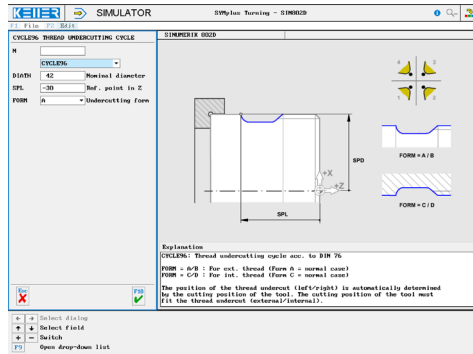
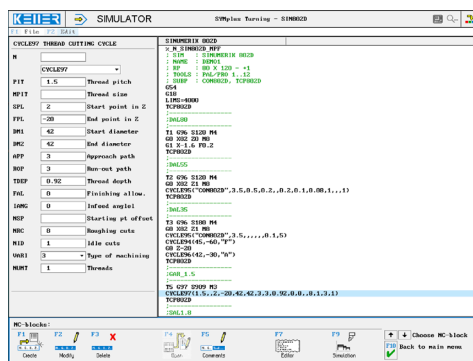


The control related simulator is an additional module for SYMplus. This simulator is used to learn the control system programming. A program generated by a postprocessor can also be edited and simulated.

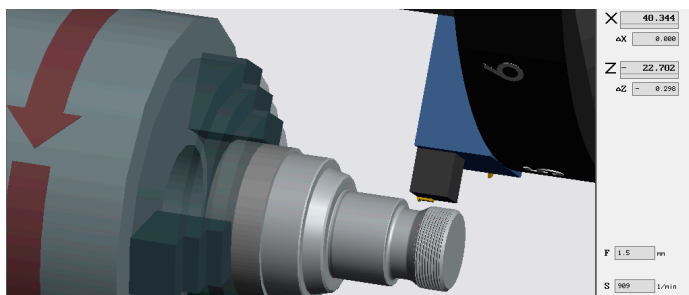
### Help pictures and texts (for all input dialogues)



### NC editor incl. input dialogue and syntax control

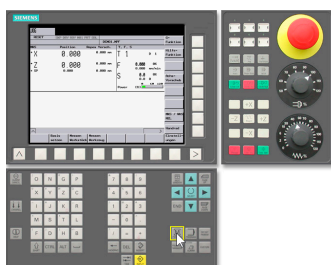


### 3D simulation with freely adjustable perspective, including continuous display of NC blocks



### Keyboard information system:

Getting familiar with the meaning of all keys of the control system by moving the mouse cursor over the keys



## COMMANDS/ FUNCTIONS/CYCLES

G0	Rapid traverse
G1	Line
G2	Arc, clockwise
G3	Arc, counter-clockwise
G4	Dwell time
G17/G18	Plane
G26/LIMS	Speed limitation
G33	Threading
G40/G41/G42	Radius compensation
G53	Positioning in mcs
G54-G57	Zero offset
G60/G64	Exact posit./Smooth.Corners
G75	Approach to fixed point
G90/G91	Exact positioning
G95/G96/G97	Feed/spindle
Comment	Explanations
MSG	Message
UP-CALL	Sub-program call
T	Tool call
SCALE	Scaling
TRANS/ATRANS	Zero offset absolute/incremental
DIAMON/DIAMOE	Diameter
CYCLE81	Drilling/centering
CYCLE82	Drilling/countersinking
CYCLE83	Deep-hole drilling
CYCLE84	Tapping without
CYCLE840	Tapping with
CYCLE85...89	Reaming 1...5
CYCLE93	Recessing cycle
CYCLE94	Undercutting cycle
CYCLE95	Stock removal
CYCLE96	Thread undercutting cycle
CYCLE97	Thread cutting cycle
MCALL	Modale deselection
X/Y/Z/F/S/M	Modale commands



A simulator for the 802D with C axis is also available for an additional charge (with the TRANSMIT/TRACYL functions, with milling cycles and cycles for hole patterns, etc.). Machining with driven tools can also be simulated in 3D.



```

%_N_SIN802D_MPF
; RP      : 80 X 120 - +1
; TOOLS  : PAL/PRO 1..12
; SUBP   : CON802D, TCP802D
G54
G18
LIMS=4000
TCP802D
; DAL80
T1 G96 S120 M4
G0 X82 Z0 M8
G1 X-1.6 F0.2
TCP802D
; DAL55
T2 G96 S120 M4
G0 X82 Z1 M8
CYCLE95(„CON802D“,3.5,0.5,0.2,,0.2,0.1,0.08,1,,1)
TCP802D
; DAL35
T3 G96 S180 M4
G0 X82 Z1 M8
CYCLE95(„CON802D“,3.5,,,,,0.1,5)
CYCLE94(45,-60,“F”)
G0 Z-20
CYCLE96(42,-30,“A”)
TCP802D
; GAR_1.5
T5 G97 S909 M3
CYCLE97(1.5,,2,-20,42,42,3,3,0.92,0,0,,8,1,3,1)
TCP802D
; SAL1.8
T4 G96 S120 M4
CYCLE93(80,-95,5,4,,10,10,-1,-1,0.5,0.5,,2,0.5,15)
TCP802D
; VBO20
T6 G97 S2000 M3
G0 X0 Z2
F0.1
CYCLE82(2,0,2,-60,,0.5)
TCP802D
M2

```

```

%_N_TCP802D_SPF
;SUB : SINUMERIK 802D
G18
G40 G90 M9
T0 D0 G97 S300
G0 X250 Z200
M2

```

