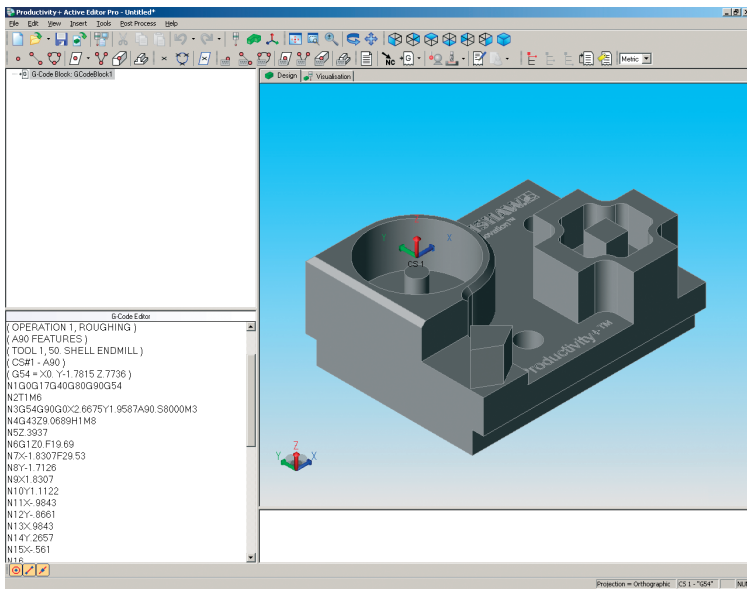


Including tool setting in your program

This module demonstrates how to add a tool setting function or broken tool detection into a program. Such probing routines can be added either at the beginning of the program or inserted between machining operations.

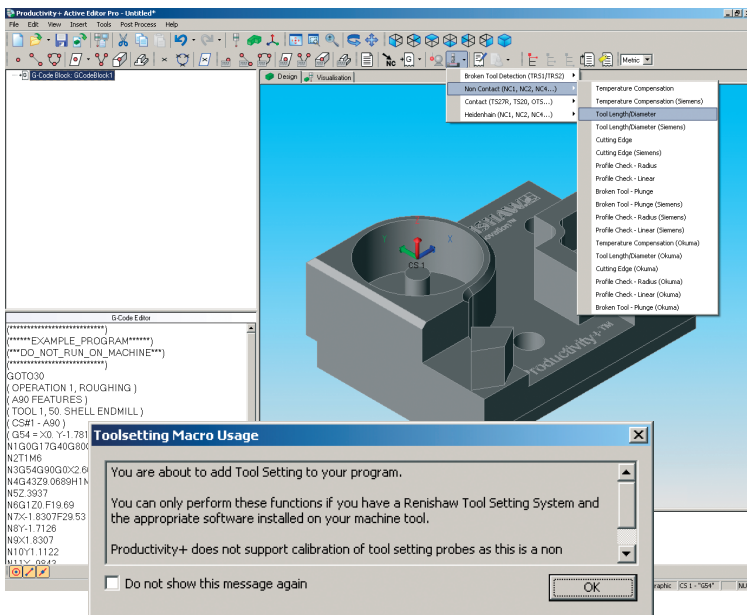
Having completed this module you will be able to:

- Create a tool setting routine in your program
- Create a broken tool detection routine in your program



Tool Setting

Ensure that you have loaded your cutting program and imported the associated solid model into the Productivity+™ Active Editor Pro session.

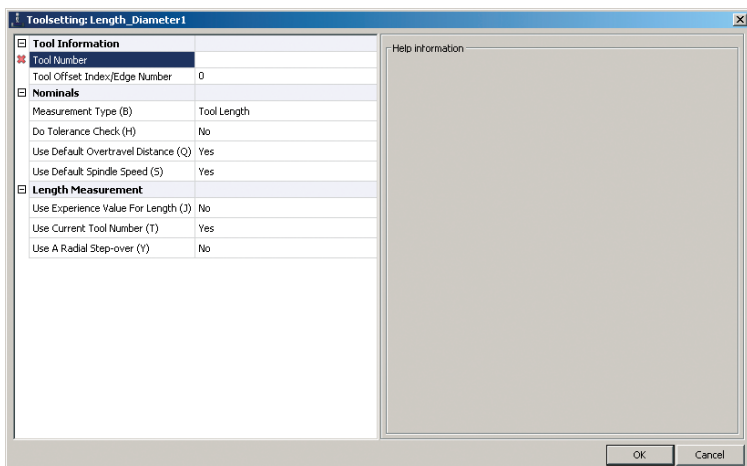


Select the Tool Setting icon and the tool setting device you have installed on your machine tool to open the dialog box.

This example uses a non-contact system however the process for a contact method, such as the TS27R is very similar.

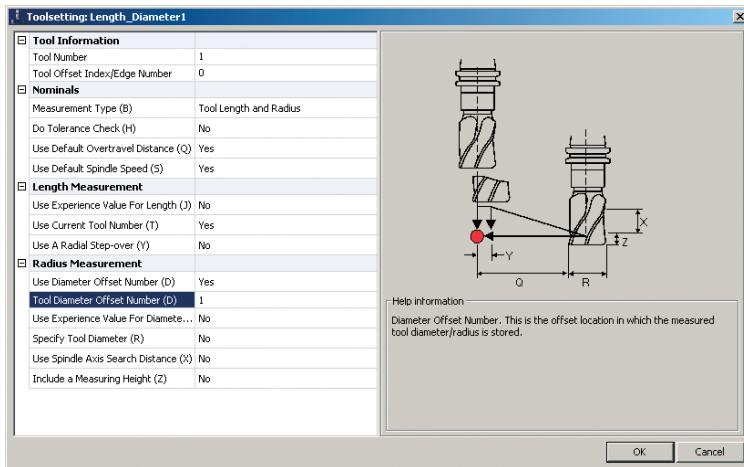
The software will generate the macro call line only, i.e. G65P9862 B1 D1.

Note: You must have the standard Renishaw tool setting macros resident in your machine's control to run tool setting.



A red cross by the Tool Number field indicates that information is missing: enter the number of the tool you want to set and the Tool Offset Index/Edge Number.

Use the drop down boxes to set information in the remaining fields.



In most instances of updating the diameter offset the Diameter Offset Number will be the same as the tool number. Select Yes from the Diameter Offset field, and type the Tool Number in the Tool Diameter Offset Number (D) field.

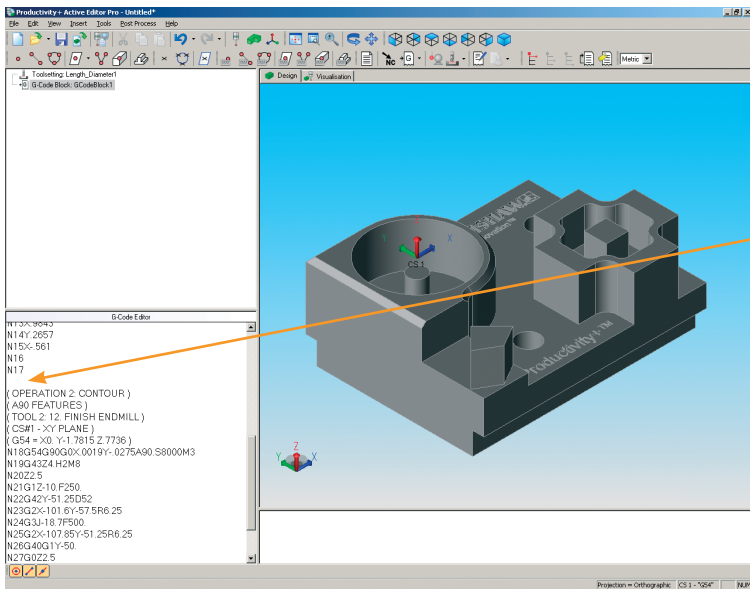
```

O2000
(RENPROGSTART)
G90 G80 G40 G01 F3000.(RENPROGSTARTEND)

#145=0 (RENPROGSTART)
#144=0 (RENPROGSTARTEND)

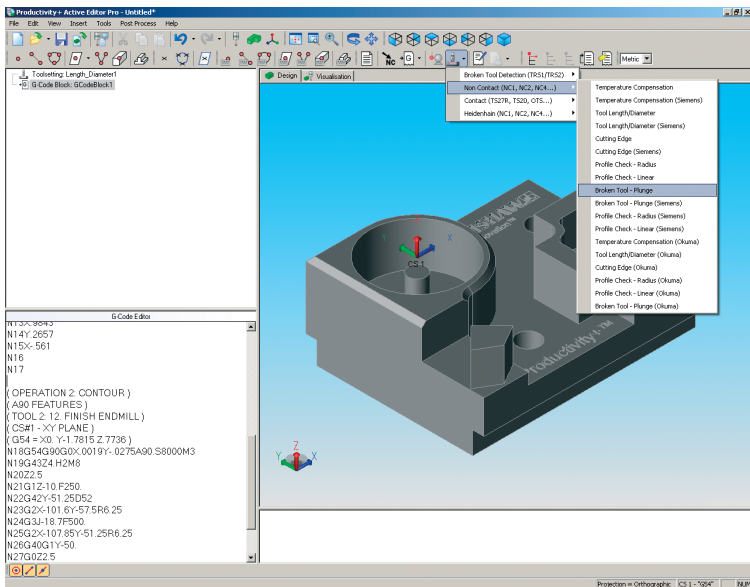
(PRODPLUS_BEGIN)
TIM6
G65P9862B3.R1
(_RENGCODE_START0001)
( 3/29/07 AT 10:27 AM )
( OUTPUT IN ABSOLUTE MILLIMETERS )
( PARTS PROGRAMMED: 1 )
( FIRST TOOL NOT IN SPINDLE )
N1G17G80G40
N2T1
N3M6
( OPERATION 1: CONTOUR )
    
```

When you post process the program the software will generate the call up line for a non-contact system such as NC4.

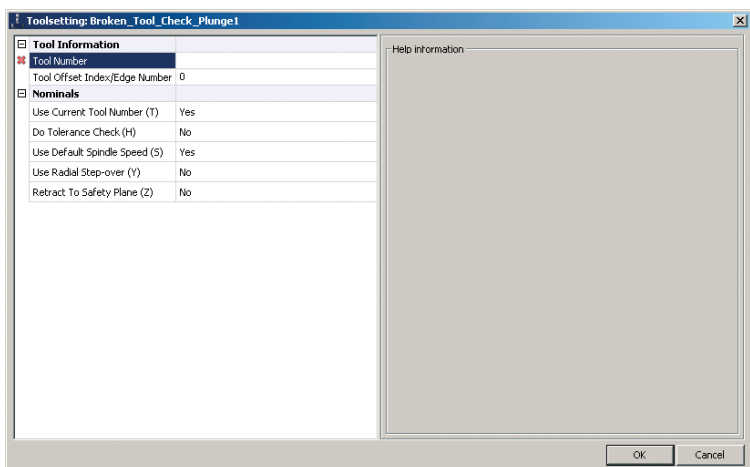


Broken tool detection

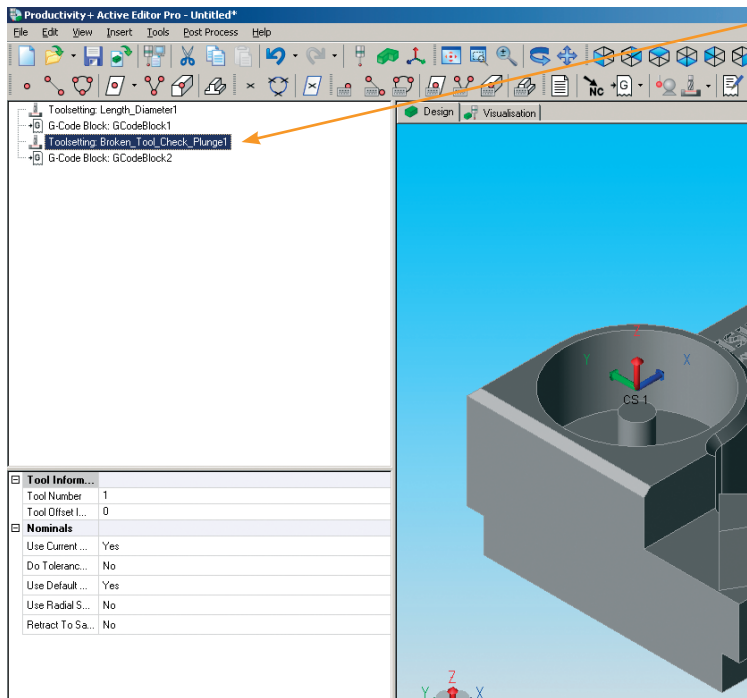
To insert a broken tool detection cycle into your machining program, navigate to the position in the program where you want tool checking to take place, insert the cursor (left mouse click) and add a new line.



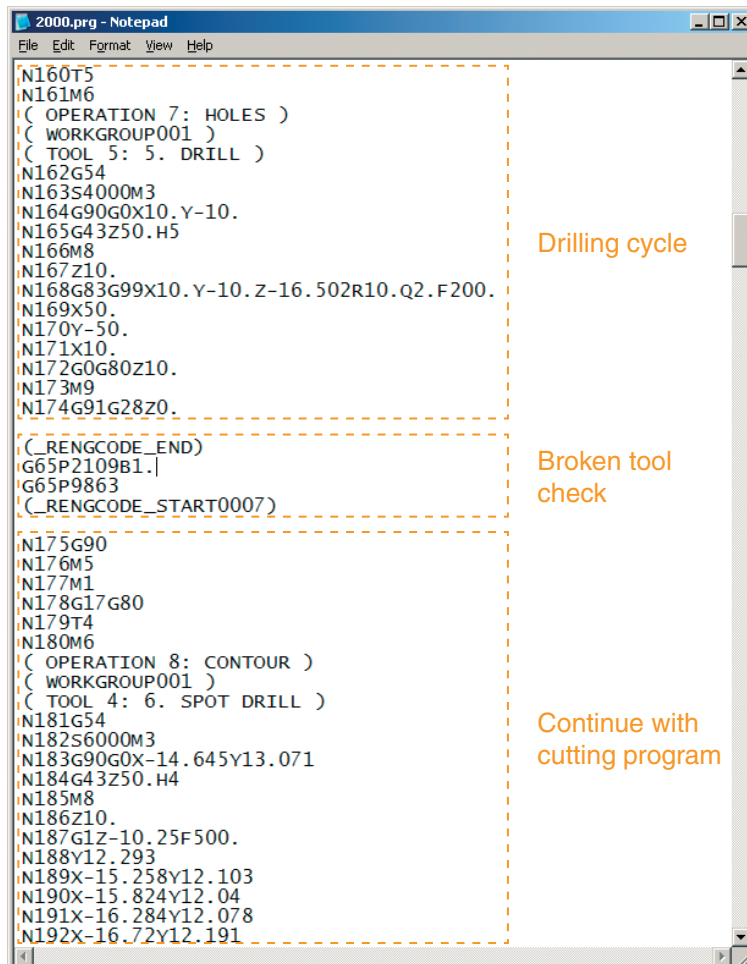
Select the Tool Setting icon, Non Contact, and Broken Tool - Plunge. (Producing a broken tool detection routine for contact methods is similar.)



Type in the number of the tool you are using. Select OK.



The software has now inserted a Broken Tool Check element into the process tree and split the G-Code Block.



Once posted, the program will look like this:

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