

ALPHACAM

2025 Feature List

Industry specific Commands
Router
Stone
Milling
Turning
Profiling
Wire

:Core
Automated Reporting and Labelling
ALPHACAM Reports Designer
Simulation
Distance Angle
Part Compare
Save Stock
Section
Solid Simulation
Quick Shade/Wire Frame Simulation
General Machining Utilities
Automatic Support Tags
AutoStyles
Chamfering
Common Line Cut
Convert 3D Tool Path to Helical Arcs
Create Part
Define Holder
Define Tool
Edit Z Point by Point
Insert Program Stop
Join Saw Cuts
Machine Configuration 3-Axis
Machining Styles
Move Part on Machine
Multidrill - Horizontal and Vertical (Not Simulation of 3D Drill Unit)
Order Operations by Tool
Orientate Tool Perpendicular to Profile (Aggregates)
Oscillation
Reverse Tool Path
Sawing Extensions
Set Pocketing Start Points
Set Safe Area
Set/Unset Open Elements

Slow Down for Corners
Support Tags
Templates
Tool Data Sync
Tool Directions
Tool Entry/Leads
Tool Library
User Defined Code
Machine Configuration (Main Spindle)
2D Machining (2.5-Axis)
Cut Path
Drill/Tap Holes
Facing
Machine Holes
Manual Toolpath
Pocketing
Sawing (Line Elements)
3D Engraving
Polishing
Water Jet - Clear Area
Water Jet - Cut Path
Water Jet - Pierce/Cut Holes
Open Pocket Using Boundary
Thread Milling
Trochoidal Rough/Finish
C-Axis Machining (Flat-Land)
Clear Area
Pierce/Cut Holes
Clear Area
Cut 2-Axis Shape
Prepare Geometry for Cutting
3D Machining (3-Axis)
Along Intersection
Constant Cusp
Drive Curves
Flat Area Offset
Helical Z
Horizontal Z Contours
Machine Along Spline/Polyline
Machine Surface with Tool Side
Parallel
Parameter Lines
Projected Contours
Radial

Rest Machining
Spiral
Z Contour Roughing
Z Enhanced Undercuts
Cut Surfaces/Solids with Disk (Router access via Customise Ribbon)
Cut with Disk (Router access via Customise Ribbon)
2D Geometry
Arc, Circle
Bolt Hole Circle, Equi Spaced Holes Along Curve
Construction Geometry
Enclosing Geometry
Enclosing Rectangle
Fast Geometry
Involute Gear
Line, Rectangle
Minimal 3D Bounding Box
Ortho
Parametric Sketcher
Polygon, Ellipse, Slot
Snap/Auto Snap
Text
3D Geometry
3D Polyline
Create Spline
Edit 3D Polyline
Edit 3D Spline
STL Utilities
Chop STL into Sections
Convert STL Facets to 3D Polylines
Create Enclosing Rectangle
Delete STL Facets
Extract 3D Edges
Project Edges to Plane
Reverse Face Colours
Simplify STL
Edit Geometry
2D Transform
Array
Automatic Order
Break
Break at Distance
Chamfer
Copy
Edit Geometry by Node

Edit Text
Edit/List Geometry
Explode
Extend
Extend by Distance
Fillet
Geometry Queries
Join
Mirror
Move
Offset
Order
Repeat
Rotate
Scale
Set Origin
Skew
Start Point
Stretch
Trim
Special Functions & Utilities
Auto Close Contours
Common Line Removal
Convert Raster to Vector
Develop to Flat
Drawing Notes
Input Image
Join Parts with Bridge
Link Adjacent Circles
Points to Lines and Arcs
Simplify Line Segments
Work Planes
Cancel Work Planes
XZ (2D)
Developed Diameter
3D
3D Project (3-Axis)
Digitise
Wrap on to Surfaces/Solids (3-Axis)
Display Options
Draw Faces in Layer Colour
Draw Geometry Nodes
Draw Geometry Rapids
Draw Managed Rapids in White

Draw Material and Fixtures as Solid
Draw Operation Rapids in White
Draw Solid as Wireframe
Draw Solid Edges Black
Draw Surfaces in Layer Colour
Draw Tool-Holder
Draw Toolpath Rapids
Draw Toolpath Rapids in White
Ghost Tools
Include Origin in Zoom All
Material Cut
Material Cut Through
Render Feature Extracted Geometries
Render Geometries with Z Level
Show Breaks
Show Modified Feed Rates
Show Open Geometry
Show Toolpath Arrows
Show Tools
Show Undercuts
Use Operation Colours
User Defined Code

xSimultaneous (Includes xPositional)

General Machining Utilities
4/5 Toolpath Optimiser
Automatic Support Tags on 5-Axis Toolpaths
Edit 5-Axis Tool Path
Edit Tool Angle
Machine Configuration 4/5-Axis
Smooth 5-Axis Tool Path
Tool Axis Conversion
3D Machining (4/5-Axis)
Cut Between 2 Geometries
Cylindrical Parallel
Cylindrical Profiling
Drive Curves
Flat Area Offset
Machine Along Spline/Polyline
Machine Surface with Tool Side
Parallel
Parallel Shallow Slopes
Parallel Steep Slopes

Parameter Lines
Projected Contours
Radial
Spiral
C-Axis Machining (Simultaneous Rotations)
Cut Surfaces/Solids with Disk (Guide Curves) (Router access via Customise Ribbon)
Cut with Disk (Normal to Profile) (Router access via Customise Ribbon)
Cut 4-Axis Shapes
3D
3D Project (4/5-Axis)
Wrap on To Surfaces/Solids (4/5-Axis)
Wrap Around Geometries (Toolpaths)
Display Options
Show Tool Angles

xPositional
General Machining Utilities
Automatic Rapids Manager
Define Aggregate
Define Multidrill Unit (3D Definition for Simulation)
Machine Configuration 4/5-Axis
Managed Rapid
Rotate Part on Machine
Balanced Roughing/Finishing
Define Turrets
Insert Sync Point
Machine Configuration (Back Spindle)
Set/Rotate Work Area for Y-Axis
2D Machining (3+2-Axis)
Chamfering
Cut Path
Drill/Tap Holes
Facing
Machine Holes
Manual Toolpath
Pocketing
Sawing (Internal Arcs & Include Arcs)
Set Element Saw Angle
3D Engraving
C-Axis Machining (On Work Planes)
Polishing
Water Jet - Clear Area
Water Jet - Cut Path

Water Jet - Pierce/Cut Holes
Open Pocket Using Boundary
Thread Milling
Trochoidal Rough/Finish
Clear Area
Cut Path
Pierce/Cut Holes
Clear Area
Cut 2-Axis Shape
Prepare Geometry for Cutting
3D Machining (3+2-Axis)
Along Intersection
Constant Cusp
Drive Curves
Flat Area Offset
Helical Z
Horizontal Z Contours
Machine Along Spline/Polyline
Machine Surface with Tool Side
Parallel
Parameter Lines
Projected Contours
Radial
Rest Machining
Spiral
Z Contour Roughing
Z Enhanced Undercuts
C-Axis Machining (On Work Planes)
Cut Surfaces/Solids with Disk (Router access via Customise Ribbon)
Cut with Disk (Router access via Customise Ribbon)
Conic Cuts
Edit Geometry
Auto/2D/3D Geometry Editing Modes
Special Functions
Fold/Unfold
Surfaces
3D Surface Creation
3D Surface Editing
Work Planes
2 Lines for X and Y Axes
As Current Plane, Different Origin
Best Fit Plane Through Points
By Line Element Vector
By Name

Cancel Work Plane
Create 3D Work Plane
Delete Empty Layers
Edit Work Plane
Existing Geometry
From Solid Model Face
Make Local Axis Horizontal
Normal to View
Order Work Planes
Parallel to Current Plane
Perpendicular to Current Plane
Reverse Current Plane
Set Work Plane Origin
Slice through Work Volume
Work Plane Properties
2-Axis Turning Sub-Spindle
3D
3D Part Rotation
3D Project (Planes)
Wrap Around Geometry
Specify Panel
Set Sub-Spindle Shift
Views
Normal to Work Plane
Work Plane

xSolids
General Machining Utilities
Define Solid Aggregate
Define Solid Holder
Define Solid Tooling
Define Solid Multidrill Unit (Solid Definition for Simulation)
Define Solid Turrets
2D Machining (2.5-Axis and 3+2-Axis)
Chamfering Solid Face Selection
Cut Path Solid Face Selection
Drill/Machine Holes Solid Face Selection
3D Machining (3-Axis and 4/5-Axis)
3D Solid Body/Face Machining
Geometry Extraction
3D Edge Extraction
Automatic Feature Extraction
Contour Around Picked Faces

Contour From Picked Edges
Contour Through the Current Work Plane
Drillable Hole Extraction
Edge for Sawing
Edges from Face Outlines
Extract Solid Body Outlines
Hole Chamfer Extraction
Profiles from extended Edges
Projected Face Outlines to Plane
Spun Outline Extraction
Surfaces from Faces
Z-Level Section
Edit Geometry
Solid Body Queries
Solid Face Queries
3D
3D Project to Solid
3D Wrap on to Solid
Set Solid Material
Wrap Around Geometry (Toolpath Selection)
CAD File Import/Export
Export Solid CAD Files
Input Solid CAD Files
Save Solid Bodies to Files

xNesting

Aperture Nesting
Area Estimate from Part or Sheet
Best Sheet Utilisation
Bridged Nesting
Create/Edit Nest Lists
Definable sheets with No-Nest Zones
Display Nesting Information
Kit Nesting
Manual Nesting
Nest from Parts Files
Nesting from Nest Lists
Nesting from Screen
Nesting of Geometries
Nesting of Tool Paths
Nesting Zones
Onion Skinning
Part Priorities

Quick Nest Geometries
Roll Split Nesting
Save Off-Cut to Sheet Database
Sheet Database
Suppress Drawing of Duplicate Sheets
Use Part Name Identifiers on Sheet
<i>xNesting is not available in Lathe Industry Mode</i>

xAutomation (Not available in Wire or Lathe)
2D CAD Processing
3D Solids Processing (Solids Multiplier required)
Cabinet Door Manufacturing (CDM) - Router
Cabinet Vision Materials Database Link
Collision Checking
CSV/Text file Import
Custom Add-In Extensions
Custom Output File Naming
Custom Output Folder Naming
Feature Extraction (Solids Multiplier required)
Fittings
Folder Watcher
Geometry Queries
Materials Database
Multidrill
Multiple Machine Output
NC Output Configuration
NC Output
Nesting (Nesting required)
Offcut Waste Management
Ordering by Layers
Ordering by Styles
Ordering by Tool
Parametric Part Processing
Reports
Run Custom Macro
Solid Assemblies Processing (Solids Multiplier required)
SQL Database Configuration
Subcomponents
<i>xAutomation is not available in Lathe or Wire Industry Modes</i>

xConstraints
Angle
Auto Constrain
Coincident
Concentric
Constrain Work Plane
Constrain Z Levels
Delete All Constraints
Delete All Variables
Distance
Drag
Edit Variables
Equal Distance
Equal Length
Fix
Horizontal
Import Variables
Insert Constrained Drawing
Length
Midpoint
New Equation
New Parameter
Parallel
Parametric Rules
Perpendicular
Radius
Re-order Parameters/Equations
Tangent
Vertical
View Constraints

xFixtures
Automatically Set Initial Positions
Clamp Inserter
Define Clamps/Fixtures
Edit Clamps/Fixtures
Move Clamps/Fixtures
Move Material
Pop Up/Down Clamps
Record Current Positions
Set Initial Positions
<i>xFixtures is not available in Lathe or Profiling, Wire Industry Modes</i>

xAPI

Create New VBA Project
Integrated VBA Editor
Open VBA Post for Editing
Open VBA Project for Editing
Open VBA Project for Running

xRobotics

Send to RoboDK
<i>xRobotics is not available in Lathe or Wire Industry Mode</i>

Other Add-ons

Advanced 5 Axis (Requires the Simultaneous 4&5 Axis Add-on)
Aspire for ALPHACAM
Casebuilder by CABINET VISION
Label by CABINET VISION (Requires xNesting)
Leica iCON Worktop Templating Interface for ALPHACAM