

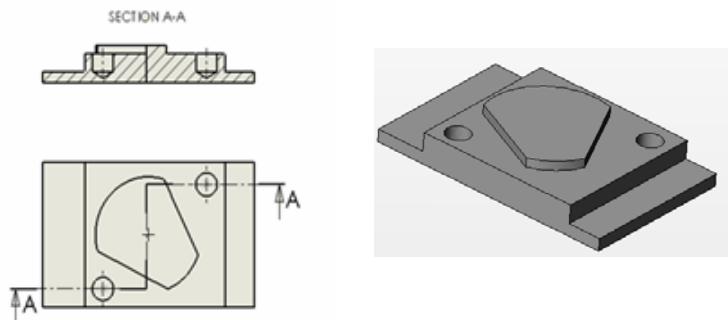


 Leonardo da Vinci  
PARTNERSHIPS

**CNC and Robotics Partnerships, CaRPs**

Partners from Germany, Lithuania, Norway, Slovenia, Sweden

Exercise : **CNC Milling**

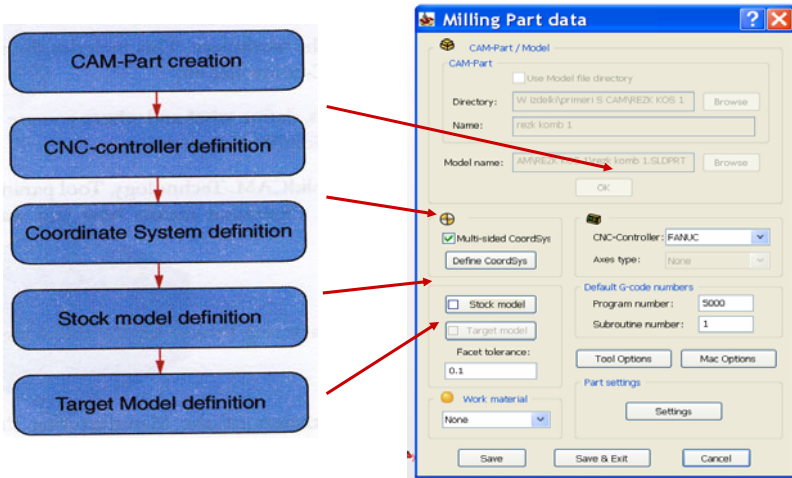


by Andrej Starman  
TSC Kranj

# CAM-Part Definition



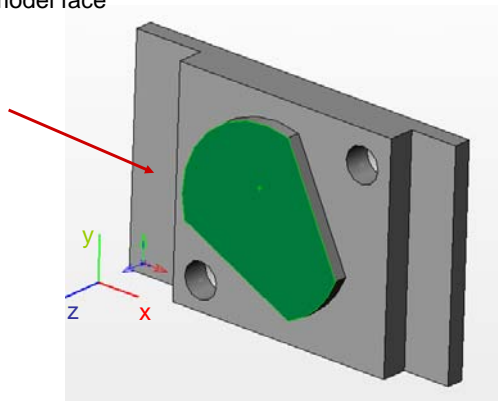
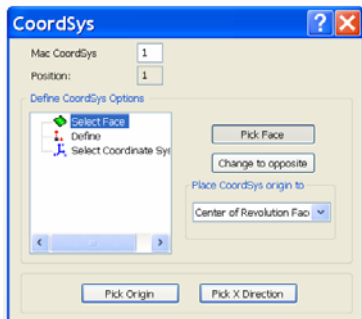
The stages of the definition process:



A S

# Coordinat System Definition

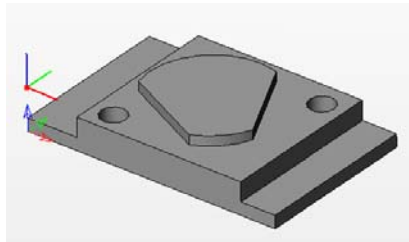
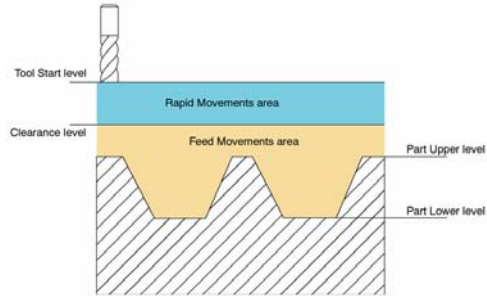
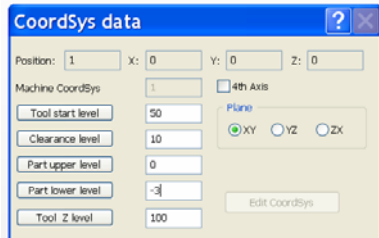
Select the model face



A S

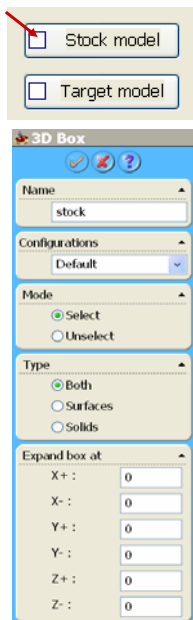
# Coordinat System Data

Machinig Levels definition:

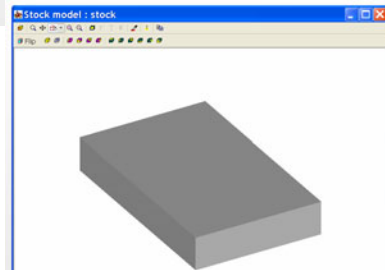
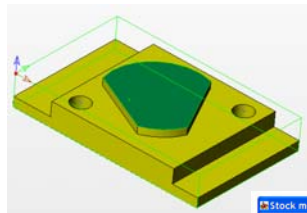


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# Define the Stock model

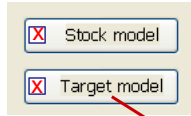


Click on the solid body:

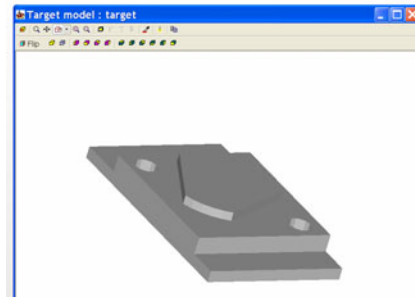
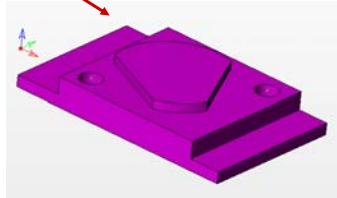


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## Define the Target model

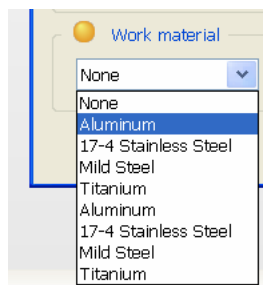
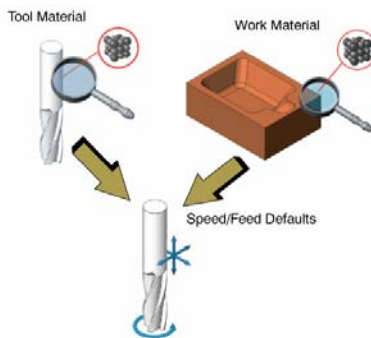


Click on the solid body:

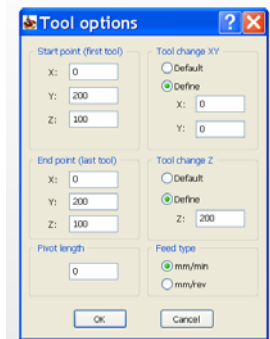


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## Define the Work material



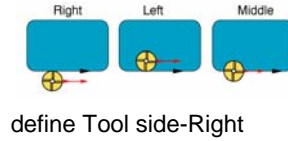
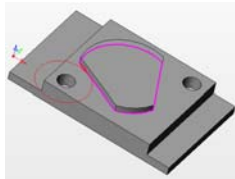
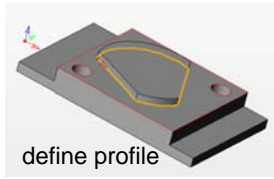
Define the Tool start point ...



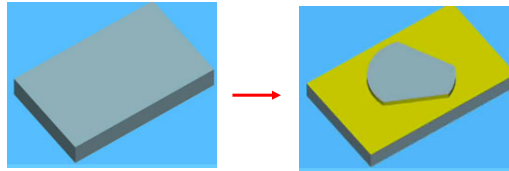
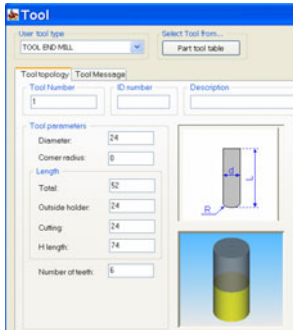
A S

# Define the Milling Operations

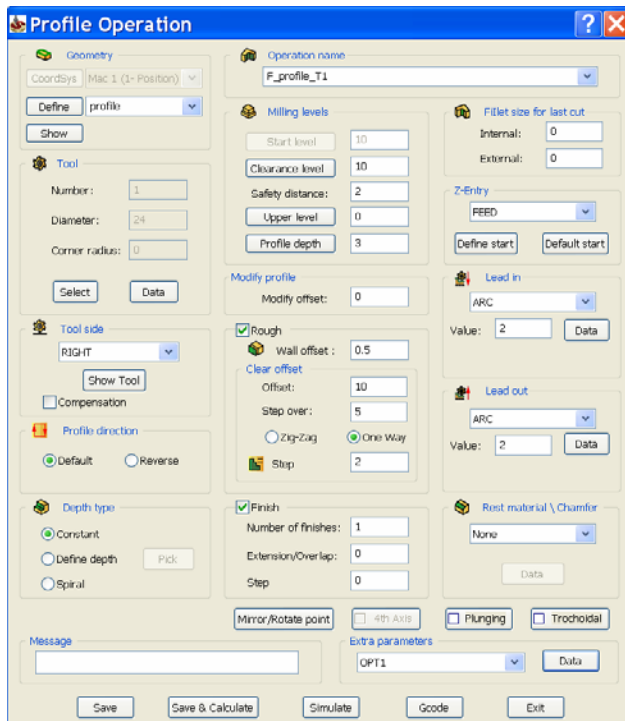
## 1. Operation: profile milling



define the Tool

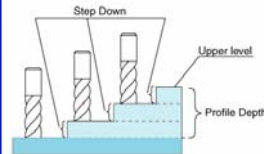


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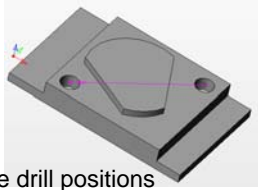
Dialog box

1.Operation:  
profile milling

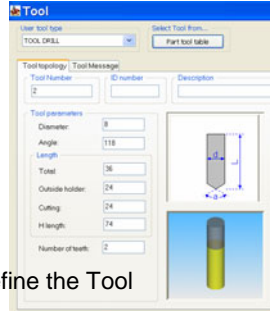


A S

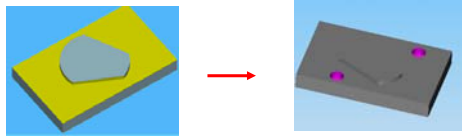
## 2. Operation: drilling



define drill positions

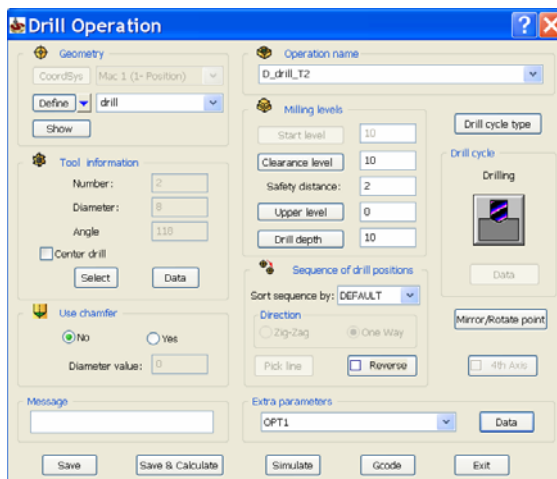


define the Tool



simulation

A S

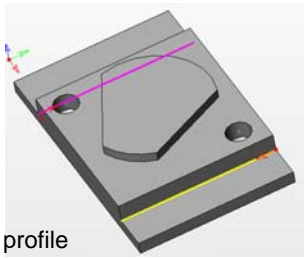


Dialog box

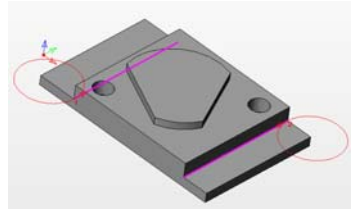
2.Operation:  
drilling

A S

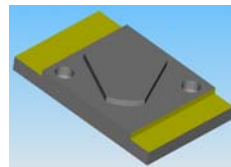
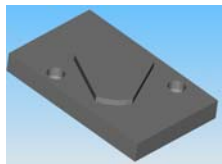
### 3. Operation: profile milling



define profile



define Tool side-Left



simulation

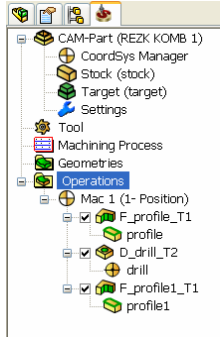
A S



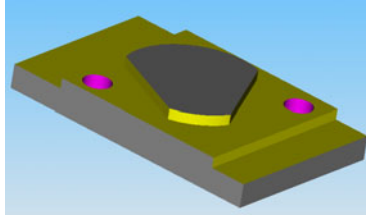
Dialog box

3.Operation:  
profile milling

A S



## Complete simulation



```

%
O5000 (REZKOMB1.TAP)
( MCV-OP ) (15-FEB-2011)
SUBROUTINE: 01 .. 08)
G90 G17
G50 G49 G40
G54
G91 G28 Z0
G90
M01
M1 M6 T1
(TOOL_1- MILL DIA 24.0 R0. MM )
G90 G00 G40 G54
G43 H1 D31 G0 X16.884 Y-5.396 Z50. S1000 M3
M5
(-----)
(F-PROFILE-T1 - PROFILE)
(-----)
X16.884 Y-5.396 Z10.
Z5
G1 Z-2. F33
X15.088 V-4.516 F100
G2 X17.763 V-3.6 F2.
G1 X37.686 V-13.251
G3 X55.458 V-14.052 R22.
X79.423 V10.314 R42.
X78.498 V27.843 R22.
G1 X65.657 V53.843
G3 X52.457 V65.111 R22.
X-0.326 V13.262 R42.
X11.122 V-0.348 R22.
G1 X17.763 V-3.6
X19.962 V-0.891
X39.885 V-8.864
G3 X53.618 V-9.403 R17.
X74.713 V2.239 R37.
X74.015 V25.631 R17.
G1 Y61.174 V51.628
G3 X50.974 Y60.335 R17.

```

G code...

AS