





### **Table of contents**

#### **Software Installation**

 3 "Migration Tool" also adopts settings from the previous version for the milling module

#### **CAD Data Import**

- 3 CAD interfaces Update
- 3 INVENTOR Interface can be used without installing the INVENTOR Viewer

#### Wire EDM

- 4 Additional Clearance for Tag
- 4 Extend toolpath bases on "open" profile figures
- 4 Improved dialog for importing technology databases
- 4 Overwriting NC files
- 4 Postprocessor AC CUT UNIQUA Dynamic
- Postprocessor MAKINO G02/ G03 output for Ruled Surface machining
- 4 Postprocessor Sodick Extended block numbering
- 5 All Start hole Postprocessors Complete revision
- 5 New Postprocessor "SARIX"
- **5** Toolpath Simulation

#### Milling

 Operations Manager – Deactivation of operations simplified

#### 2,5D Milling dialogues

6 Dialog "Profile Milling" – Extend "open" toolpaths

#### "Select Expert" interactive Feature Recognition

 6 Canned cycles – "Select Expert" transfers geometry parameters

#### MILL-Expert: Automatic Feature Recognition

6 Unify interrupted slots

#### **3D Milling**

- Stock Models Creation of Stock Models simplified and accelerated
- 7 Smoother Line-Arc-Line Peg Loops
- 7 Reduce Number of Ramps
- 7 Avoid Small Profile Ramps
- Independent Filter for Closed and Open Contours
- 8 Corner Peg Height Control for Ball and Bull Mills
- 8 Smoothing Control for Offset Rough
- 8 Improved Stock Aware Linking
- 8 Improved Peg Loops
- 8 Start Point Control
- 8 Zig-Zag Threshold
- 9 Advanced Filtering
- 9 Ordering Enhancement
- 9 Optimal XY Angle
- 9 Spiral Machining for Undercuts
- 9 Overlap Steep and Shallow Regions for Combined Cycles
- **10** Flatlands Ignore Gaps
- 10 Optimized Link Height
- 10 Optimized Ramp Height
- 10 Corner Detection Threshold

#### 5 Axis Simultaneous Milling

- **11** Extend Cuts for Stock
- 11 Tilt Tool during Helix
- **11** 4-Axis Machining
- **11** 3D Containment Curve Offset
- 11 Start Point
- **11** Sort by Regions/Lanes
- 12 Enhanced tilting strategies
- 12 Select Tool Parts for Avoid by Relink or Retract
- 12 Fixed contact point supports climb/conventional
- **12** Allow asymmetric edge shape

- **12** Improved order of cuts
- 12 Containment Cuts Order
- 13 Shoulder Milling
- 13 Additional Cuts on Floors
- 13 Radial Cuts
- **13** Stepover Optimization for Wall Finishing
- 13 User Defined Radial Slices
- 13 Machine by Groups
- 14 Strict Preference for Automatic Tilting
- 14 Restrict Links to Clearance Area

#### **Milling: Toolpath Simulation**

14 Cutting Quality and Speed Improvements

#### CUT-Expert - 3D Laser- & Waterjet Cutting

- **15** Graphical setup sheet available
- 15 Machining time calculation
- **15** Cutting and engraving "Wire Body" geometries

#### Turning

- 15 Collision control improved
- **15** Tool path display with tool graphics
- **15** "Tool Magazine" dialog shows tool graphic

#### CAMMAN 8.0

16 Program Management



### **Software Installation**

# "Migration Tool" also adopts settings from the previous version for the milling module

The **PEPS** installation has been expanded. Existing PEPS installations, system settings, user menus, used postprocessors and databases are also automatically recognized and adopted for the milling module.

### **CAD Data Import**

#### **CAD** interfaces Update

#### The following CAD interfaces have been updated:

- INVENTOR Version 2024
- Siemens NX Continuous Release 2306
- SOLIDWORKS 2024
- Solid Edge 2024

# INVENTOR Interface can be used without installing the INVENTOR Viewer

As of V2024, the **INVENTOR** interface can also be used without installing the **INVENTOR Viewer**. It is still possible to use the interface with the **INVENTOR Viewer** installed.

Import Parameters Inventor	×
Parasolid IGES 3D SAT STL STEP	☐ Load hidden objects
PTC Creo Parametric (ProE) Catia Version 4 Catia Version 5 Catia Version 6	☐ Healing
Siemen's VX (Unigraphics) VDA-FS SOLTDWORKS Inventor Solid Edge OpenDW/G DVF	
IGES 2D HP-MI Vero (VISI) HICAD Rhino	Enhanced Precision     Load Supported PMI Data     Use Inventor Viewer



### Wire EDM

#### **Additional Clearance for Tag**

The **"Profile > Tagging"** dialog has been expanded. As of V2024, it is possible to specify an **additional offset** (positive/negative) for the **tag.** 

Cutting Setup	×
Cut Control Tagging Lead Offs	et DataBase
End Stop Point (Tag)	Mode
Use Distance     Use Position	Tag Removal ONLY
C None	🕅 Extra Tags
2 >>	Use Single Cut for Tag
0.3 Lead OFF Distance	
Ignore on Last Cut	
0.05 Additional Clearance	

#### Extend toolpath bases on "open" profile figures

The **"Profile > Lead "** dialog has been expanded. It is now possible to extend the toolpath of "open figures". This function eliminates the need to geometrically extend the machining figure to extend a toolpath.

Cutting Setup		×
Cut Control   Tagging Lead Offse	t DataBase	
Lead On C Line Arc ON with Corner Mode		
C Are ON ISO	Radius	0.3
Ont Rotate C Angle	C Distance	
Start Technology	Distance	0.0
Start Technology		
Extension (only open Profiles)		2
Lead Off		
End Technology	Distance	0.0
End Technology		
Extension (only open Pofiles)		2

#### Improved dialog for importing technology databases

The dialog for **Importing technology databases** has been revised and significantly simplified.

fool Database Settings					
🗸 🗙 🏅					
Database management	Technology import	Active database table selection	Database options	Kno conversion options	L
Active database table –		Show all postproce	ssor tables	Refresh table list	
Select database techno	logy table:				
mitsubishi_mdb_mv1	200_brd_b13w141_a2				-
Select additional techn	ology option:				
Not applicable for this	machine model				v
Select NC header temp	late:				
MV					-
Select/add database wi	ire settings table:				
mdb_mv1200_brd_b13	w141_a2				-
	R	eset wires & interrogate technolo	gy table		
Roughing/Single Wire	e Types:				-
🕀 🍙 Diameter 0.1mi	m (0.004")				
🕀 🧆 Diameter 0.15m	im (0.006")				
🗉 🐟 Diameter 0.2m	n (0.008'')				
🕀 🍙 Diameter 0.25m	ım (0.01")				

#### **Overwriting NC files**

м

It is now possible to display a warning about overwriting NC files. The option is set in the **Module Settings** dialog.

odul Settings		×
Databases Dialog settings Simulation Settings Common Post Settings - News and Updates	Database Table Name Standard Table Show all Tables	•
	-NC-File Generation     Output Date Time in NC-File     Output Machining Itme * Itm file     Save Stathole Poations in VDM     Overwrite NC-File     Show Warnings	•

#### Postprocessor AC CUT UNIQUA Dynamic

The postprocessor for the **AC CUT UNIQUA Dynamic** wire EDM machine from AgieCharmilles has been expanded and optimized. **User technologies** can now be imported. These technologies can be exported on the machine (\*.ueut).

#### **Output individual ISO files**

It is now possible to write the ISO files stored in the \*.JSON file as individual files in the output directory.

#### **ASM Automatic Slug Management**

A first version of the "Automatic Slug Part Management" was built into the AC CUT xx0 Pro UNIQUA Dynamic postprocessor.

#### Postprocessor MAKINO – G02/G03 output for Ruled Surface machining

This function is now available for all **Makino** machine types that support **Ruled Surface** output in **G02/G03** format (circle output).

#### Postprocessor Sodick – Extended block numbering

The setting options for the **block numbering** of the NC output file have been expanded to meet the special requirements of **Sodick** wire EDM machines.

Block Numbering					
Active					
Start Number 33					
Block Increment 2					
Highest Number 9990					
Digits 4					
Supress Leading Zeros					
N0033 X12.345 Y12.345					



#### All Start hole Postprocessors - Complete revision

The user interface and functionality of all **Start hole Postprocessors** have been revised and unified. All starting hole post processors now use a common dialog to find **start hole positions.** It is currently possible to search for **construction circles, construction points, full arcs** and **figures with start points.** 

The new function **Use Points from Postprocessing** allows the start hole positions to be determined directly from the created program for the wire EDM machine. It is also possible to assign a layer. Another option allows semicircles to be recognized. An **optimized sorting** of the start holes is also available.

Search for Startholes		×
Search	- Search	
Options	Search Constructionpoints	
	Search Constructioncircle	
	Search Full-Arcs	
	Search Figures with a Startpoint	
	Use Points from Postprocessing	
	Fiter	
	Layer starhole	
	Delete Point List	
	Delete all Points	
	,	
	OK Cancel Save As Default Help	

#### New Postprocessor "SARIX"

For the 2024 version, a new start hole post processor was developed for **SARIX** start hole EDM machines.

#### **Toolpath Simulation**

#### **Optimized Speed Performance for Wire EDM**

This enhancement refactors and optimizes the cutting algorithm for **wire EDM simulation.** It offers up to 60% performance improvement for operations where the wire changes its orientation across the cut.



### Milling

# Operations Manager – Deactivation of operations simplified

As of V2024, all you need to **deactivate/activate** is to click on the **icon before** an operation. One, several or all operations can be deactivated or activated.



# 2,5D Milling dialogues

#### Dialog "Profile Milling " – Extend "open" toolpaths

The function for **extending "open" toolpaths** has been updated again and improved.

### "Select Expert" interactive Feature Recognition

# Canned cycles – "Select Expert" transfers geometry parameters

The canned cycles for **rectangular pocketing, slot machining** and **thread milling** have been expanded. **"Select Expert"** now also determines the geometry parameters for these cycles and transfers them to the corresponding dialog fields.

### MILL-Expert: Automatic Feature Recognition

#### **Unify interrupted slots**

The **Automatic Feature Recognition** has been supplemented by a function that detects interrupted **slot** geometries and combines them to create **one** slot geometry.





### **3D Milling**

# Stock Models – Creation of Stock Models simplified and accelerated

The procedure to create stock models for rest material machining has been significantly simplified and accelerated. It only takes a few clicks to create and load the stock model. In addition, the stock models generated are approximately 60% smaller than before in terms of data volume.

#### **Smoother Line-Arc-Line Peg Loops**

The **Remove corner pegs** option for the 3D Milling **Roughing strategy** has been improved. It now excludes scenarios where the toolpath in the corners (instead of Line-Arc-Line) turned into a Line. Thus, the toolpath in the corners is now smoother, which eliminates the peak load on the tool during cutting.



#### **Reduce Number of Ramps**

The **Offset strategy** of the **3D Roughing strategy** has been optimized. This improves the machining of small nested toolpath contours by avoiding unnecessary retracts and ramps to reduce overall machining time and prolong tool life.



#### **Avoid Small Profile Ramps**

The **Offset roughing** strategy for 3D Milling machining has been enhanced. The logic for **Profile ramps** creation has been improved. When creating small profile ramps, the template is shifted to the next pass of the tool, which avoids the creation of tiny ramps that are close to the plunge moves. This improves tool cooling and chip removal during the approach, which increases the tool life.



#### **Independent Filter for Closed and Open Contours**

A new feature has been added to the 3D Milling **Offset Roughing** strategy. Now it is possible to specify the type of contour you want to filter:

- Open
- Closed
- Open and Closed

The **Contour length** is a threshold value that specifies the length of contours to filter out. It is defined as a percentage of the flat tool diameter. All contours equal to or smaller than the Contour length are filtered out.

For **Inscribed circle, Diagonal length** and **Circumscribed** circle the threshold is related respectively to the circle diameter and the bounding box diagonal length.

This new functionality gives users more control and flexibility.





Open

Closed



#### **Corner Peg Height Control for Ball and Bull Mills**

A new feature has been added to the 3D Milling **Offset Roughing** strategy. It enables users to control the height of corner pegs and cusps when using ball and bull nose cutters for roughing. It can be used in combination with the **Remove corner pegs** feature and automatically controls the step over and corner peg loop length.



#### **Smoothing Control for Offset Rough**

**Offset Rouging** toolpaths for complex and detailed features are smoothed out while preserving the original last contour. This reduces unnecessary jerking motions caused by changes in acceleration and deceleration during the machining process and ensures constant, high-speed roughing.



#### **Improved Stock Aware Linking**

The **stock awareness for linking** has been improved. In addition to checking against the part, in-process-stock is now also checked during linking motions. This minimizes the number of link and ramp motions while guaranteeing a collision-free toolpath.



Vorher

Nachher

#### **Improved Peg Loops**

The **corner peg loop** strategy has been improved and now merges the peg loop segments into offset contours to avoid changes in the machining direction. This improves machining performance and increases tool life.



#### **Start Point Control**

A new feature has been added to the 3D Milling **Adaptive Roughing** strategy. It lets users define the **start position** of the roughing toolpath. The actual start position is located on the closest cut to the user-defined point.



#### **Zig-Zag Threshold**

A new feature has been added to the 3D Milling **Adaptive Roughing** strategy. The new **Zig-Zag Threshold** ensures that corner regions smaller than the given threshold are connected via the one-way trochoidal method, while **zig-zag** linking is maintained for longer toolpath contours.

This improves the machining conditions while keeping the toolpath length short.





#### **Advanced Filtering**

A new **Inscribed circle** option has been added to the **Filtering** options for **3D finishing** strategies. This provides additional user-control for filtering unnecessary toolpath segments.



### **Ordering Enhancement**

The **Parallel Cuts** ordering for 3D Milling machining has been improved. The requested zig-zag cutting method is now applied for cuts that were split by the specified Fixture surfaces. This results in fewer retract links to reduce overall machining time.



#### **Optimal XY Angle**

An option to optimize the XY angle has been added to the **Parallel Cuts** strategy. It adjusts the angle for separate regions independently to optimize material removal and surface quality. This is achieved by aligning the parallel passes with the longest length of the relevant area.



#### **Spiral Machining for Undercuts**

**Constant Z** undercut machining strategy now offers an additional spiral ordering option for generating a **spiral toolpath** for **undercut machining**. This new option ensures a continuous, seamless machine motion, reduces machining time and improves surface quality.



# Overlap Steep and Shallow Regions for Combined Cycles

A new feature has been added to the 3D Milling **Combined Cycles.** This new option allows overlapped toolpaths along the boundaries of steep/shallow areas.

An Overlap threshold can be specified by using one of two available options:

- 1. By Angle: Enter an angular range of overlapped toolpaths.
- 2. By Value: Enter the length of the overlapped toolpath portions.

For both options, the median of the overlap region corresponds to the Angle limit of the Shallow regions. The Overlap functionality improves the finishing surface quality by providing a smooth transition between steep and shallow regions.





#### **Flatlands Ignore Gaps**

New functionality has been added to the 3D Milling Flatlands strategy. The new feature reduces retract and link motions to provide a continuous toolpath without lifts. Gaps smaller than a given value are ignored, resulting in shorter, smoother toolpaths and faster machining.



Before

After

#### **Optimized Link Height**

The improved in-process-stock awareness optimizes link heights and keeps them to a minimum. This reduces linking motions by up to 30% and therefore reduces machining time while maintaining machining safety.



Before

After

#### **Optimized Ramp Height**

The improved in-process-stock awareness optimizes ramp heights and ensures the ramps start exactly at the height of the in-process-stock. This reduces air cutting and machining time while ensuring optimized entry.



#### **Corner Detection Threshold**

The Pencil milling strategy has a new corner detection threshold to define the maximum adjacent angle between adjoining faces for a Pencil toolpath calculation. The toolpath is not calculated for corners with angles larger than this threshold. By adjusting the threshold, the user can optimize the toolpath and avoid unnecessary or undesired machining.





Without threshold

With threshold



### **5 Axis Simultaneous Milling**

#### **Extend Cuts for Stock**

This is a new feature for the **Ceiling Offset.** The new option allows the user to extend the generated toolpath slices by offsetting them from the ceiling to the top of the stock. This is useful, for example, when the top of the stock is higher than the ceiling surface. In previous versions, the option was available for the **Morph between Ceiling and Floor** strategy only.





#### **Tilt Tool during Helix**

A new feature has been added to the Multi Axis Roughing **Adaptive** strategy. The new option allows the user to orientate the tool vector normal to the slice at every point on the helical ramp move. This reduces tool overloading in the adaptive strategy.



#### **4-Axis Machining**

This new feature limits axis motions to **three linear axes** and **one rotary axis.** There is also an option to set the third linear axis normal to the center of rotation, enabling you to apply rotary machining on machines that are not equipped with a third linear axis. With its flexible machining options, the new 4-axis feature brings an enhanced range of machining possibilities to the roughing process.



#### **3D Containment Curve Offset**

A new feature has been added to **Multi-Axis Roughing.** It lets you define an additional offset to extend the machining area beyond the **3D containment curve.** This feature can be used only with the **Tool Center** option and **3-axis** machining.



Function **Off** 

Function On

#### **Start Point**

This is a new feature for **Multi Axis Finishing.** This feature adds a user-defined start point for the finishing strategies. It can be used for all closed guide curves. When the drive curve is open, the start point is identical with one of the curve's end points. This feature can be used on single surfaces only. The start point gives users more control and flexibility.



#### Sort by Regions/Lanes

A new feature has been added to **Multi Axis Machining Finishing.** This new feature, which is currently restricted to a single pocket only, allows the user to choose a sorting method for the finishing cycles. Two methods are available: sorting **by lanes** or **by regions.** These new sorting methods increase machining efficiency and reduce linking movements.

The topology of the generated toolpath usually consists of multiple contours organized in **lanes** or **regions** on the drive surface. When the toolpath is generated on a surface with multiple areas, it might be preferable to machine all the regions independently.



When the cuts are sorted by **lanes**, the different drive faces are considered part of one overall region and the system machines them in one continuous process. When the cuts are sorted **by regions**, each region is machined successively.





Machining by lanes

Machining by lanes

#### **Enhanced tilting strategies**

Existing tilting strategies are now powered by a new calculation kernel that ensures more consistent results even in difficult scenarios.



#### Select Tool Parts for Avoid by Relink or Retract

This is a new feature for **SWARF** machining. The feature allows the user to decide which parts of the tools should be checked when using the **Avoid by relinking** or **Avoid by retracting** strategies.



#### Fixed contact point supports climb/conventional

A new feature has been added for **Deburring.** The new feature enables you to use the Climb/Conventional direction with a fixed contact point for 5-axis deburring. For Climb, the tool moves in the same direction as the spindle rotation. For Conventional, the tool moves in the opposite direction to the spindle rotation.

#### Allow asymmetric edge shape

A new feature has been added for **Deburring.** With this new feature, you can use spherical mills for asymmetric deburring, which enables more areas to be machined. Currently it supports 3, 4 and 4+1 axis machining. With this feature, more areas are deburred and the toolpaths are less fragmented.

#### **Improved order of cuts**

The order of contours for climb/conventional machining with a shaft mill has been improved to reduce linking motions and machining time.



#### **Containment Cuts Order**

A new feature has been added to **Geodesic Machining > Containment Cuts Order.** This new option lets the user decide whether to perform the containment cuts before or after the main toolpath. This gives the user more control and flexibility.





#### Shoulder Milling

This feature has been added to the Turn Milling. The Shoulder milling option allows the finishing of corners generated by the Tool Axis Offset. It works by adding extra pass(es) without Tool Axis Offset or by gradually moving towards the center if the Number of Cuts is used.

#### **Important:**

Shoulder milling cannot be applied to tools with a corner radius because they will always leave a corner that cannot be finished by the same tool.



Shoulder milling Off

#### **Additional Cuts on Floors**

This feature has been added to Turn Milling. The Additional cuts on floors option automatically detects cuts on floor areas that do not match the depth step and adds extra cuts to leave less or no material behind on cylindrical faces.

#### **Benefits:**

This feature significantly reduces the number of operations because no additional operations are needed for missed diameters.

#### **Radial Cuts**

This new option adds a completely new cutting approach to Turn Milling. The 'standard' turn milling cuts are spirals that are created in the **axial direction** and increment (depth step) in the radial direction.

The radial cuts option does the opposite: the cuts propagate slice-wise in the **radial direction** to the final cutting depth while a sidestep is applied to reach the next slice. This new strategy increases machining efficiency for deeply slotted parts.



#### **Stepover Optimization for Wall Finishing**

A new feature has been added to Rotary Machining. The new option Optimized stepover for walls produces a more consistent maximum stepover when machining curved and slanted surfaces.

The minimum depth step can also be adjusted to reduce the required number of toolpaths and increase machining efficiency. The toolpaths are trimmed to ensure that only areas requiring additional passes are machined.



#### **User Defined Radial Slices**

A new feature has been added to Rotary Machining. The new option User defined Radial slices enhances the radial limits option for rotary machining. Users can now define their own radial limits. The toolpath is generated according to the specified radii only. When this option is selected, no other depth step definitions are available. This new feature gives users more freedom to adapt the toolpath to the specific requirements of the task.



#### **Machine by Groups**

A new feature has been added to Rotary Machining. The new option Machine by Groups enhances the sorting for finishing and rest machining. In addition to the existing options "Machine by Levels" and "Regions" a third option "Machine by Groups" has been added to cover specific rotary machining requirements. It reduces air cutting and linking motions on certain parts. This significantly enhances the efficiency of the sorting process and results in faster machining.



#### **Strict Preference for Automatic Tilting**

A new feature is now available for the **Automatic tilting** gouge check strategy. This feature restricts the degree of freedom for collision avoidance to one. This allows you, for example, to maintain a constant table rotation from the input data and use only the tilt axis to avoid collisions. Previously, the rotation also contributed to collision avoidance which meant the table rotation sometimes showed reversals.



#### **Restrict Links to Clearance Area**

This new feature keeps all linking movements inside the selected clearance areas. If a link is not able to stay within the selected limits, a fallback mechanism – retract to clearance – is used. This ensures the entire toolpath remains within the selected areas and, therefore, does not breach the machine limits.



Exceeding distance Off



Exceeding distance On

### **Milling: Toolpath Simulation**

#### **Cutting Quality and Speed Improvements**

This enhancement refactors and optimizes the cutting algorithm for milling simulations that use parametric revolved tools.



#### **Benefits:**

- Improved stability:

This new version handles rare cases that previously caused false collisions or visual artifacts, resulting in improved overall stability.

- **Optimized performance:** Up to 50 % performance improvement for a wide range of milling scenarios, including operations with active collision-checking.
- Smoother cutting quality:

Tools without precisely defined half-sphere profiles now deliver smoother cutting quality.

Improved cutting accuracy:

Simulations with stocks located far from the origin now benefit from enhanced accuracy, ensuring precise milling operations.







Cutting

Engraving

### **CUT-Expert - 3D Laser- & Waterjet Cutting**

#### Graphical setup sheet available

A **graphical setup sheet** is available with version 2024.

#### **Machining time calculation**

The time calculation for the **CUT-Expert** module has been completely revised in order to calculate **even more precise processing times.** 

#### Cutting and engraving "Wire Body" geometries

This new function allows cutting and engraving on "Wire Body" geometries.

### Turning

#### **Collision control improved**

The collision control of the **Machine Simulation** has been completely revised and significantly improved.



#### Tool path display with tool graphics

The tool path display has been improved and also shows a graphic of the tool used.



#### "Tool Magazine" dialog shows tool graphic

A new option in the "Tool Magazine" dialog allows you to display a graphic of the tool currently selected in the magazine.

Werkzeugbelegung		×	
Maschine StdMultiAx		Schnittwerte Geometrie	
Magazin Unbenannt Magazin laden Mag	Station 1 Korrektur Nr. 1		
Bevolver 1 ■ T 01		Getriebestufe 1 -	
T 02 □ T 03	Ausschneiden Löschen		
T 04 E T 05 W NC Ashabar 14 as	Zeige Werkzeu	g	
E T 06	Alle Werkzeug	aufrufe anpassen	
E T 07	NL32 Z2 HSS PM	<ul> <li>Vorschub mm/Umdr.</li> </ul>	
Bohrer 12 mm axial		<ul> <li>Spindel im Uhrzeigersinn</li> <li>Spindel gegen Uhrzeigersin</li> </ul>	



### CAMMAN 8.0

#### **Program Management**

- CAMMAN 8.0 was specifically developed for the latest version of Windows 11 and PEPS 2024.
- Now fully programmed as a 64-bit version.
- Windows 11 compatible graphical interface with improved list and detail display.
- Database access for large amounts of data has been accelerated.
- SAP<sup>®</sup>/ERP interfaces via
   WEB service and SAP function modules.
- Optimized interfaces to many
   ERP (SAP<sup>®</sup>) systems.
- Improved functions for automatic program updates on the intranet.

] 🗃 ام ا	Optiones     Optiones     CodeMeter     Optiones     Optiones	Cdit View Layout and Tricks p telp	Extras Addins H	CAMMAN 0.0.0.0 - [Dem	o00.mdb - (Provider_Microsoft.ACE.f	NEDB-12.0:Data Source_C\Users\	(Public\Documents\CAM	MANO(DelDemo00.mobil) (
		Name	0	ProgramNumber	DrawingNumber	ProjectNumber	Projec ^	Files - [Example_partial_pocketing] #
10								File Edit View Layout Addins
	Demo_WireEDM_D	Vehstahlmodul	Demo_WireEDM		750_954_45	Demo_000_99	WireEDM	
	DrehSchwenk		DrehSchwenk		000-98231-665	000-665477-3324	WireEDM	B AAG
	Example_2D_Rega	Maeche	Example_2D_Regelface	:h	000_479_258	Demo_000_887	WireEDM	B- Documents
	Example_2D_Tasc	henerodieren	Example_20_Taschene	odiere	000_919_487	Demo_000_431	WireEDM	B PEPS_2023
	Example_gruppiert	e_Bearbeitung	Example_gruppierte_Be	erbeitun	000_102_777	Demo_000_557	WireEDM	R alle
	Example_Hohlacte	đ	Example_Hohlachsf		000_102_765	Demo_000_557	WireEDM	Rebo
	Example_mit_Bild		Example_mit_Bild		000_611_111	Demo_000_854	WireEDM	E tarara.CAMTEK
ŵ	Example_partial_p	ocketing	Example_partial_pocket	ng .	000_465_364	Demo_000_854	WireEDM	ADDUSTS
	Example_Rotations	achse_1	Example_Rotationsachs	1	000_554_456	Demo_000_628	WireEDM v	Temp
â	Name ProgramNumber DrawingNumber ProjochNumber ProjochNumber ProjochNumber PanNumber Adrosolod Machine Maarial Author Programmer DNO-Dale DrawingDate Vension	Dample_partial_poderin Fample_partial_processing Source_partial_processing Source_partial_p	9 9 10 24, 71384 Wiensboff   05x05x7022 11 56 4   12742022 09 113   Released   .	DataComment			fie	Conce Lond

#### Note:

CAMMAN 8.0 was developed specifically for PEPS 2024. Older CAMMAN versions are not compatible with PEPS 2024.