

## Question/Issue

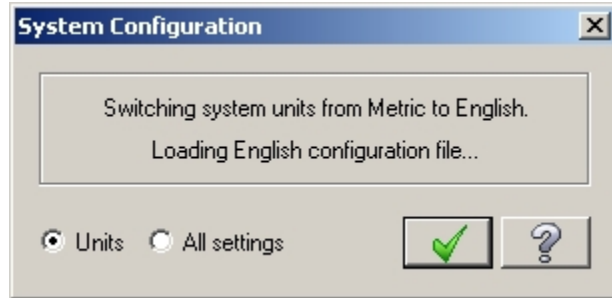
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Machine Definition: Inch and metric machine definitions.

## Answer/Solution

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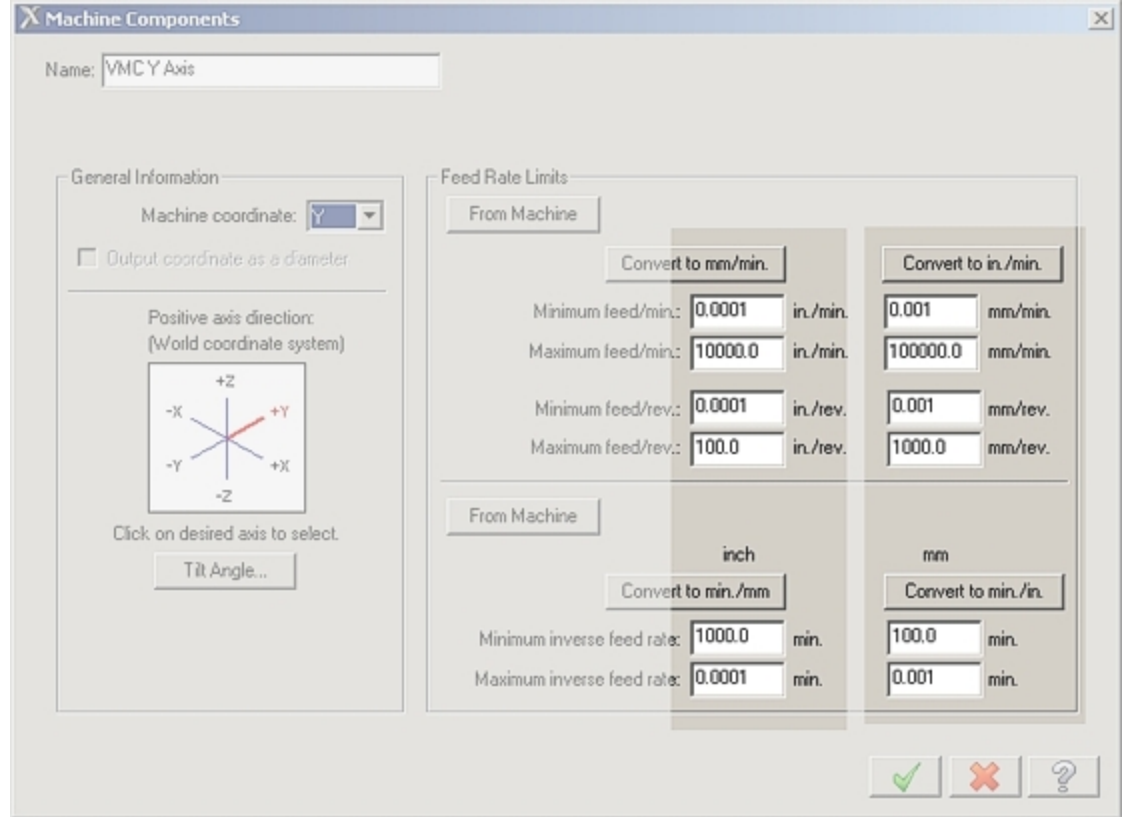
Just like any Mastercam part file, machine definition files are recognized as either inch or metric, depending on the units that were active when they were created. This means that, if you are working in metric units and you use the Machine Definition Manager to open an inch machine definition, you will be alerted that the units are changing:



However, this only affects the Machine Definition Manager session. When you close the Machine Definition Manager, Mastercam switches back to the units you were using when you were working on your part. Your part is never converted.

As a convenience to our users, Mastercam X includes a complete set of both inch and metric machine definitions. When you are installing Mastercam, you can choose which set to install, or you can install both. This lets you use machine definitions that are created in the units you typically work with, but it is important for you to understand that you can cut metric parts with inch machine definitions, and vice versa.

If you typically work with metric units, or your machine tool's native dimensions are metric, you might wish to create the machine definition as a metric file, so that you are not prompted to change units whenever you edit it; but this does not affect how your parts are machined. Each machine definition by default includes both inch and metric parameter values which are automatically used by Mastercam to machine parts in either units:



Separate inch and metric settings in the machine definition

Follow these guidelines:

- If you are using the UpdatePost utility to automatically create machine definitions, set Mastercam to the desired units before running it. For example, if you want to create metric machine definitions, make sure you are running in metric mode first.
- You do not need to create separate inch and metric versions of your machine definitions. You can select an inch machine definition as the default machine in your metric .config file, and vice versa. In general, if you only have one machine on your shop floor, you should only need to create one machine definition for it.
- To create part geometry in either inch or metric units, select the proper .config file in the System Configuration dialog box. The active machine definition or machine group has no effect whatsoever on the units in which your geometry is created.

### Control definitions and post processors

Control definitions (.control files) and post processors do not have units associated with them. Inch and metric machine definitions can each use the same .control files and posts. However, because the control definition is where you select the .defaults file that automatically loads when a machine definition is selected, Mastercam installs separate control definitions that point to inch and metric .defaults files. This is done simply for your convenience.

- You can configure any control definition to point to either an inch or metric .defaults file.
- In the properties for any machine group, you can select either an inch or metric .defaults file.