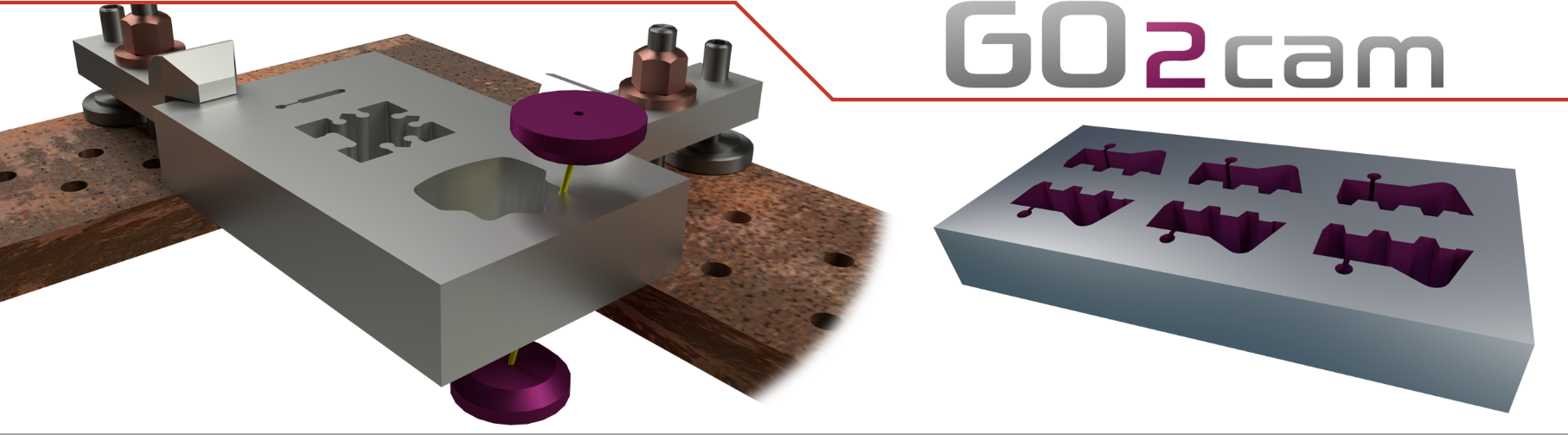
W04

GO2cam V6.10

Tutorial

W04 – 4 Axis



# Design:

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| Start a new drawing:  * Left click on **File**, then choose **New** * Save current file |  |
| Sketch:  * Left click on **Wireframe** * Left click on **Creation** |  |
| Creation of bottom profile, Spade: The reference plane is active by default. We will create the first shape in it.     * Use the drawing command to create the shape of Spade. * Kindly refer to the 4-Axis Layout Document provided. |  |

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| Limitation of lines:  * Left click on * Click the item you want to delete, and GO2cam will highlight the item you want to keep * You have another option, hold down the Shift key and click at the item you want to keep * Left click on **Framing**  to have all geometry on the frame screen |  |
| Creation of taper:  * In the menu **Wireframe** select **Drawing Finish** * Left click on **Fillet** * Type 0.5 of Fillet * Left click on the 2 intersections |  |

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| Creation of threading points :  * In **Wireframe,** Choose **Creation** * Left click on **Point** * Type **0** in **X**, * Type -23 in **X**, * Click on xyz validate * Enter menu Threading * Left click on the command **Manual Threadings** and choose « Manual threading » * Settings of threading points : * Value of Slug = 2 * Value of Retract = 0.5 * Left click on the created point   **Note: For 4 axis, threading points must be created manually**. |  |
| Divide geometry:  * Return to **Drawing Finish** * Left click on **Divide** * Left click on Elements to be divided * Left click on Element, point or axis that the segment must be divided. * Right-Click and Validate. |  |
| Creation of top profile, clover:  * Left click on **list of views**, then select the **TOP REFERENCE EDM**      * Create a clover shape using the drawing command. * Kindly refer to the 4-Axis Layout Document provided. |  |
| Finishing:  * Use command **Drawing** to obtain the final shape of clover. * Create 1 mm **Fillet** * **Divide**  the geometry relative to threading point. |  |
| Change altitude:  * Right click on **list of views**, select **Edit current plane** * Enter the profile Z value in Z 30 * Left click on **Ok** to validate |  |

# Single-pass 4-axis machining:

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| Application of machining :Start:  * In the menu   Automatically create stock based on your geometry.  **Note: This is a default definition of parallelepiped stock, with a constant overflow of 5 mm around the geometry**   * Left click on  to make the height of stock equal to the height of two geometric shapes   Validate. |  |
| Machining :  * Left click on the menu * Left click on **selection of profile** * First select the clover at the top (top profile) * Left click on , then on  and validate * Select the spade at the bottom for the second profile (bottom profile) * Left click on , then on  to validate * Choose mode Punch * Check whether the Top Z and Bottom Z are correct      * Left click on **Threading Point** , then click on the point |  |
| Selection of Tool:  * Left click on * In the tool list, choose the tool **Cobra Cut 0.25** |  |
| Selection of cycle :  * Left click on * Select cycle **4 axes Cnt/Cnt** |  |
| Calculation of cycle:  * Left click on **Cycle Calculation**   We can see that the wire is delayed on the bottom profile, so we will place a marker to synchronize the wire's passing on the top and bottom profile. |  |
| Synchro Points:Start:  * In the menu **design** * Left click on |  |
| Add Synchro Points:  * Use command **Synchro points** * Left click on Top profile, then bottom profile * Check whether the mark is in punch mode * Click  to allow automatic linking of all existing points * The command **adding synchros**  is activated, just click one end of the top profile and connect it to the end of the bottom profile * If the end does not exist, use command **cut profile**  so that synchro point can be created at the ends * Left click on  to validate |  |
| Update toolpath :  * Return in menu * Left click on **update** , then on **Total**     Toolpath is recalculated based on added synchro points. |  |

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| Simulation and NC output:  1. Simulation :  * Enter in menu * Left click on **Simulation** * Left click on  Or click the space bar to start the simulation in step-by-step mode * Left click on  Or press the Escape key to stop the simulation. |  |
| Generation of NC program :  * Left click on * In the proposed list, Left click on the post-processor »E60\_Charmilles\_Robofil ». * Open and confirm   ISO program is generated.   * Left click on **Open**, then on **Confirm**   The ISO program is generated. |  |