Predator Virtual CNC™ - KBA #2300006

Knowledge Base Article for improving CNC verification and simulation

Issue

How is Predator Virtual CNC configured to support different tool programming styles?

Solution

Different tool programming styles can be simulated just like a CNC machine if Predator Virtual CNC is configured correctly. The following styles are commonly used.

- Tool Tip, the most popular method.
- Tool Center, often used with ball nose end mills
- Spindle Face or some fixed gage point, often used with 5 axis machining

By default, Predator Virtual CNC assumes tool tip. Every tool can be programmed differently. What is important for verification and simulation is to be consistent. In other words, it is very important that the tool programming style within Virtual CNC be identical to the actual style used when the CNC program is created. Step through the following to change the tool programming style.

1. Open the appropriate job.
2. Select the Tool tab.
3. Select the appropriate tool.
4. Select the Tool Definition tab.
5. Specify the appropriate Programming Point value.

Tool tip style, the default, would have a programming point value of zero. This is the default value. Tool center style, would have a programming point value of the tool radius. For example a 2" diameter ball nose end mill will have a programming point of 1. Spindle face or some fixed gage point style would have the appropriate value, such as 100 millimeters as the programming point.

References

Should additional details be required, contact Predator Software via the following:

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The information in this article applies to:

- Predator Virtual CNC v3.x
- Predator Virtual CNC v4.x
- Predator Virtual CNC v5.x
- Predator Virtual CNC v6.x

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