CAMPLETE SOLUTIONS INC.

www.camplete.com

1.0   Overview

This document explains how you can read tool path tolerances (CYCLE 32 tolerance on Heidenhain TNC controllers) from MasterCAM using the Miscellaneous Real Parameters in MasterCAM. MasterCAM outputs Miscellaneous Real Parameters in every NCI file. These can contain any real value that you wish. You can now set up CAMplete TruePath to read one of these variables and use it as the tool path tolerance. The following sections explain how to select which Miscellaneous Real Parameter is the path tolerance and how to insert this into your program.

2.0   Selecting the Miscellaneous Real Parameter

The first step is to select which real parameter in the NCI file will be the tool path tolerance. CAMplete TruePath uses an "Advanced" preference to set this.

> (1) Start the CAMplete TruePath application
> (2) Go to the **Tools** menu and select **Options**
> (3) Click **Advanced** and ignore the warning
> (4) Find the CAMFileIOPref folder and open it (See figure 1)
> (5) Find the preference NCI - Tool Path Tolerance Index in Misc Real Var List
> (6) Set this to the index of the real parameter that you are using for the path tolerance
>> **IMPORANT:**   This is a 0 based index where 0 is the first real parameter, 1 is the second etc. Set it to –1 to not read the t ool path tolerance
> (7) After setting this value, close the **User Preferences** dialog
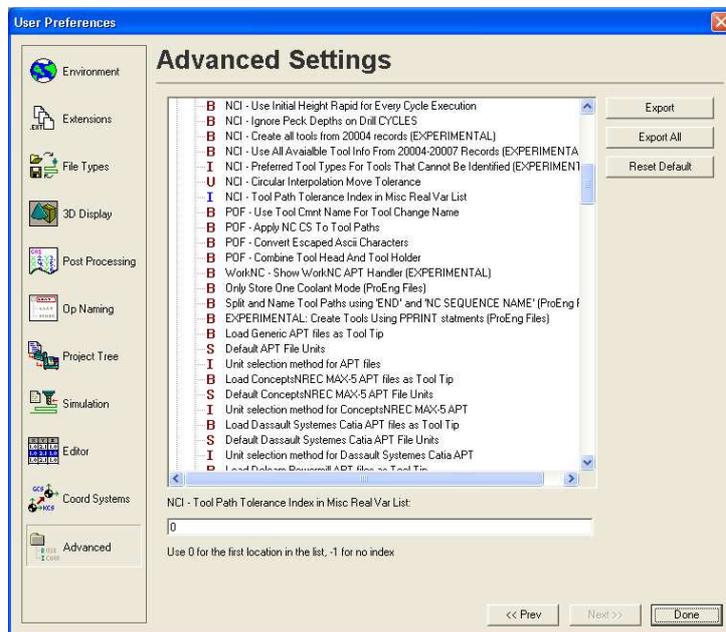> (8) Close the CAMplete TruePath application

Figure 1: The User Preferences Dialog

3.0   Setting up the CYCLE 32 Tolerance in your NC Format

To set the Heidenhain Cycle 32 tolerance in your NC Format, follow these steps:

> (1) Go to the **Tools** menu and select **NC Format Editor**
> (2) Select the NC Format section where your cycle 32 codes appear
> (3) Edit the section

(4) In the editor, select the **Path Tolerance Linear** code (See Figure 2)
(5) Set its text to **[DEF_LINEAR_TOL=0.01]** or whatever value you want to use as the default
(6) Click **Finish** to commit your changes

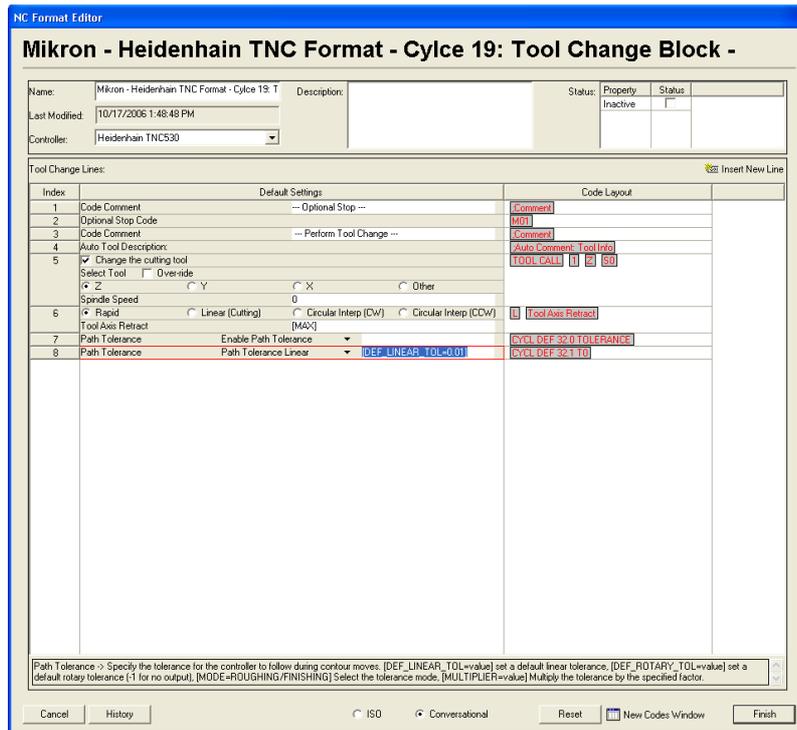Now when you use this NC Format and the change in section 2, you should get the CYCLE 32 value set in the NCI file.

Figure 2: The Path Tolerance Linear code