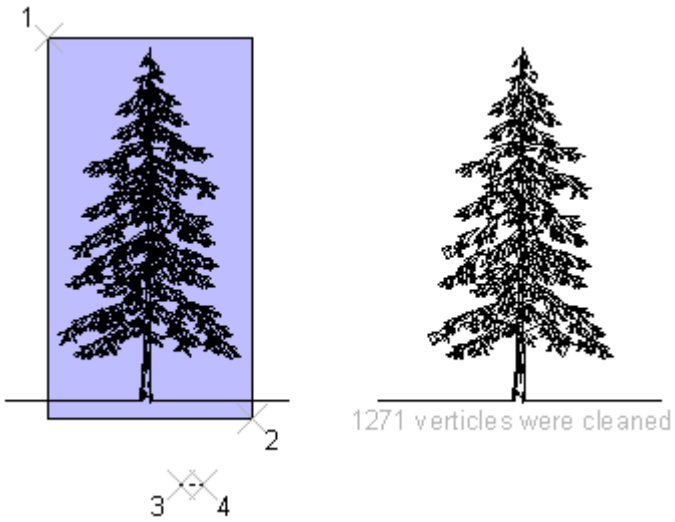
Select polyline to purge it from unnecessary elements, such as vertexes drawn in one line.



PLPS PURGE POLYLINE FROM UNNECESSARY VERTEXES

commandline entry: **PLPS**
menu: **APLUS > POLYLINES > PLPS**

Select polyline and specify purge area.

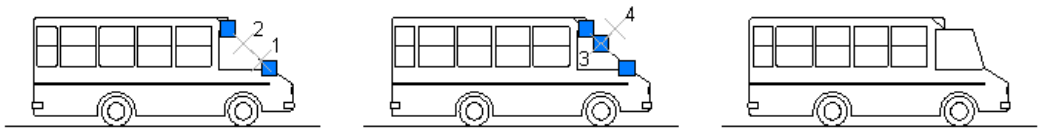


Vertexes which distance is shorter than specified, will be connected into one.

PLAV ADD VERTEX TO POLYLINE

commandline entry: **PLAV**
menu: **APLUS > POLYLINES > PLAV**

To add vertex to polyline
1. Select polyline by clicking on a segment, that you want to add vertex
2. Specify insertion point for new vertex

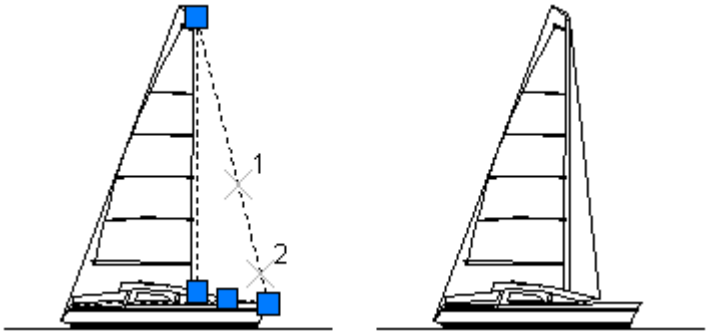


PLEV ERASE VERTEX FROM POLYLINE

commandline entry: **PLEV**
menu: **APLUS > POLYLINES > PLEV**

To erase vertex from polyline:
1. Select polyline

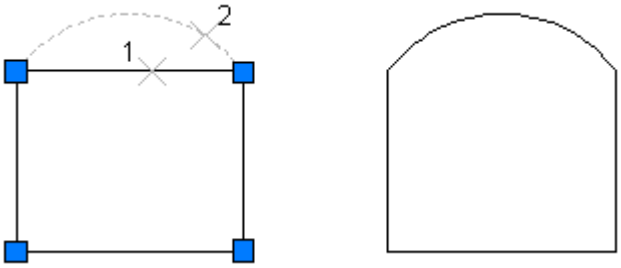
2. APLUS will erase vertexes placed closest to points you click



PLARC TRANSFORM POLYLINE INTO AN ARC

commandline entry: **PLARC**
menu: **APLUS > POLYLINES > PLARC**

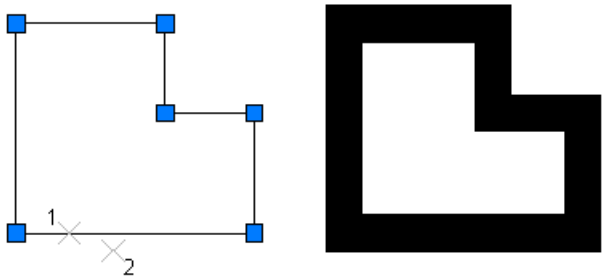
To transform polyline into arc:
1. Select segment of polyline
2. Specify tangent point of created arc



PLW CHANGE WIDTH OF POLYLINE

commandline entry: **PLW**
menu: **APLUS > POLYLINES > PLW**

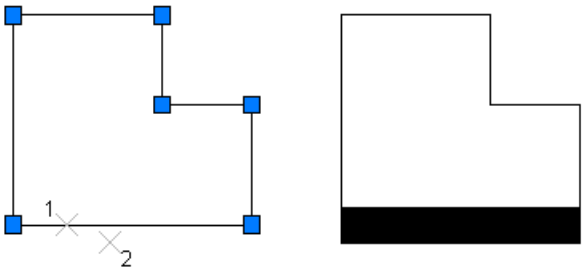
To change width of polyline
1. Select polyline
2. Specify on-screen new width



PLWS CHANGE WIDTH OF POLYLINE'S SEGMENT

commandline entry: **PLWS**
menu: **APLUS > POLYLINES > PLWS**

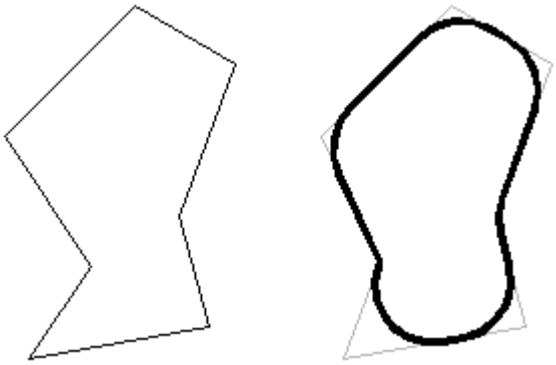
To change width of polyline's segment:
1. Select segment of polyline
2. Specify on-screen new width



FPL FILLET POLYLINE

commandline entry: **FPL**
menu: **APLUS > POLYLINES > FPL**

In order to fillet polyline:
1. Select polyline
2. Specify fillet radius

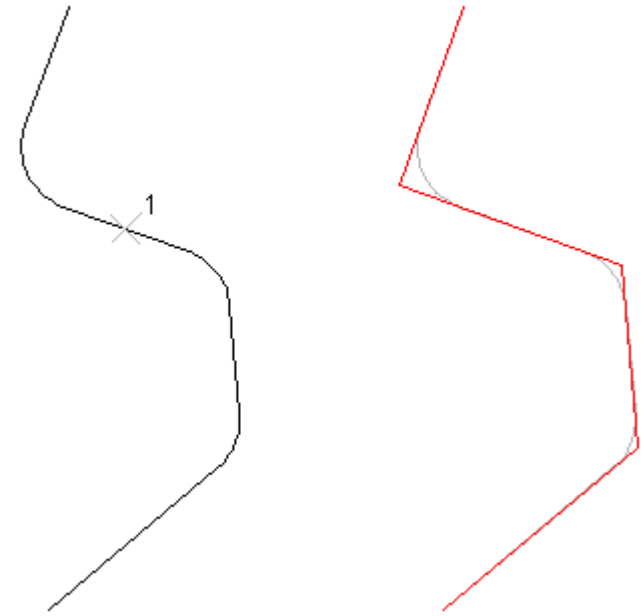


APLUS will create new polyline, but old one will remain untouched in case you wish to keep it (otherwise you may erase it).

F0PL POLYLINE FILLET 0 (DELETE ARCS)

commandline entry: **F0PL**
menu: **APLUS > POLYLINES > F0PL**

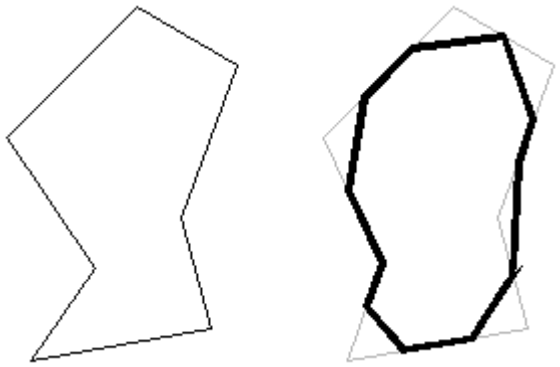
Select polyline with arcs to fillet it with 0 radius. Arcs will be removed.



CHAPL CHAMFER POLYLINE

commandline entry: **CHAPL**
menu: **APLUS > POLYLINES > CHAPL**

In order to chamfer polyline:
1. Select polyline
2. Specify chamfer radius

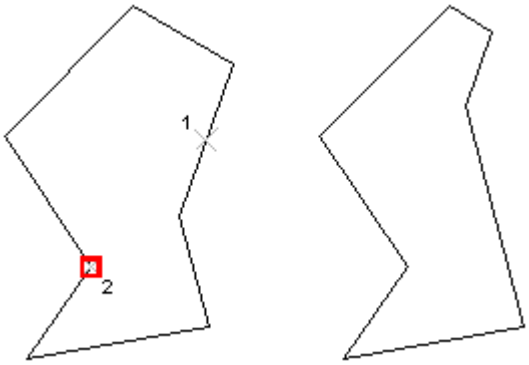


APLUS will create new polyline, but old one will remain untouched in case you wish to keep it (otherwise you may erase it).

MPL MOVE SELECTED POLYLINE'S SEGMENT

commandline entry: **MPL**
menu: **APLUS > POLYLINES > MPL**

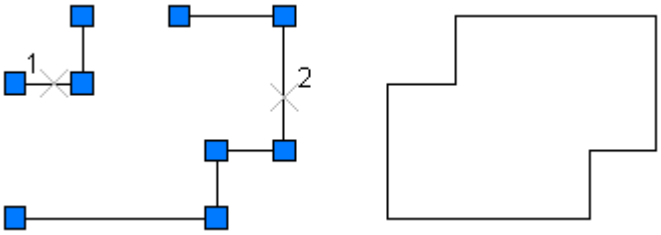
To move selected polyline's segment:
1. Pick segment
2. Specify new position



CON CONNECT VERTEXES OF LINE/POLYLINE

commandline entry: **CON**
menu: **APLUS > POLYLINES > CON**

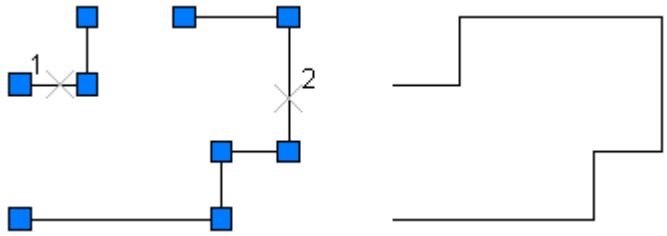
Select two lines or polylines to connect their start/end vertexes.



CONN CONNECT TWO CLOSEST VERTEXES OF LINE/POLYLINE

commandline entry: **CONN**
menu: **APLUS > POLYLINES > CONN**

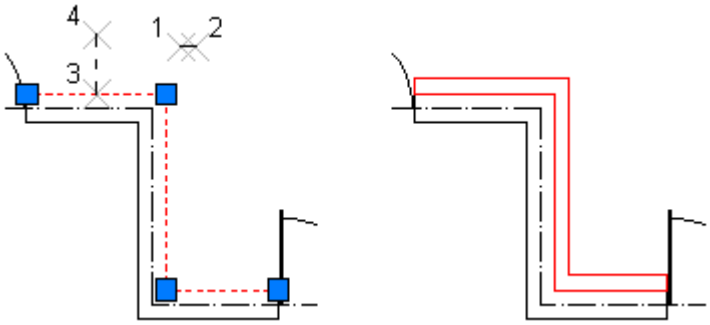
Select two lines or polylines to connect vertexes placed closest to each other.



OCON OFFSET AND CONNECT

commandline entry: **OCON**
menu: **APLUS > POLYLINES > OCON**

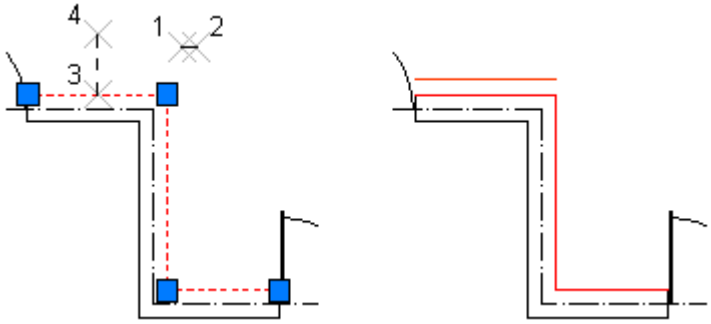
Select line or polyline and specify offset distance. If polyline is not closed, created polyline will be connected with source one.



OPL OFFSET POLYLINE'S SEGMENT

commandline entry: **OPL**
menu: **APLUS > POLYLINES > OPL**

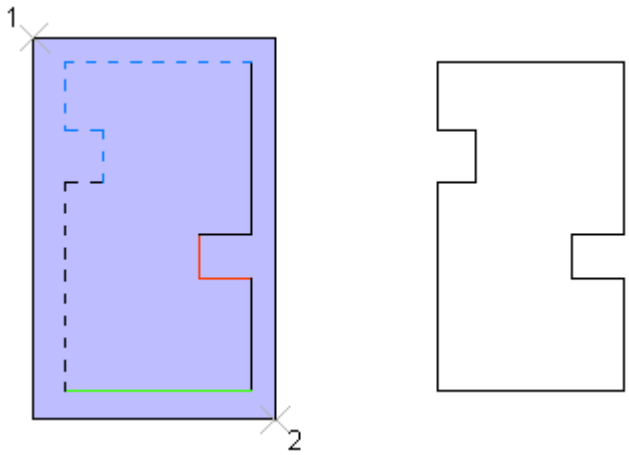
Select two lines or polylines to connect vertexes placed closest to each other.



JJ JOIN POLYLINES

commandline entry: **JJ**
menu: **APLUS > POLYLINES > JJ**

Select objects to join them into polyline. IMPORTANT: selected objects need to be connected at their end points.

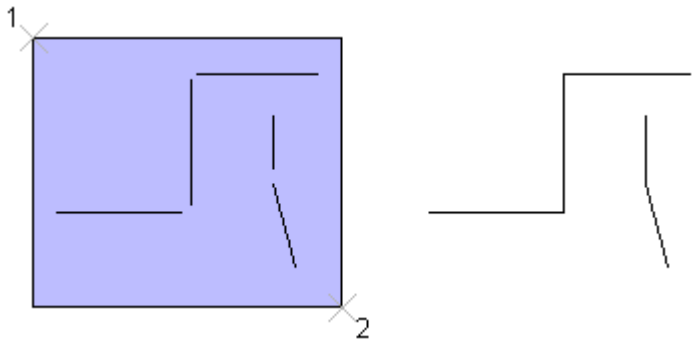


Lines will be transformed automatically into polylines.

WELD WELD INTO POLYLINE

commandline entry: **WELD**
menu: **APLUS > POLYLINES > WELD**

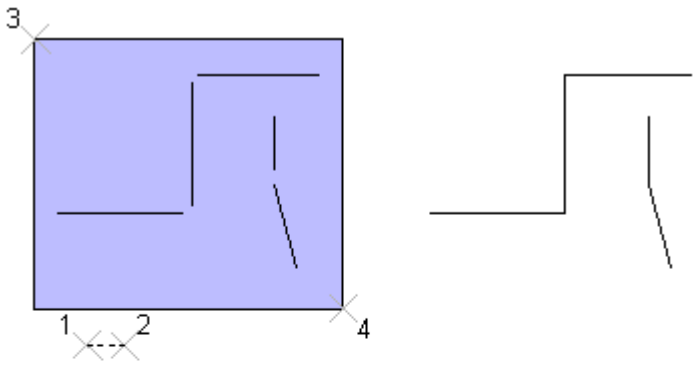
Command welds lines, which have vertexes placed 3cm or less to each other.

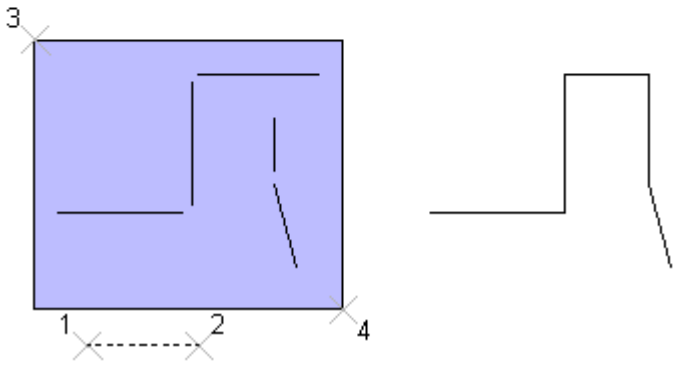


WELDD WELD INTO POLYILNE (WITH SPECIFIED SEARCH DISTANCE)

commandline entry: **WELDD**
menu: **APLUS > POLYLINES > WELDD**

To weld objects into polyline:
1. Specify connection's search distance
2. Specify search area

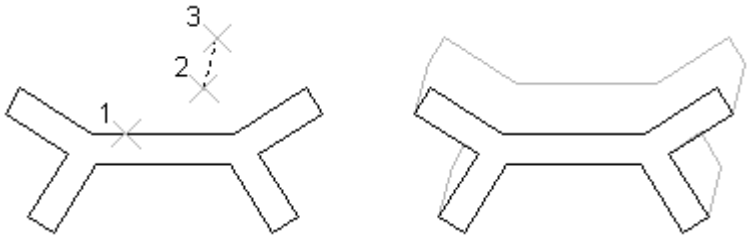




PLSHADOW SIMULATE POLYLINE'S SHADOW

commandline entry: **PLSHADOW**
menu: **APLUS > POLYLINES > PLSHADOW**

To simulate polyline's shadow
1. Select closed polyline
2. Draw line to determine direction and distance of a shadow

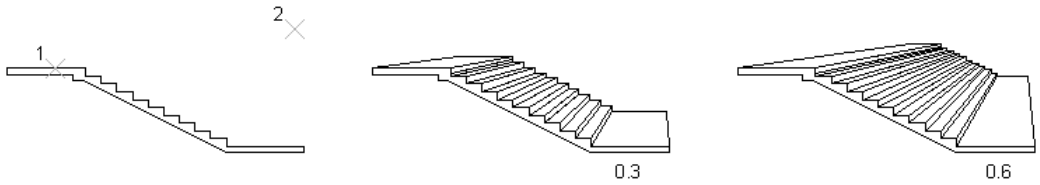


Command draws shadow as a closed polyline on current set to current. If needed shadow is divided into few objects.

PLPERS SIMULATE PERSPECTIVE

commandline entry: **PLPERS**
menu: **APLUS > POLYLINES > PLPERS**

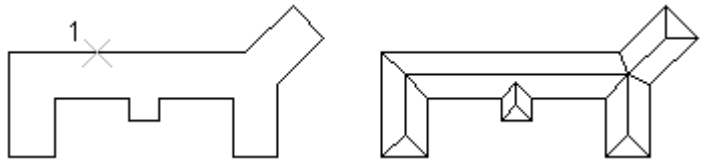
To simulate perspective:
1. Select objects
2. Specify point on horizon line (vanishing point)
3. Determine depth (0.0 - none, 1.0 - lines from object to vanishing point)



PLROOF SIMULATE ROOF FROM POLYLINE

commandline entry: **PLROOF**
menu: **APLUS > POLYLINES > PLROOF**

Select closed polyline, to simulate roof with the same inclination angle for all surfaces.

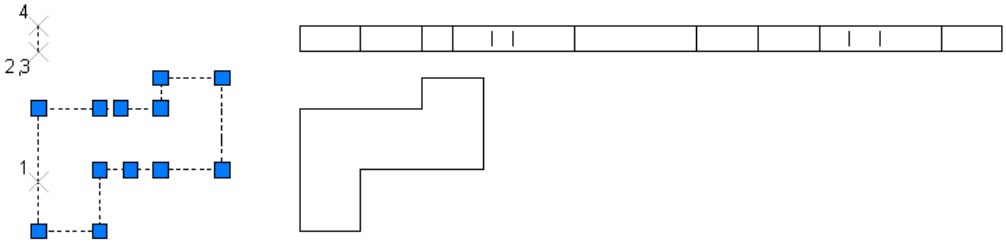


PLUNWARP UNWRAP POLYLINE

commandline entry: **PLUNWARP**
menu: **APLUS > POLYLINES > PLUNWARP**

To unwrap polyline's shape:
1. Select closed polyline

2. Specify height
3. Specify insert point

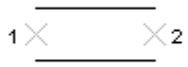


WALLS

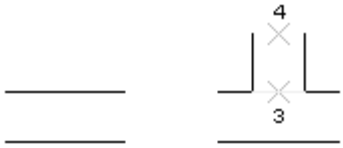
WA CREATE WALLS WITH SPECIFIED THICKNESS

commandline entry: **WA**
menu: **APLUS > WALLS > WA**

To draw wall:
1. Determine thickness of created wall
2. Specify start point of wall's axis
3. Specify end point of wall's axis



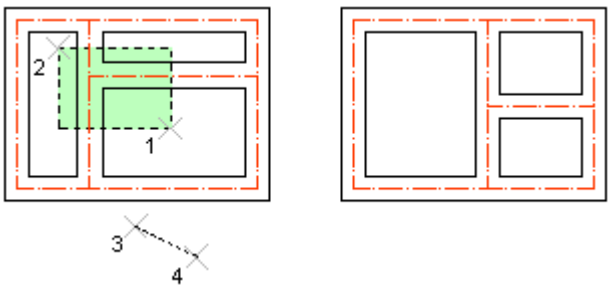
You can add new walls to existing ones. To do so, repeat procedure on path intersecting existing wall.



MWA MOVE WALLS

commandline entry: **MWA**
menu: **APLUS > WALLS > MWA**

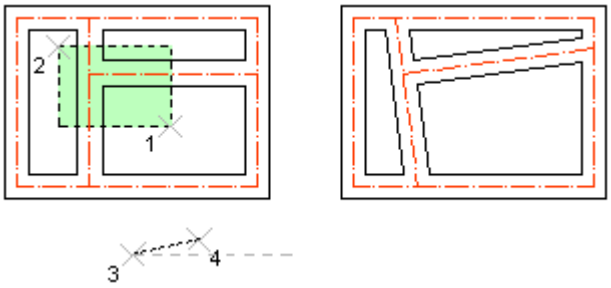
To move walls:
1. Select walls you want to move
2. Specify base point
3. Specify destination point



ROWA ROTATE WALLS

commandline entry: **ROWA**
menu: **APLUS > WALLS > ROWA**

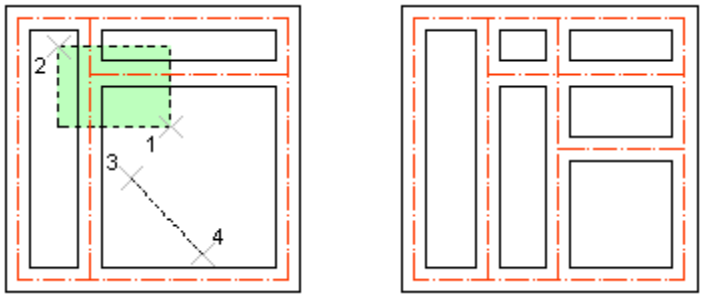
To rotate walls:
1. Select walls you want to rotate
2. Specify rotation angle



COWA COPY WALLS

commandline entry: **COWA**
menu: **APLUS > WALLS > COWA**

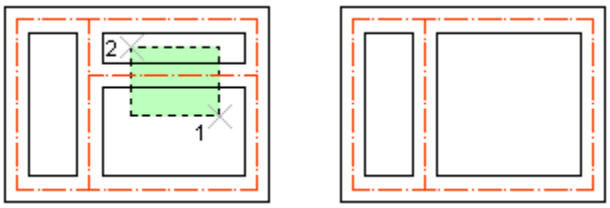
To copy walls
1. Select walls you want to copy
2. Specify base point
3. Specify destination point



EWA ERASE WALLS

commandline entry: **EWA**
menu: **APLUS > WALLS > EWA**

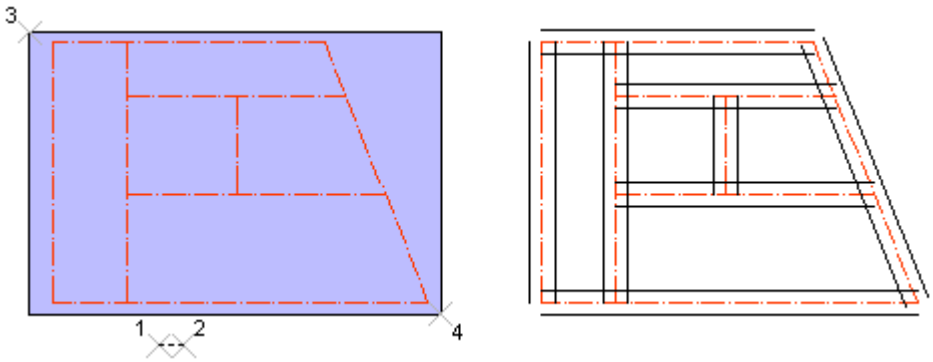
Use this command to remove unnecessary walls.



WAL CREATE WALLS FROM LINES

commandline entry: **WAL**
menu: **APLUS > WALLS > WAL**

To create wall from line:
1. Specify thickness of a wall
2. Select lines, which will be treated as axis lines of created walls

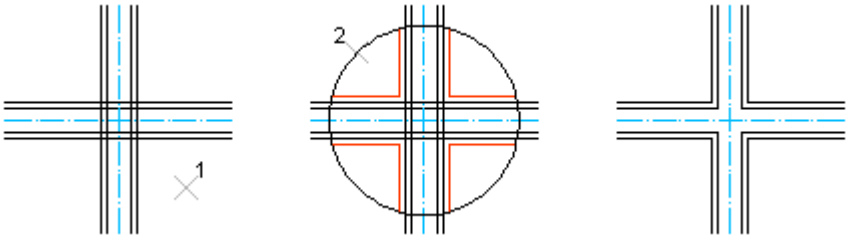


Newly created walls will be created with lines, so you will have to do connections by yourself.

WAX CREATE CROSS CONNECTION BETWEEN WALLS

commandline entry: **WAX**
menu: **APLUS > WALLS > WAX**

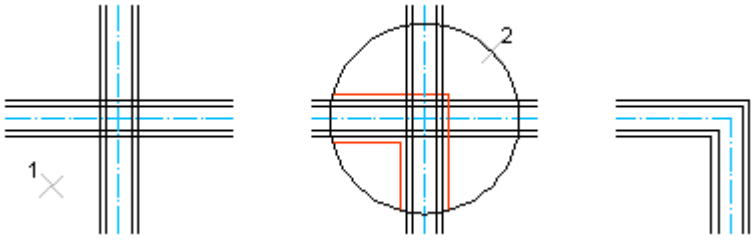
Select two intersecting walls lines to make cross connection. Proper layers for the action will be automatically detected.



WAC CREATE CORNER CONNECTION BETWEEN WALLS

commandline entry: **WAC**
menu: **APLUS > WALLS > WAC**

Select two intersecting walls lines to make corner connection.

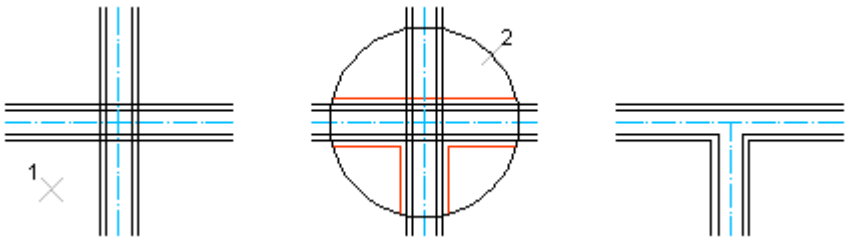


Point from which you will start selecting objects will be inside created corner.

WAT CREATE T-CONNECTION BETWEEN WALLS

commandline entry: **WAT**
menu: **APLUS > WALLS > WAT**

Select two intersecting walls lines to make T-connection.

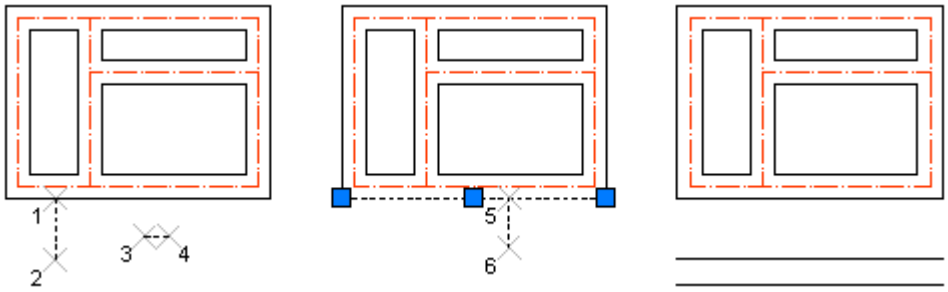


Point from which you will start selecting objects will be inside created connection.

WAO CREATE OFFSET WALLS

commandline entry: **WAO**
menu: **APLUS > WALLS > WAO**

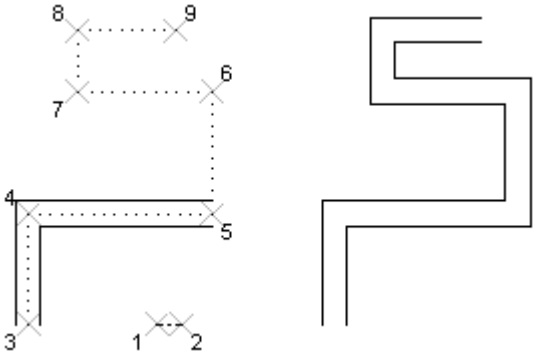
Select exterior wall (precisely it's line) and direction to create wall with specified thickness and dilatation from source wall.



WAM CREATE WALL BY SPECIFYING SEQUENT POINTS

commandline entry: **WAM**
menu: **APLUS > WALLS > WAM**

Specify wall thickness and then, by clicking points you will be drawing wall.

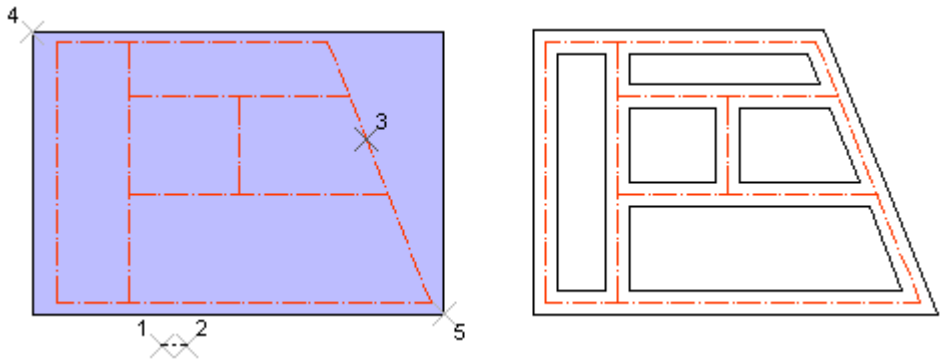


Created wall consist of lines.

WALLS CREATING WALLS FROM AXIS LINES

commandline entry: **WALLS**
menu: **APLUS > WALLS > WALLS**

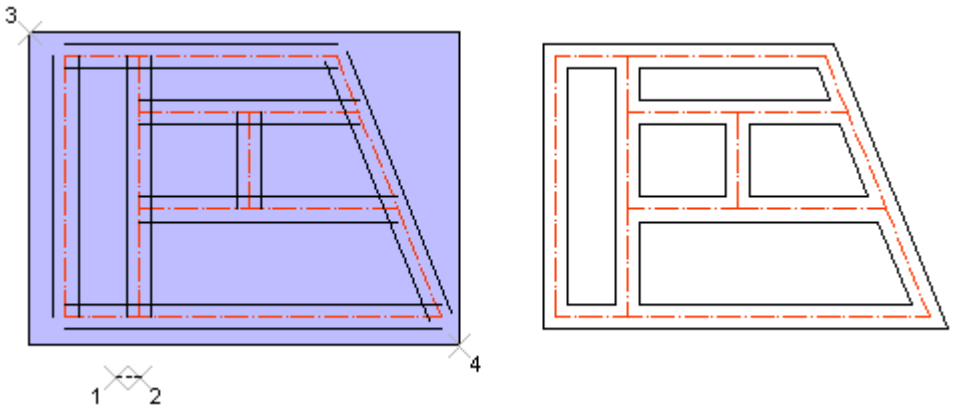
To create walls from axis lines:
1. Specify thickness of walls
2. Select wall's layer
3. Select lines that you want to be axises for created walls.



WAFIX FIX WALLS

commandline entry: **WAFIX**
menu: **APLUS > WALLS > WAFIX**

Specify search area and APLUS will try to create propable connections between lines.

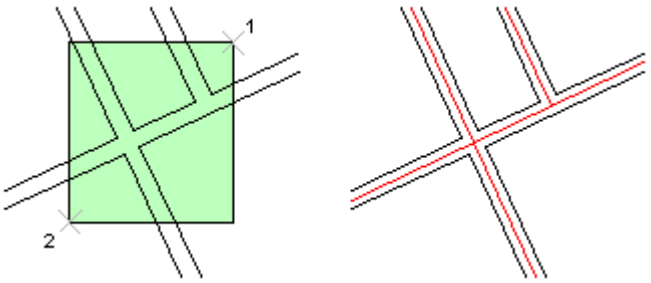


NOTICE: results of the process may vary and can be different than expected.

FINDAX FIND AXIS

commandline entry: **FINDAX**
menu: **APLUS > WALLS > FINDAX**

To find axis between lines:
1. Select objects of LINE type
2. Specify maximum wall width

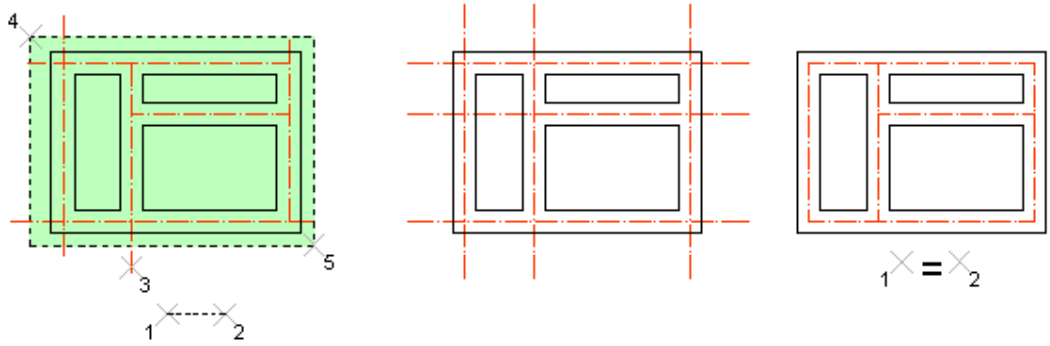


Axis will be drawn on a current layer.

FIXAX FIX LENGTH OF AXISES

commandline entry: **FIXAX**
menu: **APLUS > WALLS > FIXAX**

Specify axis layer, make selection and all axises will be lengthen by specified distance.



If you type 0 as a lengthen value, axises will be cut to their crossings.

MALEN MATCH LENGTH OF LINES

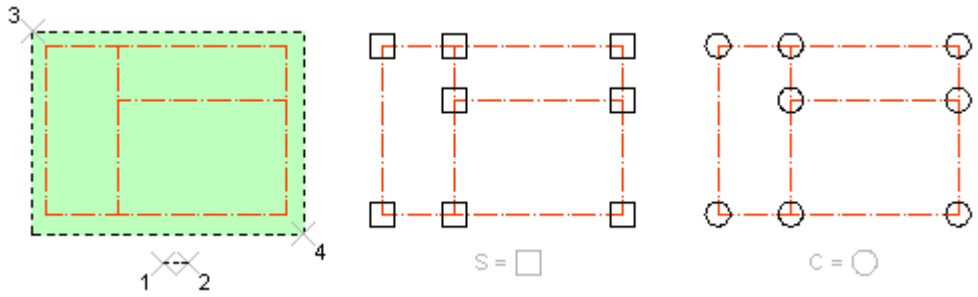
commandline entry: **MALEN**
menu: **APLUS > WALLS > MALEN**

Use this command to remove unnecessary walls.

PILARS DRAW PILLARS ON A GRID

commandline entry: **PILARS**
menu: **APLUS > WALLS > PILARS**

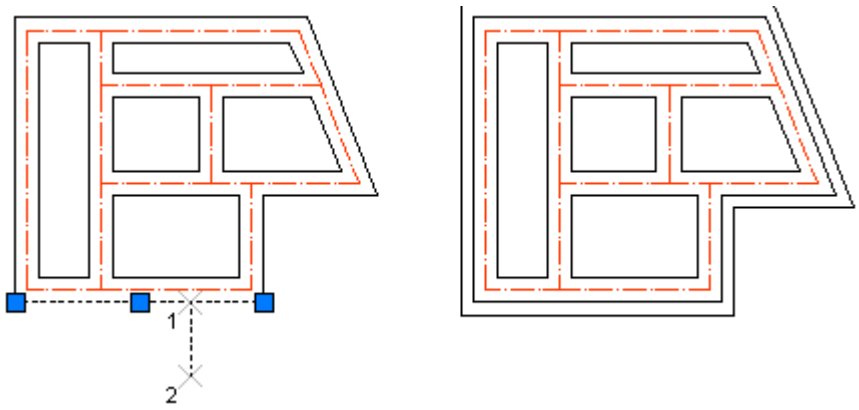
Specify dimensions of pillars (lenght/width) and select axises (intersecting lines). Intersection points will be treated as centre points for pillars.



LCO OFFSET EXTERNAL WALLS (ADD LAYER)

commandline entry: **LCO**
menu: **APLUS > WALLS > LCO**

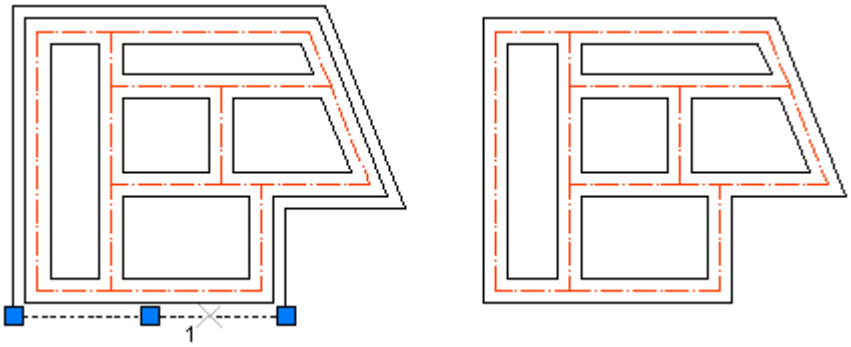
Specify offset distance and click on wall's external line. After specifying direction, another layer will be added.



LCE ERASE WALL LINES

commandline entry: **LCE**
menu: **APLUS > WALLS > LCE**

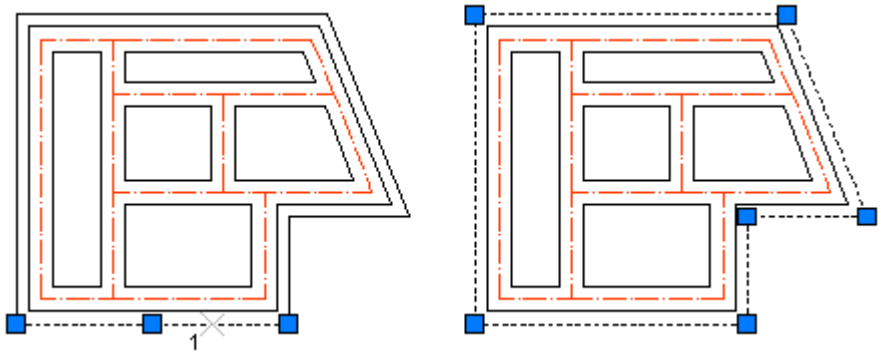
Select wall's line to erase it with all contiguous lines.



LCJ JOIN WALL LINES

commandline entry: **LCJ**
menu: **APLUS > WALLS > LCJ**

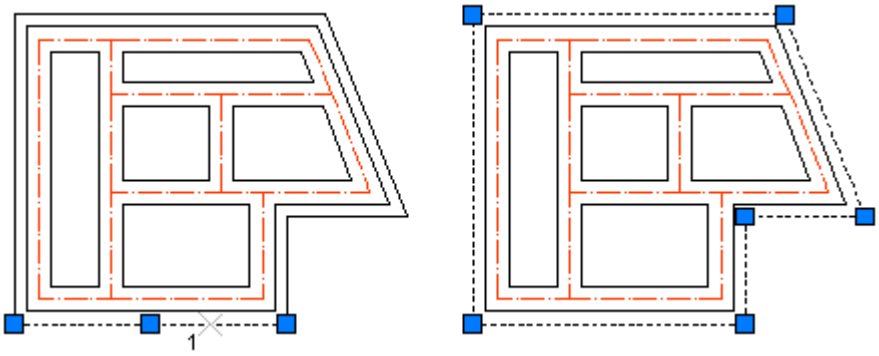
Select line to join it with all contiguous lines.



LCMA MATCH PROPERTIES OF WALL LINES

commandline entry: **LCMA**
menu: **APLUS > WALLS > LCMA**

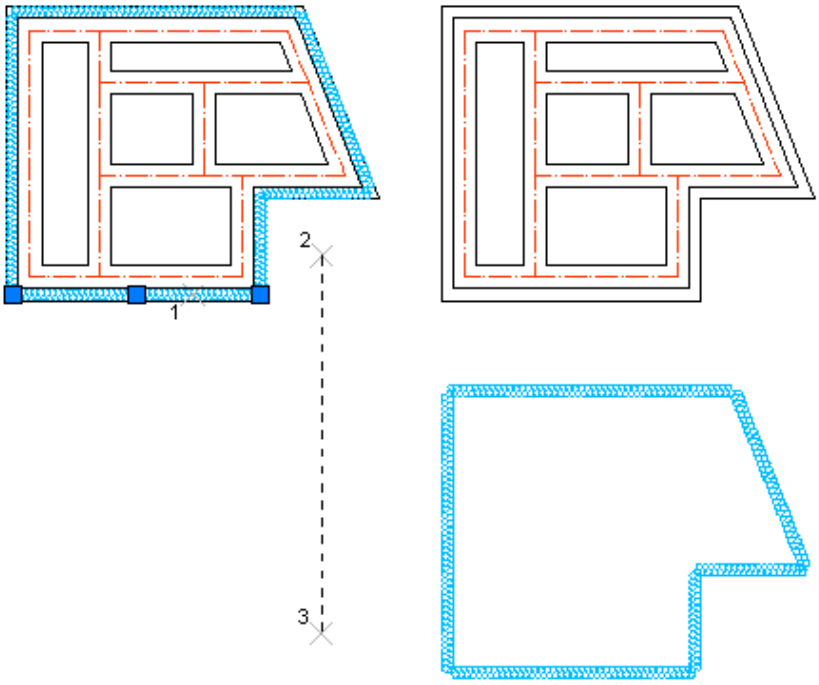
Select line to match it's properties with contiguous lines.



LCM MOVE WALL LINES

commandline entry: **LCM**
menu: **APLUS > WALLS > LCM**

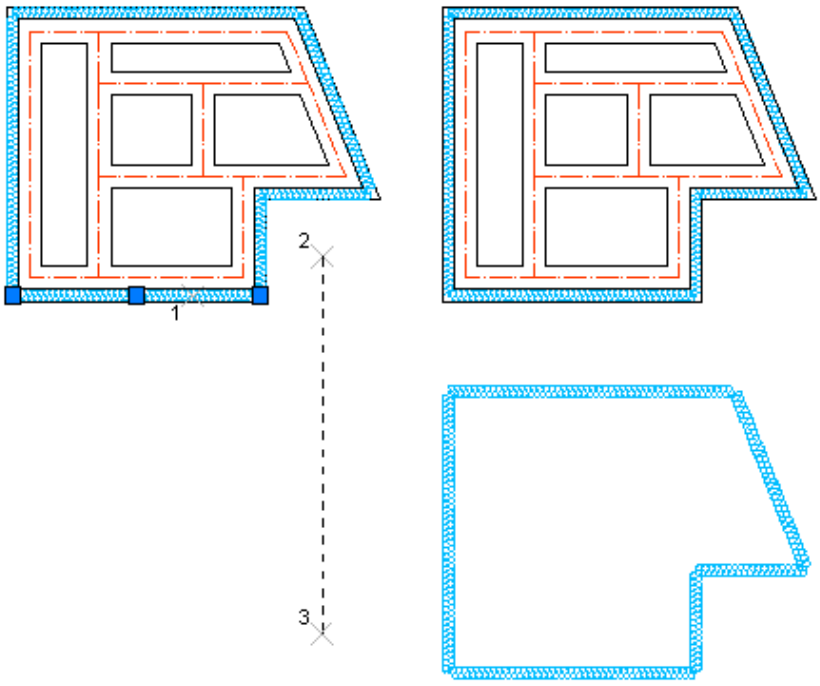
Select wall's line to move it with all contiguous lines.



LCCO COPY WALL LINES

commandline entry: **LCCO**
menu: **APLUS > WALLS > LCCO**

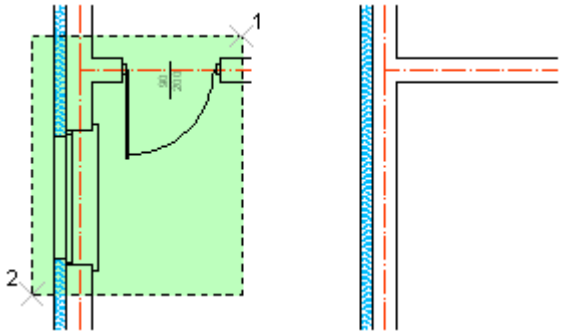
Select wall's line to copy it with all contiguous lines.



CAP CAP DOOR/WINDOW HOLES

commandline entry: **CAP**
menu: **APLUS > WALLS > CAP**

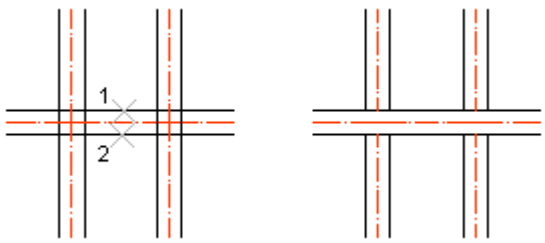
Specify area to cap all holes (doors/windows) from there.



TRW TRIM WALLS

commandline entry: **TRW**
menu: **APLUS > WALLS > TRW**

To trim all lines that intersect selected wall, select it's external lines. Fragment of the lines that lay inside will be trimmed.



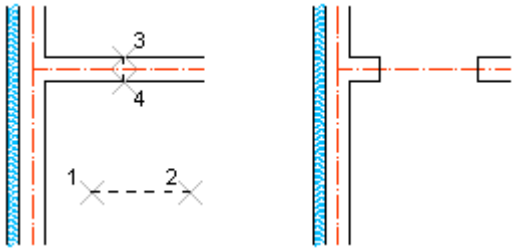
If you need to keep some particular lines (for example axis lines) use command

LLL , to lock layers.

HO MAKE HOLES IN WALL

commandline entry: **HO**
menu: **APLUS > WALLS > HO**

Specify width of a hole, and click on begging and end point on the wall.

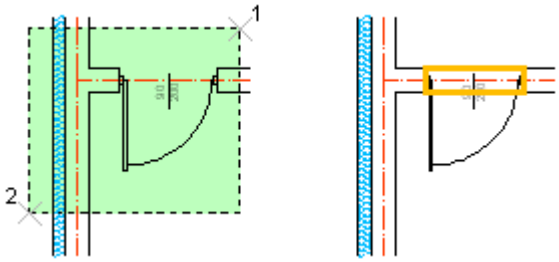


If you don't want to cut axis (or other lines), use command ***LLL*** , which will lock selected layers (it will not be cut).

SILL SEARCH FOR SILLS IN WALLS

commandline entry: **SILL**
menu: **APLUS > WALLS > SILL**

To search sills in walls:
1. Specify max. length of sills
2. Specify max. thickness of walls
3. Specify search area



Holes will be filled with closed polylines.

WAP APLUS WALLS SETTINGS

commandline entry: **WAP**
menu: **APLUS > WALLS > WAP**

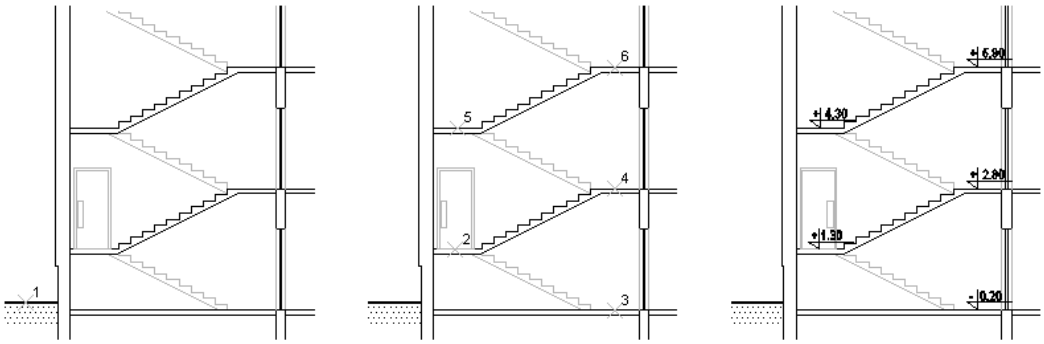
Select element on a layer to make it defalut APLUS layer for creating new walls.

ARCHITECTURAL

COTA DRAW LEVEL INDICATOR

commandline entry: **COTA**
menu: **APLUS > ARCHITECTURAL > COTA**

To draw level indicator:
1. Specify localization of 0,00 level (space repeats last)
2. Specify point on height you want to measure



To move or copy level indicator use commands ***COTAM*** and ***COTAC*** . By using AutoCAD's ***_MOVE*** or ***_COPY*** commands you unable APLUS to update automatic update of measured values.

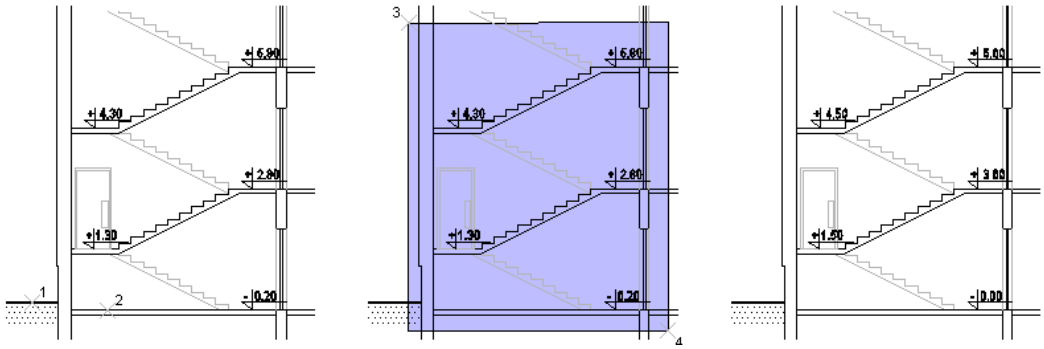
By default, heights are displayed in centimetres with 2-digit after decimal separator. You can change this setting with command ***COTAP*** . You can also set default layer for inserted level indicators.

If you change height of 0,00 use command ***COTAU*** , to update all level indicators.

COTAU UPDATE LEVEL INDICATORS AFTER MOVING 0,00 POINT

commandline entry: **COTAU**
menu: **APLUS > ARCHITECTURAL > COTAU**

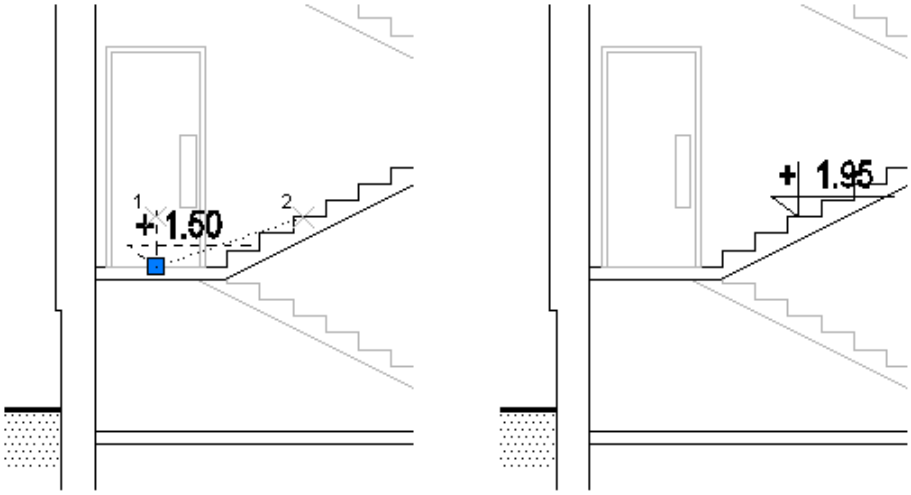
To update measured level indicators:
1. Specify localization of new 0,00 point
2. Select all level indicators that you want to update



COTAM MOVE LEVEL INDICATOR

commandline entry: **COTAM**
menu: **APLUS > ARCHITECTURAL > COTAM**

To move level indicator:
1. Select one you want to move
2. Specify new localization



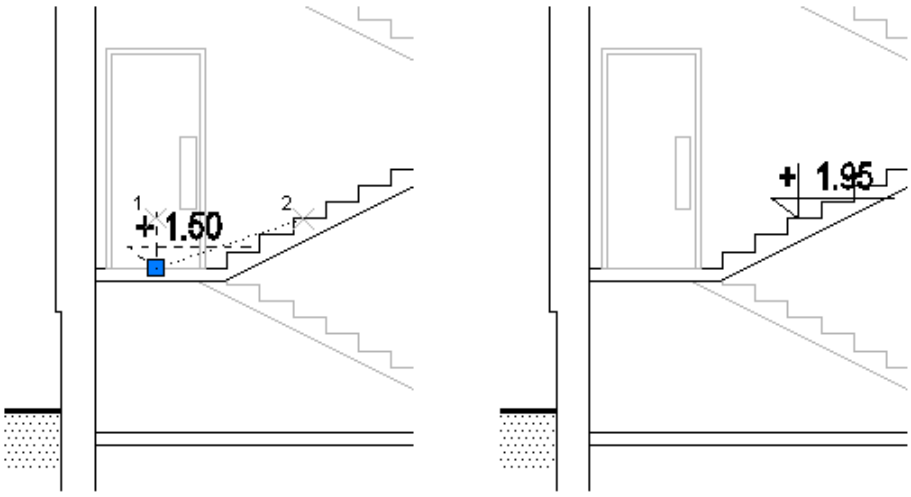
After moving, measured height will be automatically updated.

Measurement point is a default base point.

COTAC COPY LEVEL INDICATOR

commandline entry: **COTAC**
menu: **APLUS > ARCHITECTURAL > COTAC**

To copy level indicator:
1. Select one you want to copy
2. Specify destination points



Height for copies will be measured automatically.

Measurement point is a defeault base point for copy action.

COTAP LEVEL INDICATOR`S SETTINGS

commandline entry: **COTAP**
menu: **APLUS > ARCHITECTURAL > COTAP**

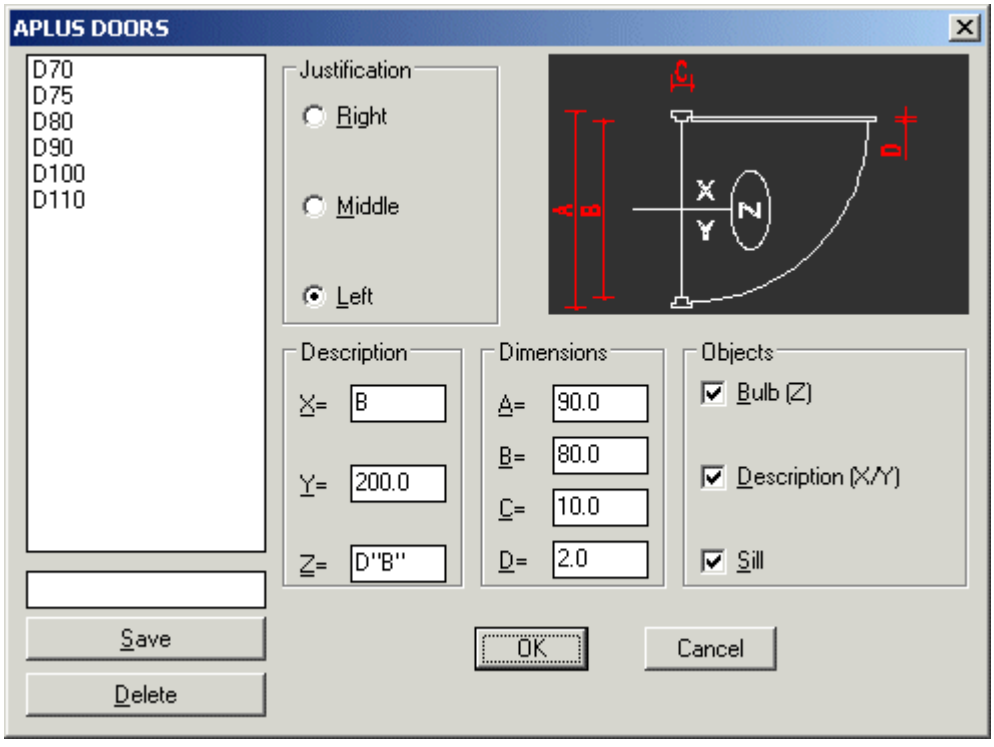
Use command to set options for newly created level indicators with command ***COTA*** Available options:
1. Select layer in which level indicators will be created
2. Select scale for level measurements (by default APLUS measure distance in drawing's units)
3. Specify precision
4. Specify height of texts

These settings will be saved in a file, so they will be loaded every time you use AutoCAD.

DRG APLUS DOOR GENERATOR

commandline entry: **DRG**
menu: **APLUS > ARCHITECTURAL > DRG**

Use this command to generate door block. You can specify following parimeters:
1. Justification (right, middle, left)
2. Description
3. Dimensions
4. Additional elements (such as sills)

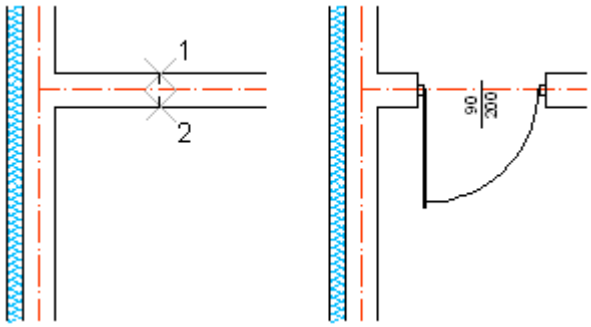


Later on you can save or delete generated doors

D1-D6 INSERT DOOR INTO WALL

commandline entry: **D1,D2,D3,D4,D5,D6**
menu: **APLUS > ARCHITECTURAL > D1**
menu: **APLUS > ARCHITECTURAL > D2**
menu: **APLUS > ARCHITECTURAL > D3**
menu: **APLUS > ARCHITECTURAL > D4**
menu: **APLUS > ARCHITECTURAL > D5**
menu: **APLUS > ARCHITECTURAL > D6**

To insert door:
1. Specify width of dorway
2. Specify start point
3. Specify end point



All layers in the doorway will be cut. If you need to keep any of them, use command ***LLL*** , which will lock selected layers and later use ***LLU*** to unlock it.

By default, doors and lines, which will cap side of a doorway, are created in current AutoCAD layer. You can change it with command ***DRP***

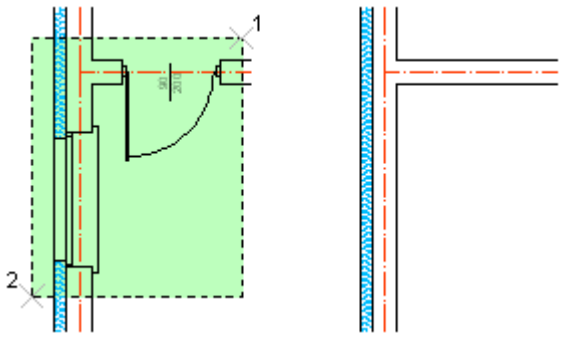
If you need to move doors, just use AutoCAD _***STRETCH*** command.

You can remove doorway by using command ***CAP*** .

CAP CAP DOOR/WINDOW HOLES

commandline entry: **CAP**
menu: **APLUS > ARCHITECTURAL > CAP**

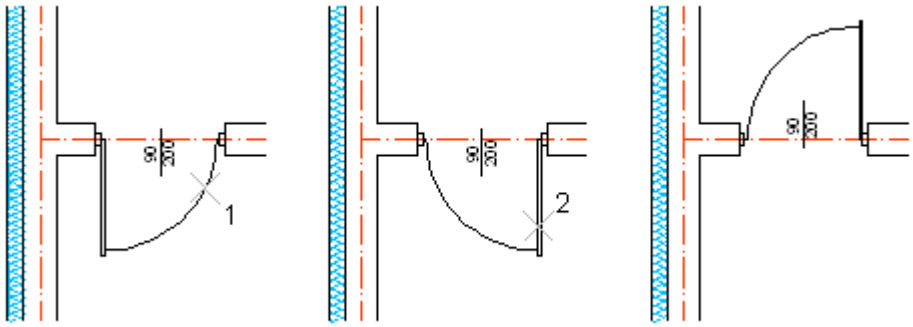
Specify area to cap all holes (doors/windows) from there.



DFL FLIP DOORS

commandline entry: **DFL**
menu: **APLUS > ARCHITECTURAL > DFL**

To do action, select doors you want to flip.



By default, flipping action is done counterclockwise.

DRP SET LAYERS FOR DOORS AND WALLS

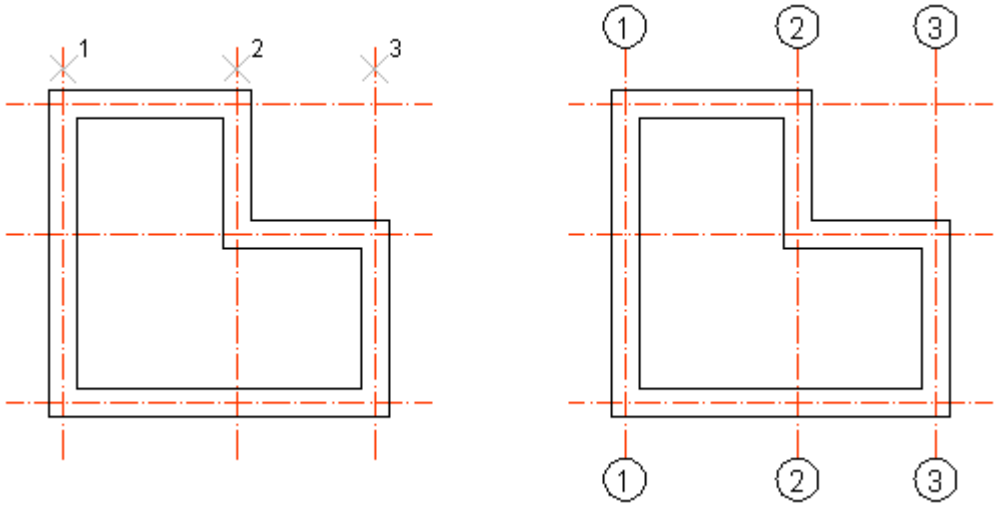
commandline entry: **DRP**
menu: **APLUS > ARCHITECTURAL > DRP**

Setting the right layers is done, by selecting objects on them. They will be later used, whenever you use ***D1,D2,D3,D4,D5,D6*** commands.

AX1 AUTOMATIC AXIS BULBS (NUMERICAL)

commandline entry: **AX1**
menu: **APLUS > ARCHITECTURAL > AX1**

To describe axes with numbers:
1. Specify first number
2. Select subsequent axes



Subsequent axes will be described with ascending numbers, beginning with the one typed in step 1.

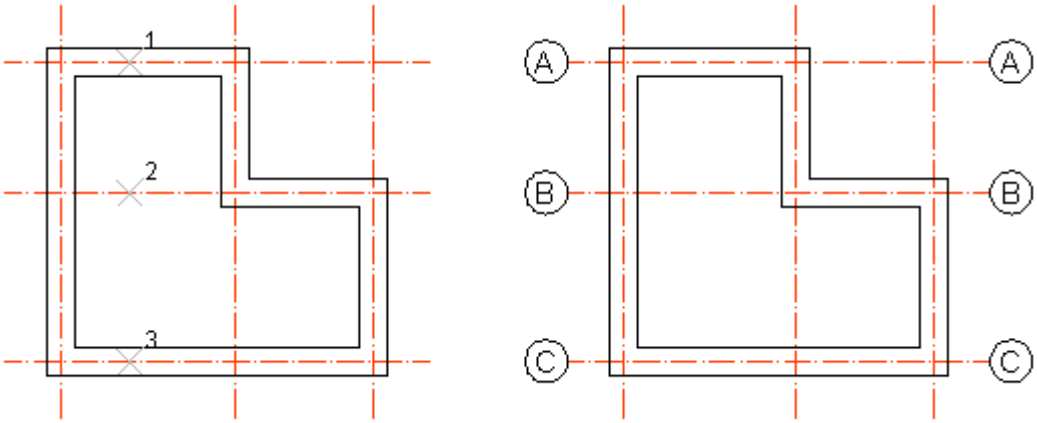
You can change settings for created axes descriptions (layer / size / prefix / suffix) with command ***AXP***

If you need to add alphabetical description, use command ***AXA***

AXA AUTOMATIC AXIS BULBS (ALPHABETICAL)

commandline entry: **AXA**
menu: **APLUS > ARCHITECTURAL > AXA**

To describe axes with numbers:
1. Specify first number
2. Select subsequent axes



Subsequent axes will be described with ascending letters, beginning with the one typed in step 1.

After reaching Z, further axis will be described with letter A.

You can change settings for created axes descriptions (layer / size / prefix / suffix) with command ***AXP***

If you need to add numerical description, use command ***AX1***

AXP AXES DESCRIPTIONS SETTINGS

commandline entry: **AXP**
menu: **APLUS > ARCHITECTURAL > AXP**

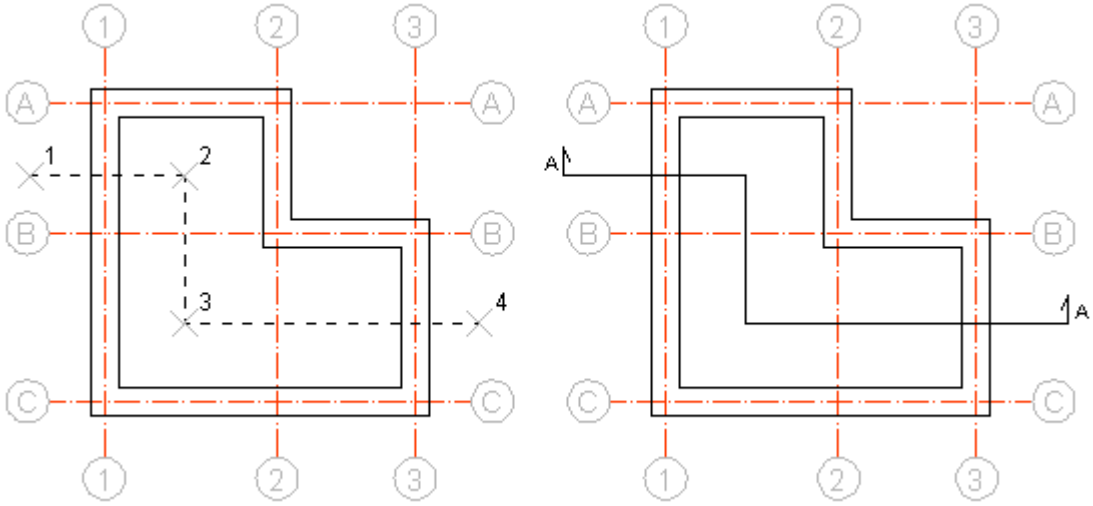
By using this command you can change settings for axes descriptions, created with commands ***AXA*** and ***AX1***
1. prefix
2. suffix
3. default layer
4. size

SECL DRAW SECTION LINE

commandline entry: **SECL**
menu: **APLUS > ARCHITECTURAL > SECL**

To draw section line:
1. Specify name
2. Select first point

3. Specify subsequent points
4. After clicking on last point, use enter / space bar / right mouse button to finish

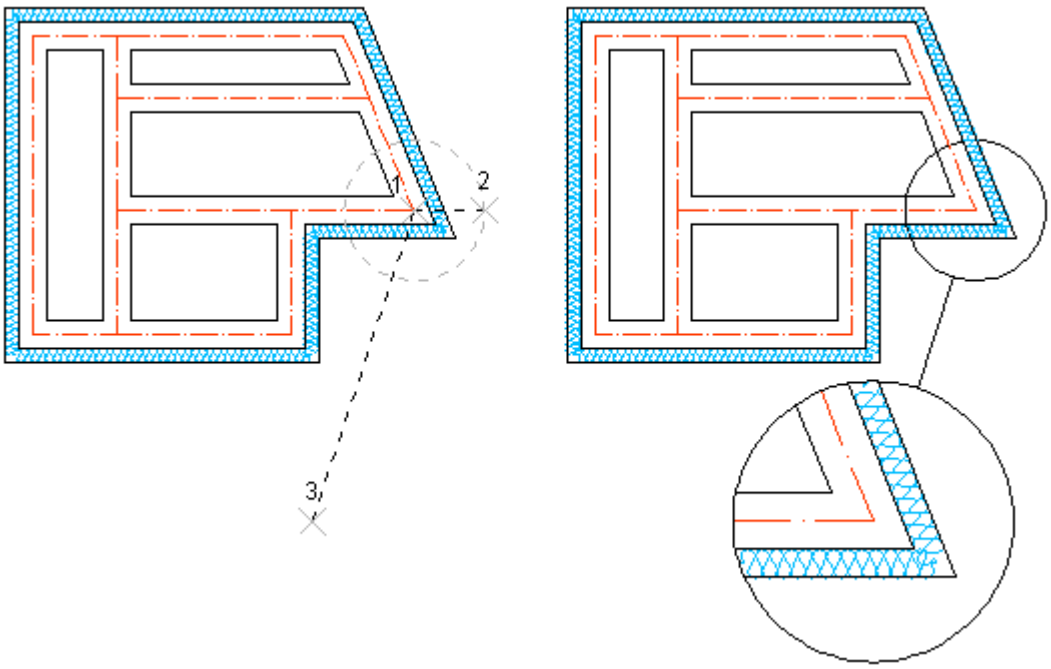


By default, direction of created section line is from left to right, so for example if you need to draw section line directed downwards, begin drawing it from right.

DETAIL CREATE DETAIL BULB

commandline entry: **DETAIL**
menu: **APLUS > ARCHITECTURAL > DETAIL**

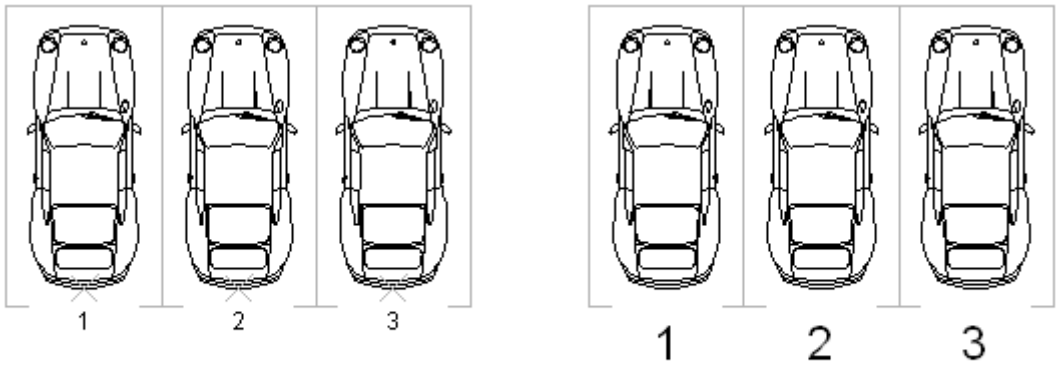
To create bulb with enlarged detail:
1. Specify scale factor for detail bulb
2. Specify base point and size of drawing you want to zoom
3. Specify destination point



NR INSERT ASCENDING NUMBERS

commandline entry: **NR**
menu: **APLUS > ARCHITECTURAL > NR**

To insert ascending numbers in your drawing:
1. Specify first number (hit space bar to use further number from last use of the command)
2. Specify subsequent insertion points



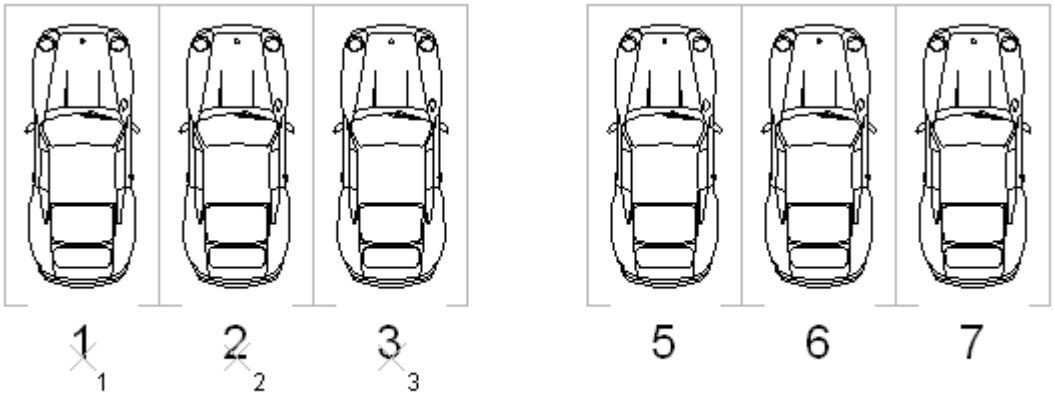
use NRP to set size and distance from origin for numbers

You can set prefix, suffix, size of text and shift with command ***NRP***

NRU CHANGE ASCENDING NUMBERS

commandline entry: **NRU**
menu: **APLUS > ARCHITECTURAL > NRU**

To change settings for inserted ascending numbers:
1. Specify new starting number
2. Select subsequent numbers



set new starting number to 5

If you press one number numerous times, command will increase each time it's value by 1.

NRP SETTINGS FOR ASCENDING NUMBERS

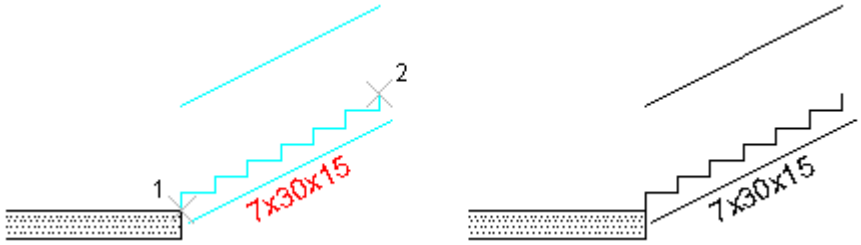
commandline entry: **NRP**
menu: **APLUS > ARCHITECTURAL > NRP**

Command sets following options:
1. prefix
2. suffix
3. font size
4. text shift

ESC DRAW STAIR (SIDE VIEW)

commandline entry: **ESC**
menu: **APLUS > ARCHITECTURAL > ESC**

To draw stair side view:
1. Specify start point
2. Specify end point
3. In dialogue box select number of stairs from list (next to each number of stairs you will see 2H+S value)

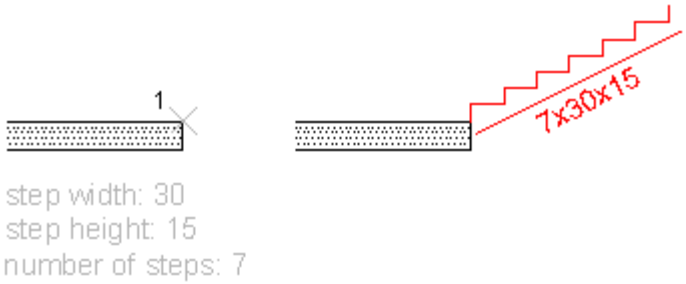


You can also set stair base thickness with command ***ESCP***

ESCD DRAW STAIRS (SIDE VIEW) FROM KEYBOARD ENTRY

commandline entry: **ESCD**
menu: **APLUS > ARCHITECTURAL > ESCD**

To draw stair from keyboard entry:
1. Specify tread width
2. Specify riser height
3. Specify number of steps
4. Specify insertion point



By default, stair raises to right, you can reverse it with AutoCAD ***_MIRROR*** command.

You can also set stair base thickness with command ***ESCP***

ESCP SPECIFY STAIR BASE THICKNESS

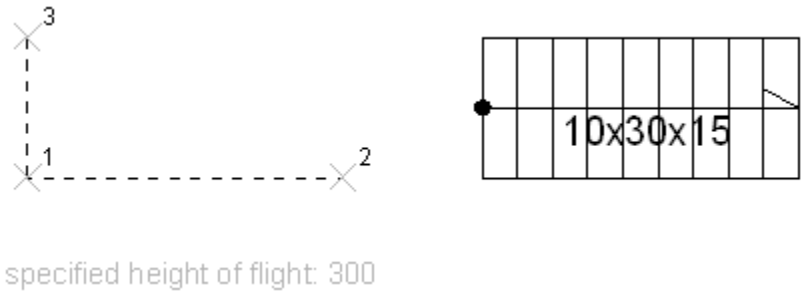
commandline entry: **ESCP**
menu: **APLUS > ARCHITECTURAL > ESCP**

Command sets thickness of stair base for commands ***ESC*** and ***ESCD***

ESCPL1 STRAIGHT STAIRCASE (PLAN)

commandline entry: **ESCPL1**
menu: **APLUS > ARCHITECTURAL > ESCPL1**

To draw straight stair:
1. Specify story height
2. Specify insert point
3. Specify staircase width
4. Specify staircase length
5. Select proper stair from dialogue box

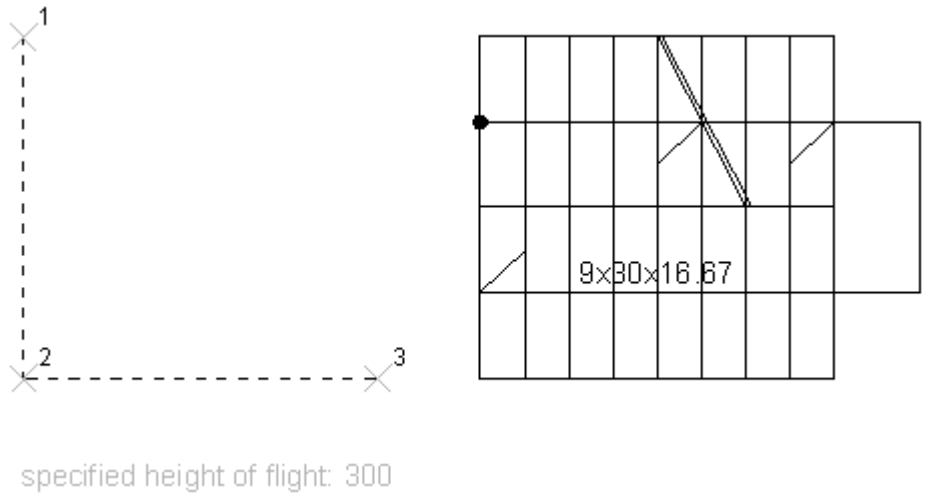


specified height of flight: 300

ESCPL2 DRAW RETURN STAIR (PLAN)

commandline entry: **ESCPL2**
menu: **APLUS > ARCHITECTURAL > ESCPL2**

To draw return stair:
1. Specify story height
2. Specify insertion point
3. Specify staircase width
4. Specify staircase length
5. Select right step dimensions from dialogue box



ESCPL3 U-SHAPED STAIRS (PLAN)

commandline entry: **ESCPL3**
menu: **APLUS > ARCHITECTURAL > ESCPL3**

To create U-shaped stair:
1. Specify storey height
2. Specify steps width
3. Specify staircase width
4. Specify staircase depth
5. Select right number of steps for side flights
6. Select right number of steps for front flight

ESCPL4 4-RUN STAIRCASE (PLAN)

commandline entry: **ESCPL4**
menu: **APLUS > ARCHITECTURAL > ESCPL4**

To draw 4-run staircase:
1. Specify story height
2. Specify steps width
3. Specify staircase width
4. Specify staircase depth
5. Select right number of steps for side flights
6. Select right number of steps for front and rear flights

AUD DRAW AUDIENCE

commandline entry: **AUD**
menu: **APLUS > ARCHITECTURAL > AUD**

Use this command to draw audience. Available options:
1. Specify needed positions
2. Specify level of eyes (X)
3. Specify forhead (Y)
4. Specify distance between rows
5. Specify distance between viewer and next step
6. Specify number of rows

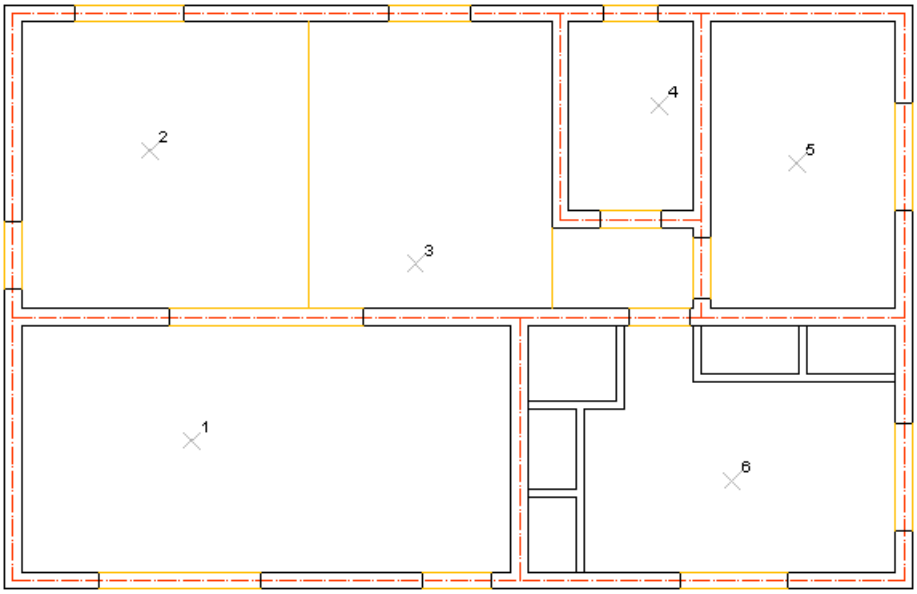

APLUS AUDIENCE
Needed points:
AB
AC
d
b
y
x
A
B
C
NR
Properties
X (level of eyes) =
115.0
Y (size of forhead) =
12.0
Rows
d (distance between rows) =
95.0
b (distance between viewer and next step) =
20.0
Nr (Number of rows) =
10
OK
Cancel

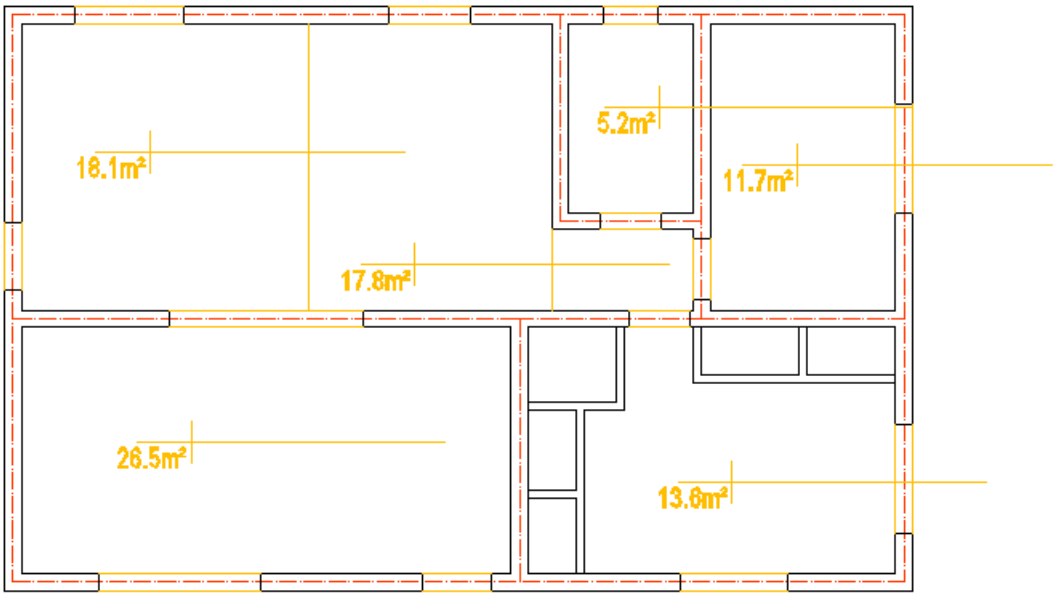
AREAS

RM CREATE APLUS ROOM

commandline entry: **RM**
menu: **APLUS > AREAS > RM**

To create APLUS wall:
1. Select block type to describe room
2. Click on closed area





APLUS will create block with measured area (by default in m^2) (it is important to set right APLUS units). Further attributes of the block are added with following commands:

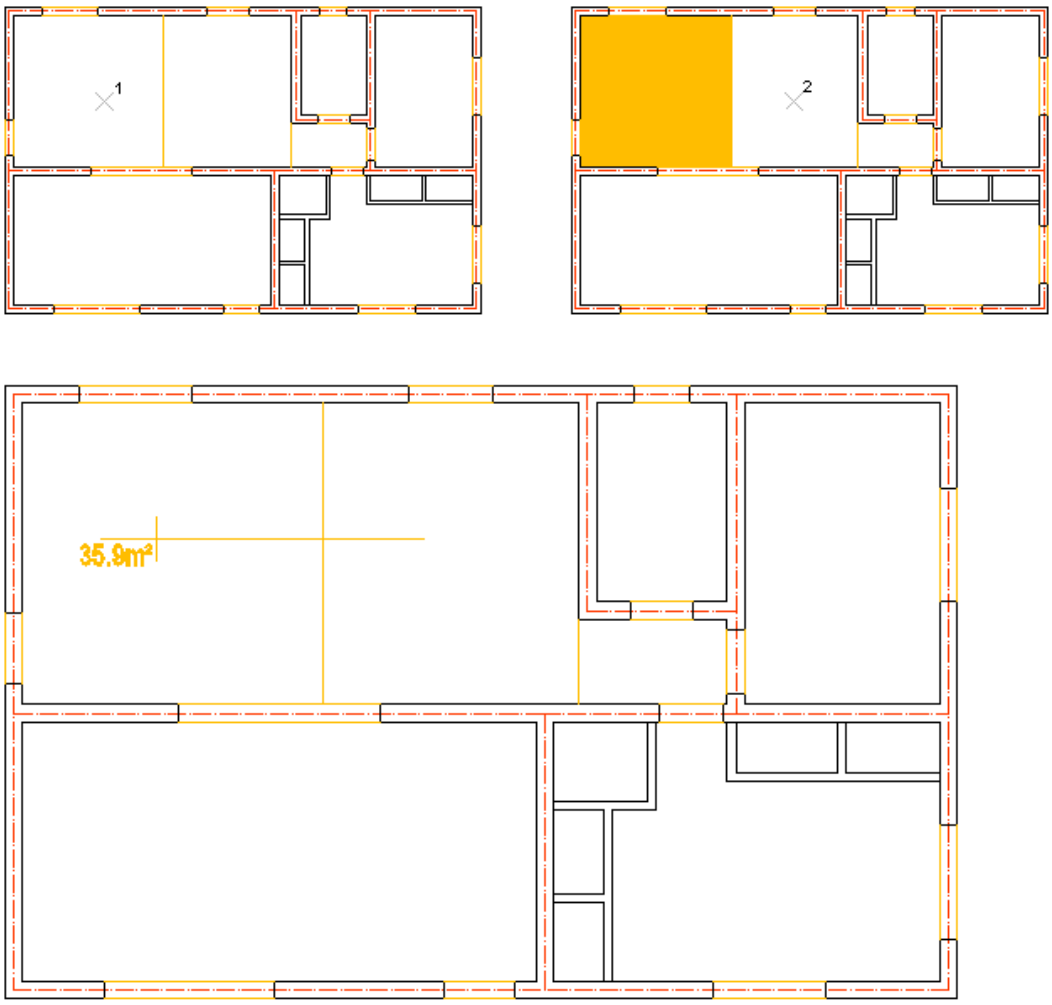
RMN - room number.
RMR - room name
RMF - floor number/name

After changing room's shape, you can update area with command ***RMU***
You can change settings of area's block with command ***RMP***

RM+ MEASURE AREA OF FEW ROOMS

commandline entry: **RM+**
menu: **APLUS > AREAS > RM+**

To measure area of more than one room:
1. Select first room
2. Decide whether to end measurement (E) or continue (C)
3. Finish action with End (E)
4. Specify room's block insertion point



APLUS will create block with measured area (by default in m^2) (it is important to set right APLUS units). Further attributes of the block are added with following commands:

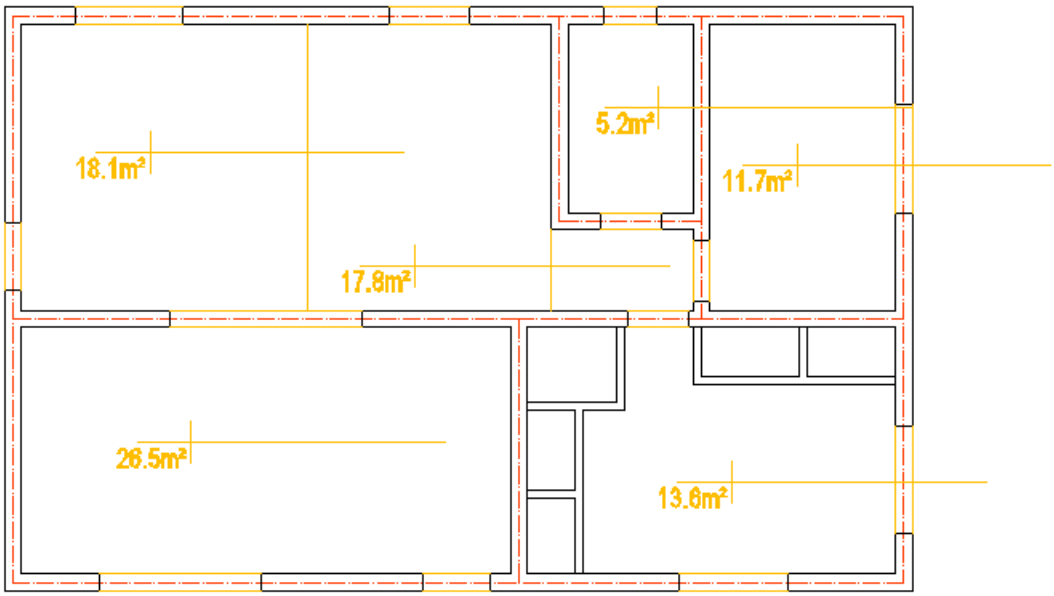
RMN - room number.
RMR - room name
RMF - floor number/name

You can change settings of area's block with command ***RMP***

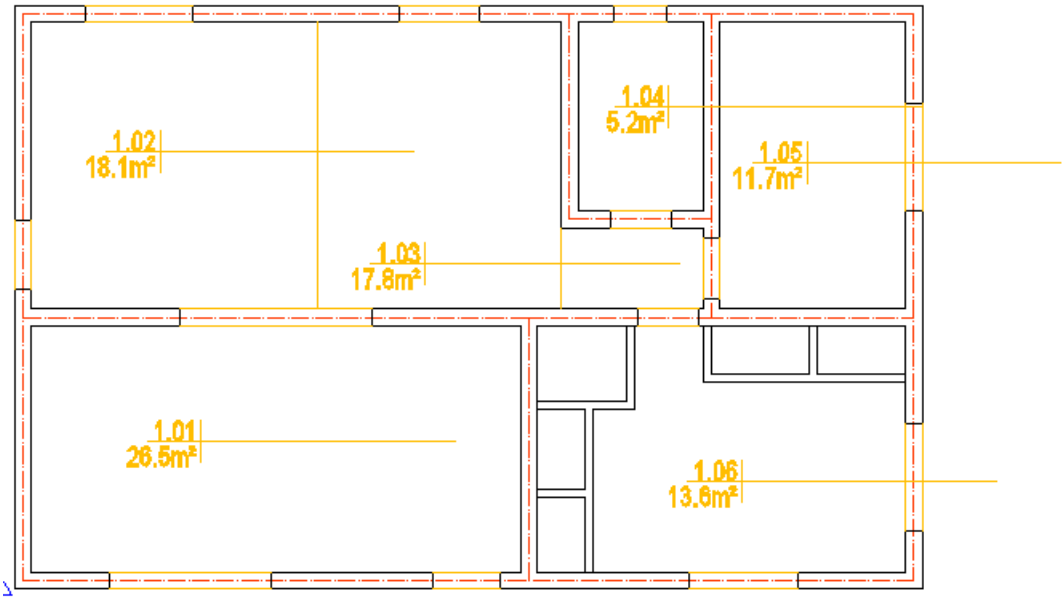
RMN SET ROOM NUMBER

commandline entry: **RMN**
menu: **APLUS > AREAS > RMN**

To add room number into room's block (created with commands ***RM*** and ***RM+***):
1. Specify first number
2. Select first block
3. Subsequently selected blocks will have ascending numbers



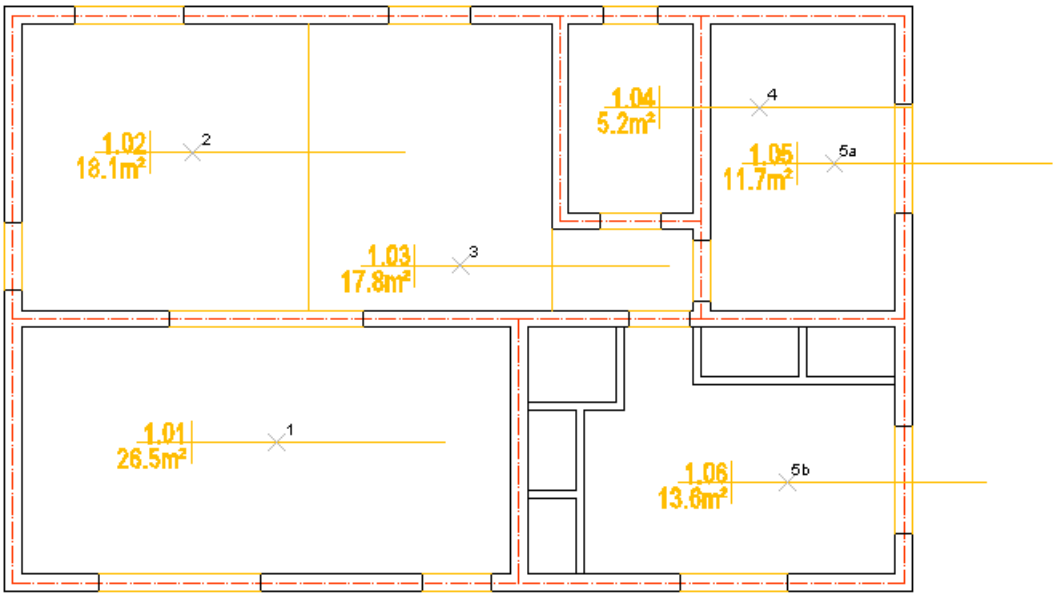
Use RMP command to set prefix and number od digits for RMN command



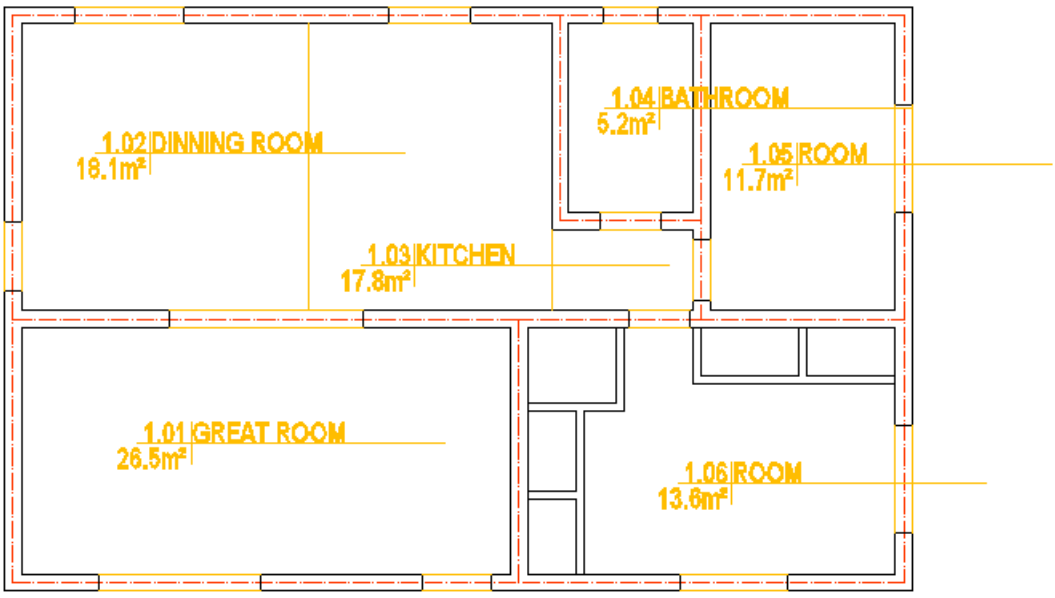
RMR MEASURE AREA OF MULTIPLE ROOMS

commandline entry: **RMR**
menu: **APLUS > AREAS > RMR**

To add name of the room to room block (created with commands ***RM*** and ***RM+***):
1. Type new name
2. Select all blocks you want to name with it



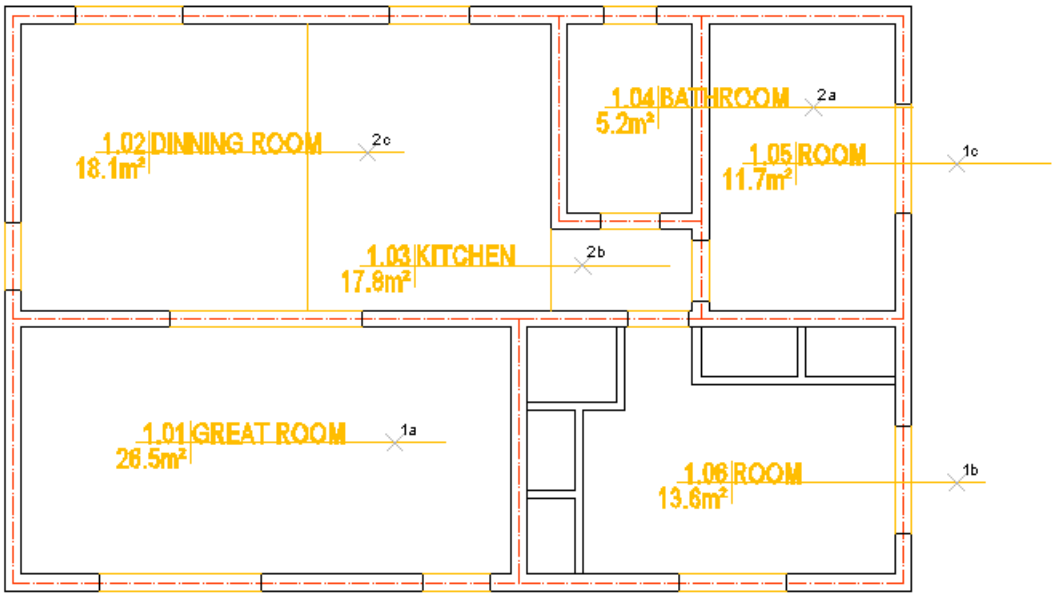
You can select as many room blocks as you need.



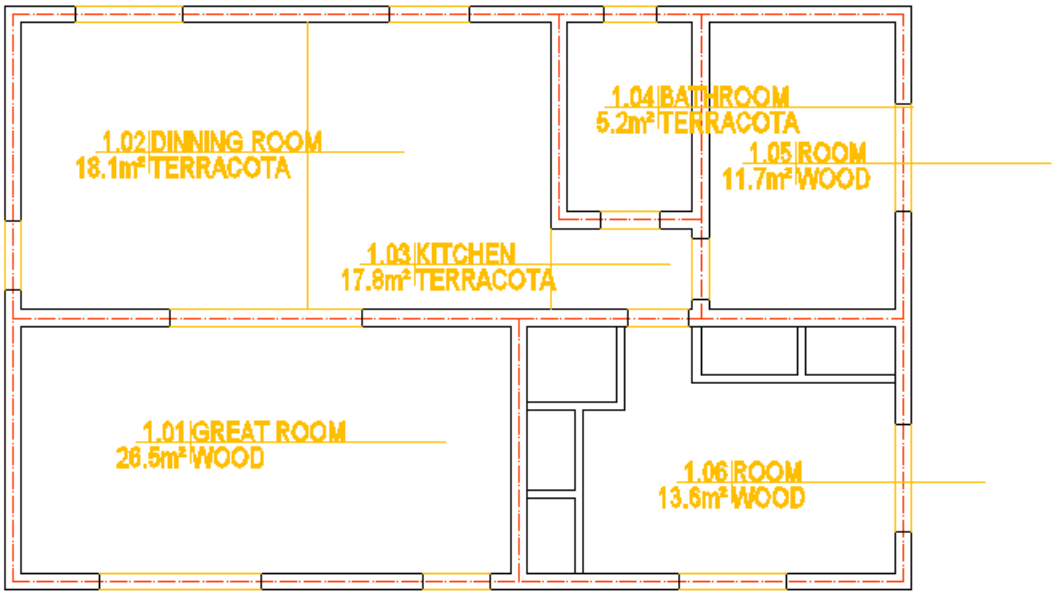
RMF SET FLOOR TYPE/NAME

commandline entry: **RMF**
menu: **APLUS > AREAS > RMF**

To name floor name/number in room's block (created with commands ***RM*** and ***RM+***):
1. Type floor name
2. Select room blocks



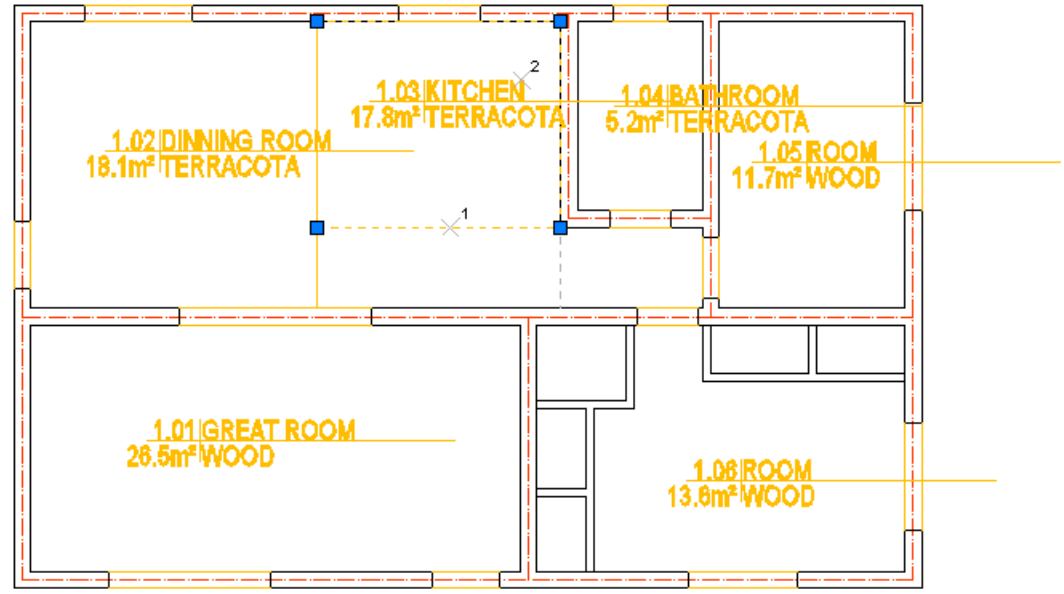
You can select as many room blocks as you need.

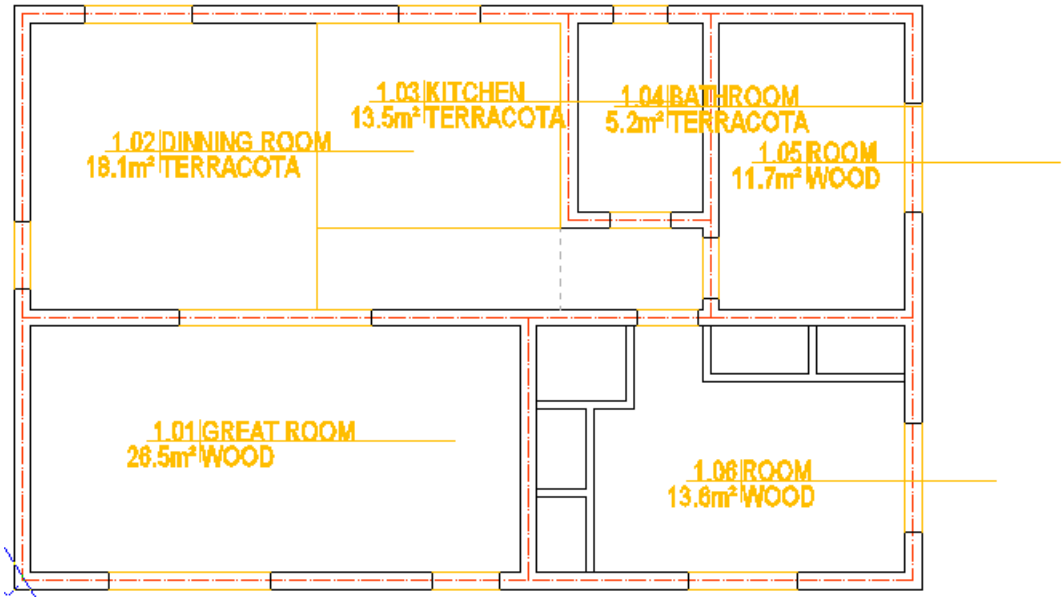


RMU UPDATE AREA

commandline entry: **RMU**
menu: **APLUS > AREAS > RMU**

To add room number into room's block (created with commands RM and RMPLUS):
1. Specify first number
2. Select first block
3. Subsequently selected blocks will have ascending numbers

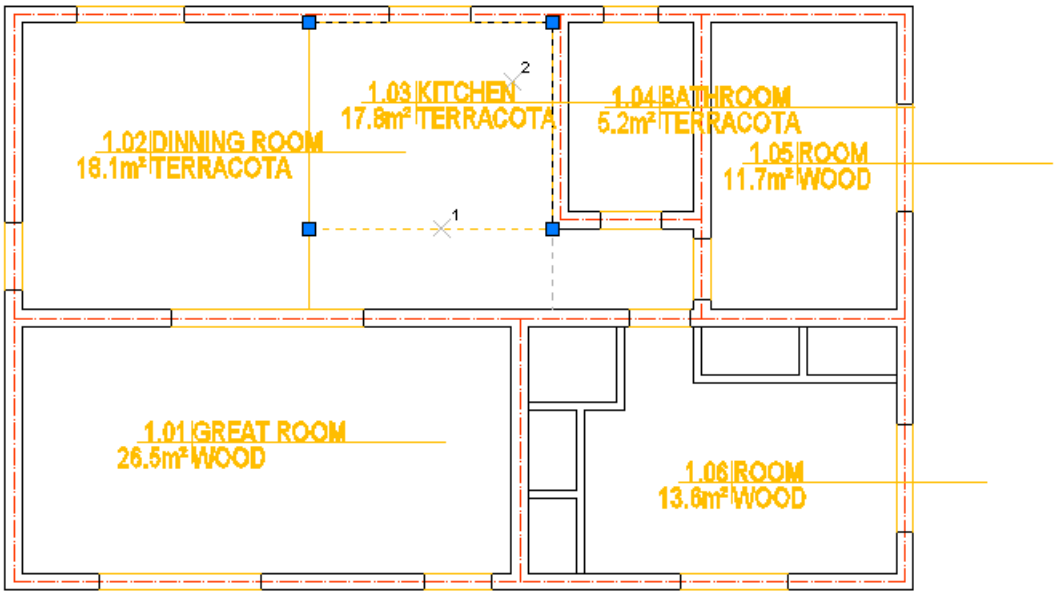


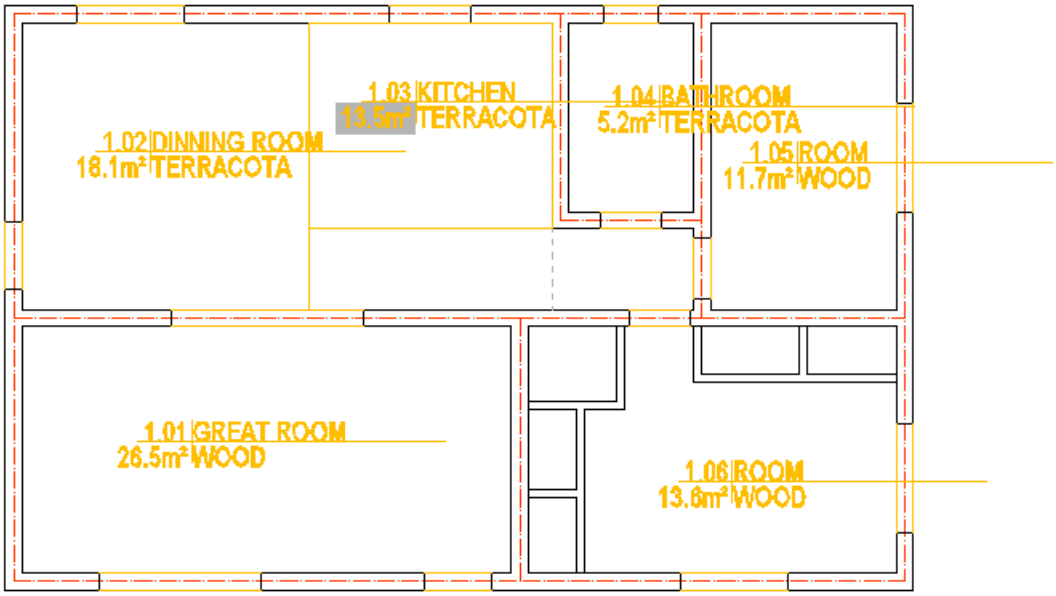


RMUA CREATE ROOM WITH AUTOMATIC ROOM'S AREA

commandline entry: **RMUA**
menu: **APLUS > AREAS > RMUA**

To change measuring method of room's area to automatic:
1. Select closed polyline
2. Select room's block



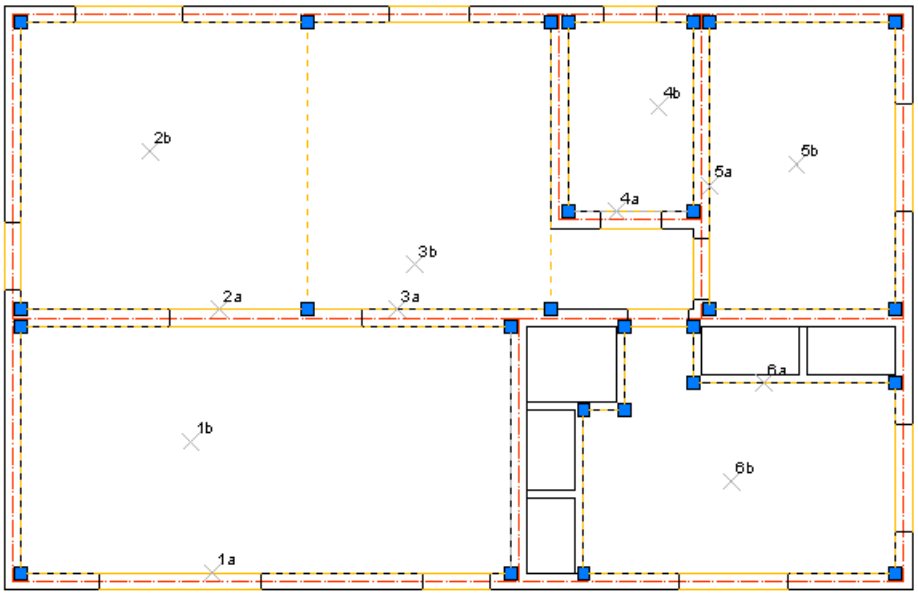


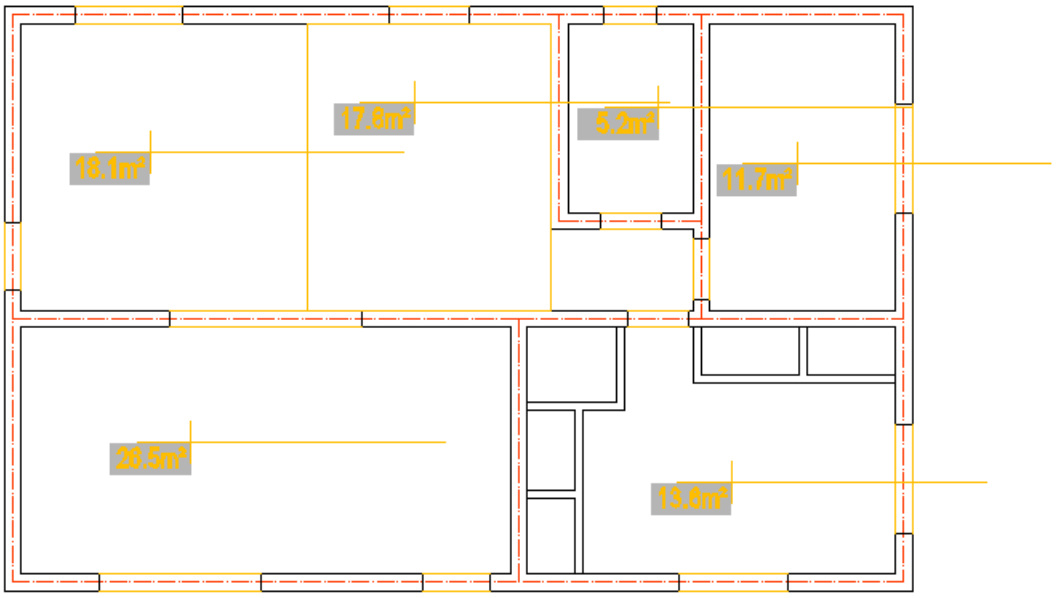
If boundaries of selected room get changed, room`s area will update itself automaticaly.

RMAU INSERT BLOCK WITH AUTOMATICALLY UPDATED AREA OF SELECTED POLYLINE

commandline entry: **RMAU**
menu: **APLUS > AREAS > RMAU**

To create APLUS room with automatic measurement of area:
1. Select closed polyline
2. Specify insertion point





If boundaries of selected room get changed, room`s area will update itself automaticaly.

Whenever you reshape polyline, measured area should be automatically updated. If not, use AutoCAD command ***_REGENALL***.

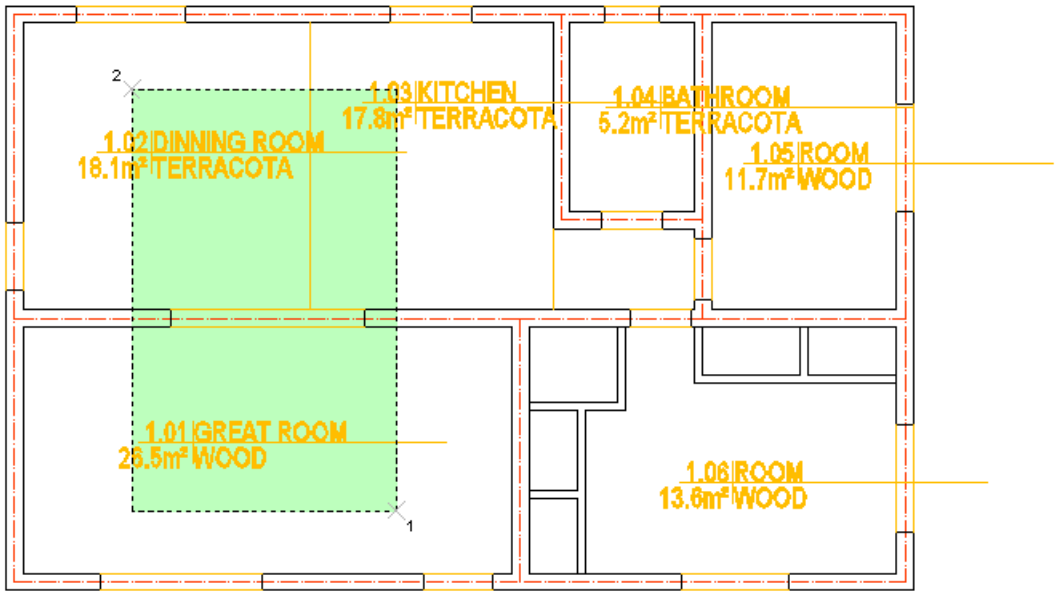
Other attributes such as room's number or floor name/number can be set with commands:

RMN - room number.
RMR - room name
RMF - floor number/name

RMS SUM MEASURED AREAS OF SELECTED ROOMS

commandline entry: **RMS**
menu: **APLUS > AREAS > RMS**

T_____

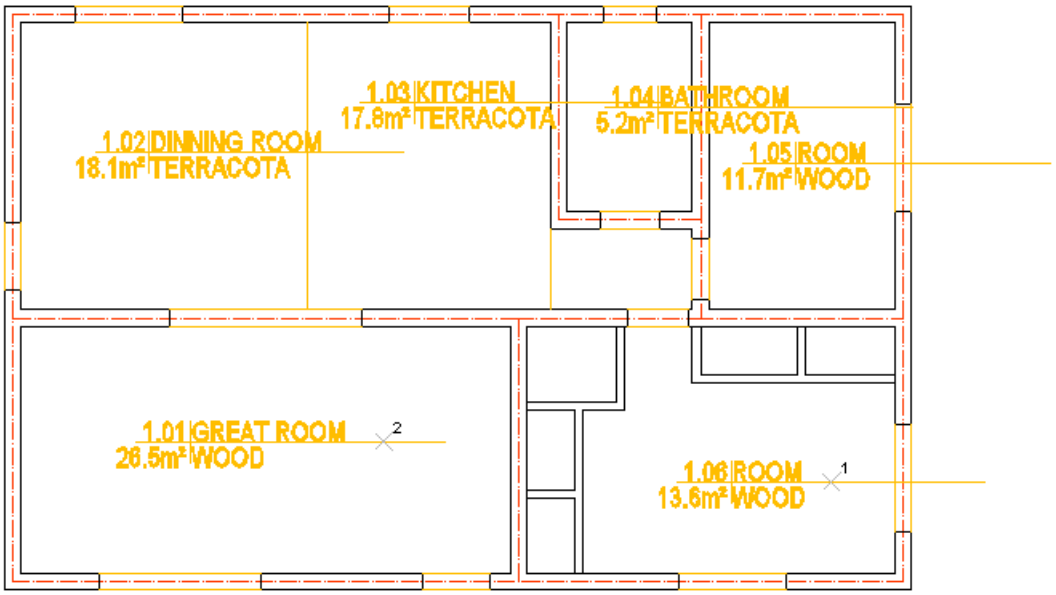


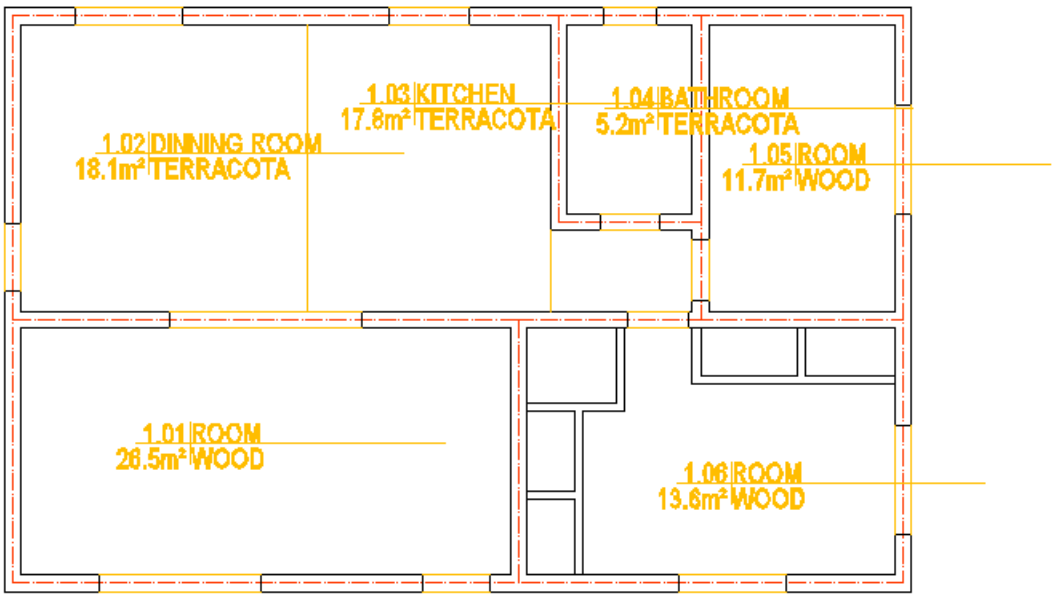
Result (62.4 m²) will be displayed in commandline.

RMMR COPY NAMES OF ROOMS

commandline entry: **RMMR**
menu: **APLUS > AREAS > RMMR**

To copy name of room:
1. Select source block
2. Select destination blocks



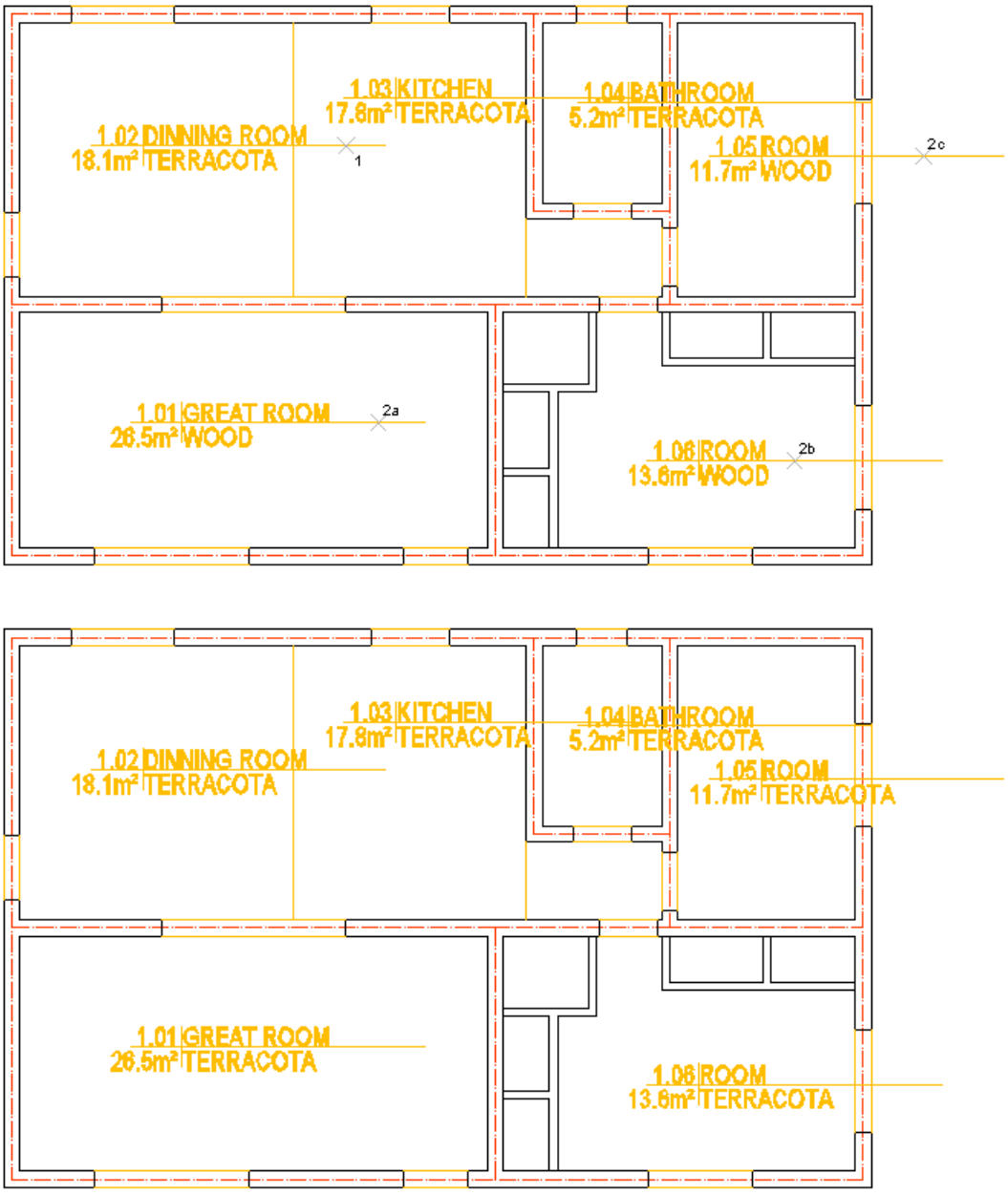


Old name of the room will be replaced.

RMMF COPY FLOOR NAME

commandline entry: **RMMF**
menu: **APLUS > AREAS > RMMF**

To copy floor name:
1. Select source block
2. Select destination blocks

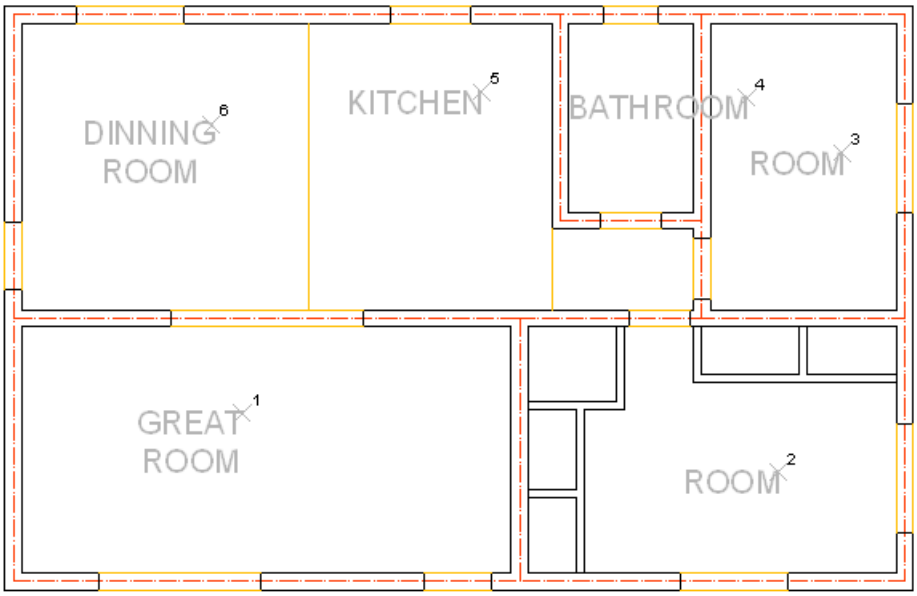


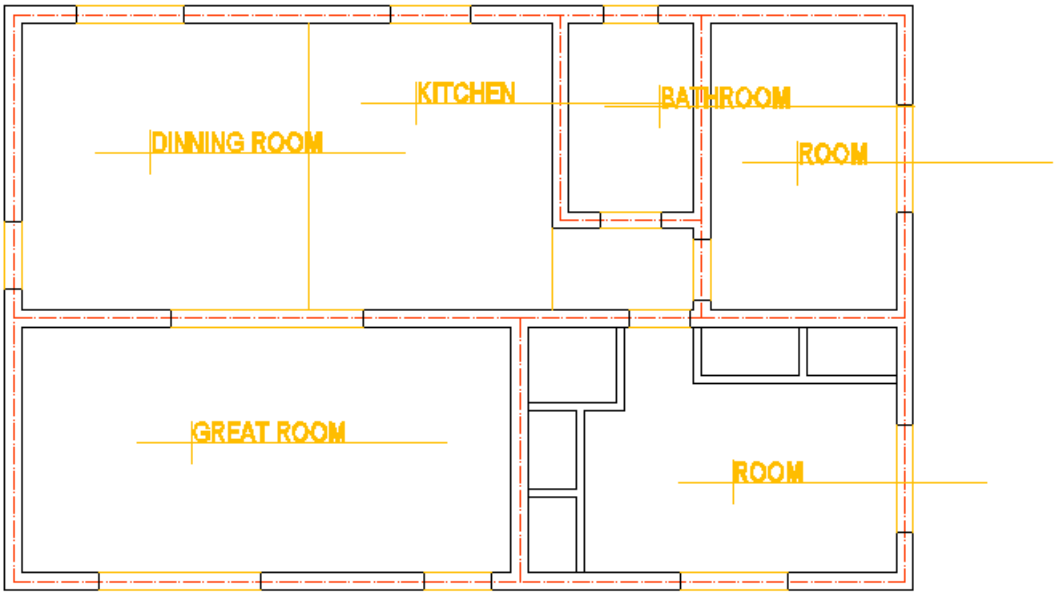
Old name of the floor will be replaced.

RMT CREATE APLUS ROOM BLOCK FROM TEXT

commandline entry: **RMT**
menu: **APLUS > AREAS > RMT**

Select text to create APLUS room block.



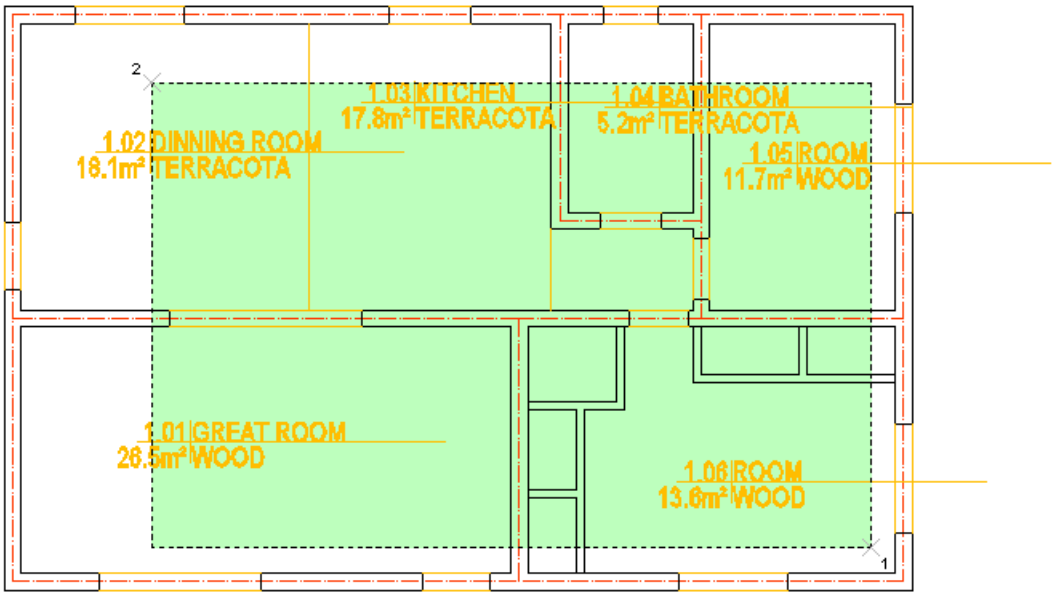


Selected text is treated as created room's name

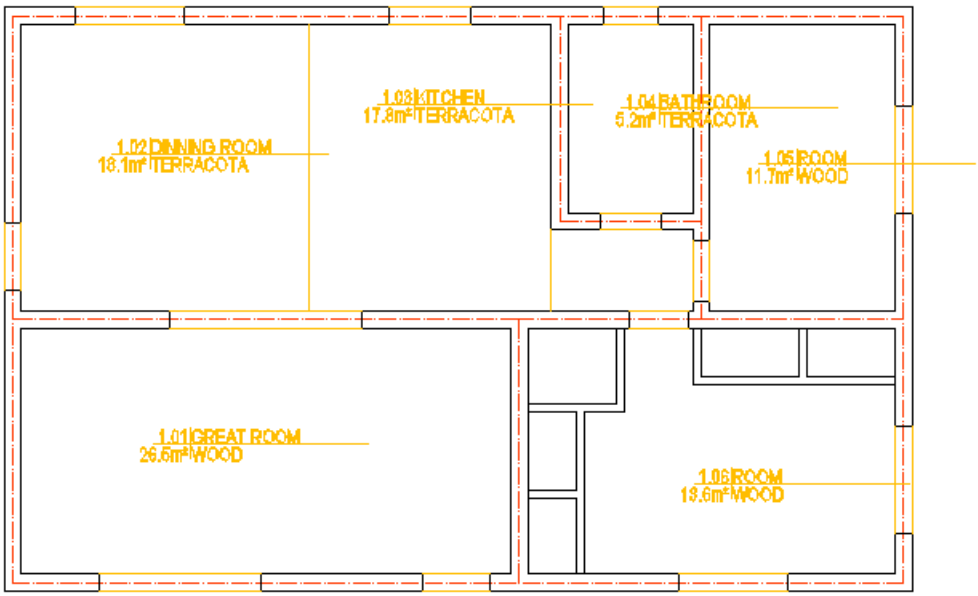
To specify area, use ***RMU*** command. ***RMU***

RMSC BATCH CHANGE OF APLUS ROOM BLOCKS SIZE

commandline entry: **RMSC**
menu: **APLUS > AREAS > RMSC**



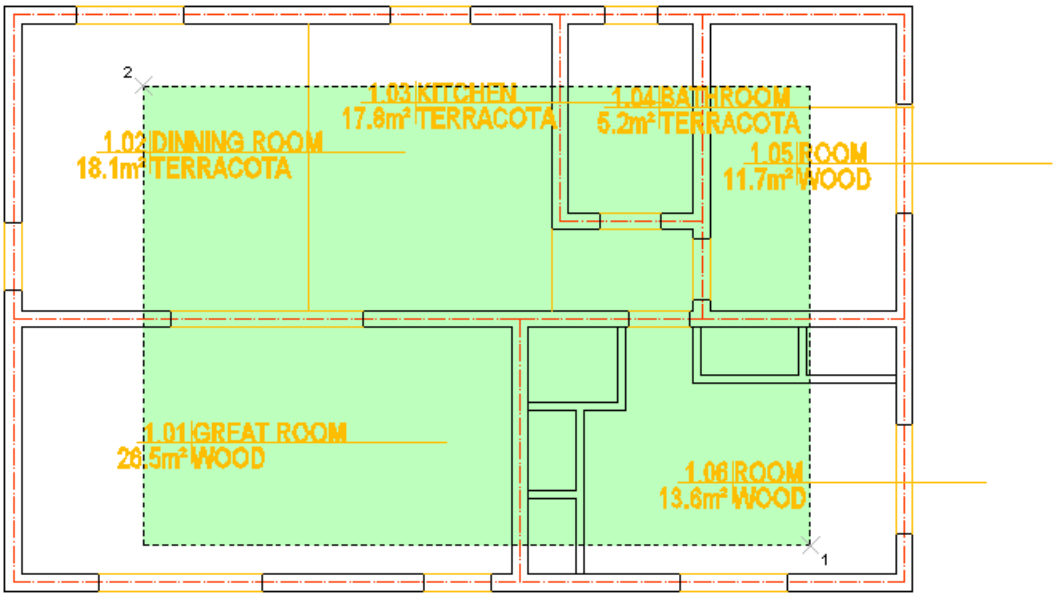
Set new scale for room blocks to 0.7



RML ROOM LIST FROM SELECTED AREA

commandline entry: **RML**
menu: **APLUS > AREAS > RML**

To list rooms from selection:
1. Select area with room blocks (you can select whole building, APLUS will detect room blocks automatically)
2. Specify list type (plain text, Microsoft Excel file or graphic in AutoCAD)



Here is result with DRAW export mode

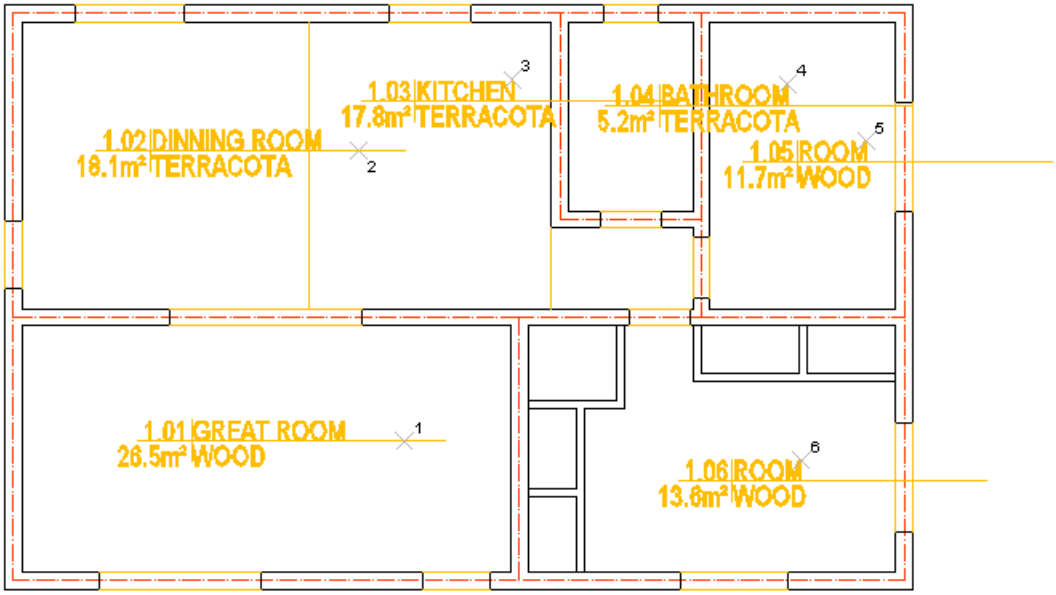
1.01	GREAT ROOM	WOOD	26.5m²
1.02	DINNING ROOM	TERRACOTA	18.1m²
1.03	KITCHEN	TERRACOTA	17.8m²
1.04	BATHROOM	TERRACOTA	5.2m²
1.05	ROOM	WOOD	11.7m²
1.06	ROOM	WOOD	13.6m²

If you select AutoCAD as an output of the action, room areas will be linked with blocks, so whenever you change area in block, these in list will be also updated.

RMLS LIST OF SELECTED ROOMS

commandline entry: **RMLS**
menu: **APLUS > AREAS > RMLS**

Subsequently select rooms to get their list.



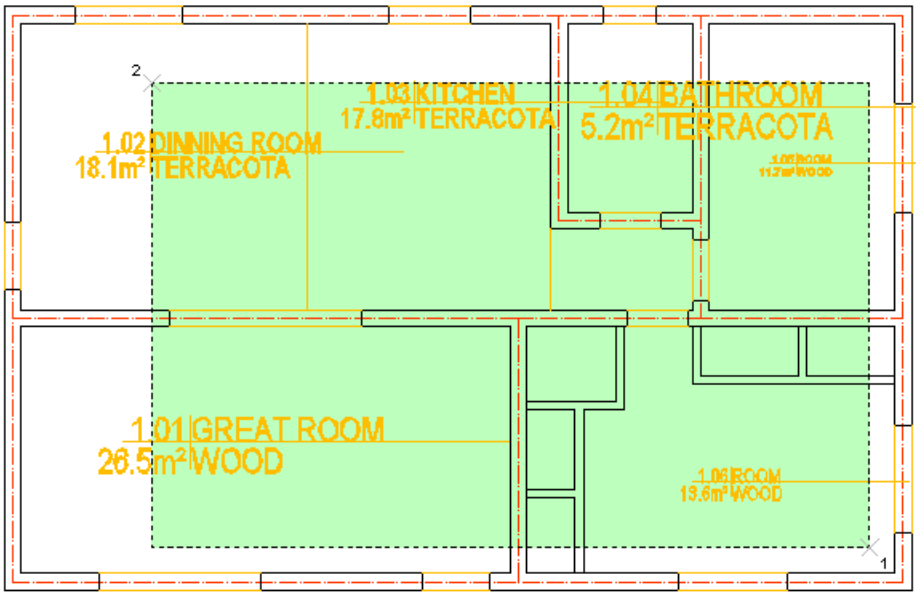
You will get following result in NOTEPAD:

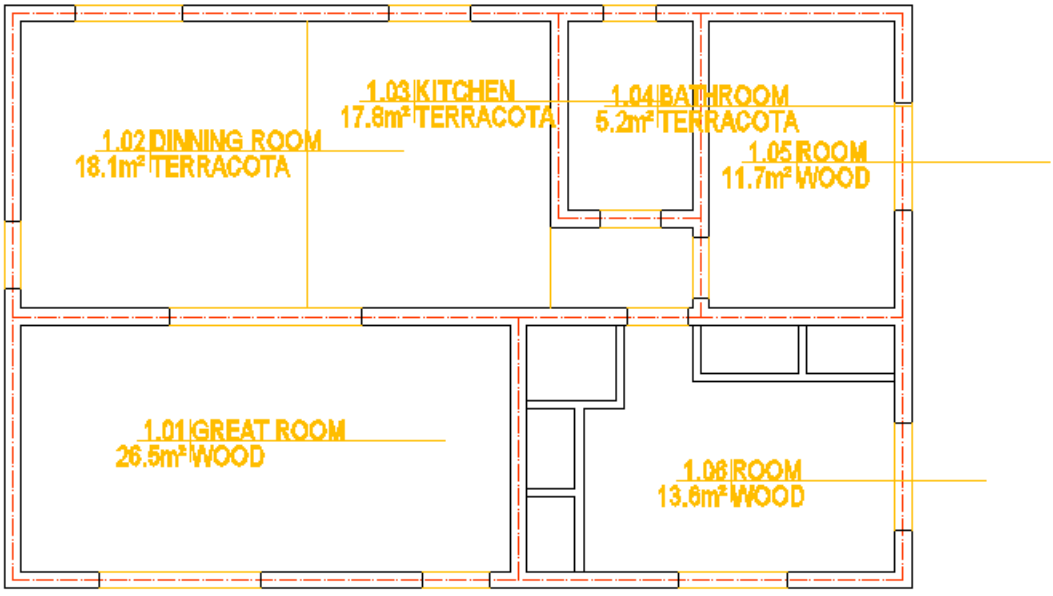
1.01 GREAT ROOM	26.5m²	WOOD
1.02 DINNING ROOM	18.1m²	TERRACOTA
1.03 KITCHEN	17.8m²	TERRACOTA
1.04 BATHROOM	5.2m²	TERRACOTA
1.05 ROOM	11.7m²	WOOD
1.06 ROOM	13.6m²	WOOD

List will be automatically exported to text file.

RMRES USTAWIA WIELKOŚĆ BLOKU POMIESZCZENIA NA OBECNIE USTAWIONĄ

commandline entry: **RMRES**
menu: **APLUS > AREAS > RMRES**





RMP APLUS ROOMS SETTINGS

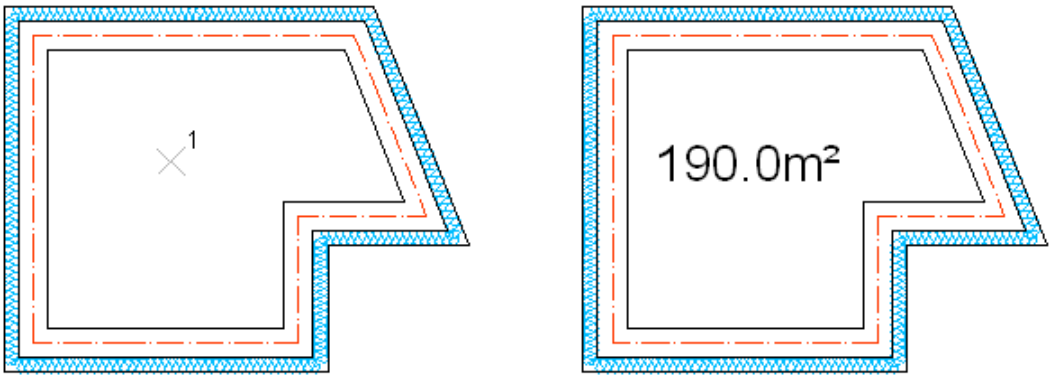
commandline entry: **RMP**
menu: **APLUS > AREAS > RMP**

You can set following options for created room blocks:
1. Number of digits in room's number
2. Number's prefix
3. Number's suffix
4. Measurement precision
5. Measurement scale
6. Type of room block

ARE QUICK AREA MEASUREMENT

commandline entry: **ARE**
menu: **APLUS > AREAS > ARE**

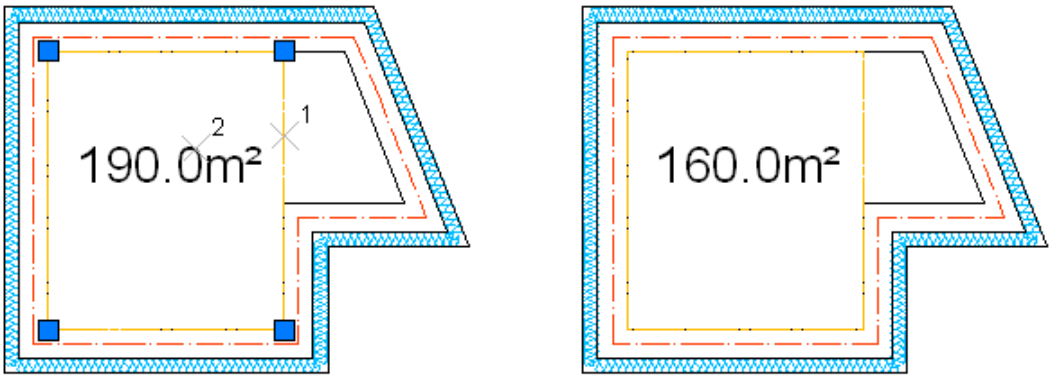
Specify point in closed area to quickly measure it's area and put this value into drawing.



Properties of created attribute and measurement method can be changed with AREP command. ***AREP***

ARE+ ADD AREA MEASUREMENT VALUE TO EXISTING ONE

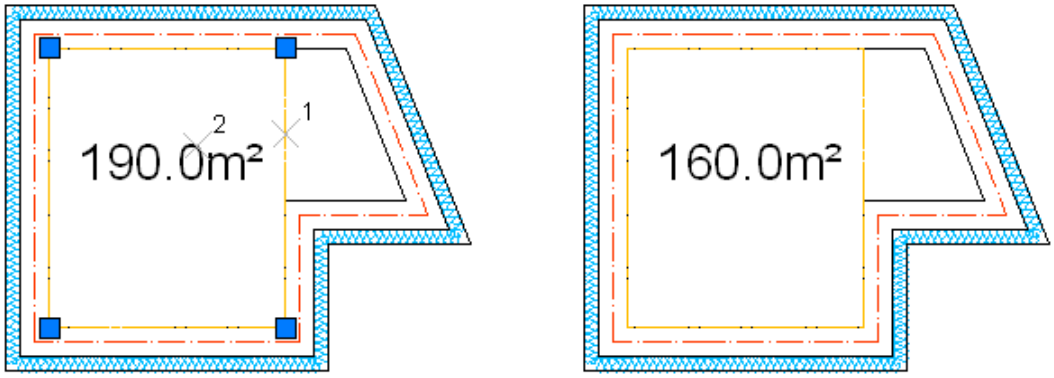
commandline entry: **ARE+**
menu: **APLUS > AREAS > ARE+**



AREU UPDATE AREAS

commandline entry: **AREU**
menu: **APLUS > AREAS > AREU**

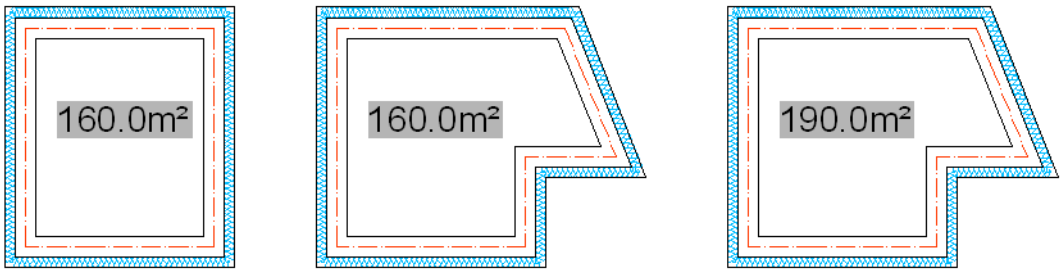
To update areas created with ARE command:
1. Select polyline that enclose measured area
2. Select block, in which you want to update



AREUA CREATE AREA BLOCK WITH AUTOMATIC UPDATING VALUE

commandline entry: **AREUA**
menu: **APLUS > AREAS > AREUA**

To insert area block with automatically updated value:
1. Select closed polyline
2. Specify block insertion point



Whenever you change shape of polyline, area will be updated.

AREP AREA MEASUREMENT PROPERTIES

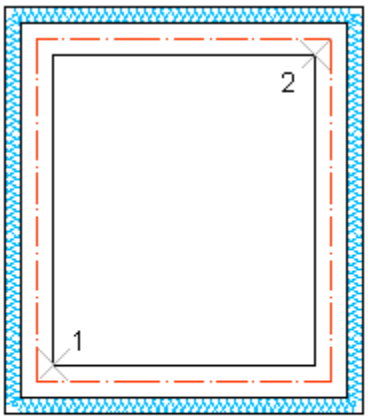
commandline entry: **AREP**
menu: **APLUS > AREAS > AREP**

Command changes properties of area blocks, created with commands ***ARE*** , ***ARE+*** , ***AREUA*** :
1. Select text layer
2. Select polylines layer
3. Specify text height
4. Specify measurement scale
5. Set precision

AAS QUICK RECTANGLE AREA MEASUREMENT

commandline entry: **AAS**
menu: **APLUS > AREAS > AAS**

Select two corners of rectangle to measure its area



Area: 160m²
Edge A: 4602.00 Edge B: 3426.00
A:B=1.3432 (134.32%, 1/1)

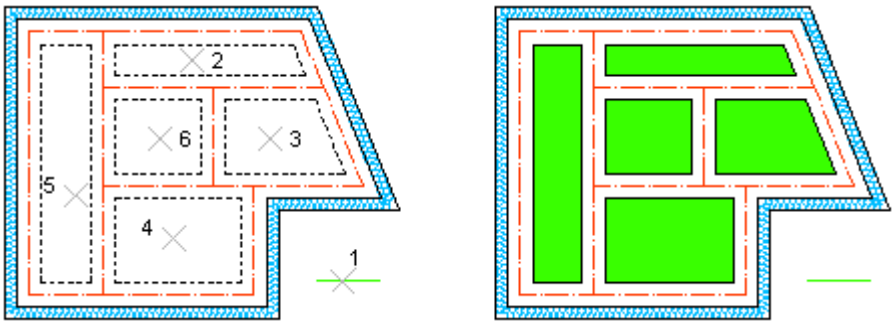
Additionally in commandline you will see proportion between length and width of rectangle.

HATCHES

SOL SOLID HATCH

commandline entry: **SOL**
menu: **APLUS > HATCHES > SOL**

To fill specified area with solid hatch
1. Specify hatch layer
2. Specify one or more areas you want to fill

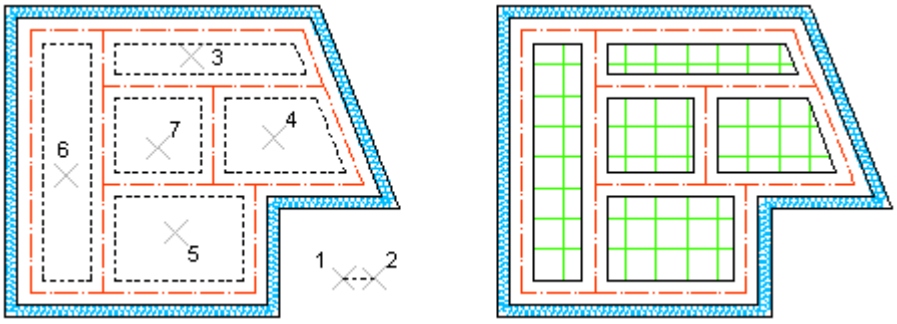


You can change default layer for hatches with command ***HATCHP***

TERA TERRACOTTA HATCH

commandline entry: **TERA**
menu: **APLUS > HATCHES > TERA**

To fill specified area with terracotta hatch:
1. Specify terracotta dimensions
2. Specify one or more areas you want to fill

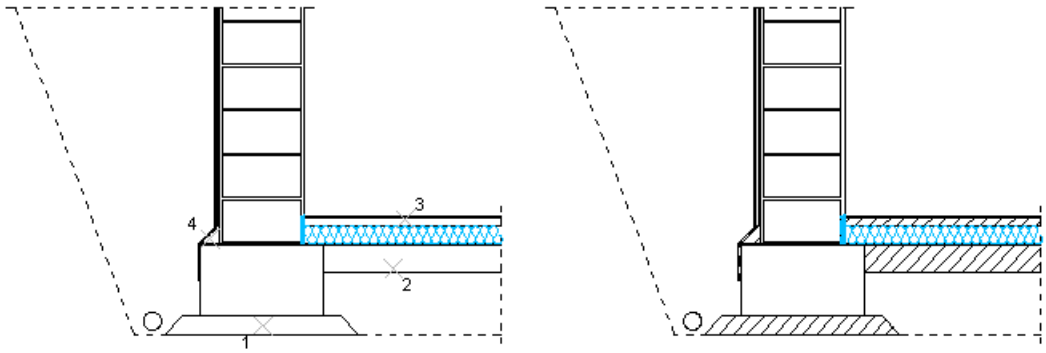


You can change default layer for hatches with command ***HATCHP***

BETON CONCRETE HATCH

commandline entry: **BETON**
menu: **APLUS > HATCHES >BETON**

To fill specified area with concrete hatch (predefined - line)
1. Specify distance between lines (on-screen or in commandline)
2. Specify one or more areas you want to fill

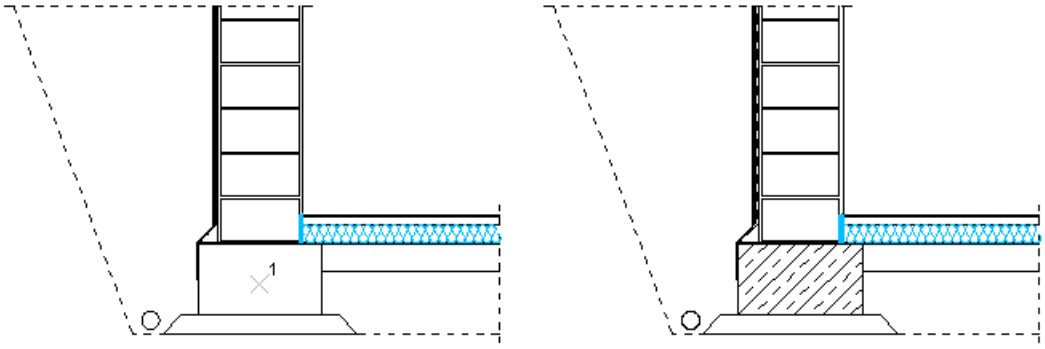


You can change default layer for hatches with command ***HATCHP***

BETONZ REINFORCED CONCRETE HATCH

commandline entry: **BETONZ**
menu: **APLUS > HATCHES >BETONZ**

To fill specified area with reinforced concrete hatch (predefined - TRANS)
1. Specify distance between lines (on-screen or in commandline)
2. Specify one or more areas you want to fill

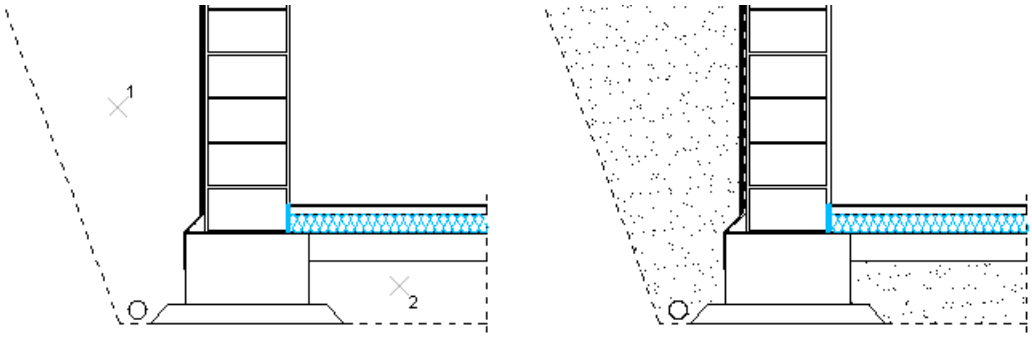


You can change default layer for hatches with command ***HATCHP***

SAND SAND HATCH

commandline entry: **SAND**
menu: **APLUS > HATCHES >SAND**

To fill specified area with sand hatch (dots, predefined - AR-Sand)
1. Specify density of dots (on-screen or in commandline)
2. Specify one or more areas you want to fill

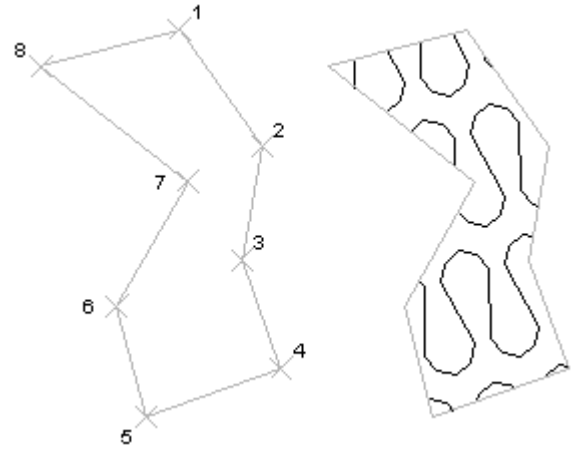


You can change default layer for hatches with command ***HATCHP***

HTERM TERMOISOLATION HATCH

commandline entry: **HTERM**
menu: **APLUS > HATCHES >HTERM**

In order to create termoisolation hatch you have to draw boundaries of an area you wish to hatch.

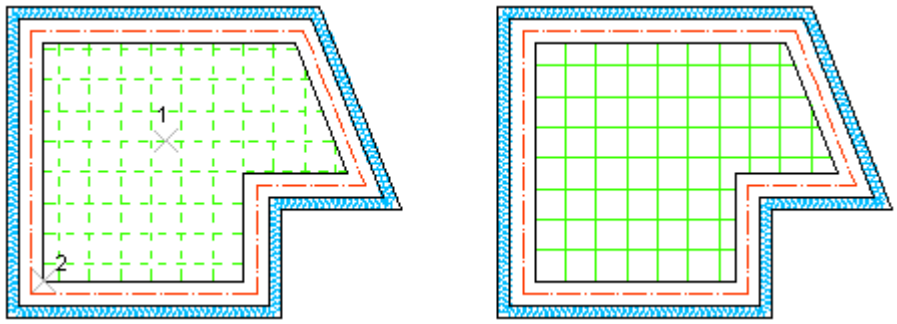


You can change default layer for hatches with command ***HATCHP***

HM MOVE HATCH BASE POINT

commandline entry: **HM**
menu: **APLUS > HATCHES >HM**

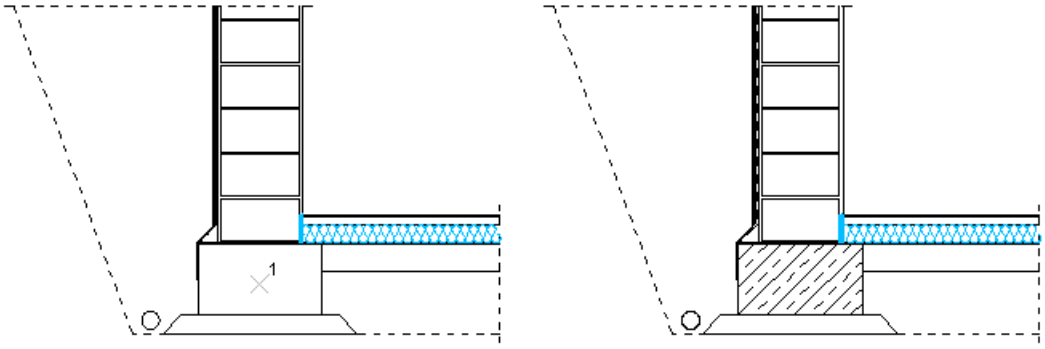
To move base point of selected hatch:
1. Select hatch
2. Specify new hatch origin point



HRO ROTATE HATCH

commandline entry: **HRO**
menu: **APLUS > HATCHES >HRO**

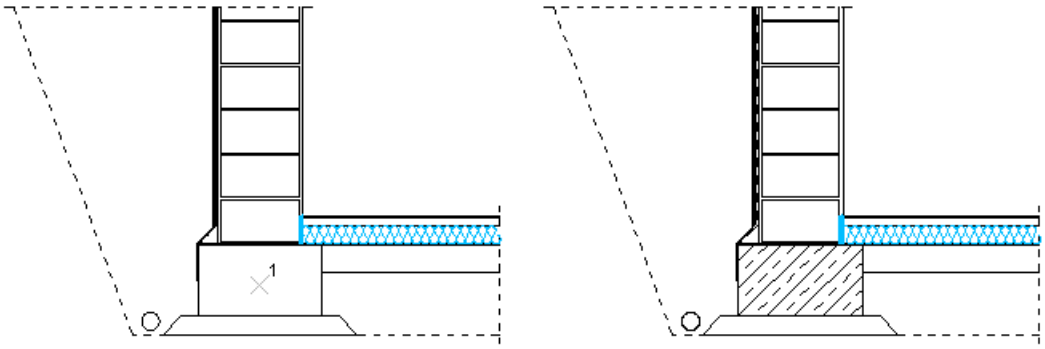
To rotate hatch pattern:
1. Select hatch
2. Specify base point
3. Specify new hatch direction (angle)



HPL FILL POLYLINE WITH CURRENT HATCH

commandline entry: **HPL**
menu: **APLUS > HATCHES >HPL**

Select closed polyline to fill it with last used hatch pattern.

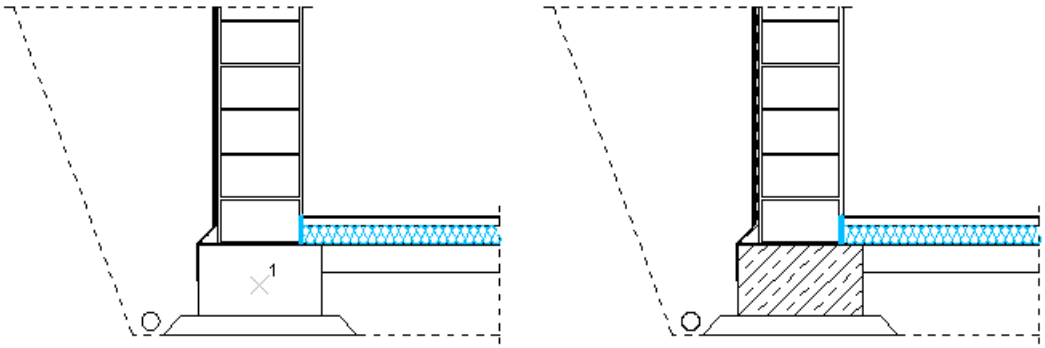


You can change default layer for hatches with command ***HATCHP***

PATTERN PATTERN GENERATOR

commandline entry: **PATTERN**
menu: **APLUS > HATCHES >PATTERN**

To fill specified area with reinforced concrete hatch (predefined - TRANS)
1. Specify distance between lines (on-screen or in commandline)
2. Specify one or more areas you want to fill

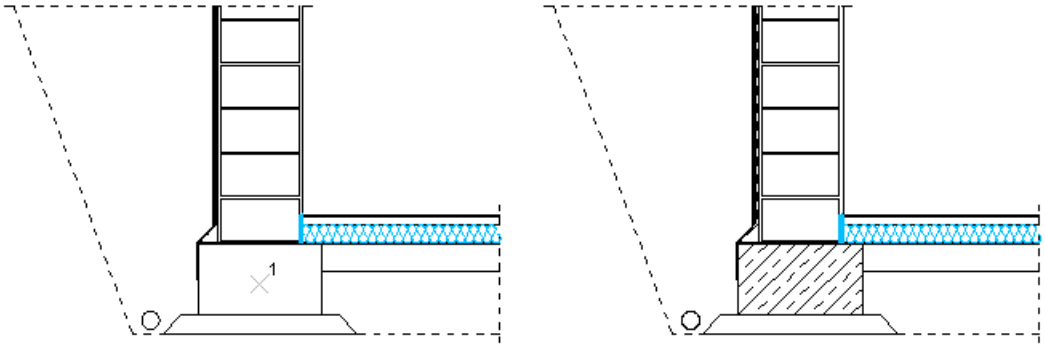


You can change default layer for hatches with command ***HATCHP***

HATCHP SET DEFAULT LAYER FOR HATCHES

commandline entry: **HATCHP**
menu: **APLUS > HATCHES >HATCHP**

Select object to set it's layer to be default for newly created hatches.



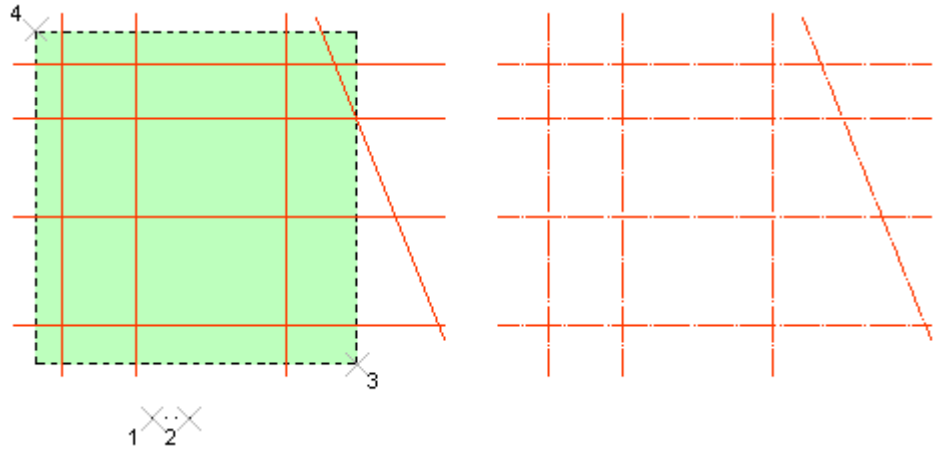
You can change default layer for hatches with command ***HATCHP***

LINES

AX CHANGE LINETYPE TO AXIS LINE

commandline entry: **AX**
menu: **APLUS > LINES > AX**

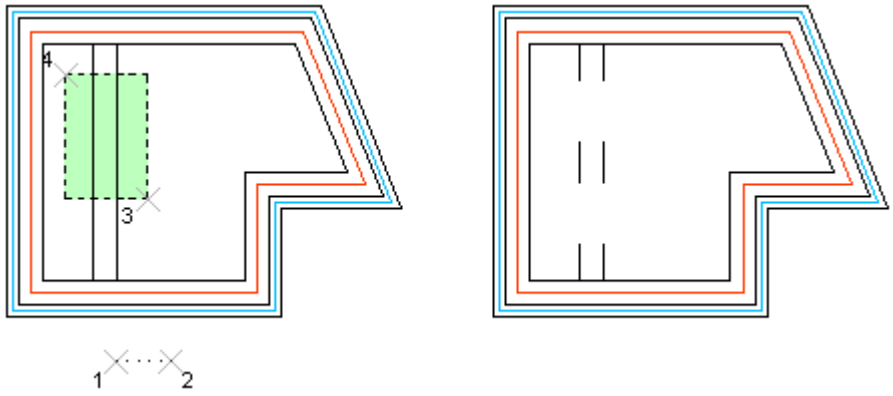
To change selected line type to axis line type (dash - dot - dash):
1. Specify distance between dots (on-screen or in commandline)
2. Select lines you want to change



DASHED CHANGE LINETYPE TO DASHED

commandline entry: **DASHED**
menu: **APLUS > LINES > DASHED**

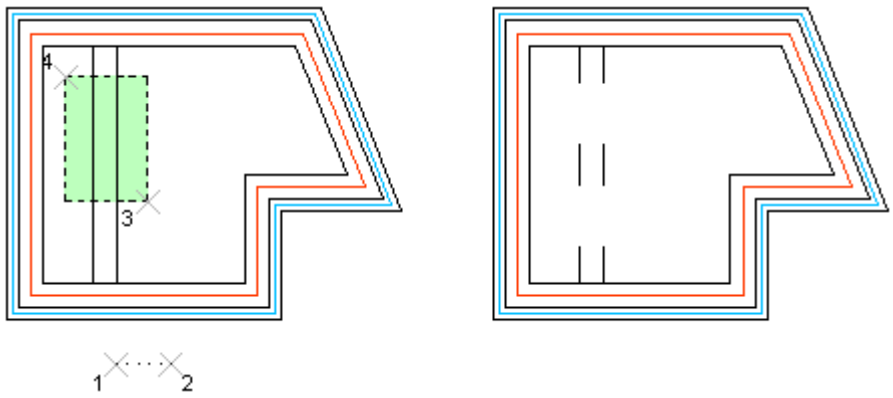
To change selected line type to dashed line type (dash - space - dash):
1. Specify distance between dashes (on-screen or in commandline)
2. Select lines you want to change



CONTINUOUS CHANGE LINETYPE TO CONTINUOUS

commandline entry: **CONTINUOUS**
menu: **APLUS > LINES > CONTINUOUS**

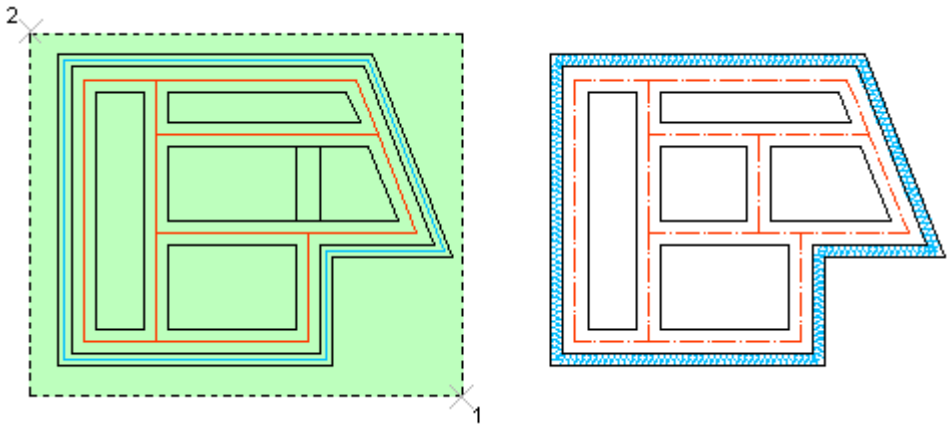
Select lines to change their linetype to continuous.



BYLL CHANGE LINETYPE TO 'BY LAYER'

commandline entry: **BYLL**
menu: **APLUS > LINES > BYLL**

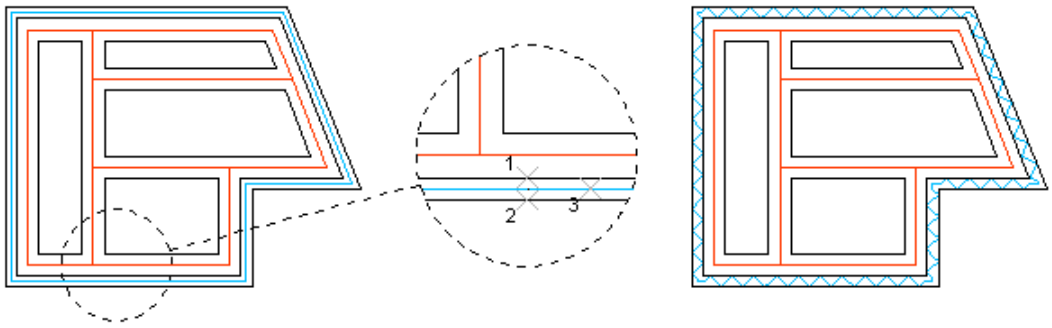
Select lines to change their linetype to 'ByLayer'



ZIGZAG HANGE LINETYPE TO ZIGZAG

commandline entry: **ZIGZAG**
menu: **APLUS > LINES > ZIGZAG**

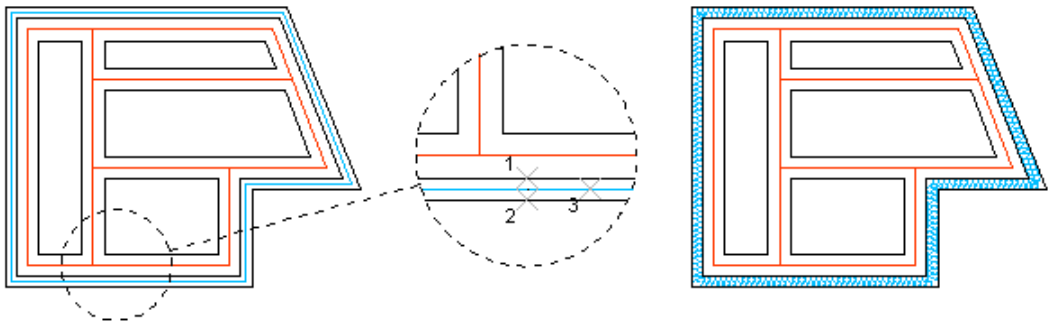
To change selected line type to ZIGZAG:
1. Specify zigzag thickness (on-screen or in commandline)
2. Select lines you want to change



TERM CHANGE LINETYPE TO BATTING

commandline entry: **TERM**
menu: **APLUS > LINES > TERM**

To change selected line type to BATTING:
1. Specify BATTING width (on-screen or in commandline)
2. Select lines you want to change

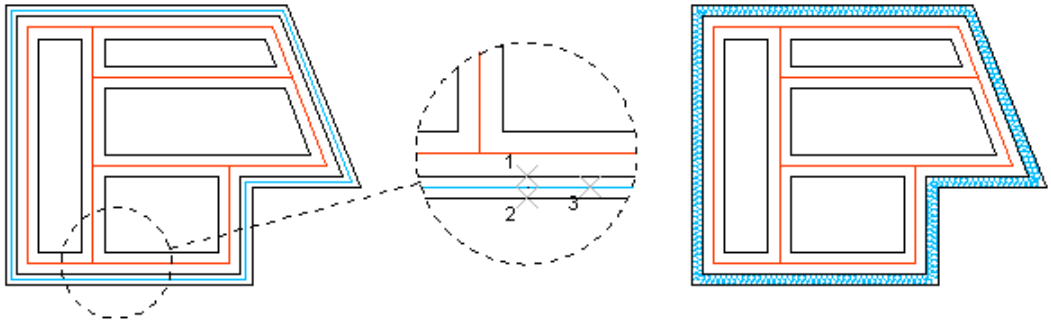


You can also create BATTING as a polyline with command ***TERMPL***

TERMPL CHANGE LINETYPE TO BATTING POLYLINE

commandline entry: **TERMPL**
menu: **APLUS > LINES > TERMPL**

To change selected line type to BATTING (polyline):
1. Specify BATTING width (on-screen or in commandline)
2. Select lines you want to change

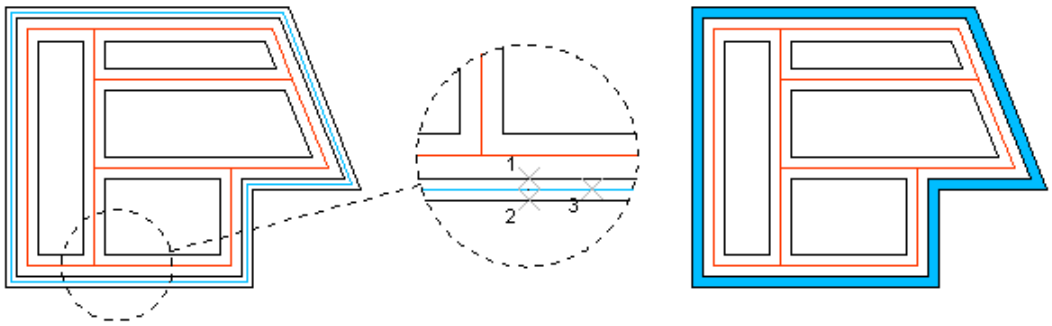


Advantage of drawing BATTING as a polyline is that you can cut it just the way you need.

FAT TRANSFORM LINE INTO POLYLINE WITH SPECIFIED WIDTH

commandline entry: **FAT**
menu: **APLUS > LINES > FAT**

To change selected line type to polyline with specified width:
1. Specify width of polyline
2. Select lines you want to change

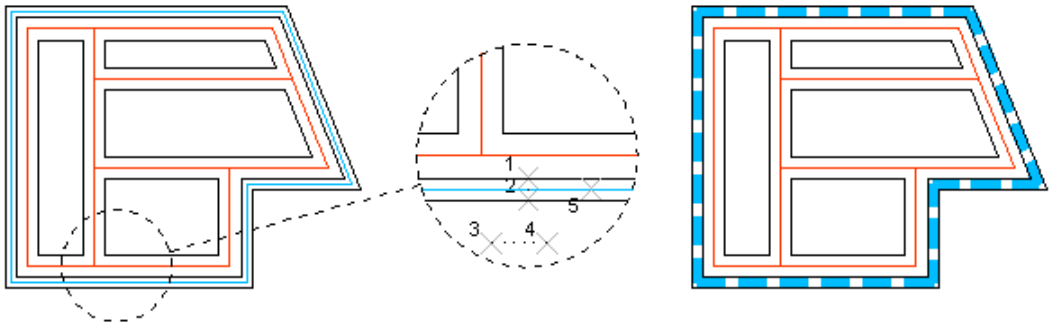


Linetype itself will be kept, only width changes.

ISOL CHANGE LINE TO ISOLATION POLYLINE

commandline entry: **ISOL**
menu: **APLUS > LINES > ISOL**

To change selected line type to isolation polyline:
1. Specify isolation width
2. Specify distance between dashes (on-screen or in commandline)



LAYOUTS

LAY CHANGE ACTIVE LAYOUT

commandline entry: **LAY**
menu: **APLUS >LAYOUTS > LAY**

Use command to change layout. Available options:
1. Select number from list
2. Type-in full name
3. Type-in partial name

LAYC COPY CURRENT LAYOUT

commandline entry: **LAYC**
menu: **APLUS > LAYOUTS > LAYC**

Type new name to make copy of current layout.

COLAY COPY OBJECTS BETWEEN LAYOUTS

commandline entry: **COLAY**
menu: **APLUS > LAYOUTS > COLAY**

To copy objects to different layouts:
1. Select objects
2. Select destination layouts from list.

You can erase objects copied this way with ***ELAY*** command.

ELAY ERASE OBJECTS FORM SELECTED LAYOUTS

commandline entry: **ELAY**
menu: **APLUS > LAYOUTS > ELAY**

To erase objects from selected layouts:
1. Select objects you want to erase
2. Select layouts from list

If object exists on selected layouts it will be erased. Command easly erases objects copied using ***COLAY*** command.

LLFV FREEZE IN CURRENT LAYOUT

commandline entry: **LLFV**
menu: **APLUS > LAYOUTS> LLFV**

To freeze layers in current viewport
1. Get inside viewport in which you want to freeze layer
2. Select object on layers you want to freeze

LLVMA MATCH VISIBILITY OF LAYERS IN VIEWPORTS

commandline entry: **LLVMA**
menu: **APLUS > LAYOUTS > LLVMA**

To match viewports visibility:
1. Select source viewport, from which visibility settings will be copied
2. Select destination viewports

LAYATTE EDIT ATTRIBUTE IN ALL LAYOUTS

commandline entry: **LAYATTE**
menu: **APLUS > LAYOUTS > LAYATTE**

To edit attribute in all layouts:
1. Select attribute in layout
2. Change value for desired layouts

LAYL MOVE LAYOUT LEFT

commandline entry: **LAYL**
menu: **APLUS > LAYOUTS > LAYL**

Use this command to move layout's position by 1 to left.

LAYR MOVE LAYOUT RIGHT

commandline entry: **LAYR**
menu: **APLUS > LAYOUTS > LAYR**

Use this command to move layout's position by 1 to right.

LAYEXPORT EXPORT LAYOUT

commandline entry: **LAYEXPORT**
menu: **APLUS > LAYOUTS > LAYEXPORT**

To export layout:
1. Select layout you wish to export
2. Press OK

LAYIMPORT IMPORT LAYOUT

commandline entry: **LAYIMPORT**
menu: **APLUS > LAYOUTS > LAYIMPORT**

To import previously exported layout:
1. Select layout's name from list
2. Press OK

LAYD DELETE CURRENT LAYOUT

commandline entry: **LAYD**
menu: **APLUS > LAYOUTS > LAYD**

Use command to delete currently active layer.

LAYDL DELETE SELECTED LAYOUTS

commandline entry: **LAYDL**
menu: **APLUS > LAYOUTS > LAYDL**

Select layout names from list to delete them.

LAYDA DELETE ALL LAYOUTS

commandline entry: **LAYDA**
menu: **APLUS > LAYOUTS > LAYDA**

Use this command to delete all layouts from current drawing.

LAYCEN CENTER VIEWS IN ALL LAYOUTS

commandline entry: **LAYCEN**
menu: **APLUS > LAYOUTS > LAYCEN**

Command centres views in all layouts in your drawing.

LAYINFO INFO ABOUT LAYOUTS

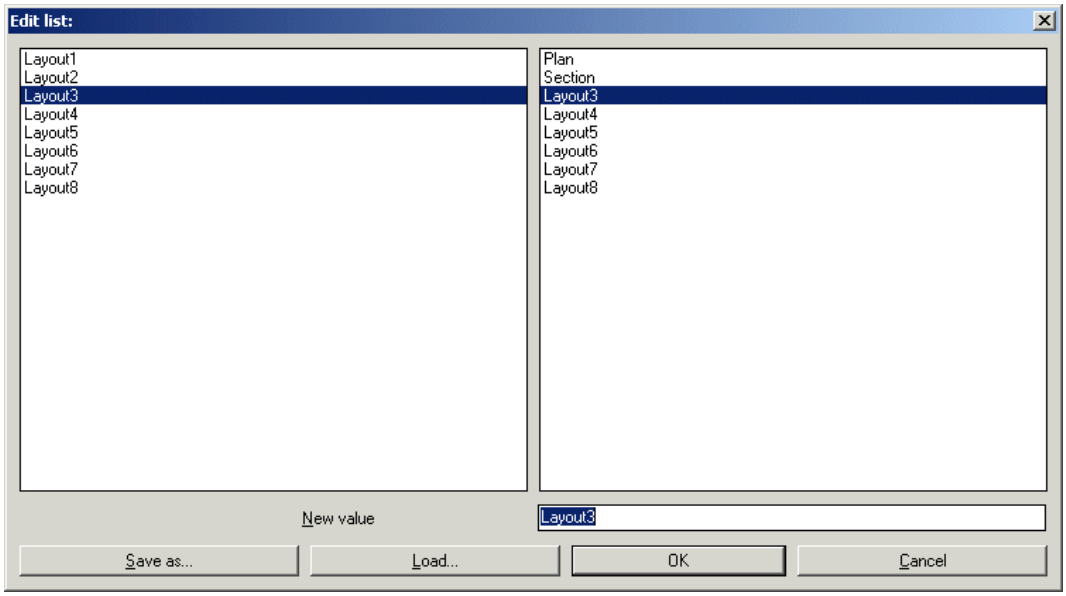
commandline entry: **LAYINFO**
menu: **APLUS > LAYOUTS > LAYINFO**

Use this command to display advanced informations about layouts in current drawing. You will get plain-text list with names and scales of viewports in particular layouts.

LAYNAMEE EDIT LAYOUTS NAMES

commandline entry: **LAYNAMEE**
menu: **APLUS > LAYOUTS > LAYNAMEE**

Use this command to edit names of all layouts.



LAYNAMENR PUT NUMBERS IN LAYOUT NAMES

commandline entry: **LAYNAMENR**
menu: **APLUS > LAYOUTS > LAYNAMENR**

Specify first number to add ascending numbers before names of all layouts.

LAYDS DISPLAY PLOT STYLE IN ALL LAYOUTS


commandline entry: **LAYDS**
menu: **APLUS > LAYOUTS > LAYDS**

Use this command to show plot style in every layout.

LAYHS HIDE PLOT STYLES IN ALL LAYOUTS


commandline entry: **LAYHS**
menu: **APLUS > LAYOUTS > LAYHS**

Use command to stop displaying plot style in all layouts.

LAYSTYLE CHANGE PLOT STYLE FOR CURRENT LAYOUT


commandline entry: **LAYSTYLE**
menu: **APLUS > LAYOUTS > LAYSTYLE**

Command lets you change plot style for current layout; select one from a list that will appear.

LLMAS MATCH PLOT STYLES


commandline entry: **LLMAS**
menu: **APLUS > LAYOUTS > LLMAS**

To match plot styles:
1. Select source layout
2. Select destination layout

LLMASN MATCH PLOT STYLES OF NESTED OBJECTS


commandline entry: **LLMASN**
menu: **APLUS > LAYOUTS > LLMASN**

VP1 MAKE VIEWPORT (QUICK)


commandline entry: **VP1**
menu: **APLUS > LAYOUTS > VP1**

Use this command to quickly make viewport.

Available options:
1. ON
2. OFF
3. Fit
4. Shadeplot
5. Lock
6. Object
7. Restore
8. 2/3/4

Refer to AutoCAD Help to find out more.

VPL LOCK VIEWPORT

commandline entry: **VPL**
menu: **APLUS > LAYOUTS> VPL**

Select viewports to lock them up.

VPU UNLOCK VIEWPORT

commandline entry: **VPU**
menu: **APLUS > LAYOUTS> VPU**

Select locked viewports to unlock them.

VPLA LOCK ALL VIEWPORTS

commandline entry: **VPLA**
menu: **APLUS > LAYOUTS> VPLA**

Use command to lock all viewports.

VPUA UNLOCK ALL VIEWPORTS

commandline entry: **VPUA**
menu: **APLUS > LAYOUTS> VPUA**

Command unlocks all viewports.

VPP DRAW LAYOUT'S VIEWPORTS BORDERS IN MODELSPACE

commandline entry: **VPP**
menu: **APLUS > LAYOUTS> VPP**

Command draws borders of viewports of all layouts in modelspace.

Command works only in Modelspace.

NRL CHANGE TEXT OR ATTRIBUTE INTO LAYOUT'S NUMBER

commandline entry: **NRL**
menu: **APLUS > LAYOUTS> NRL**

Select text / mtext / attribute to change it into number of current layout.

NRLA CHANGE ATTRIBUTE INTO LAYOUT'S NUMBER (ON ALL LAYOUTS)

commandline entry: **NRLA**
menu: **APLUS > LAYOUTS> NRLA**

Select attribute of block that exists in all layouts to transform it into layouts number.

<< GO TO MODEL

commandline entry: **<<**
menu: **APLUS > LAYOUTS> <<**

Use command to go to MODEL

< GO TO PREVIOUS LAYOUT

commandline entry: **<**
menu: **APLUS > LAYOUTS> <**

Use this command to go to previous layout.

> GO TO NEXT LAYOUT

commandline entry: **>**
menu: **APLUS > LAYOUTS> >**

Use this command to go to next layout.

>> GO TO LAST LAYOUT

commandline entry: **>>**
menu: **APLUS > LAYOUTS> >>**

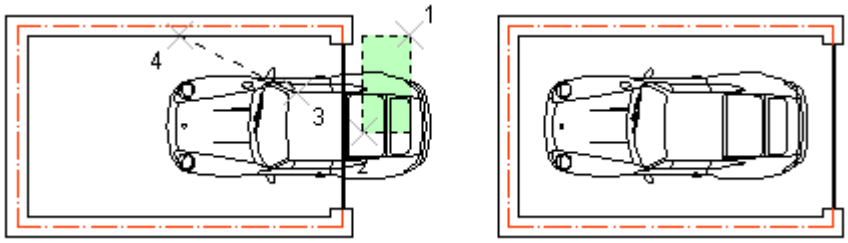
Use this command to go to the last layout.

MODIFY

MX MOVE ONLY IN X-AXIS

commandline entry: **MX**
menu: **APLUS >MODIFY > MX**

To move selected objects only in X-axis:
1. Select objects you want to move
2. Specify base point
3. Specify destination point

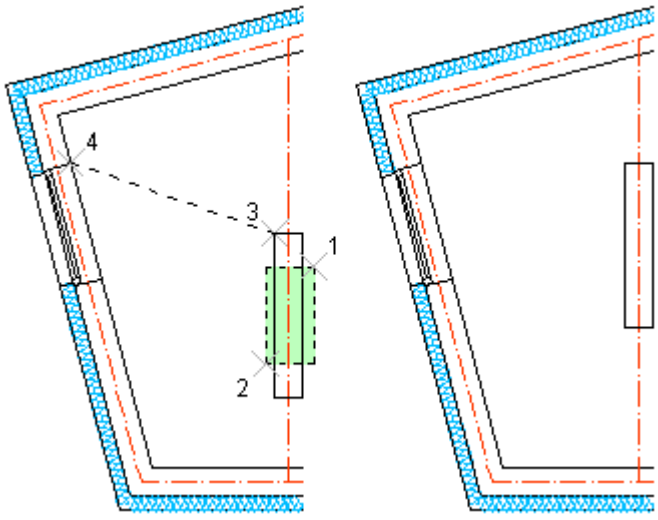


Height (Y) of destination point will be ignored, the only movement is in X.

MY MOVE ONLY IN Y-AXIS

commandline entry: **MY**
menu: **APLUS >MODIFY > MY**

To move selected objects only in Y-axis:
1. Select objects you want to move
2. Specify base point
3. Specify destination point

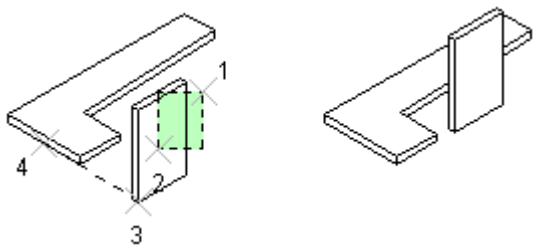


Only Y position of the object will be changed. X position will remain the same.

MZ MOVE ONLY IN Z-AXIS

commandline entry: **MZ**
menu: **APLUS >MODIFY > MZ**

To move selected objects only in Z-axis:
1. Select objects you want to move
2. Specify base point
3. Specify destination point

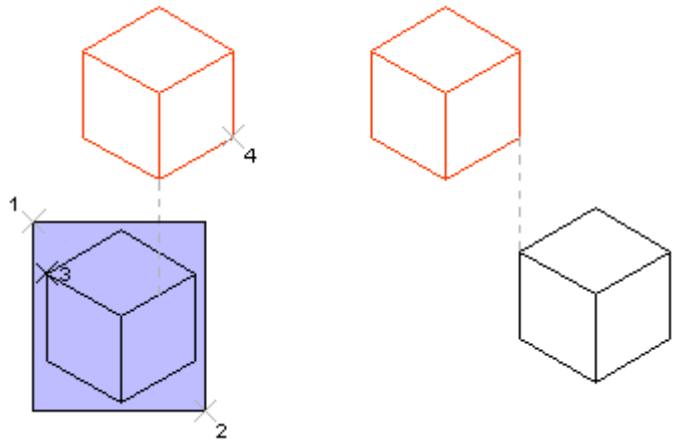


Object will be moved only in Z-axis.

MXY MOVE SELECTION JUST IN X/Y AXIS

commandline entry: **MXY**
menu: **APLUS >MODIFY > MXY**

To move objects just in X/Y axis
1. Select objects
2. Specify base point
3. Specify destination point

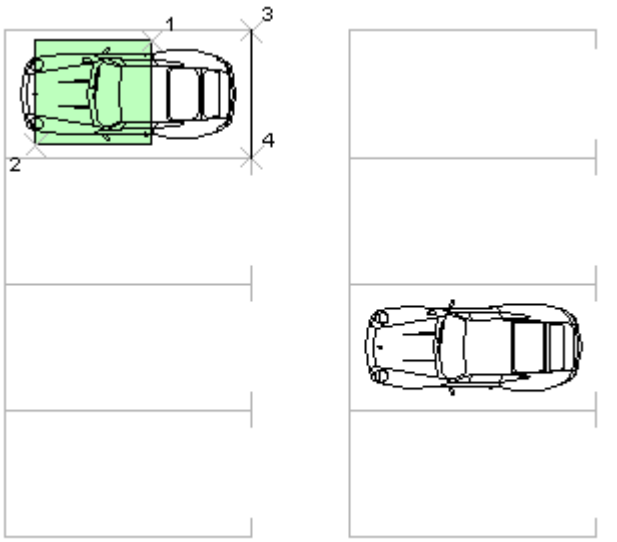


Objects will be moved only in X and Y axis. Their height will not be changed

MR MOVE AND REPEAT

commandline entry: **MR**
menu: **APLUS >MODIFY > MR**

To move and repeat:
1. Select objects
2. Specify base point
3. Specify destination point
4. Decide whether to Continue move (with C) or move back (with U).

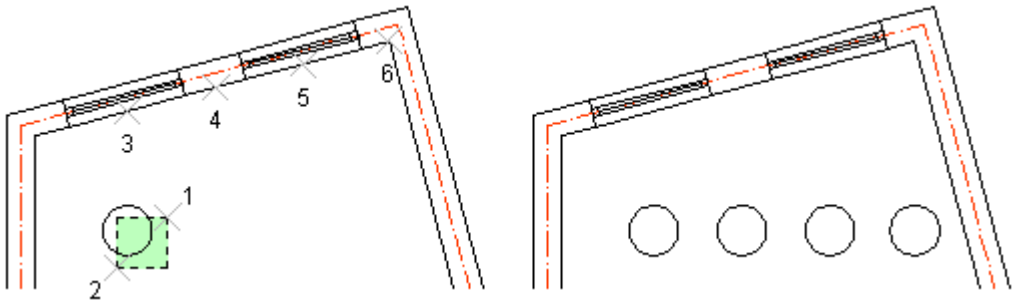


MOVE repeated x2 with MR

COX COPY IN X-AXIS ONLY

commandline entry: **COX**
menu: **APLUS >MODIFY > COX**

To copy objects only in X-axis:
1. Select objects you want to copy
2. Specify base point
3. Specify destination points

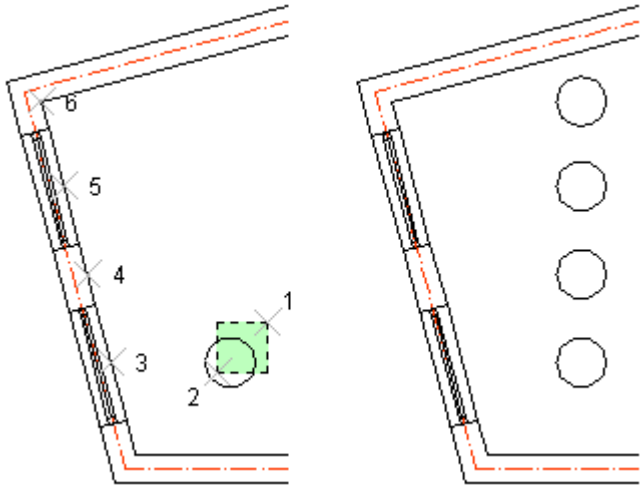


Height (Y) of destination points will be ignored, the only movement is in X.

COY COPY IN Y-AXIS ONLY

commandline entry: **COY**
menu: **APLUS >MODIFY > COY**

To copy objects only in Y-axis:
1. Select objects you want to copy
2. Specify base point
3. Specify destination point

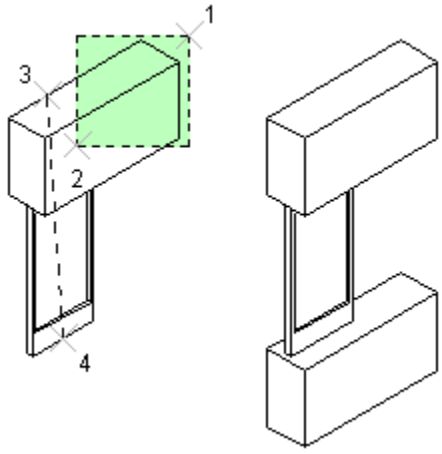


Only Y position of the objects will be changed. X position will remain the same.

COZ COPY IN Z-AXIS ONLY

commandline entry: **COZ**
menu: **APLUS >MODIFY > COZ**

To copy objects only in Z-axis:
1. Select objects you want to copy
2. Specify base point
3. Specify destination points

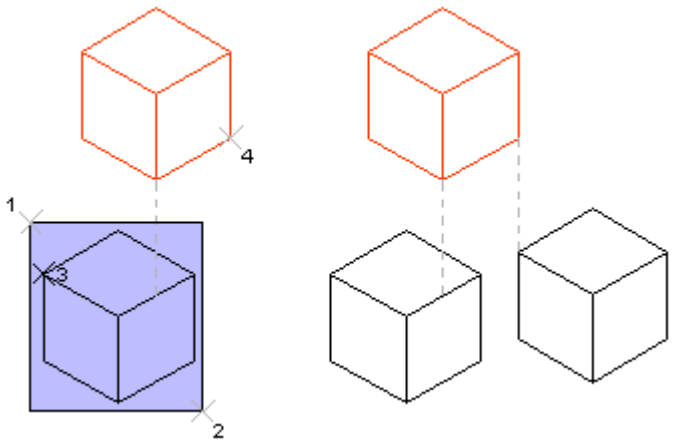


Object will be copied only in Z-axis.

COXY COPY SELECTION JUST IN X/Y AXIS

commandline entry: **COXY**
menu: **APLUS >MODIFY > COXY**

To copy objects just in X/Y axis
1. Select objects
2. Specify base point
3. Specify destination point

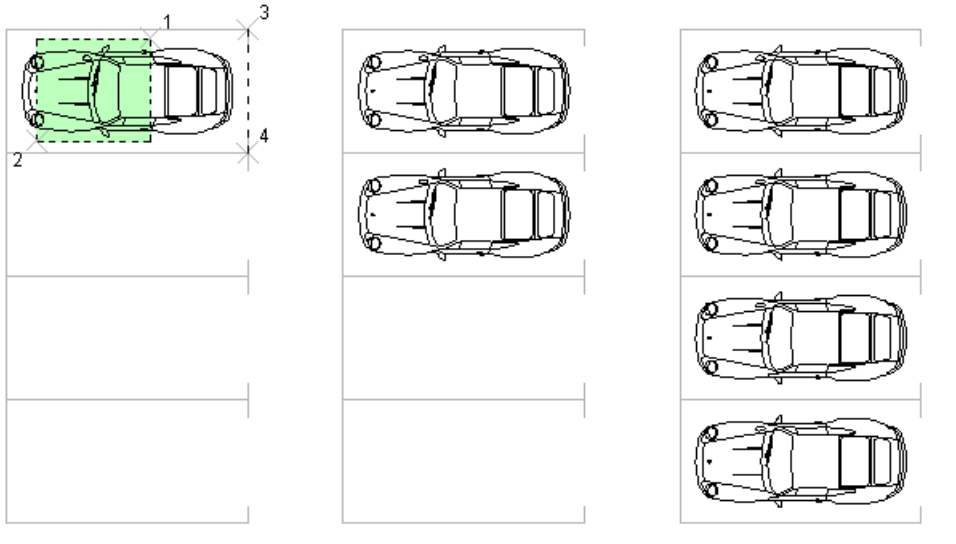


Objects will be copied only in X and Y axis. Their height will not be changed.

COR REPEAT COPY ACTION

commandline entry: **COR**
menu: **APLUS >MODIFY > COR**

To repeat copy action multiple times:
1. Select object you want to copy
2. Specify base point
3. Specify destination point
4. Repeat action as many times as you need

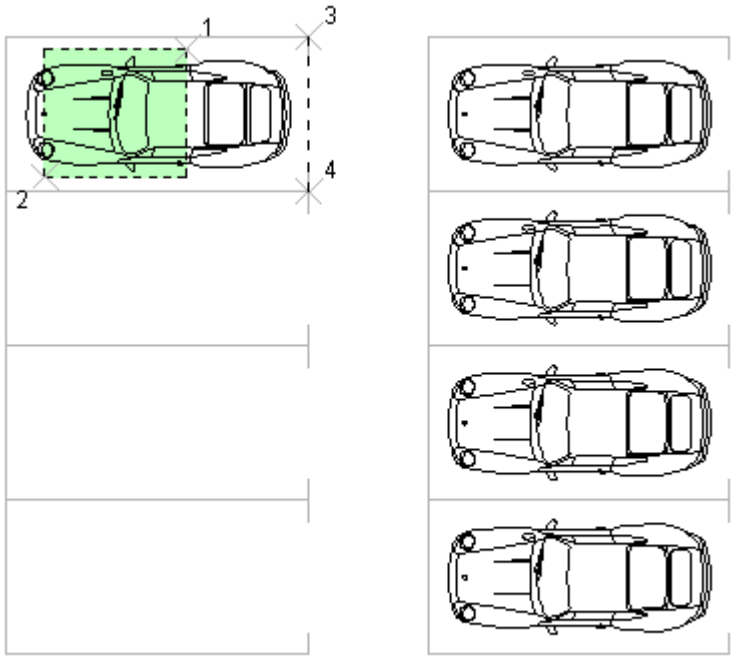


Distance between first copy and source object will be repeated.

CORN REPEAT COPY ACTION (SPECIFIED NUMBER OF COPIES)

commandline entry: **CORN**
menu: **APLUS >MODIFY > CORN**

To repeat copy action multiple times:
1. Select object you want to copy
2. Specify base point
3. Specify destination point
4. Specify how many copies do you need

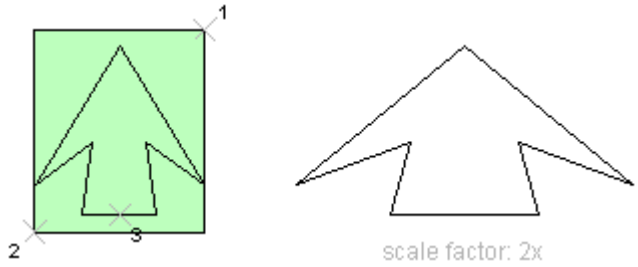


Distance between first copy and source object will be repeated.

SCX SCALE OBJECT JUST IN X DIRECTION

commandline entry: **SCX**
menu: **APLUS >MODIFY > SCX**

To scale object just in X direction:
1. Select object or objects
2. Specify scale factor

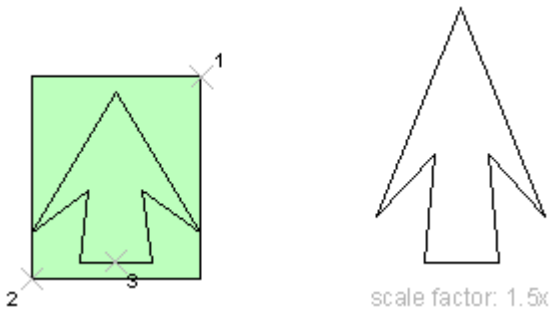


Object will be scaled just in this direction.

SCY SCALE OBJECT JUST IN Y DIRECTION

commandline entry: **SCY**
menu: **APLUS >MODIFY > SCY**

To scale object just in Y direction:
1. Select object or objects
2. Specify scale factor

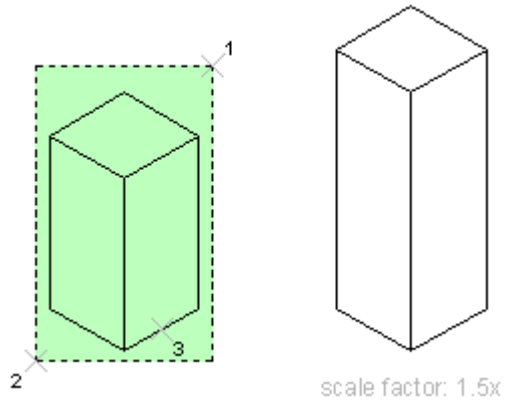


Object will be scaled just in this direction.

SCZ SCALE OBJECT JUST IN Z DIRECTION

commandline entry: **SCZ**
menu: **APLUS >MODIFY > SCZ**

To scale object just in Z direction:
1. Select object or objects
2. Specify scale factor

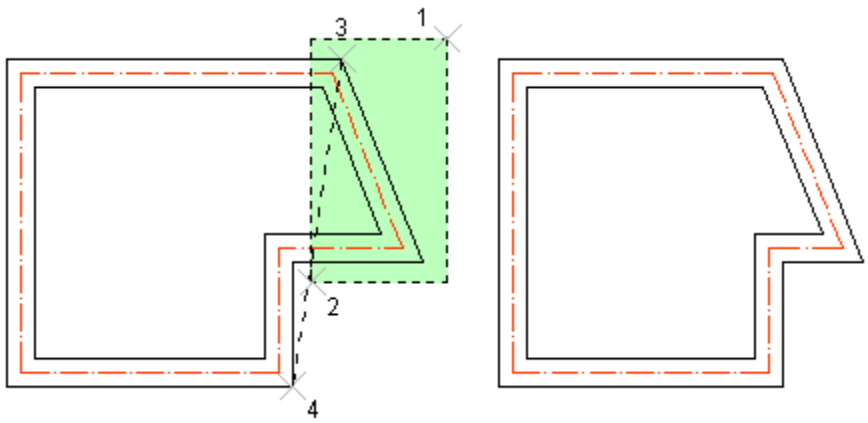


Object will be scaled just in this direction.

SX STRETCH IN X-AXIS ONLY

commandline entry: **SX**
menu: **APLUS >MODIFY > SX**

To stretch objects only in X-axis:
1. Select objects you want to stretch
2. Specify base point
3. Specify destination point

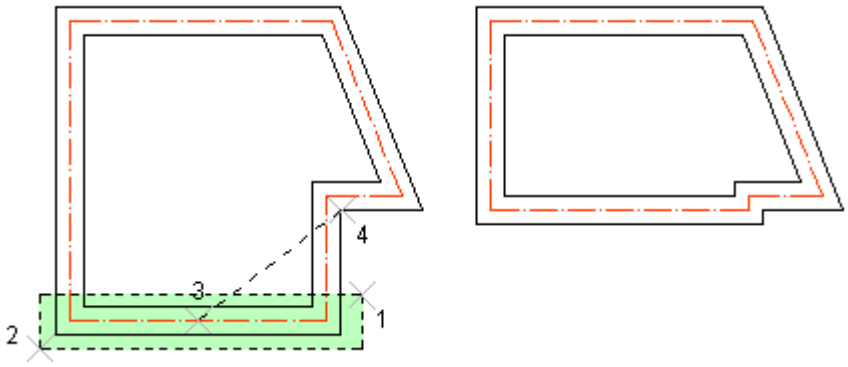


The only stretch is done in X-axis.

SY STRETCH IN Y-AXIS ONLY

commandline entry: **SY**
menu: **APLUS >MODIFY > SY**

To stretch objects only in Y-axis:
1. Select objects you want to stretch
2. Specify base point
3. Specify destination point

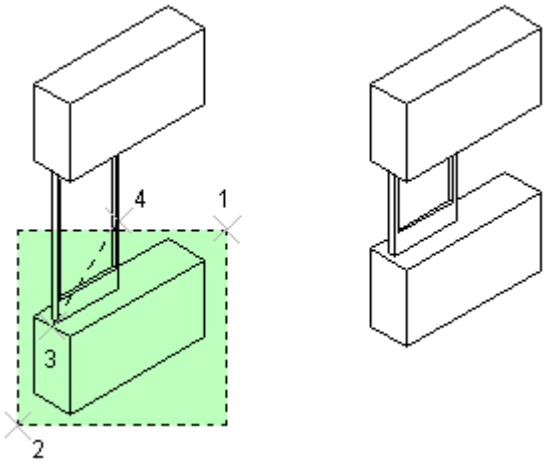


The only stretch is done in Y-axis.

SZ STRETCH IN Z-AXIS ONLY

commandline entry: **SZ**
menu: **APLUS >MODIFY > SZ**

To stretch objects only in Z-axis:
1. Select objects you want to stretch
2. Specify base point
3. Specify destination point

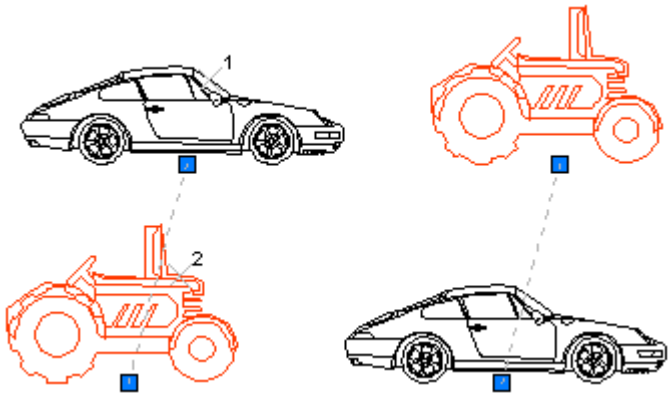


The only stretch is done in Z-axis.

SWAP SWAP SELECTED OBJECTS

commandline entry: **SWAP**
menu: **APLUS >MODIFY > SWAP**

To swap selected objects:
1. Pick first object
2. Pick second object



Objects will be swaped and placed in each other's starting points.

DPL DUPLICATE OBJECTS

commandline entry: **DPL**
menu: **APLUS >MODIFY > DPL**

Select objects to duplicate them. Notice that duplicated objects will share properties with source ones.

EDPL ERASE DUPLICATES

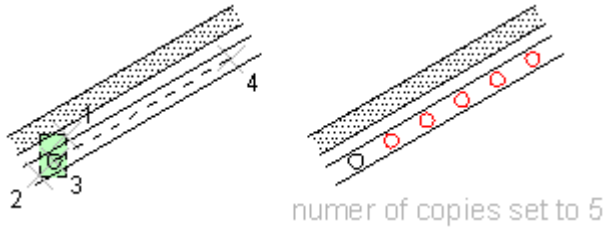
commandline entry: **EDPL**
menu: **APLUS >MODIFY > EDPL**

Specify area to erase duplicates from it. APLUS will display how many objects were removed in commandline.

COL COPY WITH LINE AS DISPLACEMENT PATH

commandline entry: **COL**
menu: **APLUS >MODIFY > COL**

To copy objects with line as displacement path:
1. Select objects you want to copy
2. Specify base point
3. Specify destination point
4. Specify how many copies you want to create within specified distance.

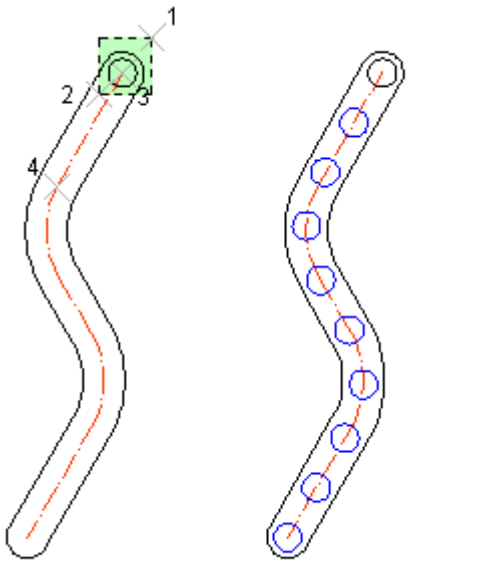


numer of copies set to 5

COPL OPY WITH POLYLINE AS DISPLACEMENT PATH

commandline entry: **COPL**
menu: **APLUS >MODIFY > COPL**

o copy objects with polyline as displacement path:
1. Select objects you want to copy
2. Specify base point
3. Select displacement polyline
4. Specify distance between copies
5. Specify, whether object should be rotated with path direction

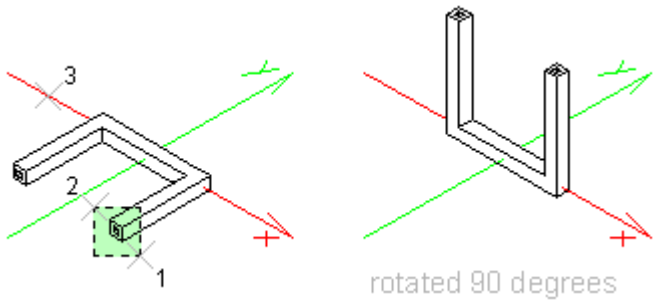


numer of copies set to 10

ROX 3D ROTATE AROUND X-AXIS

commandline entry: **ROX**
menu: **APLUS >MODIFY > ROX**

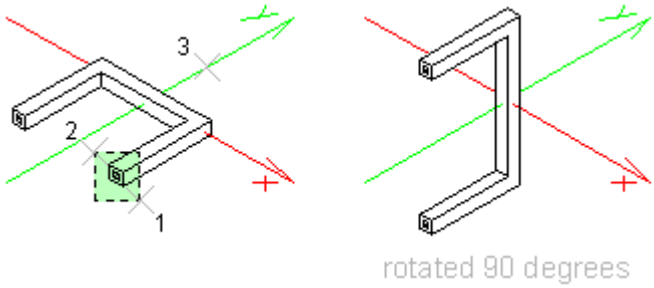
To rotate objects around X-axis
1. Select objects you want to rotate
2. Specify base point
3. Specify rotation angle



ROY 3D ROTATE AROUND Y-AXIS

commandline entry: **ROY**
menu: **APLUS >MODIFY > ROY**

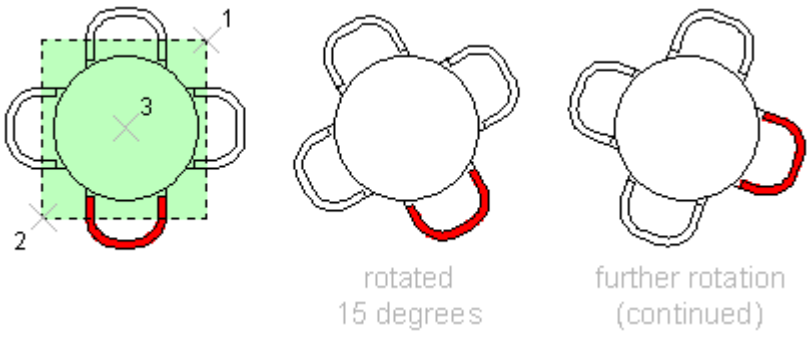
To rotate objects around Y-axis
1. Select objects you want to rotate
2. Specify base point
3. Specify rotation angle



ROO MULTIPLE ROTATE BY SPECIFIED ANGLE

commandline entry: **ROO**
menu: **APLUS >MODIFY > ROO**

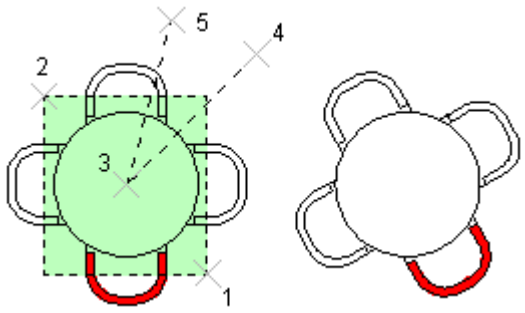
To rotate objects multiple times:
1. Select objects
2. Specify rotation base point
3. Specify rotation angle
4. Specify whether rotation should be repeated
5. To finish rotating type N or hit ESC key



ROR ROTATE BY REFERENCE ANGLE

commandline entry: **ROR**
menu: **APLUS >MODIFY > ROR**

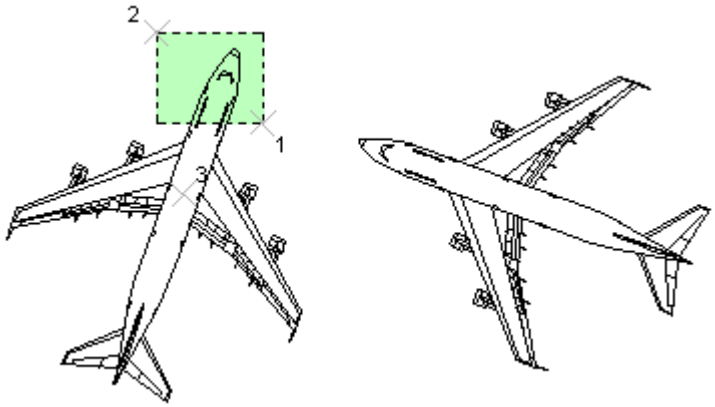
To rotate objects by reference angle:
1. Select objects you want to rotate
2. Specify base point localization
3. Specify base direction
4. Specify destination direction (angle difference will become rotation angle)



RO90 ROTATE BY 90 DEGREES

commandline entry: **RO90**
menu: **APLUS >MODIFY > RO90**

To rotate objects by 90 degrees (counter-clockwise)
1. Select objects you want to rotate
2. Specify rotation base point

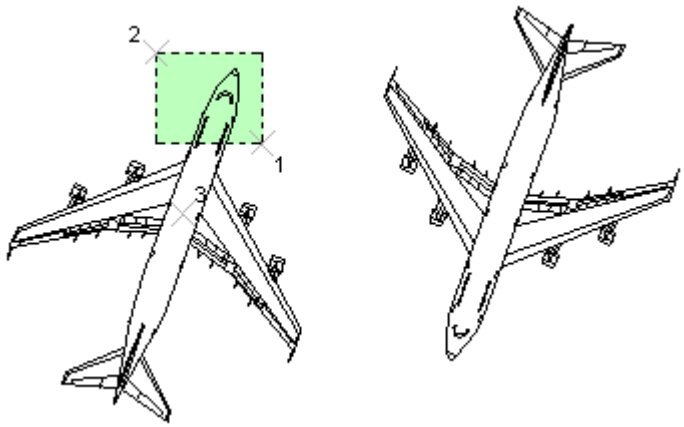


To rotate by 90 degrees, but clockwise use command ***RO-90*** or. ***RO270***.

RO180 ROTATE BY 180 DEGREES

commandline entry: **RO180**
menu: **APLUS >MODIFY > RO180**

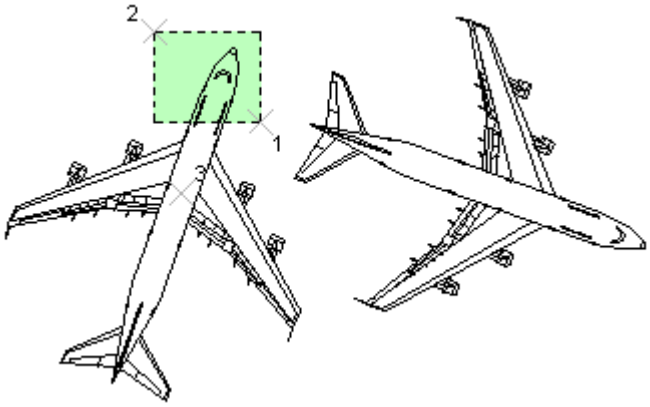
To rotate objects by 180 degrees:
1. Select objects you want to rotate
2. Specify rotation base point



RO270 ROTATE BY 270 DEGREES

commandline entry: **RO270**
menu: **APLUS >MODIFY > RO270**

To rotate objects by 270 degrees (counter-clockwise)
1. Select objects you want to rotate
2. Specify rotation base point

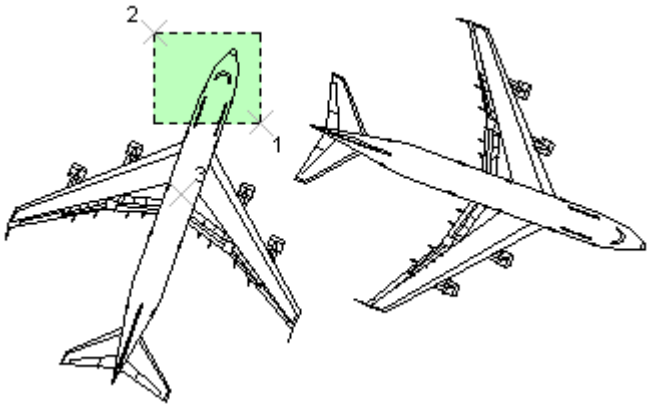


Command works the same way as ***RO-90***

RO-90 ROTATE BY -90 DEGREES

commandline entry: **RO-90**
menu: **APLUS >MODIFY > RO-90**

To rotate objects by 90 degrees (clockwise)
1. Select objects you want to rotate
2. Specify rotation base point

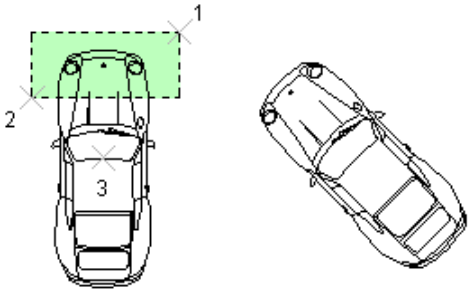


To rotate by 90 degrees counter-clockwise use command ***RO90***
Command works the same way as ***RO270***

RO45 ROTATE BY 45 DEGREES

commandline entry: **RO45**
menu: **APLUS >MODIFY > RO45**

To rotate objects by 45 degrees (counter-clockwise)
1. Select objects you want to rotate
2. Specify rotation base point

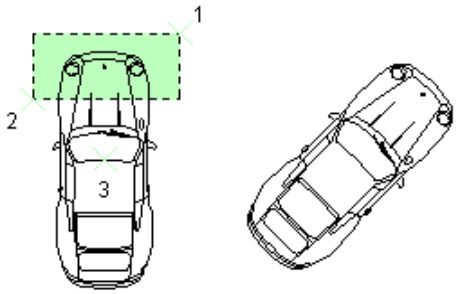


To rotate object by 45 degrees but in different direction use command ***RO-45***

RO-45 ROTATE BY -45 DEGREES

commandline entry: **RO-45**
menu: **APLUS >MODIFY > RO-45**

To rotate objects by 45 degrees (clockwise)
1. Select objects you want to rotate
2. Specify rotation base point

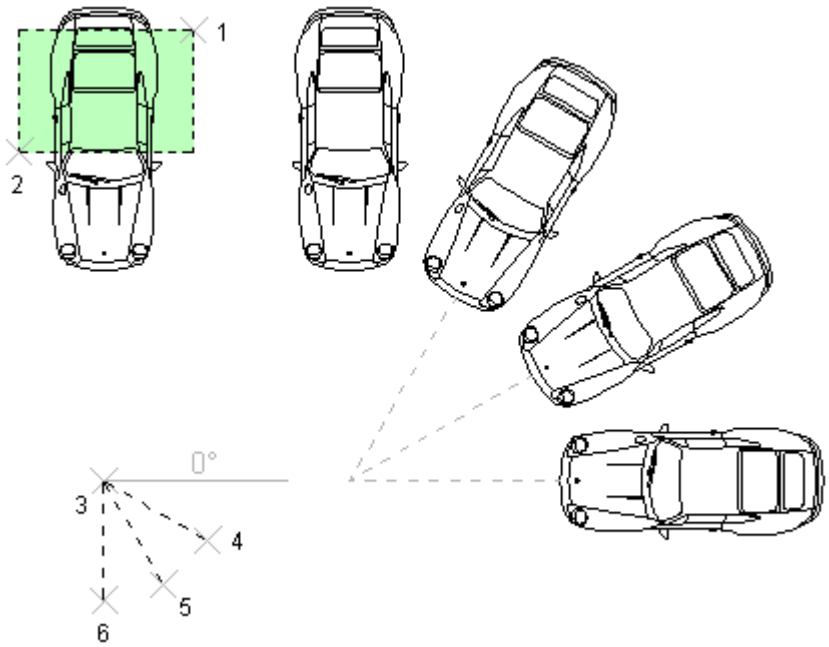


To rotate object by 45 degrees but in different direction use command ***RO45***

ROC ROTATE AND COPY

commandline entry: **ROC**
menu: **APLUS >MODIFY > ROC**

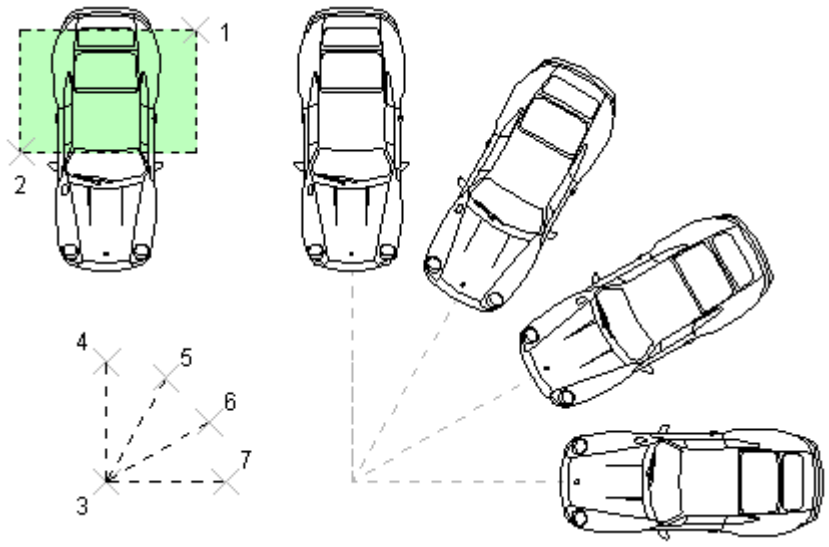
To rotate and copy objects:
1. Select objects
2. Specify rotation base point
3. Specify rotation angle



RORC ROTATE BY REFERENCE ANGLE AND COPY

commandline entry: **RORC**
menu: **APLUS >MODIFY > RORC**

To rotate objects by reference angle and copy:
1. Select objects
2. Specify rotation base point
3. Specify base direction
4. Specify destination direction (angle diference between them will become rotation angle)

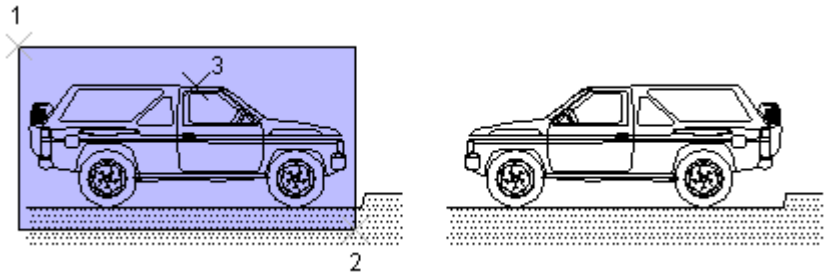


Copy will be rotated by reference angle around base point.

MIV MIRROR VERICALY

commandline entry: **MIV**
menu: **APLUS >MODIFY > MIV**

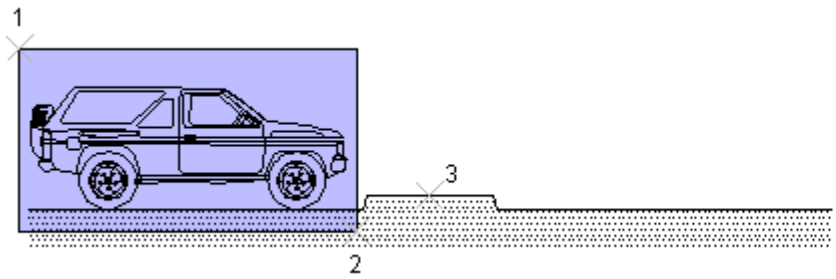
To mirror vertically:
1. Select objects
2. Specify point on mirroring axis

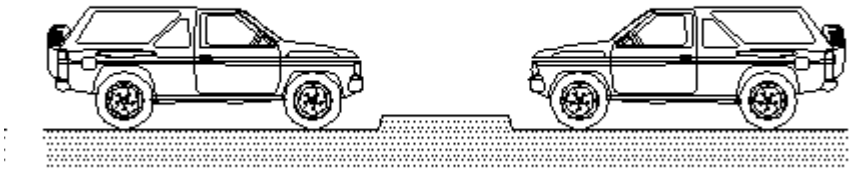


MIVC MIRROR VERICALY AND COPY

commandline entry: **MIVC**
menu: **APLUS >MODIFY > MIVC**

To mirror vertically (original object will be retained):
1. Select objects
2. Specify point on mirroring axis

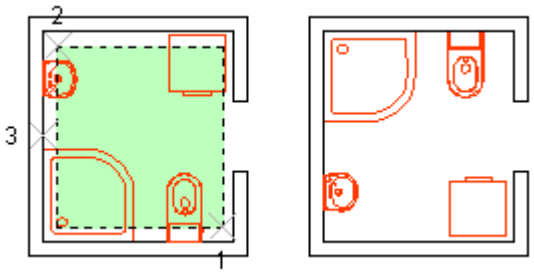




MIH MIRROR HORIZONTALLY

commandline entry: **MIH**
menu: **APLUS >MODIFY > MIH**

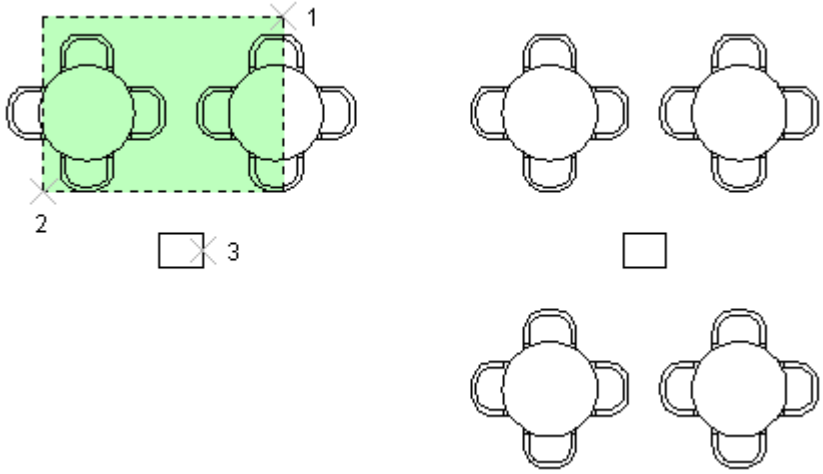
To mirror horizontally:
1. Select objects
2. Specify point on mirroring axis



MIHC MIRROR HORIZONTALLY AND COPY

commandline entry: **MIHC**
menu: **APLUS >MODIFY > MIHC**

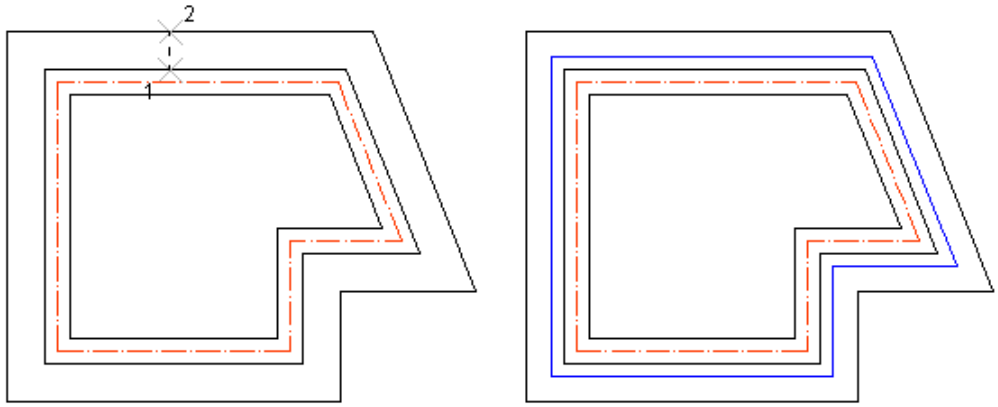
To mirror horizontally (original object will be retained):
1. Select objects
2. Specify point on mirroring axis



OF OFFSET BY FRACTION OF SPECIFIED DISTANCE

commandline entry: **OF**
menu: **APLUS >MODIFY > OF**

To OFFSET object by fraction of distance:
1. Select object to OFFSET
2. Specify number of fractions
3. Specify distance

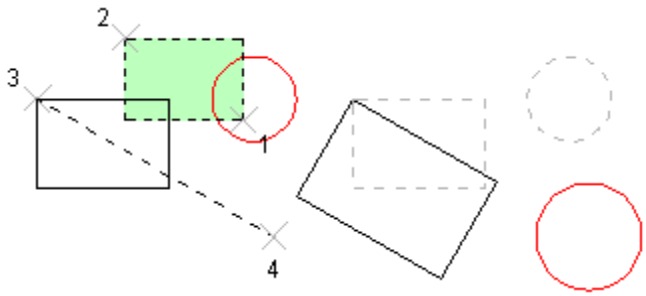


distance divided into 3 parts

AL2 IMPROVED ALIGN

commandline entry: **AL2**
menu: **APLUS >MODIFY > AL2**

To align objects:
1. Select objects
2. Specify base vector
3. Specify destination vector

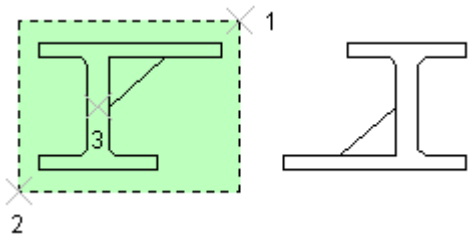


Command will include scale, position and angle of vector.

FL FLIP OBJECTS

commandline entry: **FL**
menu: **APLUS >MODIFY > FL**

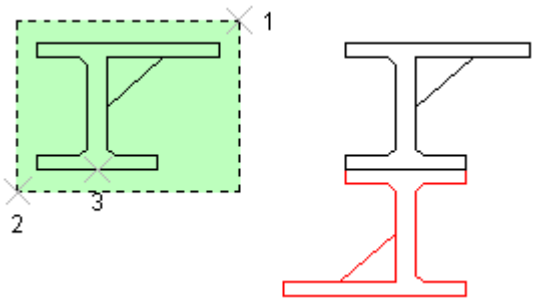
To flip objects:
1. Select object
2. Specify flipping point



FLC FLIP AND COPY OBJECTS

commandline entry: **FLC**
menu: **APLUS >MODIFY > FLC**

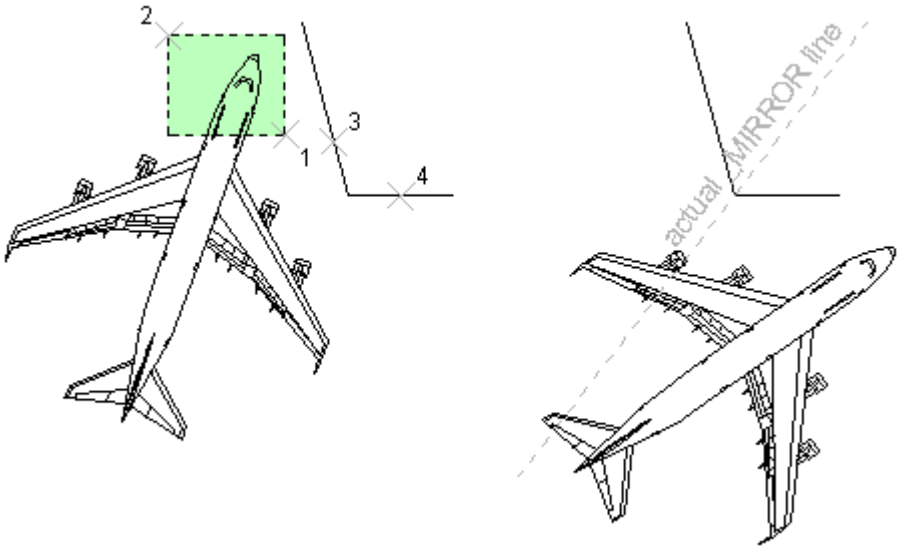
To flip and copy objects:
1. Select objects
2. Specify flipping point



MIL MIRROR ABOUT BISECTION LINE

commandline entry: **MIL**
menu: **APLUS >MODIFY > MIL**

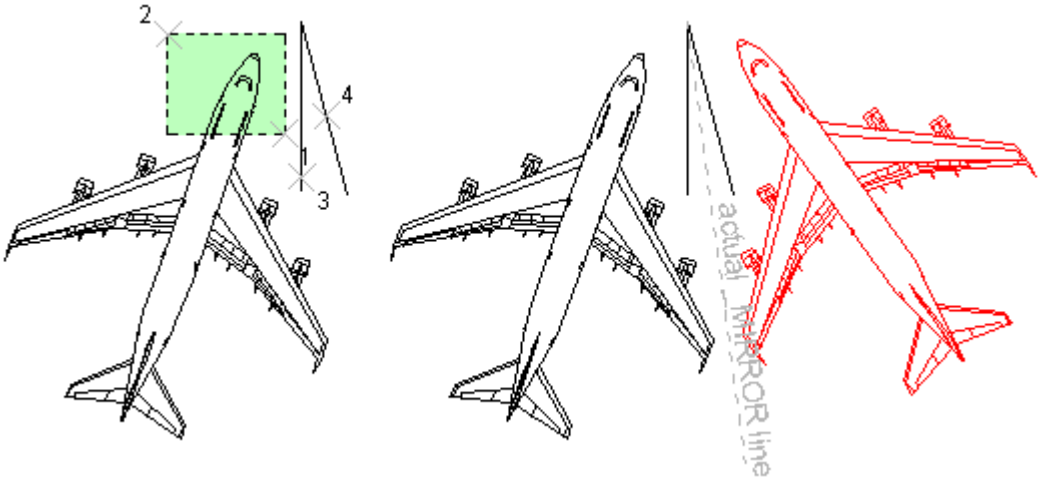
To mirror about bisection between two lines:
1. Select objects
2. Specify first line
3. Specify second line



MILC MIRROR ABOUT BISECTION LINE AND COPY

commandline entry: **MILC**
menu: **APLUS >MODIFY > MILC**

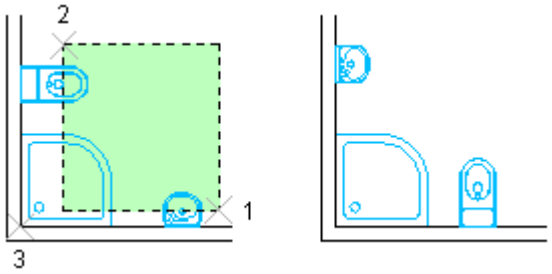
To mirror about bisection between two lines (and copy result):
1. Select objects
2. Specify first line
3. Specify second line



MI45 MIRROR ABOUT 45 DEGREES LINE

commandline entry: **MI45**
menu: **APLUS >MODIFY > MI45**

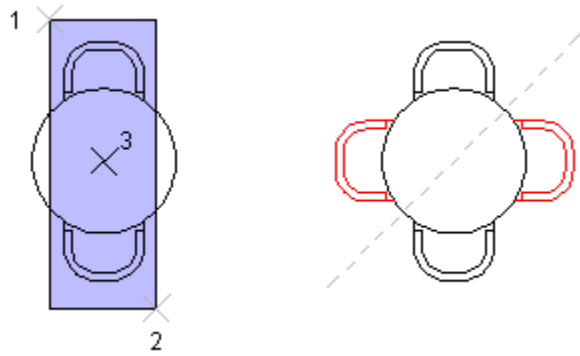
To MIRROR object about 45 degrees line:
1. Select objects
2. Specify mirroring point



MI45C MIRROR ABOUT 45 DEGREES LINE AND COPY

commandline entry: **MI45C**
menu: **APLUS >MODIFY > MI45C**

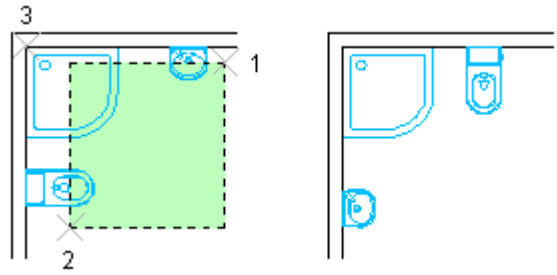
To MIRROR object about 45 degrees line (and copy result):
1. Select objects
2. Specify mirroring point



MI-45 MIRROR ABOUT -45 DEGREES LINE

commandline entry: **MI-45**
menu: **APLUS >MODIFY > MI-45**

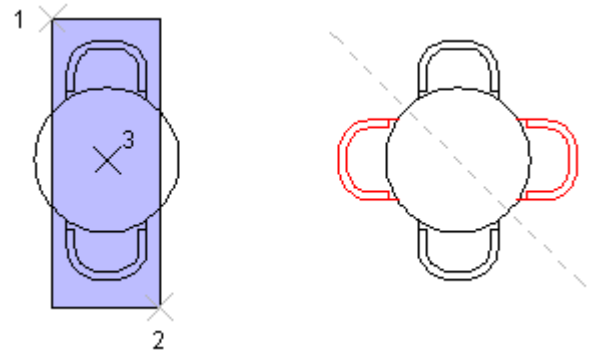
To MIRROR object about -45 degrees line:
1. Select objects
2. Specify mirroring point



MI-45C MIRROR ABOUT -45 DEGREES LINE AND COPY

commandline entry: **MI-45C**
menu: **APLUS >MODIFY > MI-45C**

To MIRROR object about -45 degrees line (and copy result):
1. Select objects
2. Specify mirroring point

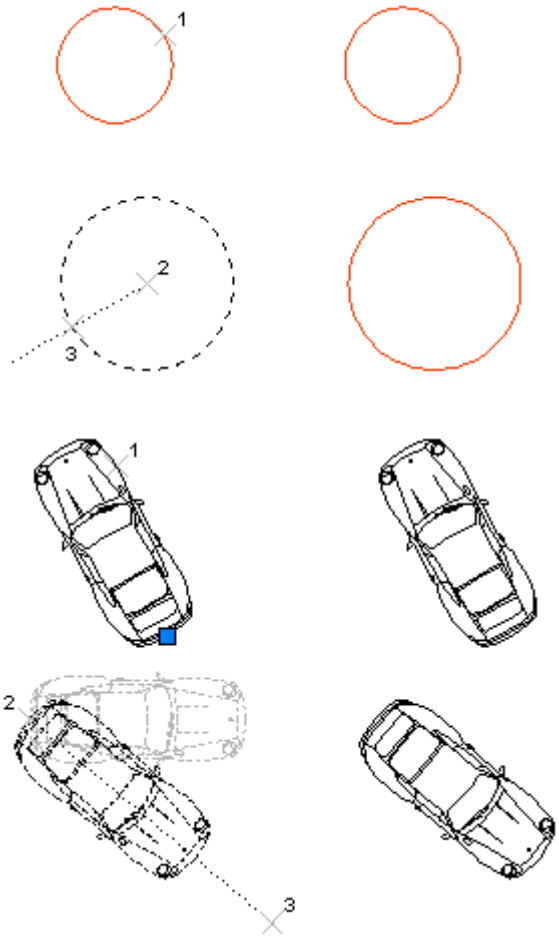


DRAW

QD DRAW QUICKLY ON OTHER THAN CURRENT LAYER

commandline entry: **QD**
menu: **APLUS >DRAW > QD**

To draw polyline on other than current layer
1. Select object on a layer you wish to draw
2. Draw polyline

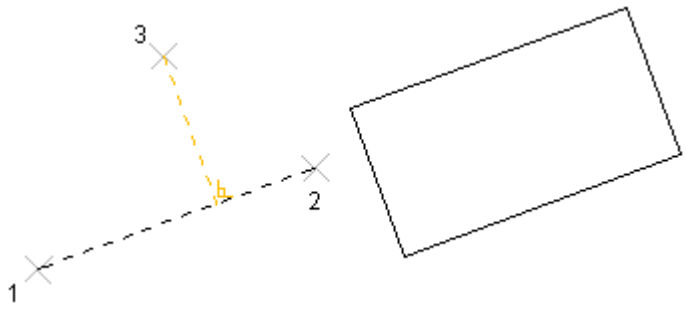


After you will finish your current layer will be preserved.

RECAL DRAW ALIGNED RECTANGLE

commandline entry: **RECAL**
menu: **APLUS >DRAW > RECAL**

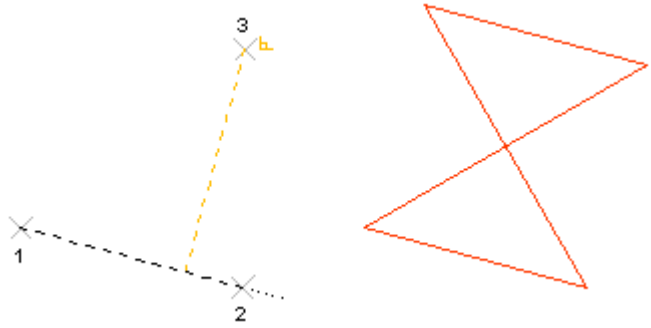
To draw aligned rectangle:
1. Specify base point
2. Specify first side length and angle
3. Specify width



TAP DRAW TAP HOLE SIGN

commandline entry: **TAP**
menu: **APLUS >DRAW > TAP**

To draw tap hole sign:
1. Draw one of parallel sides
2. Specify height



SQ DRAW SQUARE

commandline entry: **SQ**
menu: **APLUS >DRAW > SQ**

To draw rectangle:
1. Specify side lenght
2. Select insertion method (by default middle point)
3. Specify insertion points

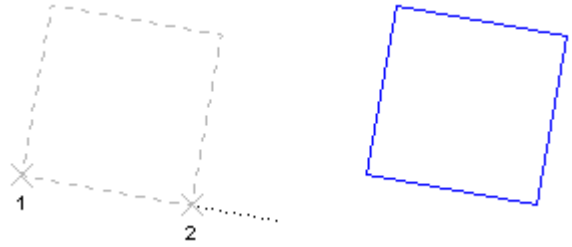
aligment: TL (top left)

Available insertion methods:
1. Corners (TL - top left, TR - top right, BL - bottom left, BR - bottom right)
2. Middles of edges (TC - top centre, ML - middle left, MR - middle right, BC - bottom centre)
3. Middle of square (MC)

SQA DRAW ALIGNED SQUARE

commandline entry: **SQA**
menu: **APLUS >DRAW > SQA**

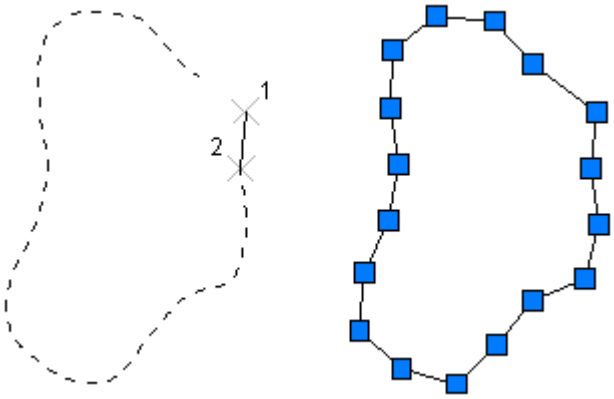
In order to draw aligned square:
1. Specify base point
2. Specify second point (as you will notice, preview of square will be displayed to help you out with drawing)



PEN FREEHAND DRAWING

commandline entry: **PEN**
menu: **APLUS >DRAW > PEN**

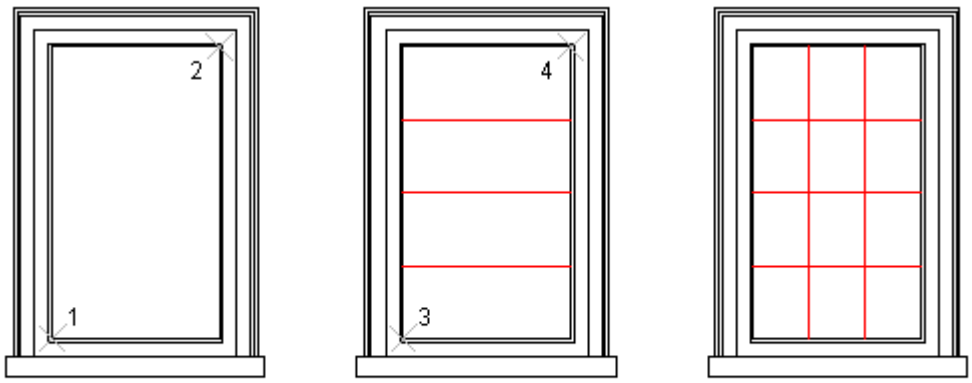
To draw freehand polyline in AutoCAD:
1. Specify base point
2. Specify second point (distance between these two will be used later)
3. When you move cursor by previous distance, APLUS will add vertex
4. Command terminates when you move cursor within distance closer than first one to base point. Polyline will be closed.



SQD SQUARE DIVISIONS

commandline entry: **SQD**
menu: **APLUS >DRAW > SQD**

To divide area to exact rectangles:
1. Specify first corner
2. Specify second corner
3. Specify number of divisions (same for width and height)
4. Specify type of divisions (H - horizontal, V - vertical, HV - both)



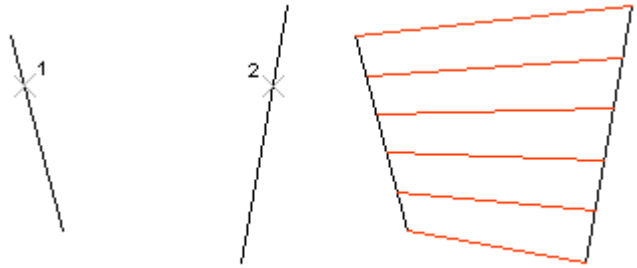
4 divisions, horizontal (H)

3 divisions, vertical (V)

MCON DRAW MULTIPLE CONNECTION LINES BETWEEN TWO SELECTED ONES

commandline entry: **MCON**
menu: **APLUS >DRAW > MCON**

In order to draw multiple connection between lines:
1. Specify number of connection lines
2. Select first line
3. Select second line



number of connections: 5

AXL AXIS BETWEEN LINES

commandline entry: **AXL**
menu: **APLUS >DRAW > AXL**

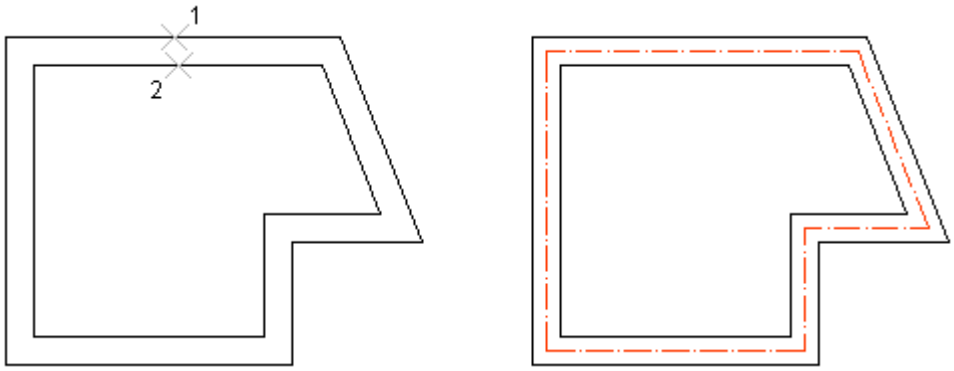
To draw axis between selected lines:
1. Select first line
2. Select second line

Axis will be drawn on current layer.

AXPL AXIS BETWEEN POLYLINES

commandline entry: **AXPL**
menu: **APLUS >DRAW > AXPL**

To draw axis between selected polylines:
1. Select first polyline
2. Select second polyline

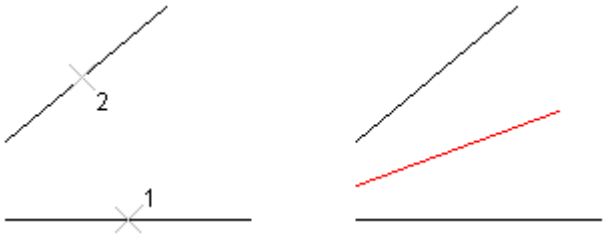


Axis will be drawn on current layer.

BISEC DRAW BISECTION LINE

commandline entry: **BISEC**
menu: **APLUS >DRAW > BISEC**

To draw bisection line:
1. Select first line
2. Select second line

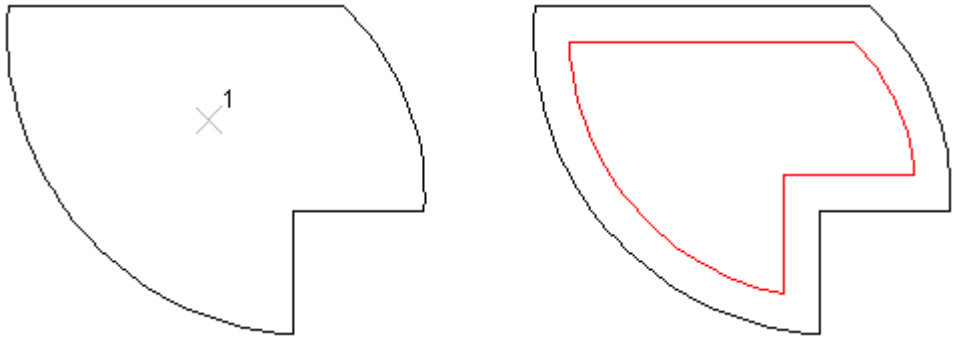


Bisection line will be drawn on current layer.

BOO BOUNDARY OFFSET

commandline entry: **BOO**
menu: **APLUS >DRAW > BOO**

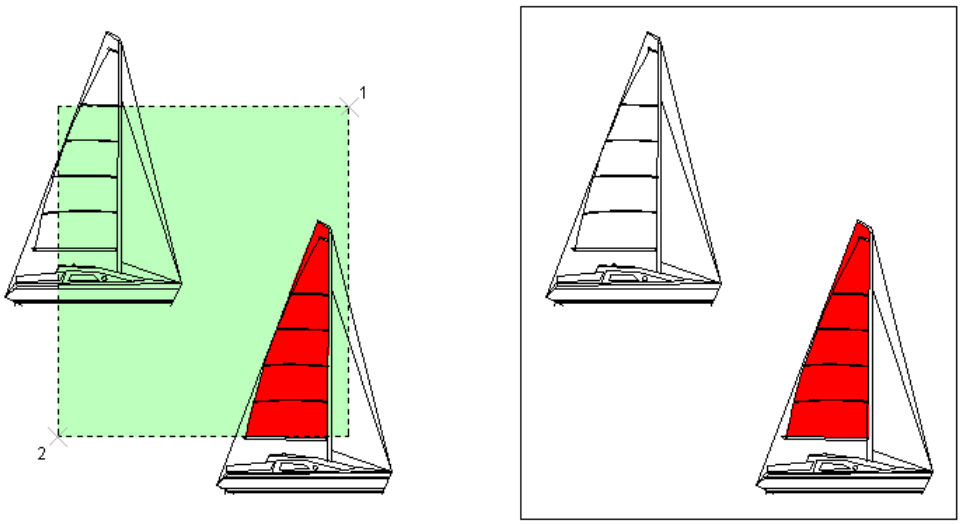
To OFFSET to inside of closed area:
1. Specify offset distance
2. Select point on closed area



FRAME DRAW FRAME

commandline entry: **FRAME**
menu: **APLUS >DRAW > FRAME**

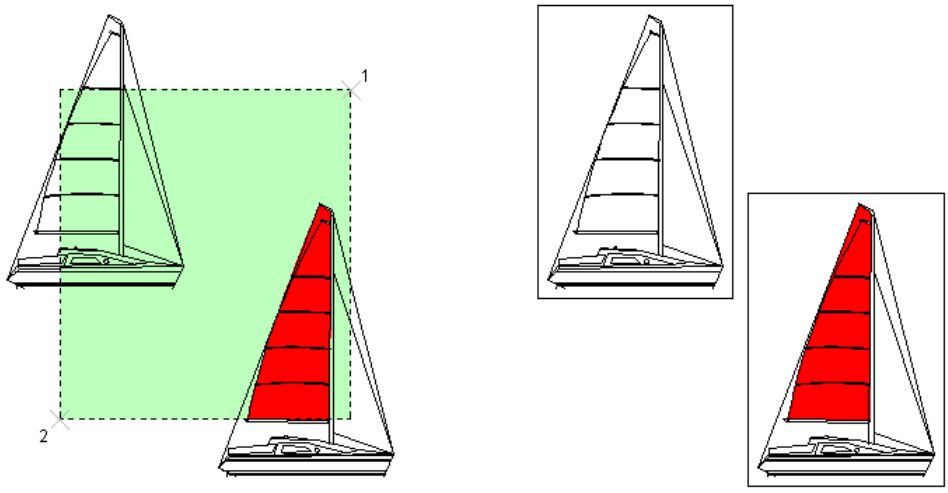
To draw frame around object:
1. Specify distance between frame and object's boundary point
2. Select object



FRAMES DRAW FRAME (AROUND MULTIPLE OBJECTS)

commandline entry: **FRAMES**
menu: **APLUS >DRAW > FRAMES**

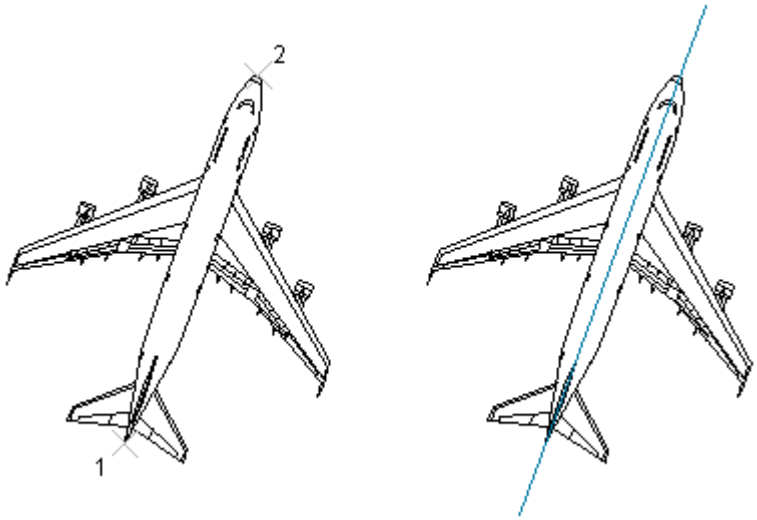
To draw frames around multiple objects
1. Specify distance between frame and object's boundary points
2. Select all objects you want to frame



GUIDE DRAW GUIDELINE

commandline entry: **GUIDE**
menu: **APLUS >DRAW > GUIDE**

To draw guideline:
1. Specify first point on guideline
2. Specify second point

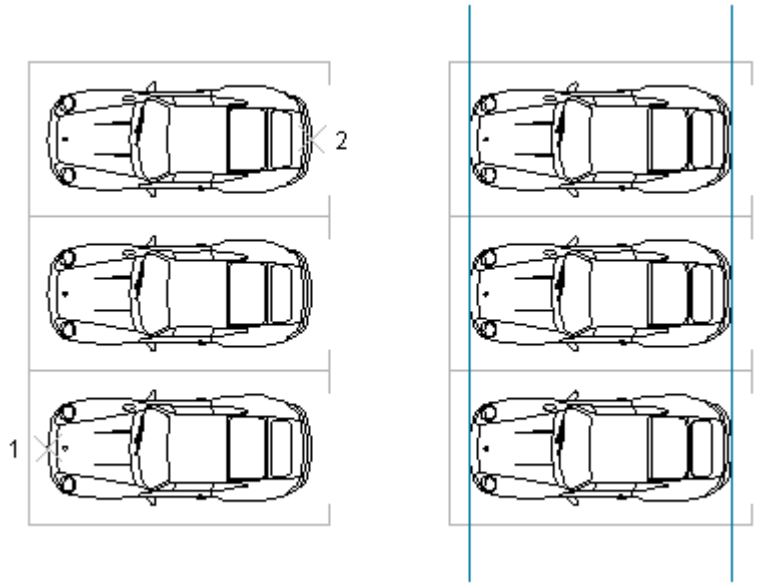


You can also draw horizontal guideline **GUIDEH** or vertical **GUIDEV**

GUIDEV DRAW VERTICAL GUIDELINE

commandline entry: **GUIDEV**
menu: **APLUS >DRAW > GUIDEV**

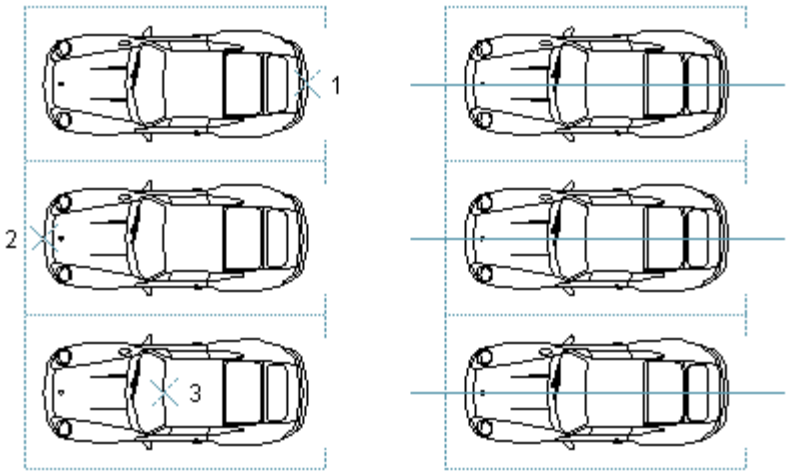
Specify point to draw vertical guideline that comes through it.



GUIDEH DRAW HORIZONTAL GUIDELINE

commandline entry: **GUIDEH**
menu: **APLUS >DRAW > GUIDEH**

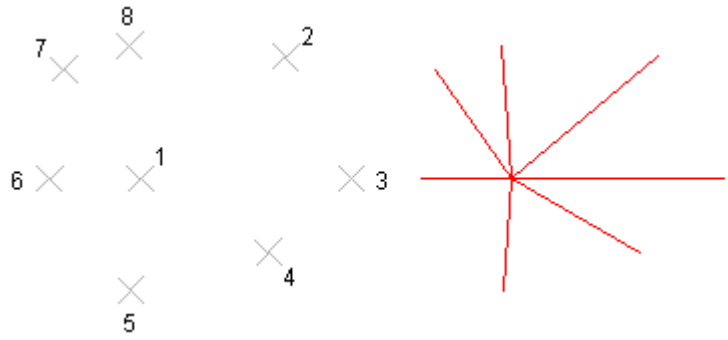
Specify point to draw horizontal guideline that comes through it.



LRAY DRAW RAYS

commandline entry: **LRAY**
menu: **APLUS >DRAW > LRAY**

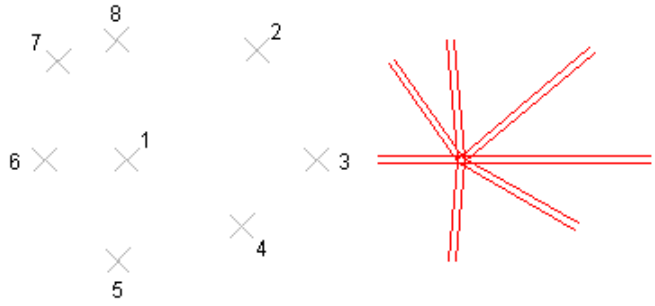
To draw rays (lines that share base point)
1. Specify base point
2. Specify all destination points



MLRAY DRAW MULTILINE RAYS

commandline entry: **MLRAY**
menu: **APLUS >DRAW > MLRAY**

To draw multiline rays (they will share base point)
1. Specify base point
2. Specify all destination points

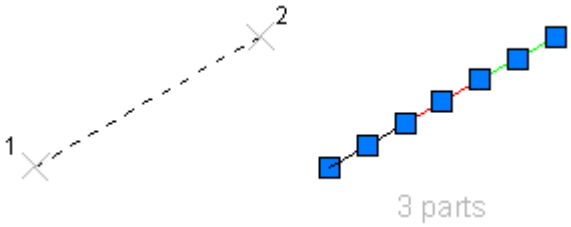


To change multiline use _MLSTYLE command.

LDIV DRAW DIVIDE LINE

commandline entry: **LDIV**
menu: **APLUS >DRAW > LDIV**

To draw divide line:
1. Specify number of divisions
2. Draw line

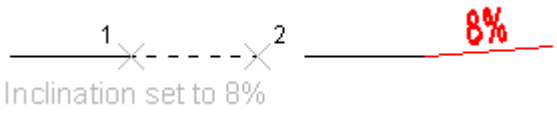


Particular segments will be drawn as lines, so you can edit them just the way you need.

INCL DRAW INCLINATION LINE

commandline entry: **INCL**
menu: **APLUS >DRAW > INCL**

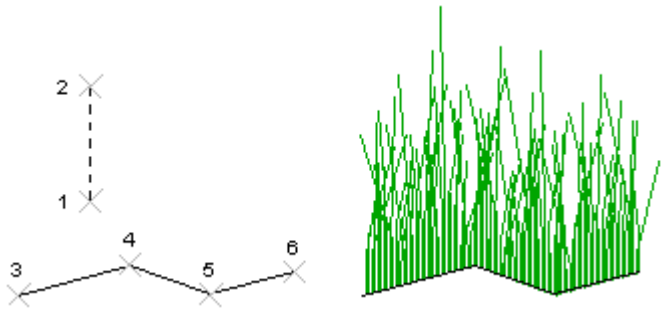
To draw inclination line
1. Specify inclination (in %)
2. Specify base point
3. Specify position in X-axis of destination point



GRASS CONTINUE DRAWING LAST DIMENSION

commandline entry: **GRASS**
menu: **APLUS >DRAW > GRASS**

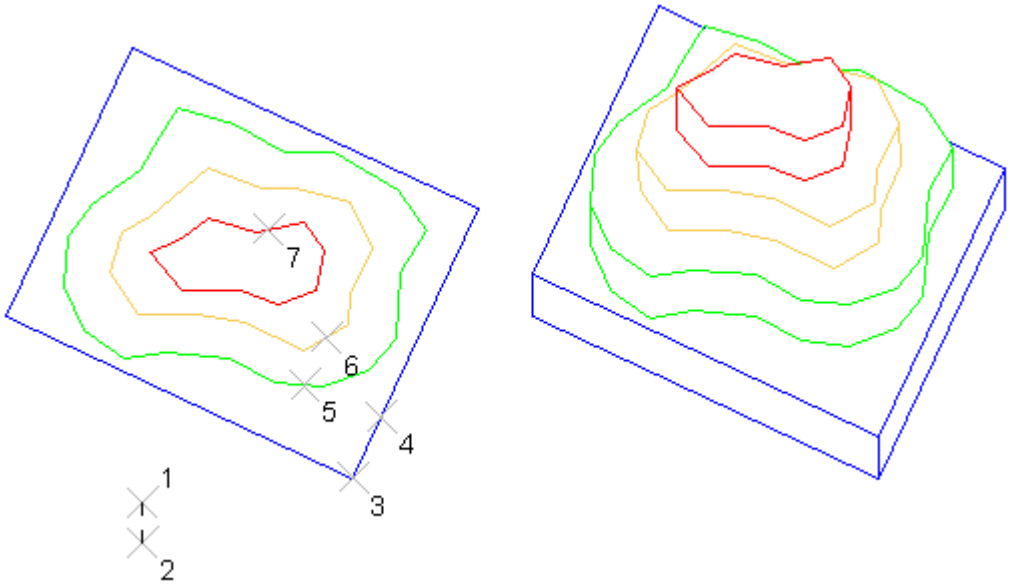
To continue drawing of last dimension:
1. Specify next point
2. While you will be drawing subsequent points, screen will be paned to help you out



TERRAIN CREATE 3D TERRAIN FROM POLYLINE

commandline entry: **TERRAIN**
menu: **APLUS >DRAW > TERRAIN**

To create terrain in 3D from polylines:
1. Select height difference between contour lines
2. Specify height of lowest-laying contour line
3. Select lowest-laying polyline
4. Select subsequent polylines


7
6
5
4
3
1
2

TOOLS

DWGI INFORMATIONS UPON DWG FILE

commandline entry: **DWGI**
menu: **APLUS > TOOLS > DWGI**

Command displays various informations upon current DWG file, including:
1. Number of layers
2. Number of blocks
3. Number of linestyles, text styles and dimstyles
4. Number of elements (lines, polylines, raster images etc.)
5. File size
6. File save path
7. File name

PURGEALL IPURGE EVERYTING

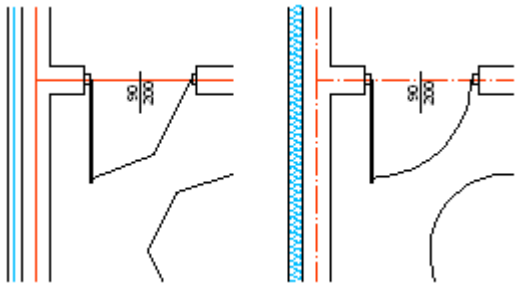
commandline entry: **PURGEALL**
menu: **APLUS >TOOLS> PURGEALL**

Command purges DWG file from unused:
1. Layers
2. Blocks
3. Linestyles, text styles, dimsyles
4. Plot styles

RE REGENERATE VIEW

commandline entry: **RE**
menu: **APLUS >TOOLS > RE**

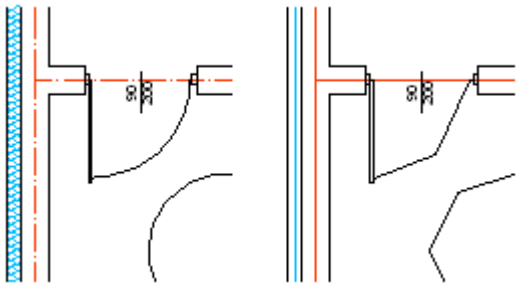
Command regenerates current view.



UNRE UNREGENERATE VIEW

commandline entry: **UNRE**
menu: **APLUS >TOOLS > UNRE**

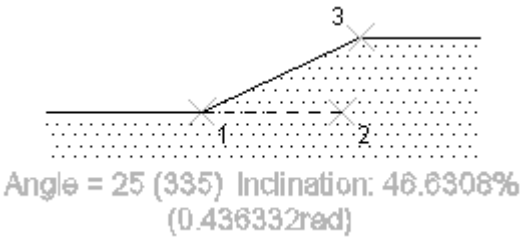
Command works inversely to REGEN command.



AN ADVANCED ANGLE MEASUREMENT

commandline entry: **AN**
menu: **APLUS >TOOLS > AN**

To measure angle:
1. Specify base point
2. Specify first direction
3. Specify second direction



Command displays following informations:
1. Inner angle (6-digit after separator precision)
2. Outer angle (6-digit after separator precision)
3. Inclination (in %)
4. Angle in radians

CALC RUN MICROSOFT WINDOWS CALCULATOR

commandline entry: **CALC**
menu: **APLUS >TOOLS > CALC**

Command runs Microsoft Windows Calculator.

WORD RUN MICROSOFT WORD

commandline entry: **WORD**
menu: **APLUS >TOOLS > WORD**

Command runs Microsoft Word.

EXCEL RUN MICROSOFT EXCEL

commandline entry: **EXCEL**
menu: **APLUS >TOOLS > EXCEL**

Command runs Microsoft Excel.

GOOGLE SEARCH IN GOOGLE

commandline entry: **GOOGLE**
menu: **APLUS >TOOLS > GOOGLE**

Command searches for selected phrase in Google search engine (www.google.com). Search result will be displayed in default system browser.

GOOGLEMAP SEARCH LOCATION IN GOOGLEMAPS

commandline entry: **GOOGLEMAP**
menu: **APLUS >TOOLS > GOOGLEMAP**

Type name of location in order to search for it in GoogleMaps

ARCHDWG CLEAN DWG IMPORTED FROM ARCHICAD

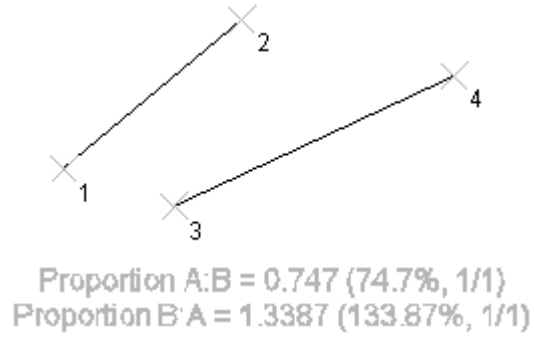
commandline entry: **GOOGLEMAP**
menu: **APLUS >TOOLS > GOOGLEMAP**

This command cleans up DWG drawings exported by Graphisoft ARCHicad.

PROP PROPORTION BETWEEN DISTANCES

commandline entry: **PROP**
menu: **APLUS >TOOLS > PROP**

To count proportions between distances
1. Draw first distance
2. Draw second distance



Command counts:
1. Proportion distance A to B (in %)
2. Proportion distance B to A (in %)

FINDB FIND BLOCK

commandline entry: **FINDB**
menu: **APLUS >TOOLS > FINDB**

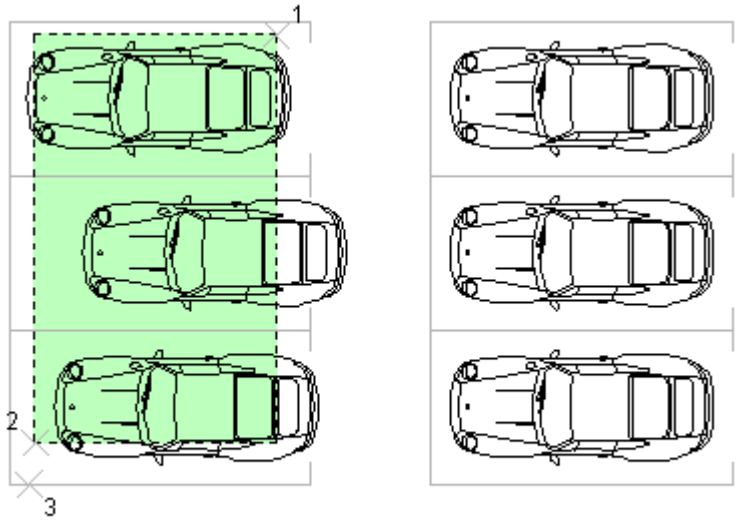
To find block in drawing:
1. Type block's name
or
2. Select block on-screen

Command searches for other instances

ALV ALIGN HORIZONTALLY

commandline entry: **ALV**
menu: **APLUS >TOOLS > ALV**

To align objects horizontally:
1. Select objects
2. Specify alignment type (L - left, C - centre, R - right)
3. Specify alignment point

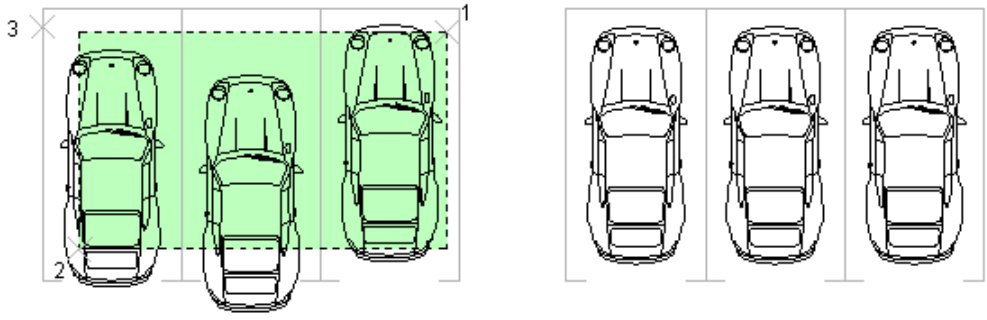


Aligned to the left (L)

ALH ALIGN VERTICALLY

commandline entry: **ALH**
menu: **APLUS >TOOLS > ALH**

To align objects vertically:
1. Select objects
2. Specify alignment type (T - top, C - centre, B - bottom)
3. Specify alignment point

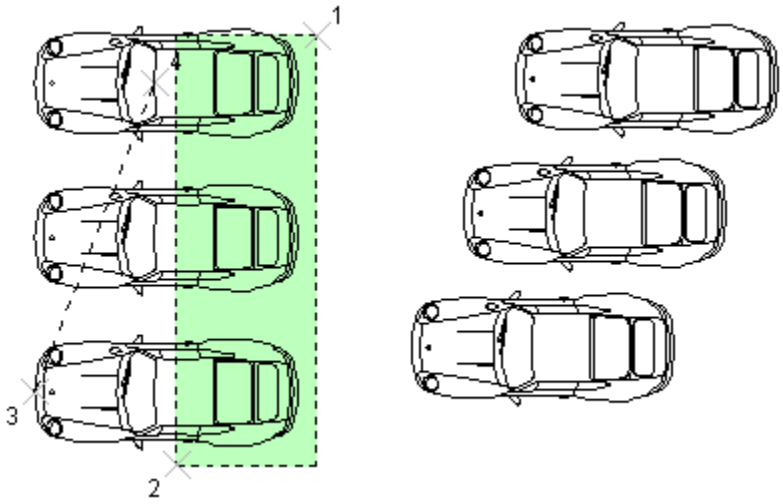


Aligned to the top (T)

ALC ALIGN TO LINE

commandline entry: **ALC**
menu: **APLUS >TOOLS > ALC**

To align object's position to centre of a line:
1. Select object
2. Specify begin point of a line
3. Specify end point

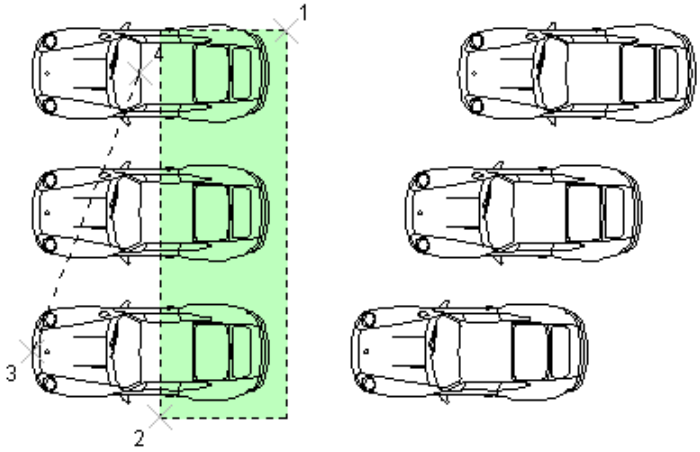


Object's middle will be positioned to middle of the line.

ARR ALIGN POSITION OF MULTIPLE OBJECTS

commandline entry: **ARR**
menu: **APLUS >TOOLS > ARR**

To align position of objects
1. Select objects
2. Specify base point of alignment line
3. Specify end point of alignment line

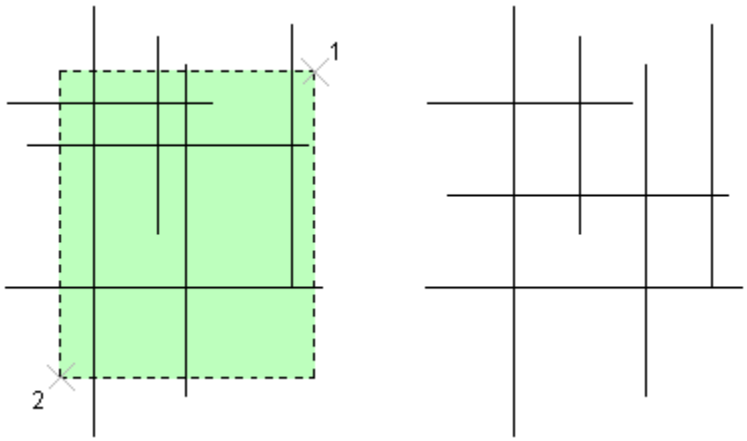


Object will be aligned by their insert points within specified line, divided by number of objects.

ARRL ALIGN LINES

commandline entry: **ARRL**
menu: **APLUS >TOOLS > ARRL**

Select lines to align their position automatically.

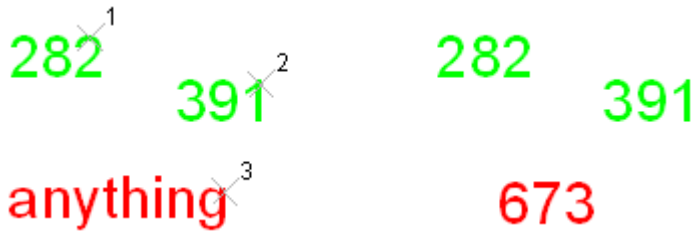


Lines sharing the same angle will be aligned in equal distances.

TCALC TEXT CALCULATOR

commandline entry: **TCALC**
menu: **APLUS >TOOLS > TCALC**

To do mathematical equations on texts:
1. Select mathematical function (+ addition, - subtraction, * multiplication, / division, ^ exponentiation)
2. Select first number
3. Select second numbe



You will get the result in commandline. Additionally APLUS will do the other equations on selected numbers.

OSS SAVE OSNAP SETTINGS

commandline entry: **OSS**
menu: **APLUS >TOOLS > OSS**

Use this comand to save current OSNAP settings. You can restore them later with OSL command.

OSL — LOAD OSNAP SETTINGS

commandline entry: **OSL**
menu: **APLUS >TOOLS > OSL**

Use this command to restore previously saved OSNAP settings.

To save OSNAP settings use command OSS

+ — INCREASE CROSSHAIR'S SIZE

commandline entry: **+**
menu: **APLUS >TOOLS > +**

Command increases crosshair size to 100% of a screen. You can decrease it's size with command -.

- — DECREASE CROSSHAIR'S SIZE

commandline entry: **-**
menu: **APLUS >TOOLS > -**

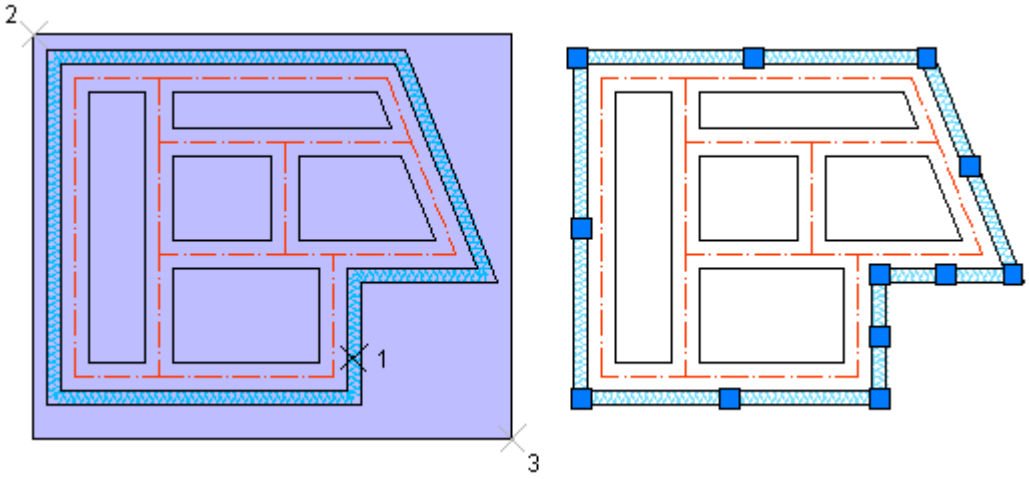
Command decreases crosshair's size. You can increase it to 100% with command +

SELECT

SELL SELECT BY LAYER

commandline entry: **SELL**
menu: **APLUS >SELECT > SELL**

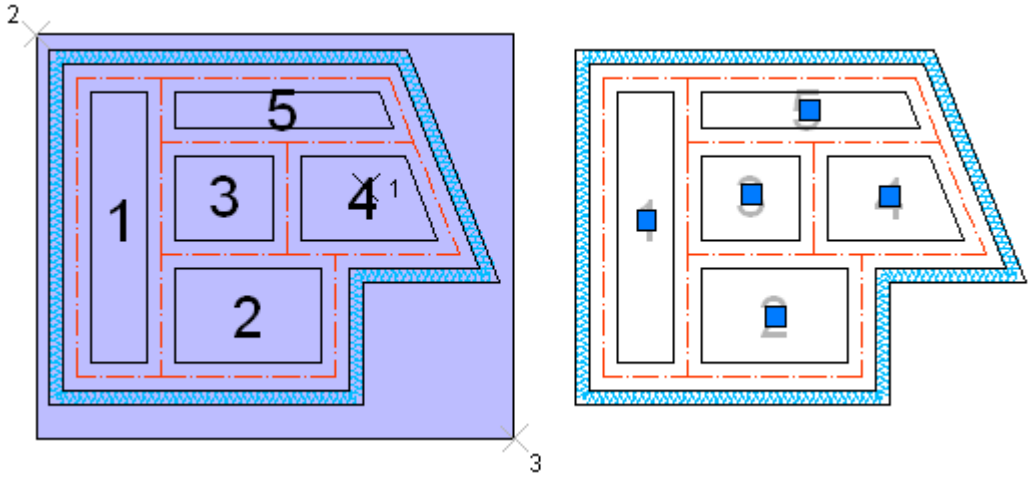
To select objects only from specified layer:
1. Select object on this layer
2. Specify area



SELT SELECT BY TYPE

commandline entry: **SELT**
menu: **APLUS >SELECT > SELT**

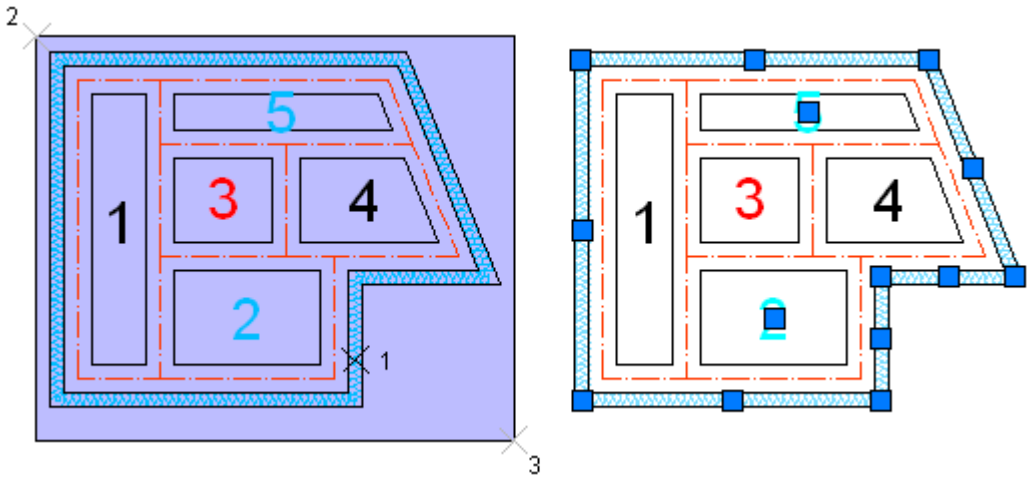
To select objects by type:
1. Select object of type you want to search for
2. Specify area



SELC SELECT BY COLOUR

commandline entry: **SELC**
menu: **APLUS >SELECT > SELC**

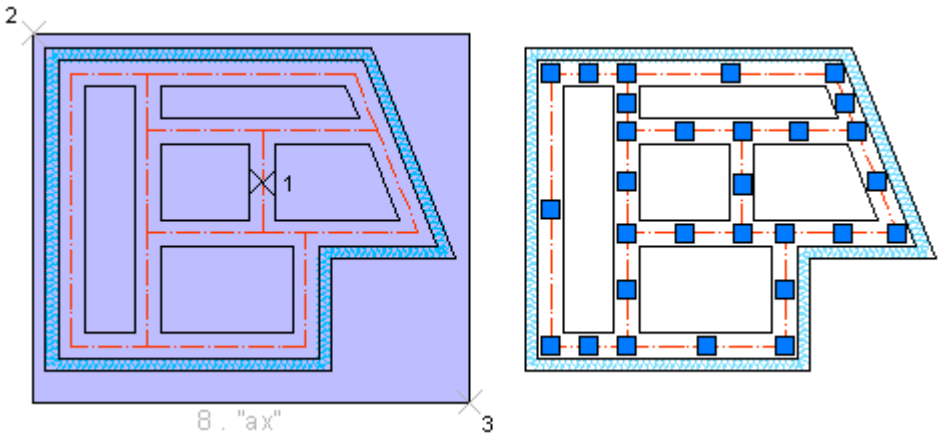
To select objects of specified colour:
1. Select object of specified colour
2. Specify area



SELP SELECT LINES BY PROPERTIES

commandline entry: **SELP**
menu: **APLUS >SELECT > SELP**

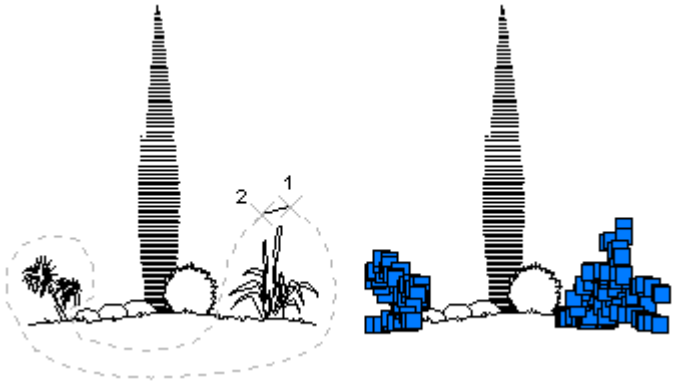
To select objects by their properties:
1. Select source object
2. Select property from list
3. Specify search area



SELF FENCE SELECTION

commandline entry: **SELF**
menu: **APLUS >SELECT > SELF**

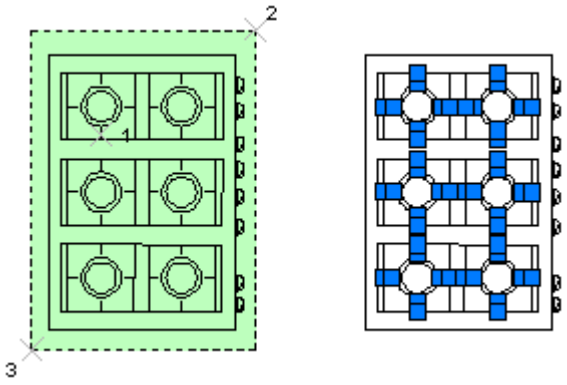
To do a fence selection:
1. Specify first point
2. Specify second point (it will be also treated as a distance between further points)
3. Move cursor to make a selection
4. If you will move cursor closer to the startpoint than a distance from step 2, fence will become closed and selection will be made



SELLEN SELECT OBJECTS BY THEIR LENGHT

commandline entry: **SELLEN**
menu: **APLUS >SELECT > SELLEN**

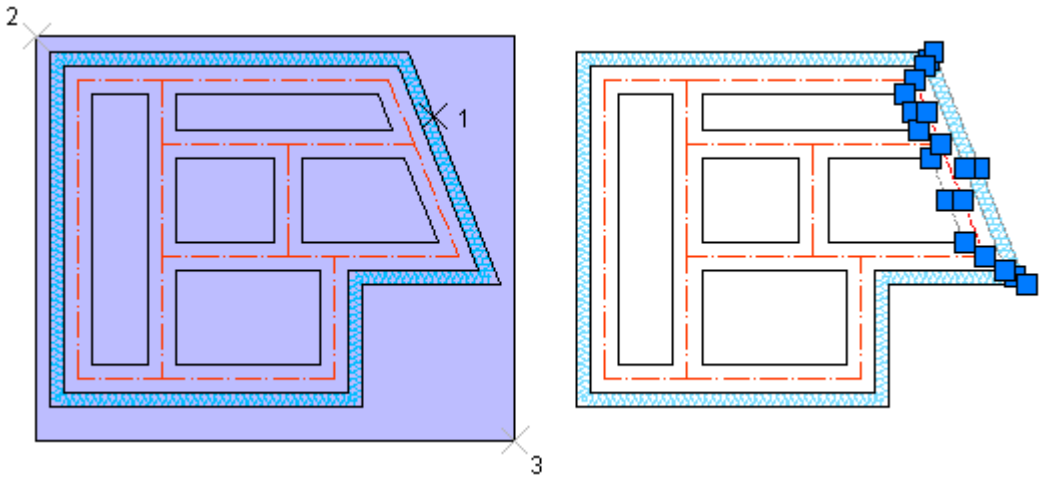
In order to select objects of a specified lenght:
1. Select objects of a searched lenght
2. Press Space or Enter to begin search
3. Specify search area



SELAN SELECT LINES BY THEIR ANGLES

commandline entry: **SELAN**
menu: **APLUS >SELECT > SELAN**

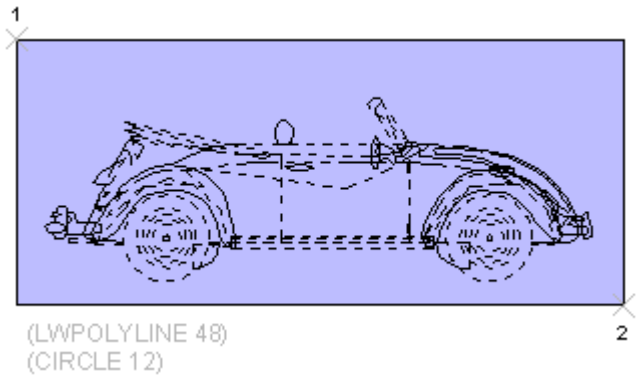
To select lines only with specified angle:
1. Select line with searched angle
2. Specify search area



SELI SELECTION INFO

commandline entry: **SELI**
menu: **APLUS >SELECT > SELI**

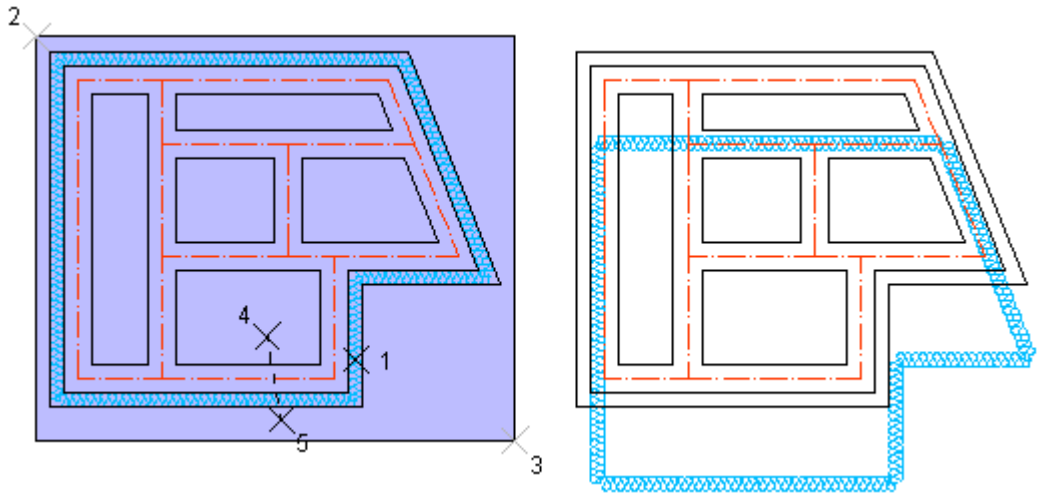
Select area to get informations about number of selected objects within.



MBLL MOVE BY LAYER

commandline entry: **MBLL**
menu: **APLUS >SELECT > MBLL**

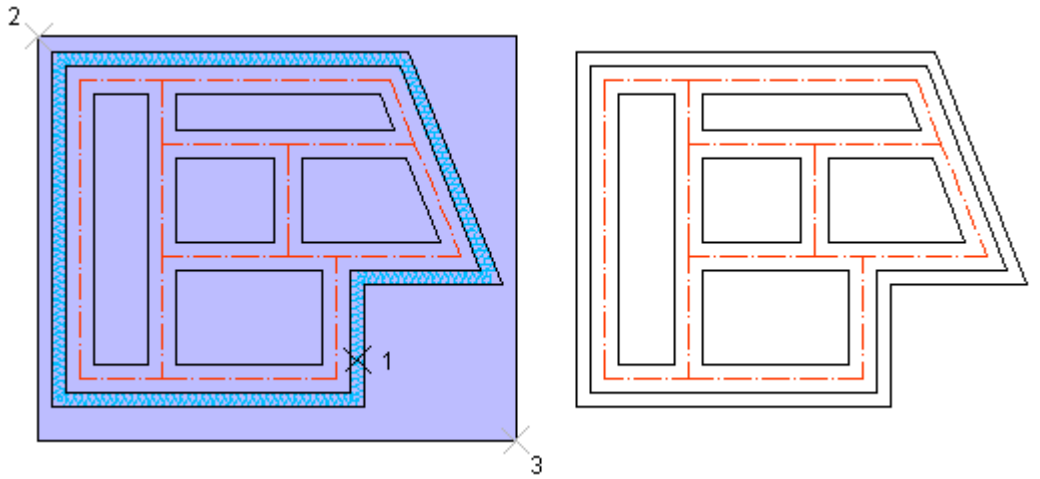
To move objects just from selected layer:
1. Select object on layer, from which you want to move objects
2. Specify area with objects you want to move
3. Specify base point
4. Specify destination point



EBLL ERASE BY LAYER

commandline entry: **EBLL**
menu: **APLUS >SELECT > EBLL**

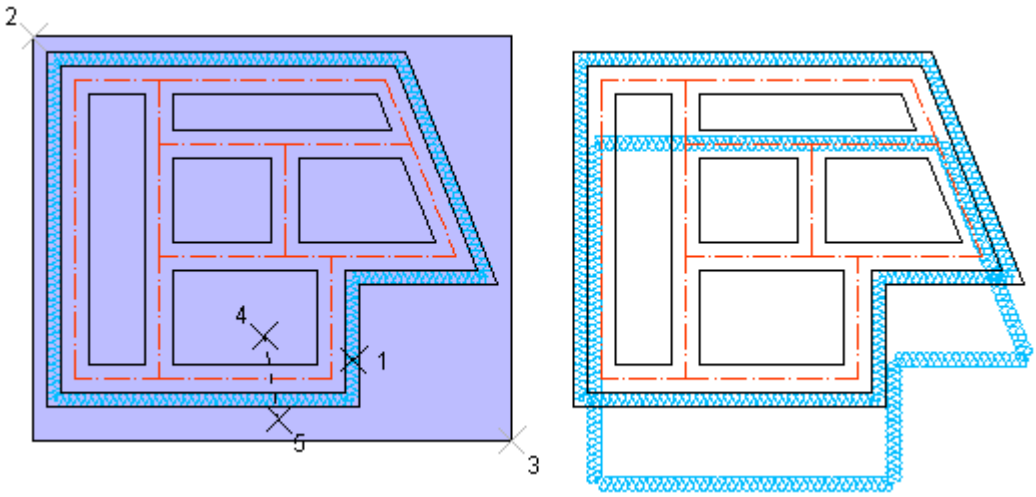
To erase objects just from selected layer:
1. Select object on layer, from which objects you want to erase
2. Specify area for erase action



COBLL COPY BY LAYER

commandline entry: **COBLL**
menu: **APLUS >SELECT > COBLL**

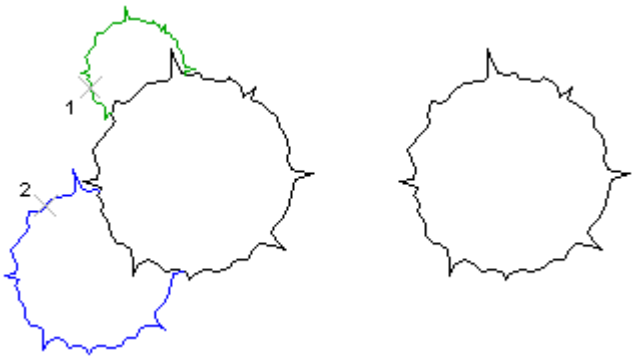
To copy objects just from selected layer:
1. Select object on layer, from which you want to copy objects
2. Select area with objects you want to copy
3. Specify base point
4. Specify destination point



EPICK ERASE PICKED OBJECTS

commandline entry: **EPICK**
menu: **APLUS >SELECT > EPICK**

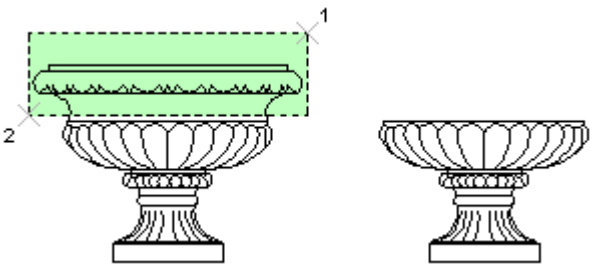
Use this command to erase everything what you pick.



ESEL ERASE EVERYTHING WITHIN SELECTION AREA

commandline entry: **ESEL**
menu: **APLUS >SELECT > ESEL**

Select area to quickly erase it's content. Be aware that command wipes out everything without asking.

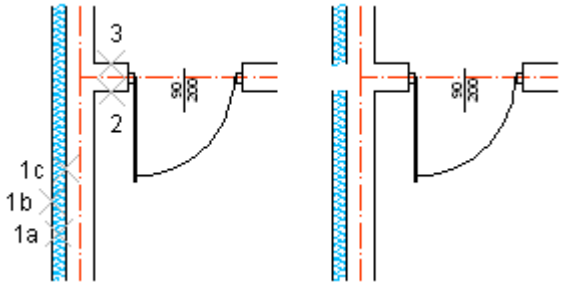


EDIT

BR BREAK OBJECT

commandline entry: **BR**
menu: **APLUS >EDIT > BR**

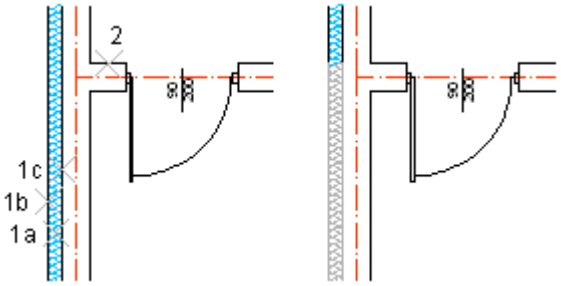
To break objects:
1. Select objects
2. Specify first point
3. Specify second point



BRR BREAK OBJECTS (MULTIPLE)

commandline entry: **BRR**
menu: **APLUS >EDIT > BRR**

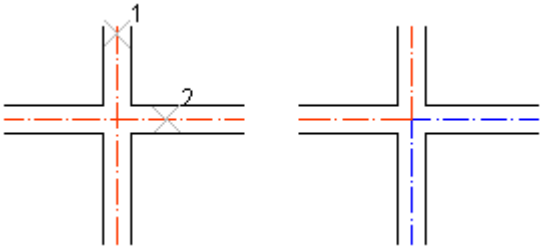
To break object:
1. Select object
2. Specify breaking point



CHOP CHOP CROSSING LINES (TWO SELECTED)

commandline entry: **CHOP**
menu: **APLUS >EDIT > CHOP**

To chop two selected lines in their intersection point:
1. Select first line
2. Select second line

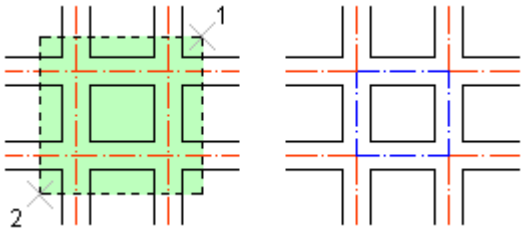


If lines have no intersection point, only one of them will be chopped.

CHOPA CHOP CROSSING LINES (FROM SELECTION)

commandline entry: **CHOPA**
menu: **APLUS >EDIT > CHOPA**

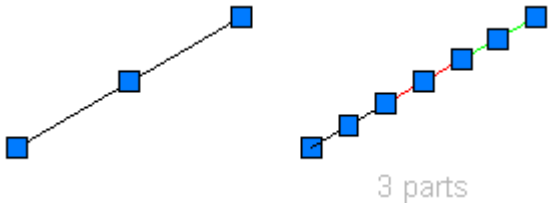
Specify area to chop all crossing lines in intersection points.



DIVL DIVIDE LINE

commandline entry: **DIVL**
menu: **APLUS >EDIT > DIVL**

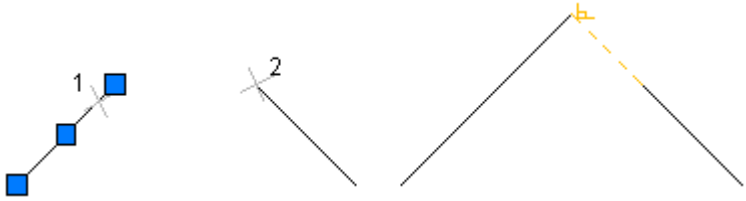
To divide lines into specified number of parts:
1. Specify number of divisions
2. Select line



LEND LENGTH DYNAMICALLY

commandline entry: **LEND**
menu: **APLUS >EDIT > LEND**

Select line to length it. You do that in commandline by specifying distance or on-screen.

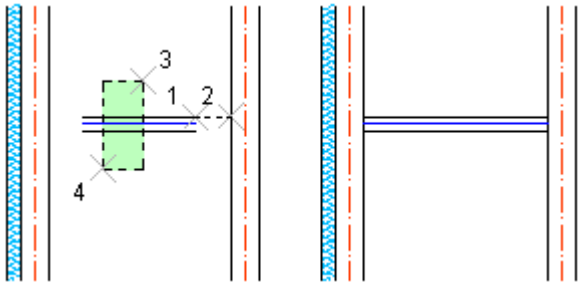


Notice, that length will be done in this half of line which was selected.

EXD EXTEND LINES BY SPECIFIED DISTANCES

commandline entry: **EXD**
menu: **APLUS >EDIT > EXD**

To extend lines by specified distances:
1. Specify extension distance
2. Select line

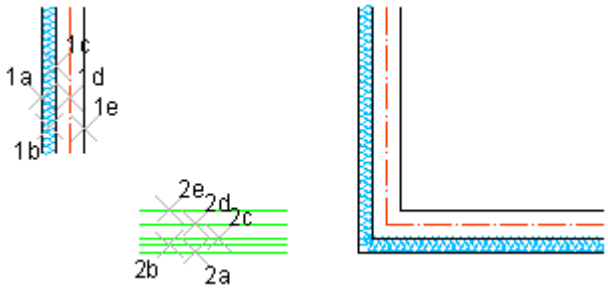


Notice, that line extends in both sides.

FMA FILLET AND MATCH PROPERTIES

commandline entry: **FMA**
menu: **APLUS >EDIT > FMA**

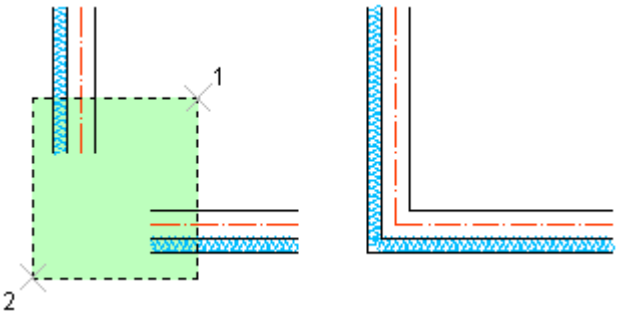
To fillet and match properties:
1. Select first (source) line
2. Select second (destination) line



MF MULTIPLE FILLET

commandline entry: **MF**
menu: **APLUS >EDIT > MF**

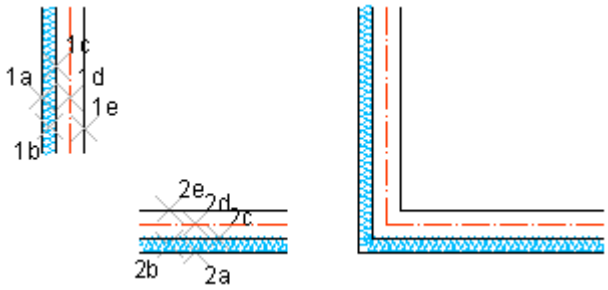
Specify area to _FILLET multiple lines.



F0 FILLET WITH RADIUS SET TO 0

commandline entry: **F0**
menu: **APLUS >EDIT > F0**

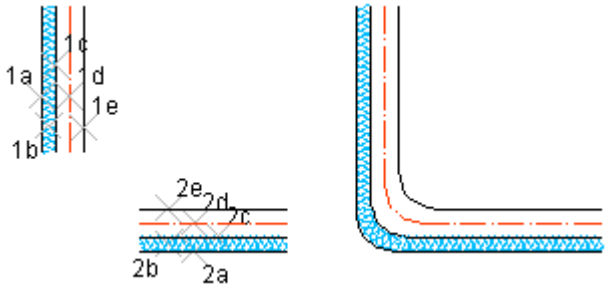
Select two lines to do _FILLET command with radius set to 0.



F5 FILLET WITH RADIUS SET TO 5

commandline entry: **F5**
menu: **APLUS >EDIT > F5**

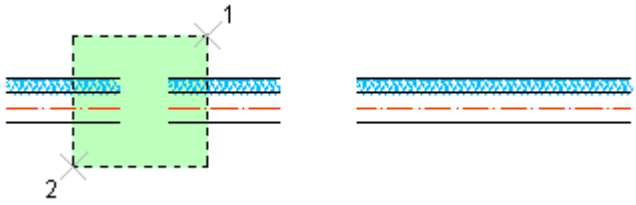
Select two lines to do _FILLET command with radius set to 5.



JS JOIN SELECTED LINES

commandline entry: **JS**
menu: **APLUS >EDIT > JS**

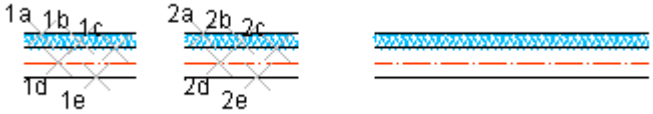
Specify area to connect all lines that lay on their extensions.



JM JOIN MULTIPLE LINES

commandline entry: **JM**
menu: **APLUS >EDIT > JM**

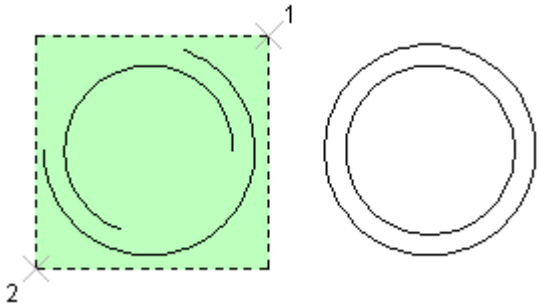
Select lines that lay on their extensions to join them.



CARC CLOSE ARC (TRANSFORM INTO CIRCLE)

commandline entry: **CARC**
menu: **APLUS >EDIT > CARC**

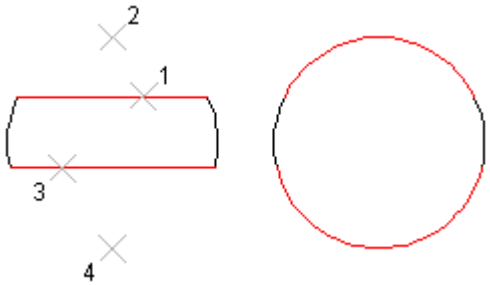
Select any arc to transform it into circle (centre point and radius will be retained).



LARC TRANSFORM LINE INTO ARC

commandline entry: **LARC**
menu: **APLUS >EDIT > LARC**

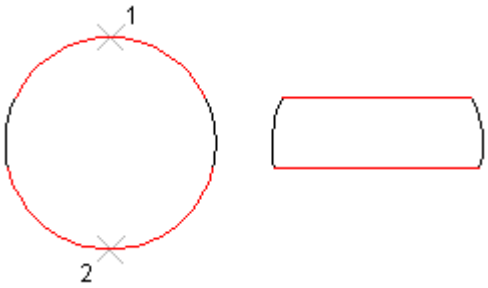
To transform line into arc:
1. Select line
2. Specify tangential point (APLUS will show real time preview arc's shape)



ARCL TRANSFORM ARC INTO POLYLINE

commandline entry: **ARCL**
menu: **APLUS >EDIT > ARCL**

To transform arc into polyline:
1. Specify number of divisions of created polyline
2. Select arc



REGPL TRANSFORM REGION INTO POLYLINE

commandline entry: **REGPL**
menu: **APLUS >EDIT > REGPL**

Select region to transform it's shape into closed polyline.

POLPL TRANSFORM POLYLINE INTO LWPOLYLINE

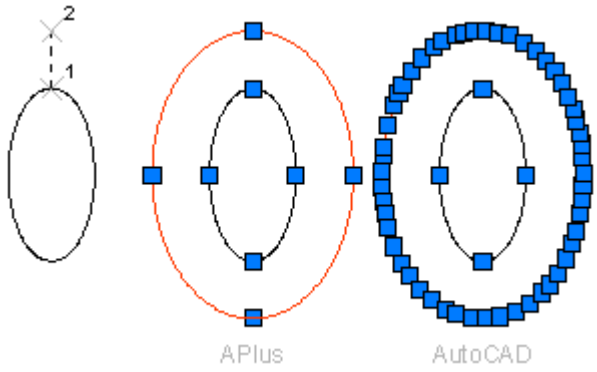
commandline entry: **POLPL**
menu: **APLUS >EDIT > POLPL**

Use this command to transform polyline (POLYLINE) into light weight polyline (LWPOLYLINE)

OEL OFFSET FOR ELLIPSES

commandline entry: **OEL**
menu: **APLUS >EDIT > OEL**

Specify offset distance and select ellipse. APLUS will draw another ellipse, not like in default OFFSET action, when new ellipse is created as a polyline with hundred of vertexes.

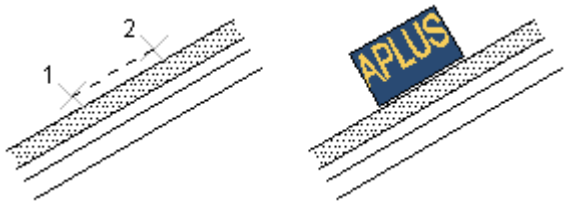


TEXTS AND ATTRIBUTES

TAL ALIGNED TEXT

commandline entry: **TAL**
menu: **APLUS >TEXTS and ATTRIBUTES > TAL**

To create aligned text:
1. Select text base line
2. Type text



FINDT FIND TEXT

commandline entry: **FINDT**
menu: **APLUS >TEXTS and ATTRIBUTES > FINDT**

To find text in drawing:
1. Specify part or full phrase
2. Press space/enter to find next instance

TXTL EXPORT TEXTS

commandline entry: **TXTL**
menu: **APLUS >TEXTS and ATTRIBUTES > TXTL**

Subsequently select all texts to export them to text file.

TXTL2 EXPORT TEXTS (TWO COLUMNS)

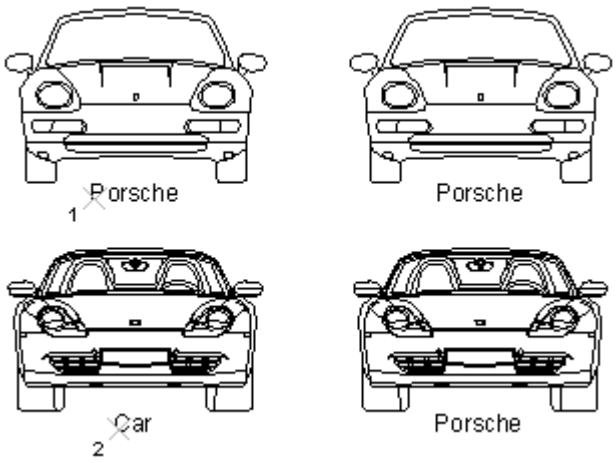
commandline entry: **TXTL2**
menu: **APLUS >TEXTS and ATTRIBUTES > TXTL2**

Subsequently select pairs of texts to export them to text file. Pair will become rows of a column.

TXTC COPY TEXT

commandline entry: **TXTC**
menu: **APLUS >TEXTS and ATTRIBUTES > TXTC**

To copy text:
1. Select source text
2. Select destination text



TXTMA MATCH TEXTS

commandline entry: **TXTMA**
menu: **APLUS >TEXTS and ATTRIBUTES > TXTMA**

To match texts:
1. Select source text
2. Select destination texts

TXTS SWAP TEXT FIELDS

commandline entry: **TXTS**
menu: **APLUS >TEXTS and ATTRIBUTES > TXTS**

To swap two text fields:
1. Select source text field
2. Select destination text field

Command will only swap texts between fields. Size and style will remain the same.

TXTE EXPORT TEXT

commandline entry: **TXTE**
menu: **APLUS >TEXTS and ATTRIBUTES > TXTE**

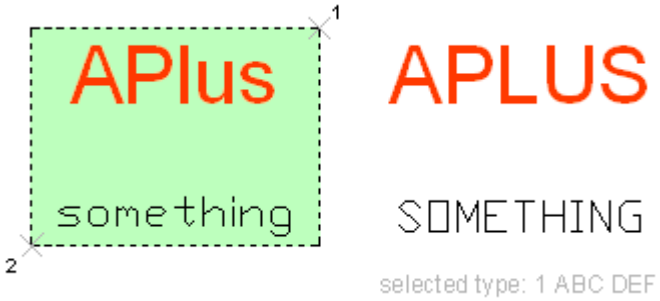
Specify area to quickly export all text fields to temporary *.txt file.

{\fArial|b0|i0|c238|p34;APlus}
something

TEDIT CHANGE TEXT CAPITALISATION

commandline entry: **TEDIT**
menu: **APLUS >TEXTS and ATTRIBUTES > TEDIT**

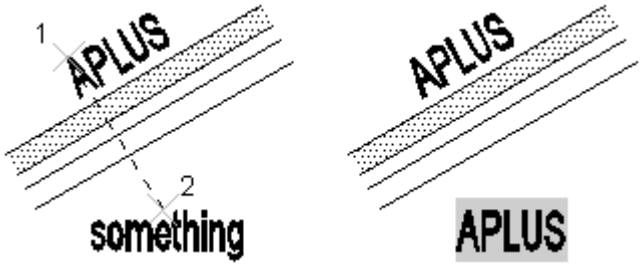
Command changes capitalisation of selected text:
1. CAPITAL LETTERS
2. everything in lower case
3. All Word's First Letters In Capital
4. Only first letter in capital



LINKT LINK TEXTS

commandline entry: **LINKT**
menu: **APLUS >TEXTS and ATTRIBUTES > LINKT**

To link texts up:
1. Select source text
2. Select destination text

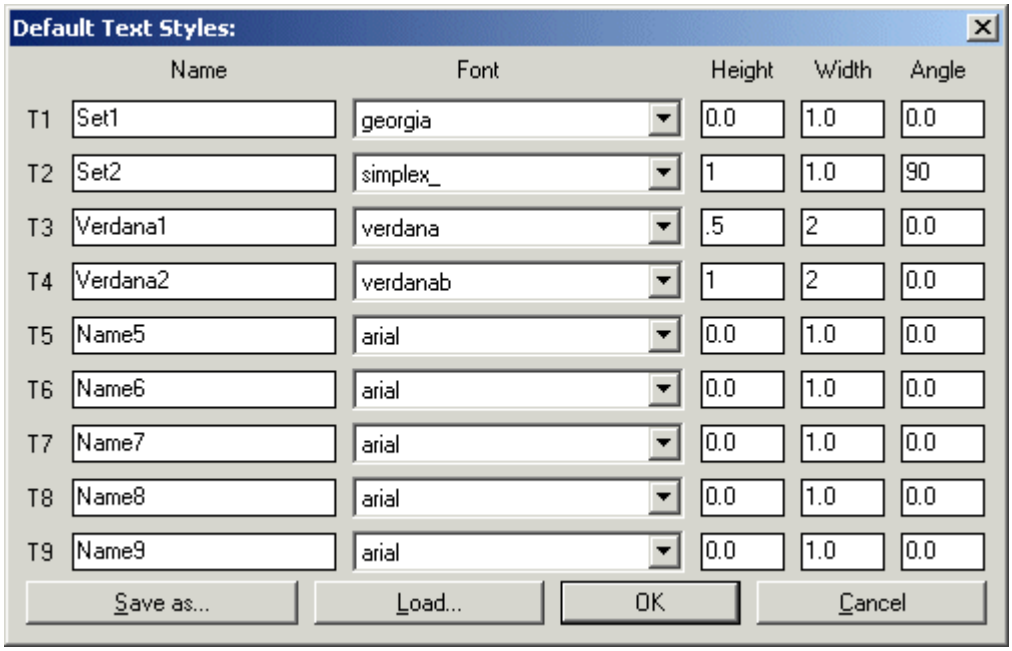


Whenever you change source text, destination will be changed automatically (you may use _REGEN command to show changes).

TEXTP DEFINE APLUS TEXT STYLES

commandline entry: **TEXTP**
menu: **APLUS >TEXTS and ATTRIBUTES > TEXTP**

Use this command to define text styles for later use.

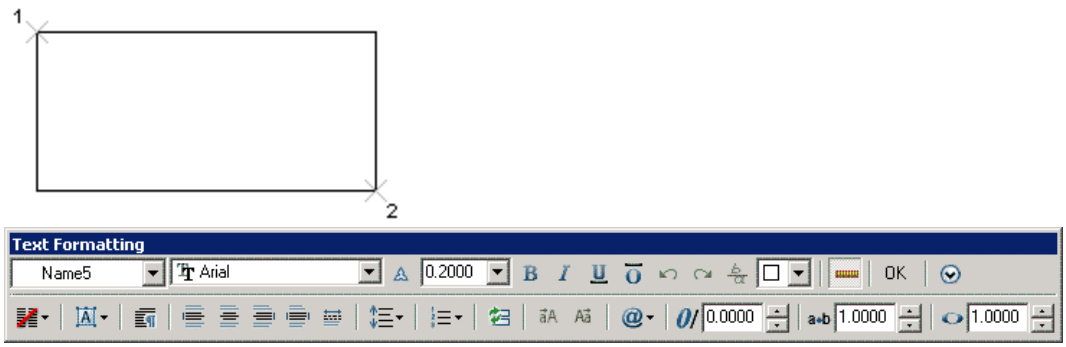


To use these styles in your drawings use ***T1*** to ***T9*** commands.

T1-T9 BREAK OBJECT

commandline entry: **T1,T2,T3,T4,T5,T6,T7,T8,T9**
T1 menu: **APLUS >TEXTS and ATTRIBUTES > T1**
T2 menu: **APLUS >TEXTS and ATTRIBUTES > T2**
T3 menu: **APLUS >TEXTS and ATTRIBUTES > T3**
T4 menu: **APLUS >TEXTS and ATTRIBUTES > T4**
T5 menu: **APLUS >TEXTS and ATTRIBUTES > T5**
T6 menu: **APLUS >TEXTS and ATTRIBUTES > T6**
T7 menu: **APLUS >TEXTS and ATTRIBUTES > T7**
T8 menu: **APLUS >TEXTS and ATTRIBUTES > T8**
T9 menu: **APLUS >TEXTS and ATTRIBUTES > T9**

Specify place to insert text field with predefined style.



In order to change APLUS text styles use command ***TEXTP***

TSC INSERT TEXT WITH SPECIFIED HEIGHT AND SCALE

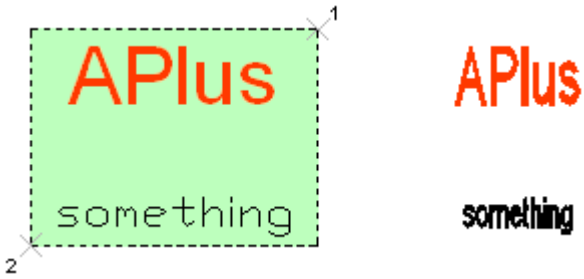
commandline entry: **TSC**
menu: **APLUS >TEXTS and ATTRIBUTES > TSC**

To insert text for specified scale:
1. Specify text's height
2. Specify text's scale
3. Specify insertion point

ONESTYLE CHANGE SELECTED TEXT FIELDS STYLE TO SPECIFIED ONE

commandline entry: **ONESTYLE**
menu: **APLUS >TEXTS and ATTRIBUTES > ONESTYLE**

To change all text field styles within selection:
1. Select text style from list
2. Specify selection area



Text size and width factor will remain unchanged.

ATTP ADD PREFIX TO AN ATTRIBUTE

commandline entry: **ATTP**
menu: **APLUS >TEXTS and ATTRIBUTES > ATTP**

To add prefix to selected attribute
1. Specify prefix
2. Select attributes to add typed prefix

ATTS ADD SUFFIX TO AN ATTRIBUTE

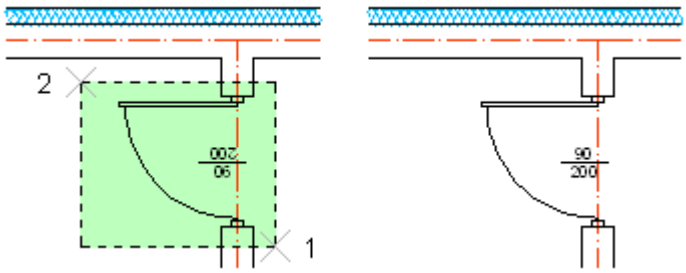
commandline entry: **ATTS**
menu: **APLUS >TEXTS and ATTRIBUTES > ATTS**

To add suffix to selected attribute
1. Specify suffix
2. Select attributes to add typed suffix

ATTNORM NORMALIZE ANGLE OF ATTRIBUTE

commandline entry: **ATTNORM**
menu: **APLUS > TEXTS and ATTRIBUTES > ATTNORM**

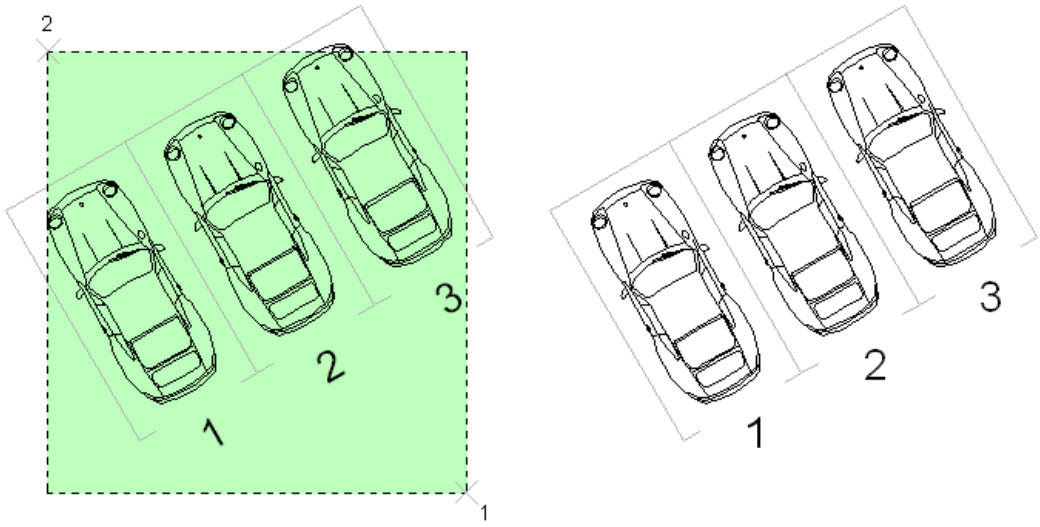
Command changes angle of attribute to make it compatible with ISO standard.



ATT0 CHANGE ANGLE OF ATTRIBUTES TO 0

commandline entry: **ATT0**
menu: **APLUS > TEXTS and ATTRIBUTES > ATT0**

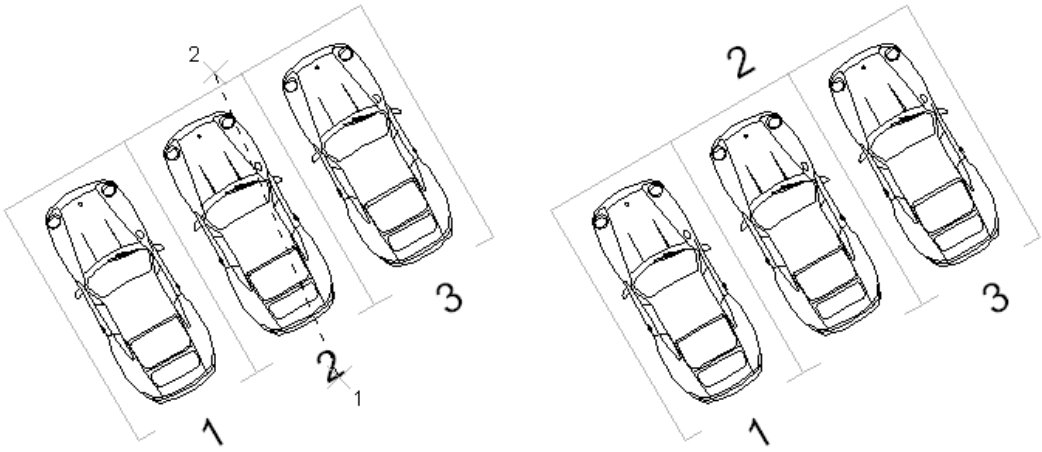
Command sets attribute angle in selected blocks to 0.



ATTM MOVE ATTRIBUTE

commandline entry: **ATTM**
menu: **APLUS > TEXTS and ATTRIBUTES > ATTM**

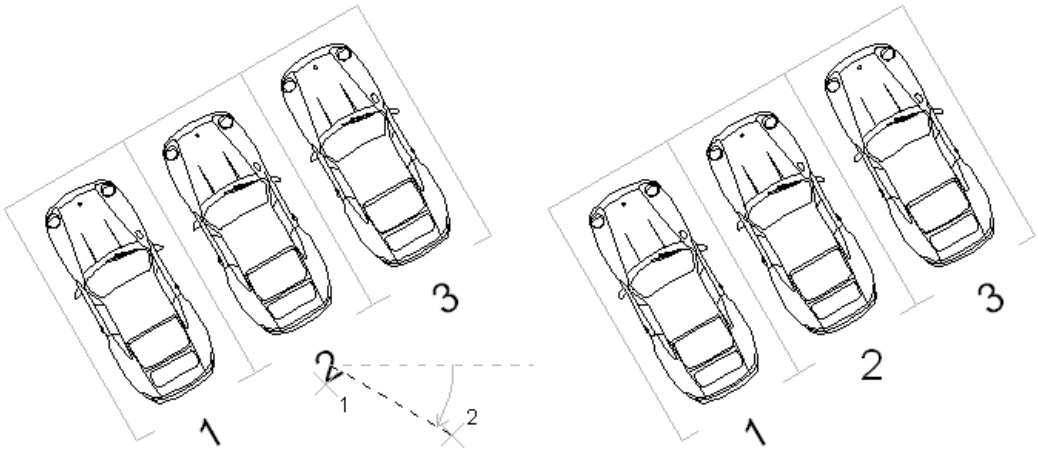
To move block's attribute:
1. Select block
2. Specify destination point



ATTRO ROTATE ATTRIBUTE

commandline entry: **ATTRO**
menu: **APLUS > TEXTS and ATTRIBUTES > ATTRO**

To change block's attribute:
1. Select block
2. Specify rotation angle



ATTSHOW SHOW HIDDEN ATTRIBUTES

commandline entry: **ATTSHOW**
menu: **APLUS > TEXTS and ATTRIBUTES > ATTSHOW**

Command shows hidden attributes in selected block.

ATTHIDE HIDE ATTRIBUTES SET TO HIDDEN

commandline entry: **ATTHIDE**
menu: **APLUS > TEXTS and ATTRIBUTES > ATTHIDE**

Command hides back attributes, shown using command ***ATTSHOW***

ATTMA MATCH CONTENT OF ATTRIBUTES

commandline entry: **ATTMA**
menu: **APLUS > TEXTS and ATTRIBUTES > ATTMA**

To match content of attributes:
1. Select source attribute
2. Select you wish to change

ATTL ATTRIBUTES LIST FROM SELECTED BLOCKS

commandline entry: **ATTL**
menu: **APLUS > TEXTS and ATTRIBUTES > ATTL**

Select blocks, to get list of their attributes in commandline.

ATTC ATTRIBUTES COUNTER

commandline entry: **ATTC**
menu: **APLUS > TEXTS and ATTRIBUTES > ATTC**

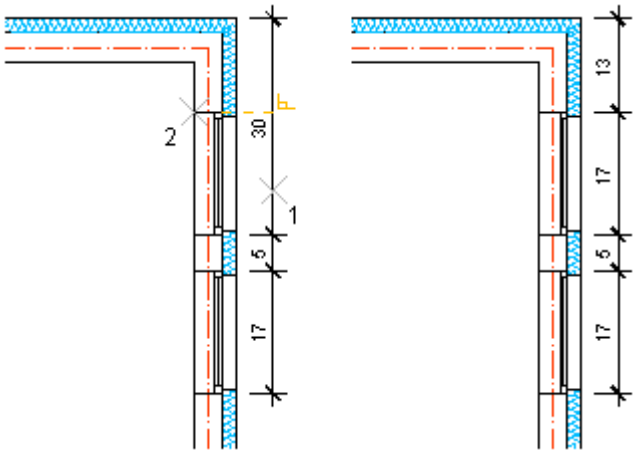
Command counts attributes by their content and display result as a list in commandline, divided by names of blocks they are in.

DIMENSION

DID DIVIDE DIMENSION

commandline entry: **DID**
menu: **APLUS >DIMENSION > DID**

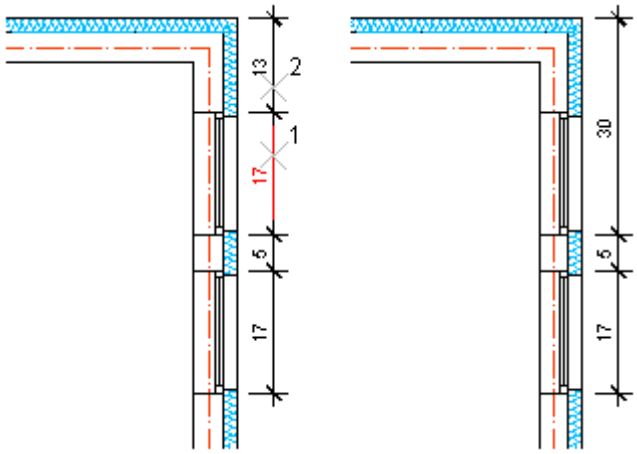
In order to divide dimension
1. Select dimension
2. Specify divison point



DIU UNION DIMENSION LINES

commandline entry: **DIU**
menu: **APLUS >DIMENSION > DIU**

In order to union dimenision lines:
1. Select first dimenison line
2. Select second dimension line

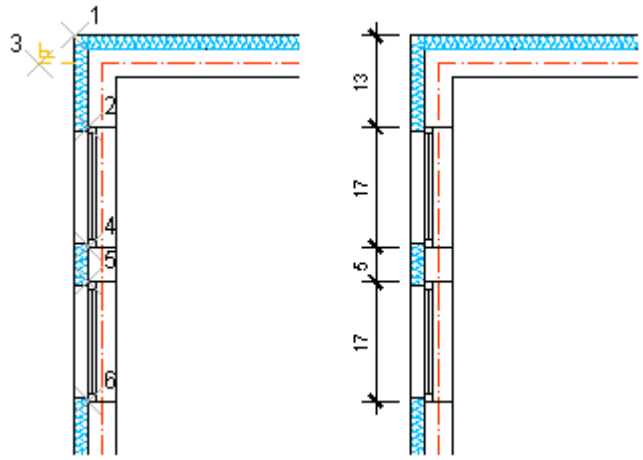


Dimension lines will be unified only if they are connected with their end lines points and the lines are laying parallely

DLIC CONTINUE DRAWING LAST DIMENSION

commandline entry: **DLIC**
menu: **APLUS >DIMENSION > DLIC**

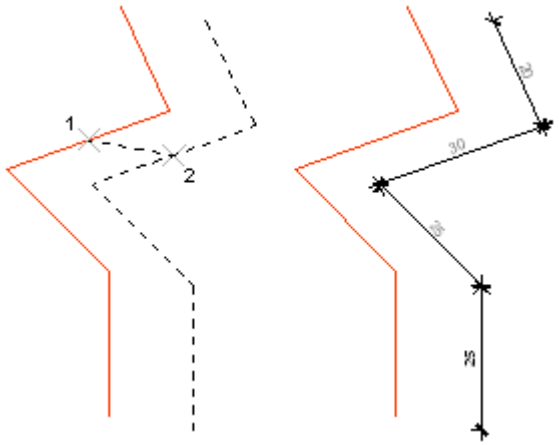
To continue drawing of last dimension:
1. Specify next point
2. While you will be drawing subsequent points, screen will be paned to help you out



DIPL AUTOMATIC POLYLINE DIMENSION

commandline entry: **DIPL**
menu: **APLUS >DIMENSION > DIPL**

Pick polyline object to dimension it with default dimstyle



DIRE REGEN DIMENSION

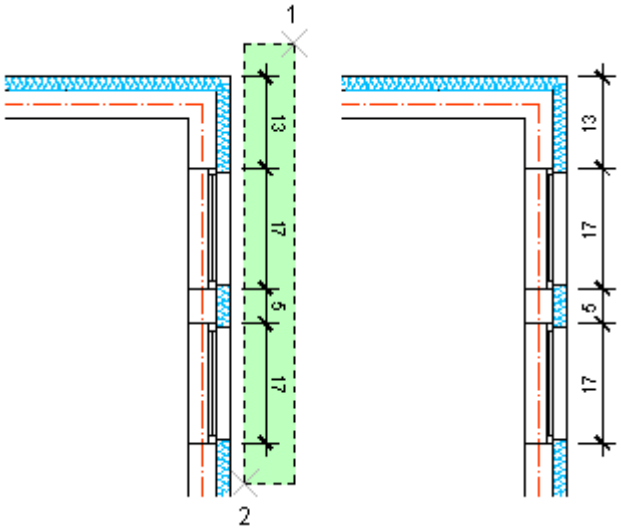
commandline entry: **DIRE**
menu: **APLUS >DIMENSION > DIRE**

Use this command to regenerate selected dimension lines.

DIFLIP FLIP DIMENSION TEXT

commandline entry: **DIFLIP**
menu: **APLUS >DIMENSION > DIFLIP**

Select dimension texts to flip them to the other side.



GDI GET DIMENSION STYLE

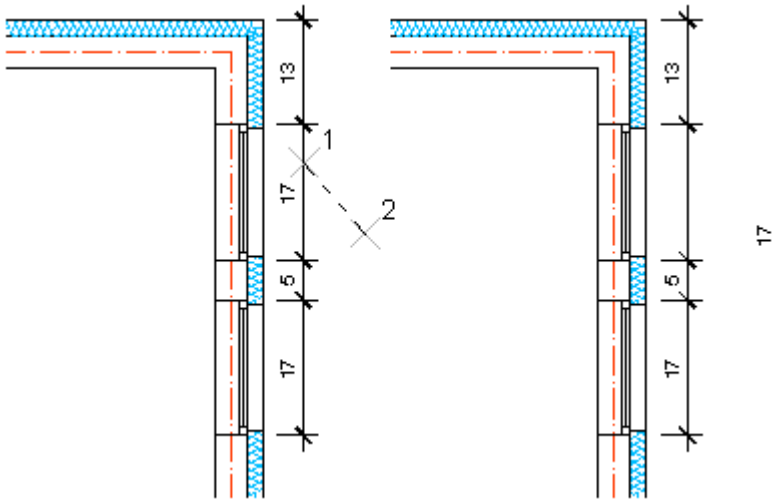
commandline entry: **GDI**
menu: **APLUS >DIMENSION > GDI**

Select dimension line to display name of dimstyle in commandline.

MDI MOVE DIMENSION TEXT

commandline entry: **MDI**
menu: **APLUS >DIMENSION > MDI**

To move dimension text:
1. Select dimension text
2. Specify new position



ZOOM

ZS SPECIFY ZOOM SCALE


commandline entry: **ZS**


menu: **APLUS > ZOOM > ZS**

Type number (X) to do zoom with 1:X scale

Z1-Z5000 SET VIEWPORT ZOOM TO 1:X


commandline entry: **Z1, Z2, Z3, Z4, Z5, Z10, Z20, Z25, Z50, Z100, Z200, Z250, Z500, Z1000, Z2000, Z2500, Z5000**


menu: **APLUS > ZOOM > Z1**


menu: **APLUS > ZOOM > Z2**


menu: **APLUS > ZOOM > Z5**


menu: **APLUS > ZOOM > Z10**


menu: **APLUS > ZOOM > Z20**


menu: **APLUS > ZOOM > Z25**


menu: **APLUS > ZOOM > Z50**


menu: **APLUS > ZOOM > Z100**


menu: **APLUS > ZOOM > Z200**


menu: **APLUS > ZOOM > Z250**


menu: **APLUS > ZOOM > Z500**


menu: **APLUS > ZOOM > Z1000**


menu: **APLUS > ZOOM > Z2000**


menu: **APLUS > ZOOM > Z2500**


menu: **APLUS > ZOOM > Z5000**

To set viewport's zoom scale:
1. Select layout
2. Go into viewport
3. Use command

Command set the right scale basing on APLUS units. Available options:
AUM - metres
AUCM - centimetres
AUMM – millimetres

ZI ZOOM INFORMATIONS


commandline entry: **ZI**


menu: **APLUS > ZOOM > ZI**

Command displays informations upon scales in all layouts.

ZP RESTORE PREVIOUS ZOOM


commandline entry: **ZP**


menu: **APLUS > ZOOM > ZP**

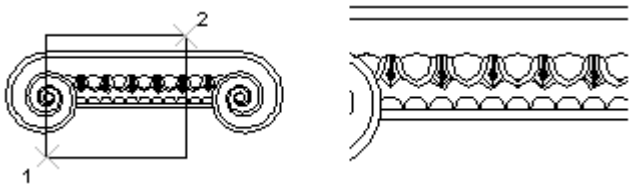
Command restores previous zoom, it can use zooming history to load earlier scales.

ZW ZOOM WINDOW


commandline entry: **ZW**

menu: **APLUS > ZOOM > ZW**

Command zooms in window with first corner in a current crosshair position. Specify second point to zoom.



ZVS SAVE ZOOM AND VIEWPORT

commandline entry: **ZVS**
menu: **APLUS > ZOOM > ZVS**

Command saves current viewport and it's zoom scale. To load these settings use command ***ZVL***

ZVL LOAD SCALE AND VIEWPORT SETTINGS

commandline entry: **ZVL**
menu: **APLUS > ZOOM > ZVL**

Command loads zoom scale and viewport saved with command: ***ZVS***

Command works both in MODEL and PAPER

VS SAVE VIEWPORT

commandline entry: **VS**
menu: **APLUS > ZOOM > VS**

Specify name to save current viewport. You can save as many as you need. Command ***VL*** loads selected viewport.

VL LOAD SAVED VIEWPORT

commandline entry: **VL**
menu: **APLUS > ZOOM > VL**

Specify name to load viewport, saved with command ***VS***

VLL LOAD LAST SAVED VIEWPORT

commandline entry: **VLL**
menu: **APLUS > ZOOM > VLL**

Command loads last saved (with command ***VS***) viewport.

VVT SET THE VIEW POINT TO TOP

commandline entry: **VVT**
menu: **APLUS > ZOOM > VVT**

Command sets the view point to top in current viewport.

VVF SET THE VIEW POINT TO FRONT


commandline entry: **VVF**

menu: **APLUS > ZOOM > VVF**

Command sets the view point to front in current viewport.

VVL SET THE VIEW POINT TO LEFT


commandline entry: **VVL**

menu: **APLUS > ZOOM > VVL**

Command sets the view point to left in current viewport.

VVR SET THE VIEW POINT TO RIGHT


commandline entry: **VVR**

menu: **APLUS > ZOOM > VVR**

Command sets the view point to right in current viewport.

VVB SET THE VIEW POINT TO BACK


commandline entry: **VVB**

menu: **APLUS > ZOOM > VVB**

Command sets the view point to back in current viewport.

VVD SET THE VIEW POINT TO DOWN


commandline entry: **VVD**

menu: **APLUS > ZOOM > VVD**

Command sets the view point to down in current viewport.

VVA SET THE VIEW POINT TO SOUTHWEST ISOMETRIC


commandline entry: **VVA**

menu: **APLUS > ZOOM > VVA**

Command sets the view point to southwest in current viewport.

VVAA SPECIFY ZOOM SCALE


commandline entry: **VVAA**

menu: **APLUS > ZOOM > VVAA**

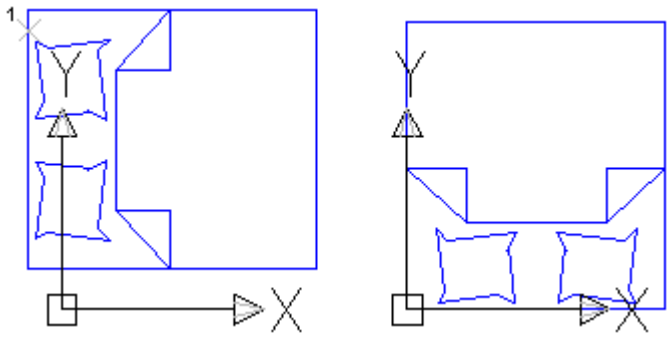
Command sets the view point to southeast in current viewport.

VVO SET NEW UCS ORIGIN ALIGNED TO OBJECT


commandline entry: **VVO**

menu: **APLUS > ZOOM > VVO**

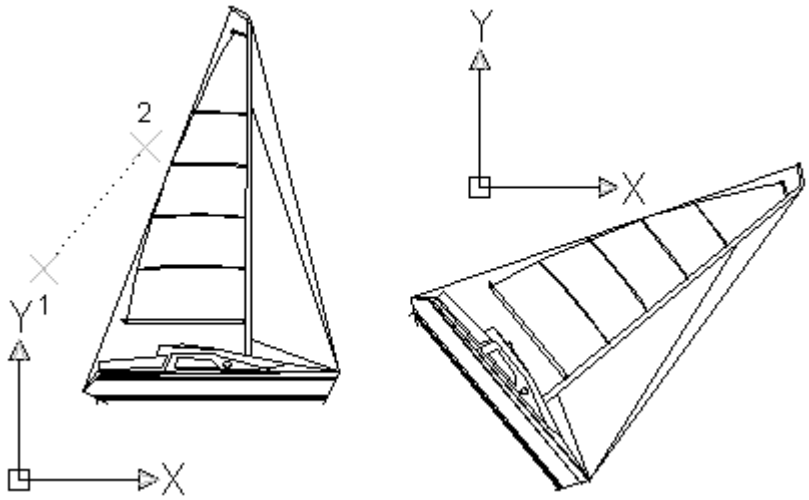
Select object to align UCS origin to it's position.



VVAL ALIGN VIEWPORT TO A LINE

commandline entry: **VVAL**
menu: **APLUS > ZOOM > VVAL**

To align viewport with VVAL:
1. Specify first point
2. Specify second point
Viewport will be aligned to a line between first and second point.



PANL PAN LEFT

commandline entry: **PANL**
menu: **APLUS > ZOOM > PANL**

Use command to pan screen left. You can also use CTRL+left arrow keyboard shortcut.

You can set pan distance with command ***PANP***

PANR PAN RIGHT

commandline entry: **PANR**
menu: **APLUS > ZOOM > PANR**

Use command to pan screen right. You can also use CTRL+right arrow keyboard shortcut.

You can set pan distance with command ***PANP***

PANU PAN UP

commandline entry: **PANU**
menu: **APLUS > ZOOM > PANU**

Use command to pan screen up. You can also use CTRL+up arrow keyboard shortcut.

You can set pan distance with command ***PANP***

PAND PAN DOWN

commandline entry: **PAND**
menu: **APLUS > ZOOM > PAND**

Use command to pan screen down. You can also use CTRL+down arrow keyboard shortcut.

You can set pan distance with command ***PANP***

PANC PAN POINT TO VIEWPORT'S CENTER

commandline entry: **PANC**
menu: **APLUS > ZOOM > PANC**

Use command set viewports center on selected point.

PANP SET PAN PROPERTIES

commandline entry: **PANP**
menu: **APLUS > ZOOM > PANP**

Command sets pan distance for following commands:
PANL pan left
PANR pan right
PAND pan down
PANU pan up

PAPERS

A0-C6 DRAW ISO PAPER FORMAT IN MODELSPACE

commandline entry: **A0, A1, A2, A3, A4, A5, A6, B0, B1, B2, B3, B4, B5, B6, C0, C1, C2, C3, C4, C5, C6**

menu: **APLUS > PAPERS > A0**
menu: **APLUS > PAPERS > A1**
menu: **APLUS > PAPERS > A2**
menu: **APLUS > PAPERS > A3**
menu: **APLUS > PAPERS > A4**
menu: **APLUS > PAPERS > A5**
menu: **APLUS > PAPERS > A6**
menu: **APLUS > PAPERS > B0**
menu: **APLUS > PAPERS > B1**
menu: **APLUS > PAPERS > B2**
menu: **APLUS > PAPERS > B3**
menu: **APLUS > PAPERS > B4**
menu: **APLUS > PAPERS > B5**
menu: **APLUS > PAPERS > B6**
menu: **APLUS > PAPERS > C0**
menu: **APLUS > PAPERS > C1**
menu: **APLUS > PAPERS > C2**
menu: **APLUS > PAPERS > C3**
menu: **APLUS > PAPERS > C4**
menu: **APLUS > PAPERS > C5**
menu: **APLUS > PAPERS > C6**

To draw ISO paper format in MODEL:
1. Specify orientation (H - horizontal, V - vertical)
2. Specify scale (1:X)
3. Specify centre of created paper.

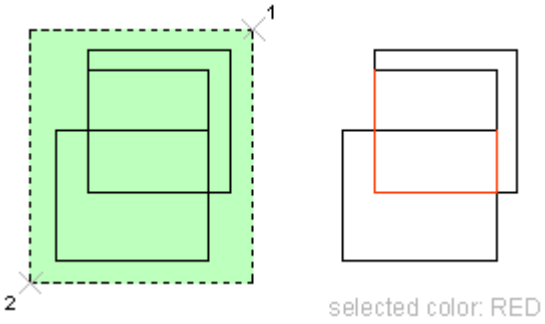
Command set the right scale basing on APLUS units. Available options:
AUM - metres
AUCM - centimetres
AUMM – millimetres

CLEAN

OVERLAP SHOW OVERLAPING LINES

commandline entry: **OVERLAP**
menu: **APLUS > CLEAN > OVERLAP**

Select color and specif area and APLUS will display overlaping lines.

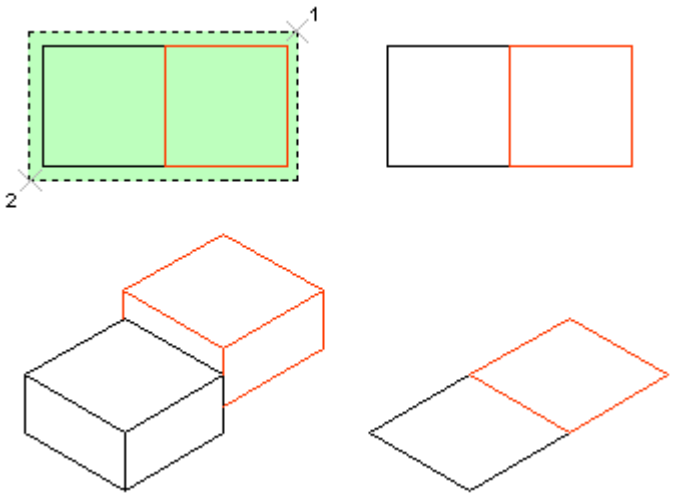


They will disapear as soon as you move or zoom screen.

AFLAT FLATTEN OBJECTS

commandline entry: **AFLAT**
menu: **APLUS > CLEAN > AFLAT**

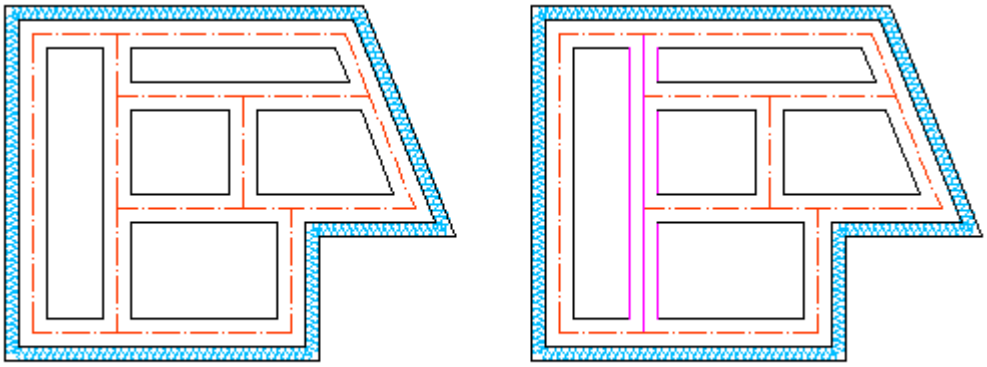
Select objects to move every point's Z to 0 (in the current UCS)



SLANTED FIND ALMOST STRAIGHT (HORIZONTAL OR VERTICAL) LINES

commandline entry: **SLANTED**
menu: **APLUS > CLEAN > SLANTED**

To find lines that feign being vertical or horizontal:
1. Specify color for these lines
2. Press OK



MAGENTA

Command can be used to find those lines, which pretend to be drawn orthogonally, but they are not. They will change their colour to one you select until you move screen (with ***ZOOM*** or ***PAN*** commands).

CHECK CHECK WHETHER LINE IS HORIZONTAL / VERTICAL

commandline entry: **CHECK**
menu: **APLUS > CLEAN > CHECK**

Select line to check whether is it horizontal or vertical. Command displays difference between X and Y positions of start and end point of selected line.

UE SET UNDO END POINT

commandline entry: **UE**
menu: **APLUS > CLEAN > UE**

Use this command to set undo end point.

F1HELP DISABLE F1 HELP

commandline entry: **F1HELP**
menu: **APLUS > CLEAN > F1HELP**

APLUS disables F1 button on your keyboard from displaying AutoCAD Help.

If you want to display help just use _HELP command.

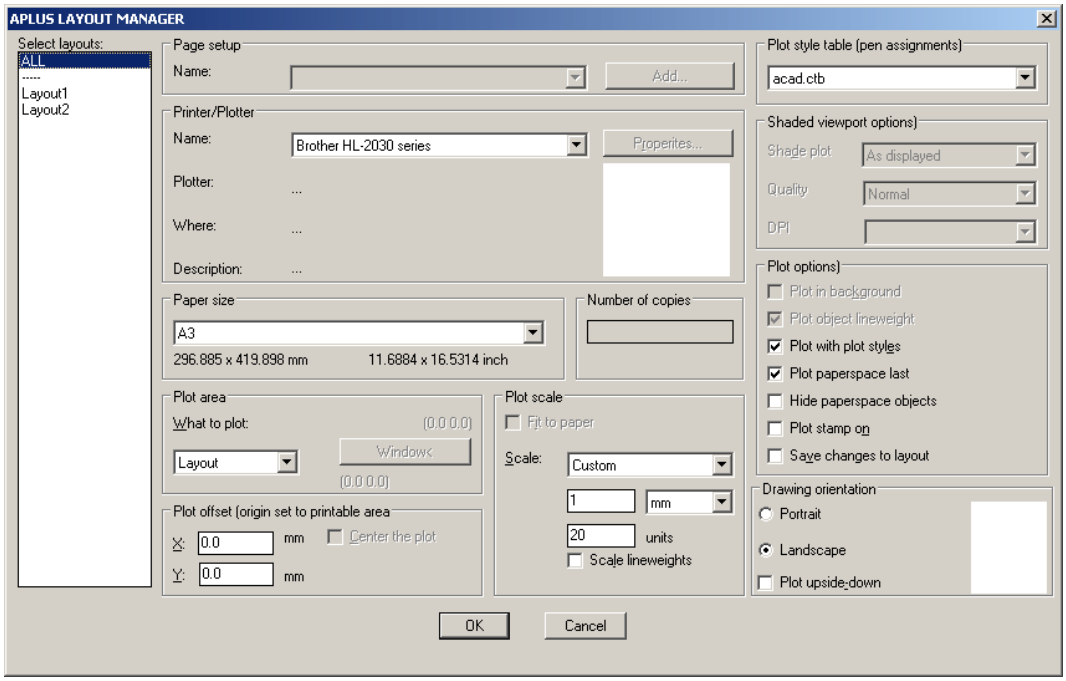
PLOT

LAYMANAGER LAYOUTS MANAGER

commandline entry: **LAYMANAGER**
menu: **APLUS > PLOT > LAYMANAGER**

In layouts plot manager you may set:
1. Printer / plotter
2. Paper size
3. Plot area
4. Plot offset
5. Plot scale
6. Plot style table
7. Orientation
8. Other plot options

You may change those properties for all or just for selected layouts.



PLOTALL PLOT ALL LAYOUTS

commandline entry: **PLOTALL**
menu: **APLUS > PLOT > PLOTALL**

Select plotter or printer to print all layouts using it.

PLOTRANGE PRINT SELECTED LAYOUTS

commandline entry: **PLOTRANGE**
menu: **APLUS > PLOT > PLOTRANGE**

To print selected layouts:
1. Select plotter or printer
2. Select printing range (for example 3-5 to print layouts 3,4 and 5)

PLOTALLPDF PRINT ALL LAYOUTS TO PDF

commandline entry: **PLOTALLPDF**
menu: **APLUS > PLOT > PLOTALLPDF**

Command prints all layouts to Adobe PDF format.

PLOTALLEPS PRINT ALL LAYOUTS TO EPS

commandline entry: **PLOTALLEPS**
menu: **APLUS > PLOT > PLOTALLEPS**

Command prints all layouts to Adobe EPS format.

LAYPLOTTER CHANGE PLOTTER FOR ALL LAYOUTS

commandline entry: **LAYPLOTTER**
menu: **APLUS > PLOT > LAYPLOTTER**

Command displays list of all available plotters / printers. The one you select will be set as a plotting device for all layouts.

XREF

RFA ATTACH EXTERNAL REFFERENCE


commandline entry: **RFA**
menu: **APLUS > XREF > RFA**

Select file from your hard disk to attach it as an external refference.

RFU UNLOAD EXTERNAL REFFERENCE FILE


commandline entry: **RFU**
menu: **APLUS > XREF > RFU**

Pick external refference file to unload it from current drawing

RFR RELOAD EXTERNAL REFERENCES (XREFS)


commandline entry: **RFR**
menu: **APLUS > XREF > RFR**

Select one or hit space to reload all external references (xref).

RFD DETACH EXTERNAL REFERENCE (XREF)


commandline entry: **RFD**
menu: **APLUS > XREF > RFD**

Select external reference (xref) to detach it from a drawing.

RFO OPEN EXTERNAL REFERENCE (XREF)


commandline entry: **RFO**
menu: **APLUS > XREF > RFO**

Select external reference (xref) on a drawing to open it in new window.

RFE OPEN EXTERNAL REFERENCE'S (XREF) EDITING PANEL


commandline entry: **RFE**
menu: **APLUS > XREF > RFE**

Command opens panel where you can edit selected reference (xref).

To close selected external reference (xref) with saving changes use command ***RFC***

RFC END EDITION OF EREF


commandline entry: **ZS**
menu: **APLUS > XREF > ZS**

Command closes and saves state of external refference afeter edition.

RFFIND FIND EXTERNAL REFERENCE'S RELATIVE PATH


commandline entry: **RFFIND**
menu: **APLUS > XREF > RFFIND**

Select xref object to find it's relative path.

IMG INSERT RASTER IMAGE

commandline entry: **IMG**
menu: **APLUS > XREF > IMG**

Use this command to insert raster image into drawing.

IMGFIND FIND RELATIVE PATH TO IMAGE

commandline entry: **IMGFIND**
menu: **APLUS > XREF > IMGFIND**

Use this command to search for missing image paths.

EXPF EXPORT SELECTION TO A FILE

commandline entry: **EXPF**
menu: **APLUS > XREF > EXPF**

To export selection to a file:
1. Select objects you want to export
2. Specify beginning point (0,0,0) of the User Coordinate System for created file
3. Type name of saved file

You can also save file with specified prefix ***EXPFP*** or suffix ***EXPFS***

EXPFP EXPORT SELECTION TO A FILE (WITH PREFIX)

commandline entry: **EXPFP**
menu: **APLUS > XREF > EXPFP**

To export selection to a file (with prefix):
1. Select objects you want to export
2. Specify origin point (0,0,0) of User Coordinate System for created file
3. Type name of saved file

EXPFS EXPORT SELECTION TO A FILE (WITH SUFFIX)

commandline entry: **EXPFS**
menu: **APLUS > XREF > EXPFS**

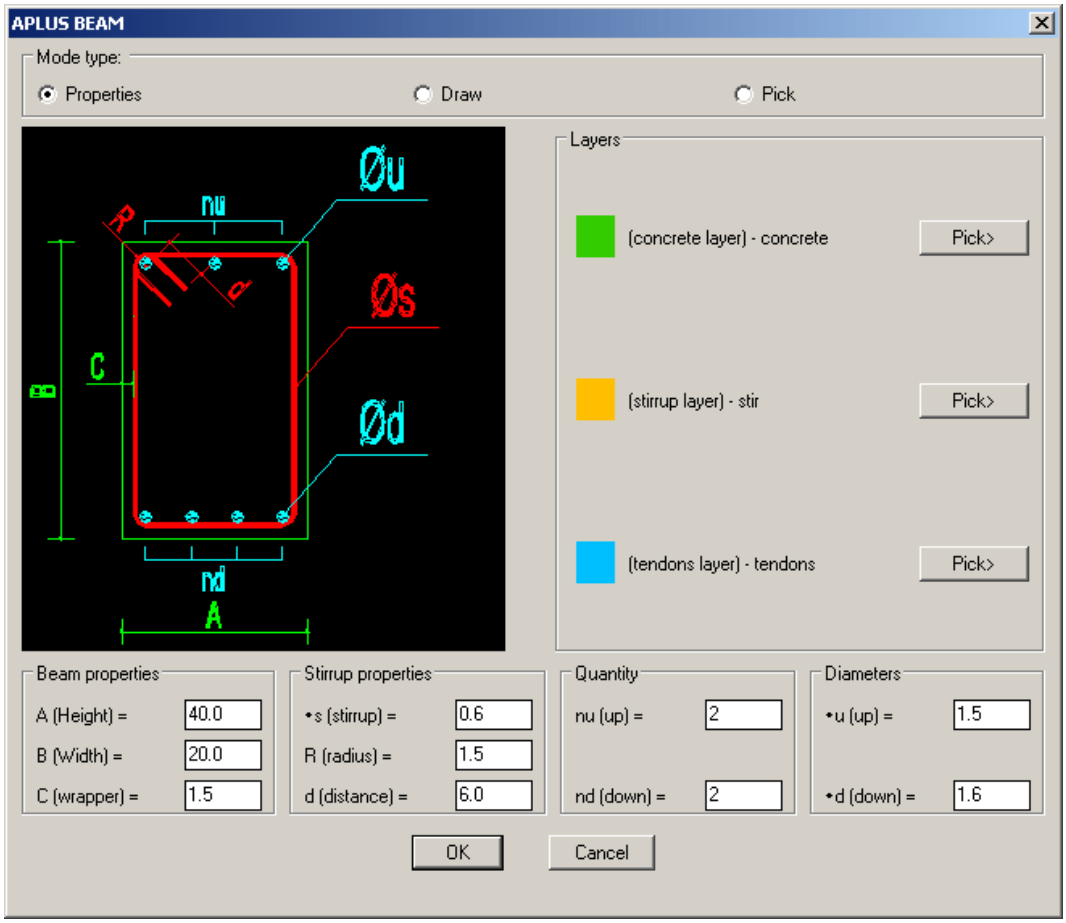
To export selection to a file (with suffix):
1. Select objects you want to export
2. Specify origin point (0,0,0) of User Coordinate System for created file
3. Type name of saved file

CONSTRUCTIONS

BEAM DRAW BEAM

commandline entry: **BEAM**
menu: **APLUS > CONSTRUCTIONS > BEAM**

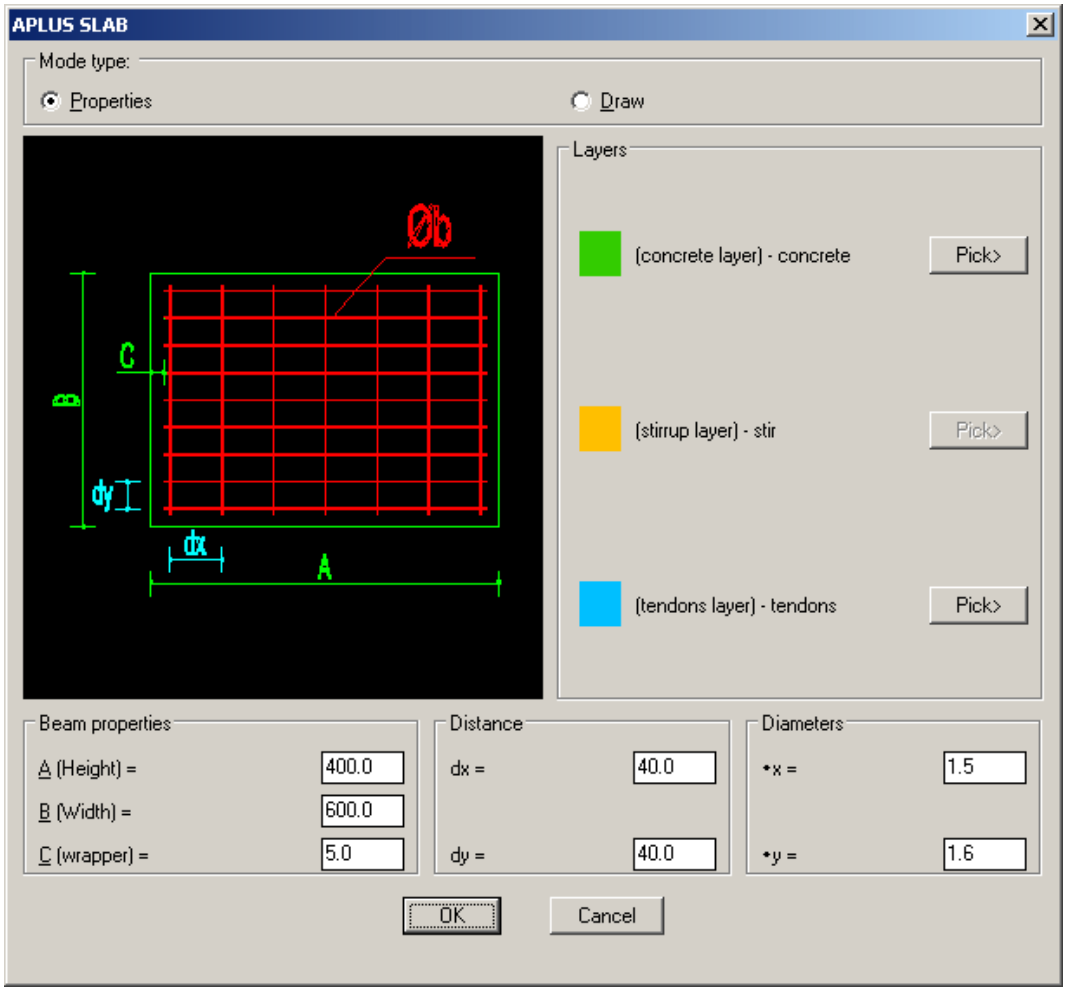
This commands allows you to quickly draw beams. You may set following parameters in a panel (picture bellow):
1. Drawing mode (set all properties in panel / draw beam dimensions / pick dimensions)
2. Beam properties
3. Stirrup properties
4. Quantity of bars
5. Bar diameters
6. Layers



SLAB DRAW SLAB

commandline entry: **SLAB**
menu: **APLUS > CONSTRUCTIONS > SLAB**

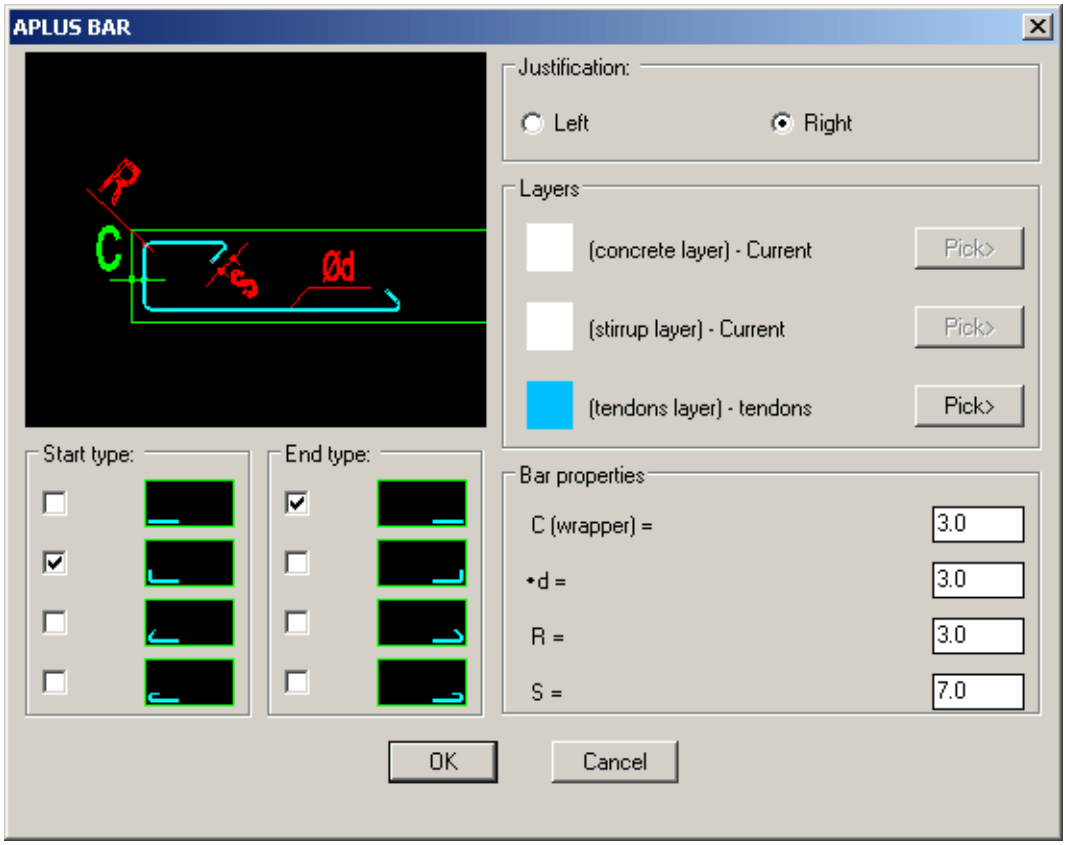
APLUS allows you to quickly draw a slab. You may set following properties:
1. Drawing mode (set all properties / draw dimensions by yourself)
2. Slab properties
3. Distance between vertical / horizontal bars
4. Bars diameters
5. Layers
By default slab is inserted from its top left corner.



BAR DRAW BAR

commandline entry: **BAR**
menu: **APLUS > CONSTRUCTIONS > BAR**

This command allows you to quickly draw bars:
1. Set all properties in the panel (picture below)
2. Specify insertion point

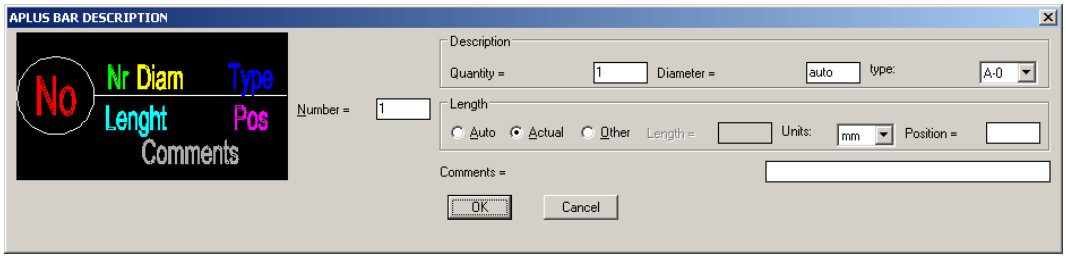


BARD INSERT BAR DESCRIPTIONS

commandline entry: **BARD**
menu: **APLUS > CONSTRUCTIONS > BARD**

This commands inserts bar descriptions, you may change properties in a panel (picture bellow). You may change following parameters:
1. Bar number
2. Bar type
3. Bar length
4. Length units
5. Position

You may also add a comment to a bar description.

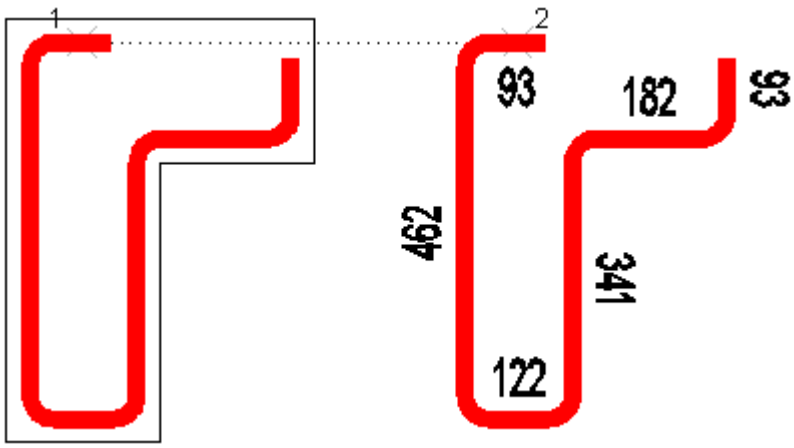


BARDI INSERT BAR DIMENSIONS

commandline entry: **BARDI**
menu: **APLUS > CONSTRUCTIONS > BARDI**

To insert bars dimensions:
1. Select bar
2. Specify insertion point

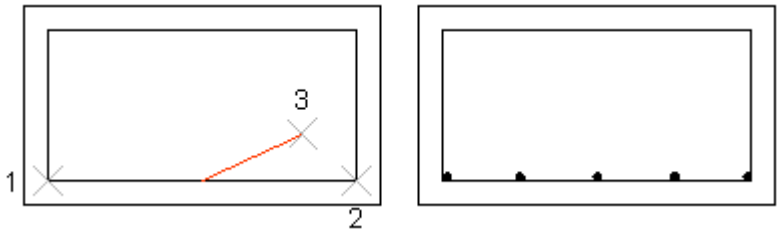
APLUS will copy selected bar and measure dimensions.



BARS DRAW BARS IN SECTION

commandline entry: **BARS**
menu: **APLUS > CONSTRUCTIONS > BARS**

This command draws bars in section. You have to:
1. Specify number of bars
2. Specify start/end points
3. Specify direction



BARL LIST OF BARS

commandline entry: **BARL**
menu: **APLUS > CONSTRUCTIONS > BARL**

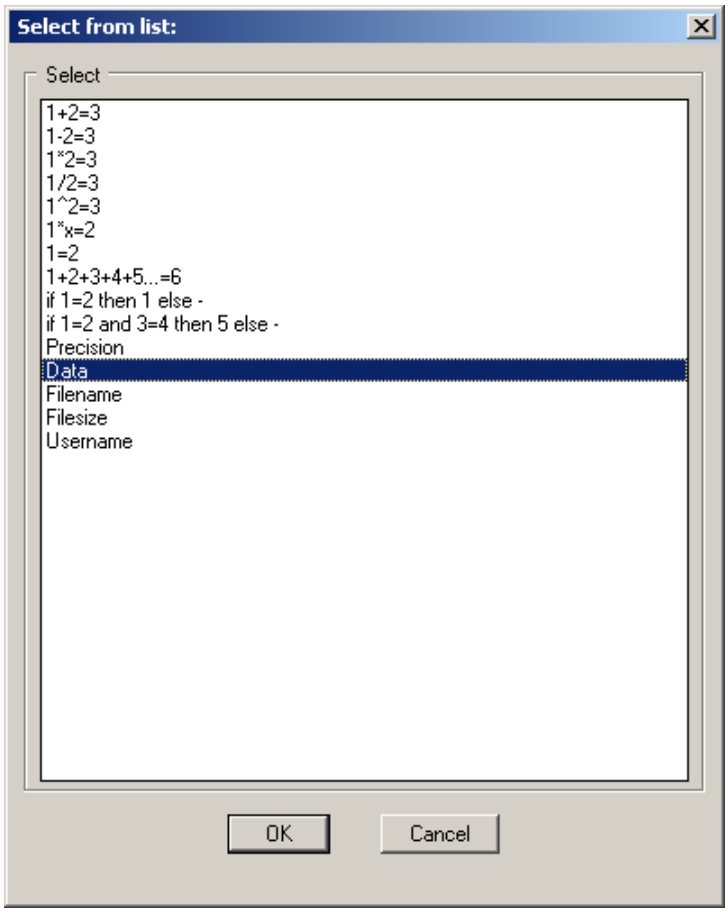
Select all bars descriptions created with BARD command to make a list of those bars. Result will look like in picture bellow.

Nr	Pos	Ø[mm]	number	elements	total	Length [cm]	Total [m]	Steel type	A-0 20	Comments
1		20	1	1	1	1295	12.95	A-0	-	
									-	
									2.47	

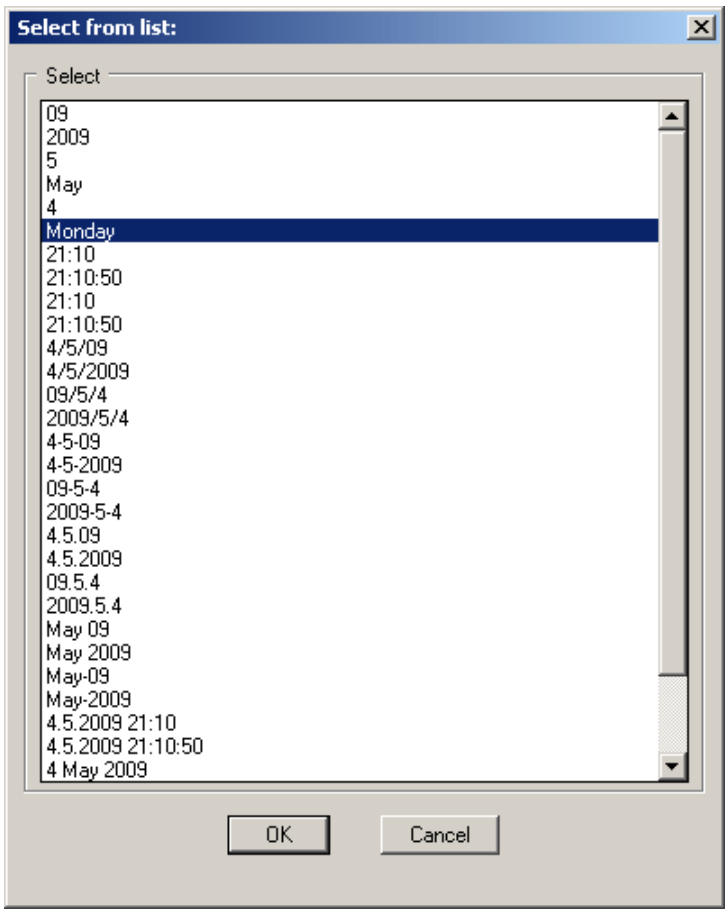
AFIELD INSERT APLUS TEXT FIELD

commandline entry: **AFIELD**
menu: **APLUS > CONSTRUCTIONS > AFIELD**

To insert APLUS text field:
1. Select first category of text fields
2. (optional) select subcategory
3. Select TEXT object



List of categories (above) and items/subcategories (below) of APLUS fields



AFIELDU UPDATE APLUS FIELD


commandline entry: **AFIELDU**


menu: **APLUS > CONSTRUCTIONS > AFIELDU**

Use this command to update selected APLUS fields.

LISP

LIO OBJECT'S PARAMETER LIST


commandline entry: **LIO**

menu: **APLUS > LISP > LIO**

Command makes list of perimeters of selected object, including:
1. Layer
2. Number of elements
3. Type of elements

LION LIST OF NESTED OBJECTS


commandline entry: **LION**

menu: **APLUS > LISP > LION**

Select object to get list of elements nested inside.

LIP COMPARE LISP PROPERTIES


commandline entry: **LIP**

menu: **APLUS > LISP > LIP**

Select two object to compare their properties. Result will apear in AutoCAD Text Window.

LIPN COMPARE LISP PROPERTIES OF A NESTED OBJECTS


commandline entry: **LIPN**

menu: **APLUS > LISP > LIPN**

Select two nested object to compare their properties. Result will apear in AutoCAD Text Window

LIB BLOCK PARAMETERS LIST


commandline entry: **LIB**

menu: **APLUS > LISP > LIB**

Command makes parameters list of selected block, including:
1. Layer
2. Number of elements
3. Type of elements
4. Name of the block
5. Number of instances

DUMP ADVANCED INFORMATION ABOUT OBJECT


commandline entry: **DUMP**

menu: **APLUS > LISP > DUMP**

Select object to get detailed information about it's content (number and type of elements) and possible transformations.

FINDF FIND FUNCTION BY NAME


commandline entry: **FINDF**

menu: **APLUS > LISP > FINDF**

Enter part of a name to find full name of a function.

FINDC FIND COMMAND BY NAME


commandline entry: **FINDC**

menu: **APLUS > LISP > FINDC**

Enter part of a name to find full name of a command.

FINDV FIND VARIABLE BY NAME


commandline entry: **FINDV**

menu: **APLUS > LISP > FINDV**

Enter part of a name to find full name of a variable.

AINFO DISPLAY ADVANCED AUTOCAD INFORMATIONS


commandline entry: **AINFO**

menu: **APLUS > LISP > AINFO**

Use this command to display advanced AutoCAD settings. You will receive a list in a text file.

SETUP

APLUSEN CHANGE APLUS LANGUAGE TO ENGLISH

commandline entry: **APLUSEN**
menu: **APLUS > SETUP > APLUSEN**

Command changes command prompts language to English.

APLUSPL CHANGE APLUS LANGUAGE TO POLISH

commandline entry: **APLUSPL**
menu: **APLUS > SETUP > APLUSPL**

Command changes command prompts language to Polish.

APLUSUS CHANGE APLUS LANGUAGE TO ENGLISH (US)

commandline entry: **APLUSUS**
menu: **APLUS > SETUP > APLUSUS**

Command changes command prompts language to English (US).

APLUSFR CHANGE APLUS LANGUAGE TO FRENCH

commandline entry: **APLUSFR**
menu: **APLUS > SETUP > APLUSFR**

Command changes command prompts language to French.

APLUSES CHANGE APLUS LANGUAGE TO SPANISH

commandline entry: **APLUSES**
menu: **APLUS > SETUP > APLUSES**

Command changes command prompts language to Spanish.

APLUSIT CHANGE APLUS LANGUAGE TO ITALIAN

commandline entry: **APLUSIT**
menu: **APLUS > SETUP > APLUSIT**

Command changes command prompts language to Italian.

APLUSDE CHANGE APLUS LANGUAGE TO GERMAN

commandline entry: **APLUSDE**
menu: **APLUS > SETUP > APLUSDE**

Command changes command prompts language to German.

APLUSPT CHANGE APLUS LANGUAGE TO PORTUGUESE

commandline entry: **APLUSPT**
menu: **APLUS > SETUP > APLUSPT**

Command changes command prompts language to Portuguese.

AUM CHANGE APLUS UNITS TO METRES


commandline entry: **AUM**
menu: **APLUS > SETUP > AUM**

Command changes units settings used by various APLUS functions to metres.

AUCM CHANGE APLUS UNITS TO CENTIMETRES


commandline entry: **AUCM**
menu: **APLUS > SETUP > AUCM**

Command changes units settings used by various APLUS functions to centimetres.

AUMM CHANGE APLUS UNITS TO MILLIMETRES


commandline entry: **AUMM**
menu: **APLUS > SETUP > AUMM**

Command changes units settings used by various APLUS functions to millimetres.

AUINCH CHANGE APLUS UNITS TO INCHES


commandline entry: **AUINCH**
menu: **APLUS > SETUP > AUINCH**

Command changes units settings used by various APLUS functions to inches.

APLUSREGISTER REGISTER YOUR COPY OF APLUS


commandline entry: **APLUSREGISTER**
menu: **APLUS > SETUP > APLUSREGISTER**

Use this command to get licence to APLUS for your office or stand-alone installation. You will be transferred to web site, where you have to enter your name and email. We will contact you as soon as possible. Your license will be included in the next update of our product.

APLUSBUY BUY APLUS


commandline entry: **APLUSBUY**
menu: **APLUS > SETUP > APLUSBUY**

This command allows you to buy commercial version of APLUS by Internet. Webshop will be opened in your default Internet browser.

APLUSUPDATE UPDATE APLUS


commandline entry: **APLUSUPDATE**
menu: **APLUS > SETUP > APLUSUPDATE**

Use this command to open web site, where you can download latest version of our plug-in.

APLUSERROR REPORT AN ERROR

commandline entry: **APLUSERROR**
menu: **APLUS > SETUP > APLUSERROR**

Use this command to report any errors with APLUS. You will be transferred to web site, where you'll be able to describe the problem. We will do our best to solve it and release fixed version.

APLUSNEWCOMMAND ASK FOR NEW COMMANDS

commandline entry: **APLUSNEWCOMMAND**
menu: **APLUS > SETUP > APLUSNEWCOMMAND**

Use this command to propose new commands or way to improve our plug-in. You will be transferred to web page with contact form.

APLUST DISPLAY APLUS TOOLBAR

commandline entry: **APLUST**
menu: **APLUS > SETUP > APLUST**

Command displays toolbar with APLUS commands icons

APLUSP PRINT APLUS COMMANDS

commandline entry: **APLUSP**
menu: **APLUS > SETUP > APLUSP**

Command makes index of available commands. They will be divided into columns, prepared to be printed on ISO A4 paper format.

APLUSH DISPLAY APLUS HELP

commandline entry: **APLUSH**
menu: **APLUS > SETUP > APLUSH**

Command displays APLUS help file.

AINF DISPLAY APLUS INFORMATIONS

commandline entry: **AINF**
menu: **APLUS > SETUP > AINF**

Command displays APLUS informations such as:
1. APLUS version
2. Registered user's name or trial period information
3. Copyright notice
4. Our website address
5. Email address

BETA FUNCTIONS

PLM MOVE SELECTED POLYLINE SEGMENTS AND LINES

commandline entry: **PLM**
menu: **APLUS > BETA FUNCTIONS > PLM**

PLM command is a powerful tool. It can move both lines and selected polyline segments. It keeps angles of unselected segments intact.

PLRO ROTATE SELECTED POLYLINE SEGMENTS AND LINES

commandline entry: **PLRO**
menu: **APLUS > BETA FUNCTIONS > PLRO**

PLRO command is a powerful tool. It can rotate both lines and selected polyline segments. It keeps angles of unselected segments intact.

PLSC SCALE SELECTED POLYLINE SEGMENTS AND LINES

commandline entry: **PLSC**
menu: **APLUS > BETA FUNCTIONS > PLSC**

PLSC command is a powerful tool. It can scale both lines and selected polyline segments according to specified point. It keeps angles of unselected segments intact.

ATTCASE CHANGE CASE OF SELECTED ATTRIBUTES

commandline entry: **ATTCASE**
menu: **APLUS > BETA FUNCTIONS > ATTCASE**

ATTCASE command allows you to change case in multiple attributes. To do so:
1. select block definition
2. select attributes to be included in case change
3. select format
4. select block instances

BU CHANGE BLOCK UNITS TO UNITLESS

commandline entry: **BU**
menu: **APLUS > BETA FUNCTIONS > BU**

Command simply changes units in selected blocks into unitless.

SUCK SUCK ELEMENT FROM BLOCK

commandline entry: **SUCK**
menu: **APLUS > BETA FUNCTIONS > SUCK**

SUCK command copies selected element from block into the current layer. Block definition remains intact.

SUCK2 SUCK BLOCK FROM BLOCK

commandline entry: **SUCK2**
menu: **APLUS > BETA FUNCTIONS > SUCK2**

SUCK2 command allows you to copy block from inside another block. APLUS will create its copy at blocks default layer.

BREMOVE REMOVE AND SUCK ELEMENT FROM BLOCK

commandline entry: **BREMOVE**
menu: **APLUS > BETA FUNCTIONS > BREMOVE**

BREMOVE command removes selected object from all block instances. Command will also create single duplicate of removed objects.

RFLL MOVE ALL XREFS TO A SPECIFIED LAYER

commandline entry: **RFLL**
menu: **APLUS > BETA FUNCTIONS > RFLL**

RFLL command moves all external references (xrefs) to a specified layer.

BXA EXPLODE ALL BLOCKS

commandline entry: **BXA**
menu: **APLUS > BETA FUNCTIONS > BXA**

BXA command explodes all blocks in current drawing. Additionally it removes all block definitions from the drawing.

BSEL PUT BLOCK IN PLACE OF SELECTION

commandline entry: **BSEL**
menu: **APLUS > BETA FUNCTIONS > BSEL**

BSEL command allows you to put selected block in place of selected objects. Command helps you to change sketches of objects into more detailed blocks.

NOISE ADD NOISE TO LINES AND POLYLINES

commandline entry: **NOISE**
menu: **APLUS > BETA FUNCTIONS > NOISE**

This command can add specified amount of noise into selected lines and polylines. To add noise:
1. specify noise amount
2. select objects

DESIGN1 DRAW DESIGN1 LINES

commandline entry: **DESIGN1**
menu: **APLUS > BETA FUNCTIONS > DESIGN1**

Command DESIGN1 allows you to draw design1 lines:
1. specify number of divisions
2. specify base point
3. specify subsequent points

SPIRO DRAW SPIRAL

commandline entry: **SPIRO**
menu: **APLUS > BETA FUNCTIONS > SPIRO**

With SPIRO command you may easily draw spiral. Just set all parameters and specify insertion point.

PLML TRANSFORM POLYLINE INTO MULTILINE

commandline entry: **PLML**
menu: **APLUS > BETA FUNCTIONS > PLML**

PLML command transforms selected polylines into multilines. It uses default multiline settings for transformation.

MSECTION DRAW SECTION OF 3D MESH

commandline entry: **MSECTION**
menu: **APLUS > BETA FUNCTIONS > MSECTION**

With MSECTION command you may quickly create section of 3D mesh. Just specify section line and insertion point.

FSECTION DRAW SECTION OF 3D FACE

commandline entry: **FSECTION**
menu: **APLUS > BETA FUNCTIONS > FSECTION**

With FSECTION command you may quickly create section of 3D face. Just specify section line and insertion point.

TABL DRAW TABLE BORDER LINES

commandline entry: **TABL**
menu: **APLUS > BETA FUNCTIONS > TABL**

TABL command automatically draws cell border lines around selected TEXT or MTEXT objects.

TABE TABLE EXPORT TO EXCEL

commandline entry: **TABE**
menu: **APLUS > BETA FUNCTIONS > TABE**

APLUS can export selected TEXT or MTEXT objects to Microsoft Excel. Just select text objects and APLUS will do the rest. Overlapping text objects will be ignored.

TABI IMPORT TABLE FROM EXCEL

commandline entry: **TABI**
menu: **APLUS > BETA FUNCTIONS > TABI**

APLUS can import values from Microsoft Excel file. Select file and select TEXT or MTEXT objects to replace them with values from the selected file.

ESL ERASE LINES SHORTER THAN SPECIFIED DISTANCE

commandline entry: **ESL**
menu: **APLUS > BETA FUNCTIONS > ESL**

ESL command erases lines shorter than specified distance.
1. specify distance (draw or type in)
2. select objects

TLENGTH MEASURE TOTAL LENGTH OF SELECTED OBJECTS

commandline entry: **TLENGTH**
menu: **APLUS > BETA FUNCTIONS > TLENGTH**

TLENGTH command can quickly measure length of all selected objects. Result will be divided by layers. Total length of selected will also be calculated.

PROJECTPO DRAW PROJECTION OF A POINT TO A LINE

commandline entry: **PROJECTPO**
menu: **APLUS > BETA FUNCTIONS > PROJECTPO**

PROJECTPO command draws projection on line or polyline segment.
1. select projection line (or polyline segment)
2. specify projection distance
3. click on points from which you wish to draw projection

SLICEL DRAW SLICING LINES

commandline entry: **SLICEL**
menu: **APLUS > BETA FUNCTIONS > SLICEL**

SLICEL command draws slicing lines. Draw slice line and specify insertion point. By default APLUS draws lines 1 meter long.

COLLISIONS SHOW COLLISIONS BETWEEN LAYERS

commandline entry: **COLLISIONS**
menu: **APLUS > BETA FUNCTIONS > COLLISIONS**

COLLISIONS command displays collisions between layers. Procedure:
1. select any object on first layer
2. select any object on second layer
3. select objects to check collisions

Red squares indicating collisions will disappear as soon as you regenerate view.

LISTXYZ LIST X, Y AND Z COORDINATES OF SELECTED VERTEXES

commandline entry: **LISTXYZ**
menu: **APLUS > BETA FUNCTIONS > LISTXYZ**

LISTXYZ command lists X, Y and Z coordinates of selected vertexes. List will be displayed in AutoCAD command line.

LISTXY LIST X AND Y COORDINATES OF SELECTED VERTEXES

commandline entry: **LISTXY**
menu: **APLUS > BETA FUNCTIONS > LISTXY**

LISTXY command lists X and Y coordinates of selected vertexes. List will be displayed in AutoCAD command line. Additionally APLUS will insert attributed blocks next to vertexes.

PLSTART HIGHLIGHT POLYLINE START POINT

commandline entry: **PLSTART**
menu: **APLUS > BETA FUNCTIONS > PLSTART**

PLSTART command highlights first point on selected polyline. Vertex will be shown as a red square.

HAREA MEASURE HATCHES AREAS

commandline entry: **HAREA**
menu: **APLUS > BETA FUNCTIONS > HAREA**

HAREA command measures areas of selected hatches. APLUS divides result by hatch patterns and displays result in AutoCAD command line.

HOFF TURN VISIBILITY OF ALL HATCHES OFF

commandline entry: **HOFF**
menu: **APLUS > BETA FUNCTIONS > HOFF**

Command HOFF allows you to quickly hide all hatches in current drawing. Use HON command to turn visibility of hatches back on.

HON TURN VISIBILITY OF ALL HATCHES ON

commandline entry: **HON**
menu: **APLUS > BETA FUNCTIONS > HON**

Command HON allows you to quickly show all hidden hatches in current drawing. This command reverses effect of HOFF command.

AXO SIMULATE AXONOMETRIC PROJECTION

commandline entry: **AXO**
menu: **APLUS > BETA FUNCTIONS > AXO**

AXO command can draw simulated axonometric projection from selected objects. Procedure:
1. select objects
2. specify base point (point on original object)
3. specify destination point (point on projection)

ENGLISH USE STANDARD ENGLISH SHORTCUTS FOR COMMANDS IN AUTOCAD

commandline entry: **ENGLISH**
menu: **APLUS > BETA FUNCTIONS > ENGLISH**

ENGLISH commands sets shortcuts in AutoCAD just like default shortcuts in English version. Use this command wisely as it can permanently change your default shortcuts. Your own shortcuts at the end of acad.pgp file will not be changed.

LISPFORUM SEARCH PHRASE IN AUTODESK LISP DISCUSSION BOARD

commandline entry: **LISPFORUM**
menu: **APLUS > BETA FUNCTIONS > LISPFORUM**

LISPFORUM command searches for specified phrase in Autodesk LISP discussion board. Result will be displayed in your default internet browser.

MENUAPLUSR RELOAD APLUS MENUS

commandline entry: **MENUAPLUSR**
menu: **APLUS > BETA FUNCTIONS > MENUAPLUSR**

This command reloads all APLUS menus and toolbars.

IMGD DETACH SELECTED IMAGE

commandline entry: **IMGD**
menu: **APLUS > BETA FUNCTIONS > IMGD**

Select image to detach it from current drawing.

IMGLL MOVE ALL ATTACHED IMAGES TO ONE LAYER

commandline entry: **IMGLL**
menu: **APLUS > BETA FUNCTIONS > IMGLL**

IMGLL commands moves all attached images to a specified layer.

PGPEDIT ACAD.PGP EDITOR

commandline entry: **PGPEDIT**
menu: **APLUS > BETA FUNCTIONS > PGPEDIT**

APLUS has its own acad.pgp editor. You may change or add AutoCAD shortcuts.

MTE MTEXT EDITOR

commandline entry: **MTE**
menu: **APLUS > BETA FUNCTIONS > MTE**

With MTE command you may edit MTEXT objects. It allows you to change order of text lines, add or remove spaces, change justification.

OPENFILE OPEN FILE WITHIN APLUS INSTALLATION DIRECTORY

commandline entry: **OPENFILE**
menu: **APLUS > BETA FUNCTIONS > OPENFILE**

OPENFILE command opens specified file from APLUS installation directory. File will be opened with default program.

OPENFOLDER OPEN FOLDER WITHIN APLUS INSTALLATION DIRECTORY CONTAINING SPECIFIED FILE

commandline entry: **OPENFOLDER**
menu: **APLUS > BETA FUNCTIONS > OPENFOLDER**

OPENFOLDER command opens folder within APLUS installation folder containing specified file. Folder will be opened with default file explorer.

FINDFILES FIND FILES WITHIN APLUS DIRECTORY

commandline entry: **FINDFILES**
menu: **APLUS > BETA FUNCTIONS > FINDFILES**

Command FINDFILES searches for specified files within APLUS installation directory.

DWGVER LIST OF DWG FILES VERSIONS WITHIN SPECIFIED DIRECTORY

commandline entry: **DWGVER**
menu: **APLUS > BETA FUNCTIONS > DWGVER**

DWGVER command displays list of DWG files versions within specified directory. APLUS displays this list in AutoCAD command line.

LAYMANAGER1 LAYOUTS MANAGER (TEXT MODE)

commandline entry: **LAYMANAGER1**
menu: **APLUS > BETA FUNCTIONS > LAYMANAGER1**

In layouts plot manager you may set following options:
1. canonical media name
2. center plot
3. configuration name
4. paper units
5. plot hidden
6. plot origin
7. plot rotation
8. plot type
9. plot viewport borders
10. plot viewports first
11. plot with lineweights
12. plot with plot styles
13. scale lineweights
14. show plot styles
15. standard scale
16. style sheet
17. use standard scale

You may change those properties for all or just for selected layouts.

PURGESCALES PURGE SCALES IN DRAWING

commandline entry: **PURGESCALES**
menu: **APLUS > BETA FUNCTIONS > PURGESCALES**

PURGESCALES command purges unused scales from current drawing. PURGESCALES is also a part of PURGEALL command.

PINFO LAYOUT PLOT INFORMATION

commandline entry: **PINFO**
menu: **APLUS > BETA FUNCTIONS > PINFO**

PINFO command displays all available information about plot settings of specified layout.

FRAMEC DRAW CIRCULAR FRAME AROUND SELECTED OBJECTS

commandline entry: **FRAMEC**
menu: **APLUS > BETA FUNCTIONS > FRAMEC**

Select objects to draw circular frames around them with FRAMEC command. APLUS draws separate frames for individual objects.

PLDEC DECURVE POLYLINE

commandline entry: **PLDEC**
menu: **APLUS > BETA FUNCTIONS > PLDEC**

PLDEC command automatically change arc segments in selected polylines into linear segments.

PLCO CONTINUE DRAWING POLYLINE

commandline entry: **PLCO**
menu: **APLUS > BETA FUNCTIONS > PLCO**

PLCO command allows you to continue drawing polyline. APLUS detects nearest end of selected polyline and starts drawing from that end.

ROPL ROTATE SELECTED POLYLINE SEGMENT

commandline entry: **ROPL**
menu: **APLUS > BETA FUNCTIONS > ROPL**

ROPL command rotates selected polyline segment. Segment will be rotated around further end of clicked polyline segment.

ALPL ALIGN POLYLINE SEGMENT TO A LINE

commandline entry: **ALPL**
menu: **APLUS > BETA FUNCTIONS > ALPL**

With ALPL command you may align angle of selected polyline segment to another polyline segment or line.

ALO ALIGN OBJECT TO A LINE

commandline entry: **ALO**
menu: **APLUS > BETA FUNCTIONS > ALO**

ALO command allows you to align selected object to a line. Polylines will be aligned with clicked segment.

ALGRID ALIGN OBJECTS TO SPECIFIED GRID

commandline entry: **ALGRID**
menu: **APLUS > BETA FUNCTIONS > ALGRID**

ALGRID command aligns vertexes of selected objects to a specified grid. To do so:
1. select objects
2. specify grid base point
3. specify grid size

PLBO DRAW BOUNDARY OF POLYLINE WITH SET WIDTH

commandline entry: **PLBO**
menu: **APLUS > BETA FUNCTIONS > PLBO**

PLBO command draws boundary of polylines that have set width. Boundaries will be drew on current layer.

RMLINK LINK ATTRIBUTE VALUES IN APLUS ROOM BLOCKS

commandline entry: **RMLINK**
menu: **APLUS > BETA FUNCTIONS > RMLINK**

RMLINK command allows you to link attribute values between two APLUS room blocks. Changes in parent block will be automatically made to children too.

ASLIDE CREATE AUTODESK SLIDE FROM CURRENT VIEW

commandline entry: **ASLIDE**
menu: **APLUS > BETA FUNCTIONS > ASLIDE**

ASLIDE command creates Autodesk Slide file from current viewport. SLD file will be created in your APLUS/TEMP/ directory.

UNROLL UNROLL 3D OBJECT

commandline entry: **UNROLL**
menu: **APLUS > BETA FUNCTIONS > UNROLL**

UNROLL command unrolls selected 3D object. As a result APLUS creates 2D representation of all faces.

SOLIDVOL MEASURE SOLID VOLUMES

commandline entry: **SOLIDVOL**
menu: **APLUS > BETA FUNCTIONS > SOLIDVOL**

APLUS can measure volume of selected 3D SOLIDS. Result will be divided by layers and total volume will also be displayed.

ASECTION DRAW SOLIDS SECTION

commandline entry: **ASECTION**
menu: **APLUS > BETA FUNCTIONS > ASECTION**

ASECTION command draws section of 3D SOLIDS. To draw section:
1. draw section line
2. specify insertion point

SOLT TRIM ONE 3D SOLID WITH ANOTHER

commandline entry: **SOLT**
menu: **APLUS > BETA FUNCTIONS > SOLT**

SOLT command trims selected 3D SOLID with another. As a result APLUS will create new, trimmed 3D SOLID.

ALT ALIGN TEXT TO A LINE

commandline entry: **ALT**
menu: **APLUS > BETA FUNCTIONS > ALT**

ALT command allows you to align selected TEXT or MTEXT object to a line or polyline segment.
1. select TEXT or MTEXT object
2. select aligment line or polyline
3. specify insertion point

MTX EXPLODE MTEXT

commandline entry: **MTX**
menu: **APLUS > BETA FUNCTIONS > MTX**

MTX command explodes selected MTEXT object into separate TEXT objects.

TXTEA EXPORT ALL ATTRIBUTES AND TEXT OBJECTS TO A TXT FILE

commandline entry: **TXTEA**
menu: **APLUS > BETA FUNCTIONS > TXTEA**

TXTEA command can export all texts from the current drawing. It exports TEXT and MTEXT objects as well as ATTRIBUTE values. You may import values from modified text file with TXTIA command.

TXTIA IMPORT ALL ATTRIBUTES AND TEXTS FROM TXT FILE

commandline entry: **TXTIA**
menu: **APLUS > BETA FUNCTIONS > TXTIA**

TXTIA command imports values from txt file exported earlier by TXTEA command. Changes will be made automatically.

REPLACET REPLACE TEXTS

commandline entry: **REPLACET**
menu: **APLUS > BETA FUNCTIONS > REPLACET**

REPLACET command replaces specified phrase with another.
1. specify phrase to search for
2. specify phrase to replace with
3. select MTEXT or TEXT objects

TX EXPLODE TEXT OBJECT TO POLYLINES

commandline entry: **TX**
menu: **APLUS > BETA FUNCTIONS > TX**

TX command explodes selected TEXT or MTEXT objects into polylines. Command is an improved version of tool known from Express Tools.

MLX DRAW AND EXPLODE MULTILINE

commandline entry: **MLX**
menu: **APLUS > BETA FUNCTIONS > MLX**

MLX command draws multiline and explodes it to lines.

MAN MOVE ON A SPECIFIED ANGLE

commandline entry: **MAN**
menu: **APLUS > BETA FUNCTIONS > MAN**

MAN command moves objects on a specified angle. To move objects:
1. select objects
2. specify source point
3. specify destination point (to set the angle)
4. specify insertion point

POSX MATCH POSITION IN X-AXIS

commandline entry: **POSX**
menu: **APLUS > BETA FUNCTIONS > POSX**

POSX command moves objects to align them in x-axis. To do so:
1. select source object
2. select objects to align

POSY MATCH POSITION IN Y-AXIS

commandline entry: **POSY**
menu: **APLUS > BETA FUNCTIONS > POSY**

POSY command moves objects to align them in y-axis. To do so:
1. select source object
2. select objects to align

POSZ MATCH POSITION IN Z-AXIS

commandline entry: **POSZ**
menu: **APLUS > BETA FUNCTIONS > POSZ**

POSZ command moves objects to align them in z-axis. To do so:
1. select source object
2. select objects to align

OM MULTIPLE OFFSET

commandline entry: **OM**
menu: **APLUS > BETA FUNCTIONS > OM**

OM command allows you to OFFSET selected object multiple times at once.

OE OFFSET AND ERASE

commandline entry: **OE**
menu: **APLUS > BETA FUNCTIONS > OE**

OE command makes both OFFSET and erases source object. Regardless of erasing, it works just like standard OFFSET command.

SWAPSEL SWAP MULTIPLE SELECTED OBJECTS

commandline entry: **SWAPSEL**
menu: **APLUS > BETA FUNCTIONS > SWAPSEL**

SWAPSEL command allows you to swap multiple objects.
1. select first group of objects
2. specify their base point
3. select second group of objects
4. specify their base point

MRO MOVE AND ROTATE

commandline entry: **MRO**
menu: **APLUS > BETA FUNCTIONS > MRO**

MRO command moves and rotates objecsts.
1. select objects
2. specify source point
3. specify destination point
4. specify rotation angle

LLP TURN ON PLOTTING FOR SELECTED LAYERS

commandline entry: **LLP**
menu: **APLUS > BETA FUNCTIONS > LLP**

Command turns on plotting of selected layers.

LLNP TURN OFF PLOTTING FOR SELECTED LAYERS

commandline entry: **LLNP**
menu: **APLUS > BETA FUNCTIONS > LLNP**

Command turns off plotting of selected layers.

LLIC — ISOLATE LAYERS OF SPECIFIED LAYER DEFAULT COLOR

commandline entry: **LLIC**
menu: **APLUS > BETA FUNCTIONS > LLIC**

LLIC command isolates those layers that have default color same as you select.

LLOC — TURN OFF LAYERS OF SPECIFIED LAYER DEFAULT COLOR

commandline entry: LLOC
menu: APLUS > BETA FUNCTIONS > LLOC

LLIC command turns off those layers that have default color same as you select.

LLIV — ISOLATE LAYER IN CURRENT VIEWPORT

commandline entry: LLIV
menu: APLUS > BETA FUNCTIONS > LLIV

LLIV command isolates selected object in current viewport.

LLFVA — FREEZE SELECTED LAYER IN ALL VIEWPORTS

commandline entry: LLFVA
menu: APLUS > BETA FUNCTIONS > LLFVA

LLFVA command freezes selected layer in all viewports.

LLFL — FREEZE SELECTED LAYER IN CURRENT LAYOUT

commandline entry: LLFL
menu: APLUS > BETA FUNCTIONS > LLFL

Command freezes selected layer in current layout. Command does not work in MODELSPACE.

OFH — TURN OFF LAYERS CONTAINING HATCHES

commandline entry: OFH
menu: APLUS > BETA FUNCTIONS > OFH

OFH command turns off all layers containing hatches. Use LP command to turn their visibility back on.

OFS — TURN OFF LAYERS CONTAINING 3D SOLIDS

commandline entry: OFS
menu: APLUS > BETA FUNCTIONS > OFS

OFS command turns off all layers containing 3D SOLIDS. Use ONS command to turn their visibility back on.

ONS — TURN ON LAYERS CONTAINING 3D SOLIDS

commandline entry: ONS
menu: APLUS > BETA FUNCTIONS > ONS

ONS command turns on all layers containing 3D SOLIDS.

ISEL — ISOLATE SELECTED OBJECTS

commandline entry: ISEL
menu: APLUS > BETA FUNCTIONS > ISEL

ISEL command allows you to isolate selected objects regardless of their type or layer. USEL command turns hidden objects back on.

USEL UNISOLATE / UNHIDE SELECTED OBJECTS

commandline entry: USEL
menu: APLUS > BETA FUNCTIONS > USEL

USEL command turns back visibility of objects hidden by ISEL or HSEL commands.

HSEL HIDE SELECTED OBJECTS

commandline entry: HSEL
menu: APLUS > BETA FUNCTIONS > HSEL

With HSEL command you may hide selected objects regardless of object type or layer. USEL command turn hidden objects back on.

VVAAA SET THE VIEW POINT TO NORTHEAST ISOMETRIC.

commandline entry: VVAAA
menu: APLUS > BETA FUNCTIONS > VVAAA

Command sets the view point to northeast in current viewport.

VVAAAA SET THE VIEW POINT TO NORTHWEST ISOMETRIC.

commandline entry: VVAAAA
menu: APLUS > BETA FUNCTIONS > VVAAAA

Command sets the view point to northwest in current viewport.

DIFLAT FLATTEN DIMENSION LINES

commandline entry: DIFLAT
menu: APLUS > BETA FUNCTIONS > DIFLAT

Command DIFLAT flattens dimension lines. Basically it moves dimension line origin points onto current position of dimension line.

DILINE DRAW AUTOMATIC DIMENSION LINES

commandline entry: DILINE
menu: APLUS > BETA FUNCTIONS > DILINE

DILINE command allows you to quickly measure objects within specified line. Just draw a line, and APLUS will automatically draw dimension lines.

DILINES CONVERT LINE INTO DIMENSION LINES

commandline entry: DILINES
menu: APLUS > BETA FUNCTIONS > DILINES

With DILINES command you may convert selected line into dimension lines. APLUS will detect crossing points and divide the line into separate dimension lines.

RFB — BIND SELECTED XREFS TO THE CURRENT DRAWING

commandline entry: RFB
menu: APLUS > BETA FUNCTIONS > RFB

RFB command binds selected external references (xrefs) to the current drawing.

RFAR — REATTACH XREF

commandline entry: RFAR
menu: APLUS > BETA FUNCTIONS > RFAR

RFAR command reattaches selected external references (xrefs).

RFRA — RELOAD ALL XREFS

commandline entry: RFRA
menu: APLUS > BETA FUNCTIONS > RFRA

RFRA command reloads all external references (xrefs) in the current drawing.

CHAPTER IV: TROUBLESHOOTING IN APLUS

INSTALLATION PROBLEMS

You may encounter problems during installation such as:

- setup won't start – try to remove temporary setup files from your TEMP folder
- setup have started but nothing happened – try disabling firewall or/and anti-virus software, it may in some cases prevent installing new software

I CAN'T INSTALL APLUS

In some cases (eg. corporate computers, machines with multiple user accounts) you may not be able to install APLUS. You may have to contact administrator in order to install new software on this machine. If you have admin privileges and you are still not able to install Aplus contact us and we will find a solution for your problem.

STARTUP PROBLEMS

Most problems with starting Aplus occur when you try to install it with AutoCAD running in the background. Setup will indicate that installation is complete, but it will not be able to add required paths into AutoCAD and therefore Aplus will not be actually added to it's startup list. Repeat installation process in order to resolve this problem.

I CAN'T RUN APLUS

If you have installed APLUS properly, but APLUS doesn't start along with AutoCAD it may be due to a different issue such as other add-ons or any other AutoCAD customization. Contact us if you are not able to resolve this issue by yourself.

COMMAND DOESN'T WORK

We make our best to write commands that are compatible with every version of AutoCAD. However it is possible that particular commands will not work with certain versions of AutoCAD (especially older ones). Some of commands that are added into new releases of APLUS can generate error messages. In such case we ask you to notify us about the problem by using APLUSERROR command. Describe your problem we will contact you to find possible solution and release a patch as soon as possible in order to prevent another occurrences of the error.

ICONS DOESN'T SHOW UP

It is possible for APLUS toolbar icons to not show up. This issue was fixed but may still may occur in older versions of our add-on. Please use APLUSUPDATE command to update your copy.

ERROR REPORTING

If you find any other problem with APLUS use APLUSERROR to notify us about it. Thanks in advance!

ALPHABETICAL INDEX OF COMMANDS