Tool and Material Data Base
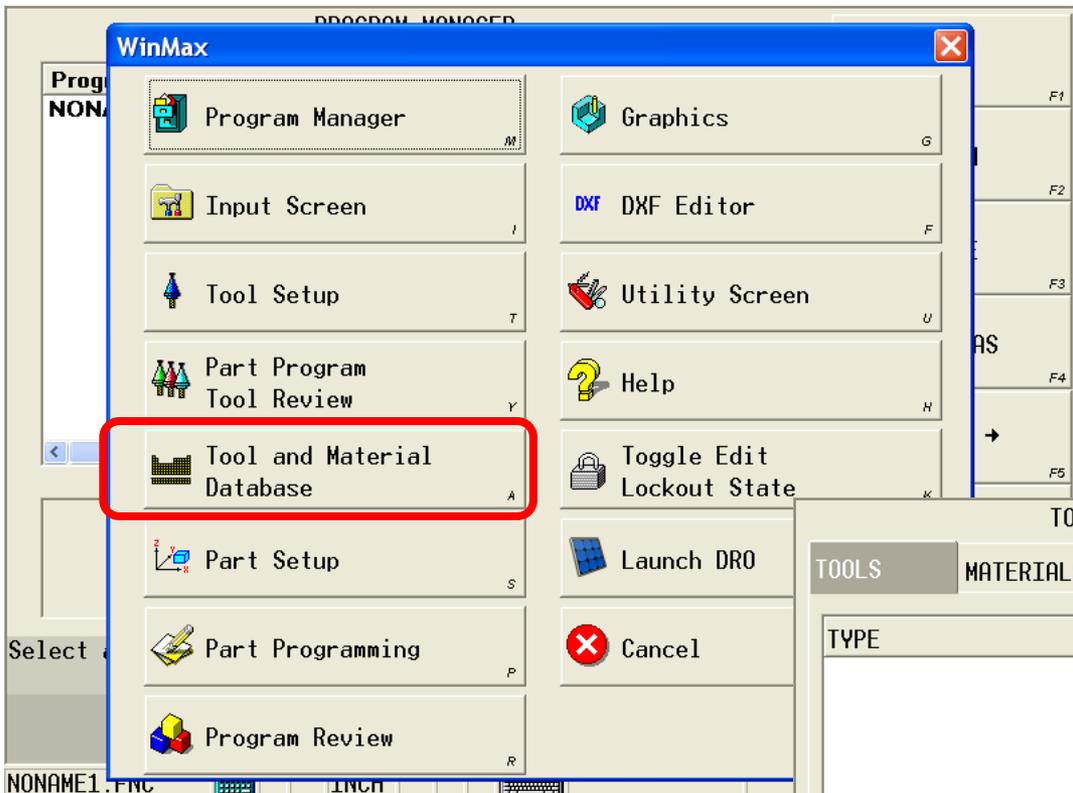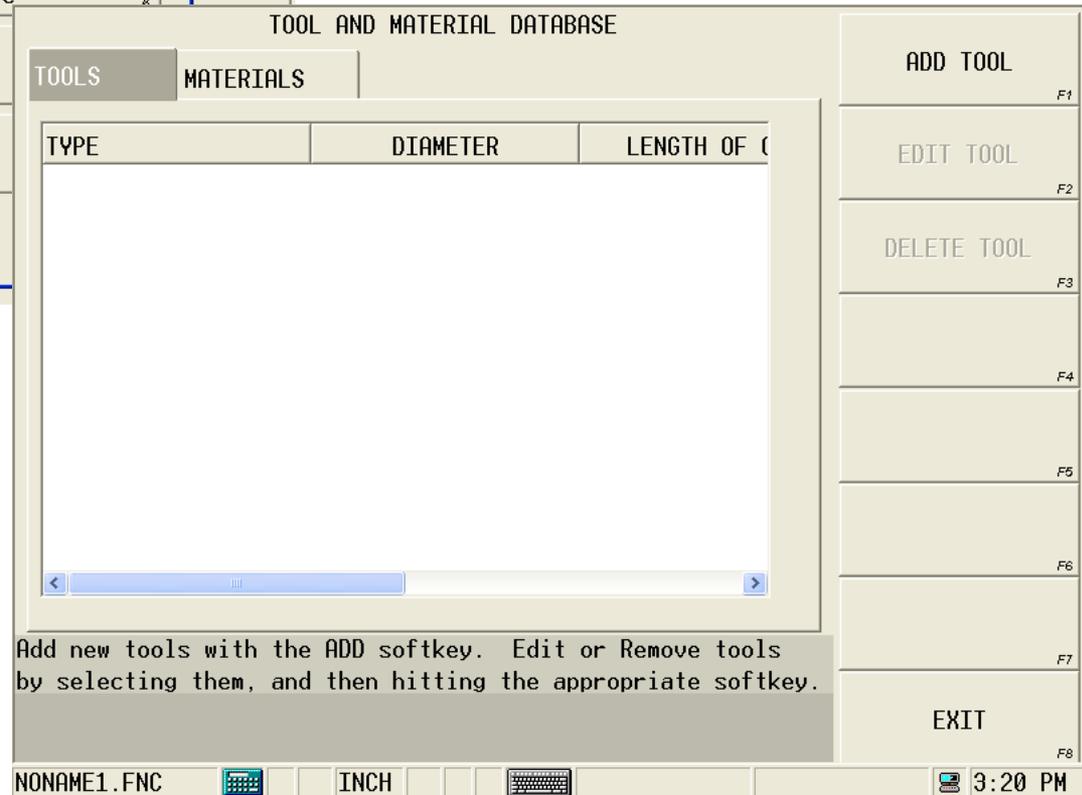
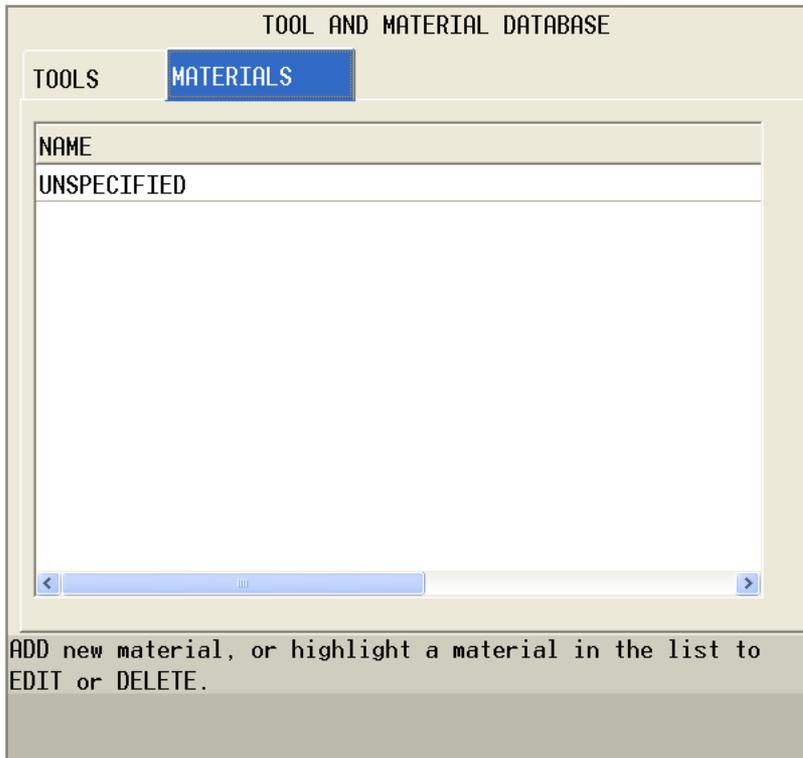## Quick Guide / Suggested Use

2/6/2015

Applications
(317) 614-1549
Applications@hurco.com

You will find the Tool and material Database by pressing the **Auxiliary** button on your WinMax Control.

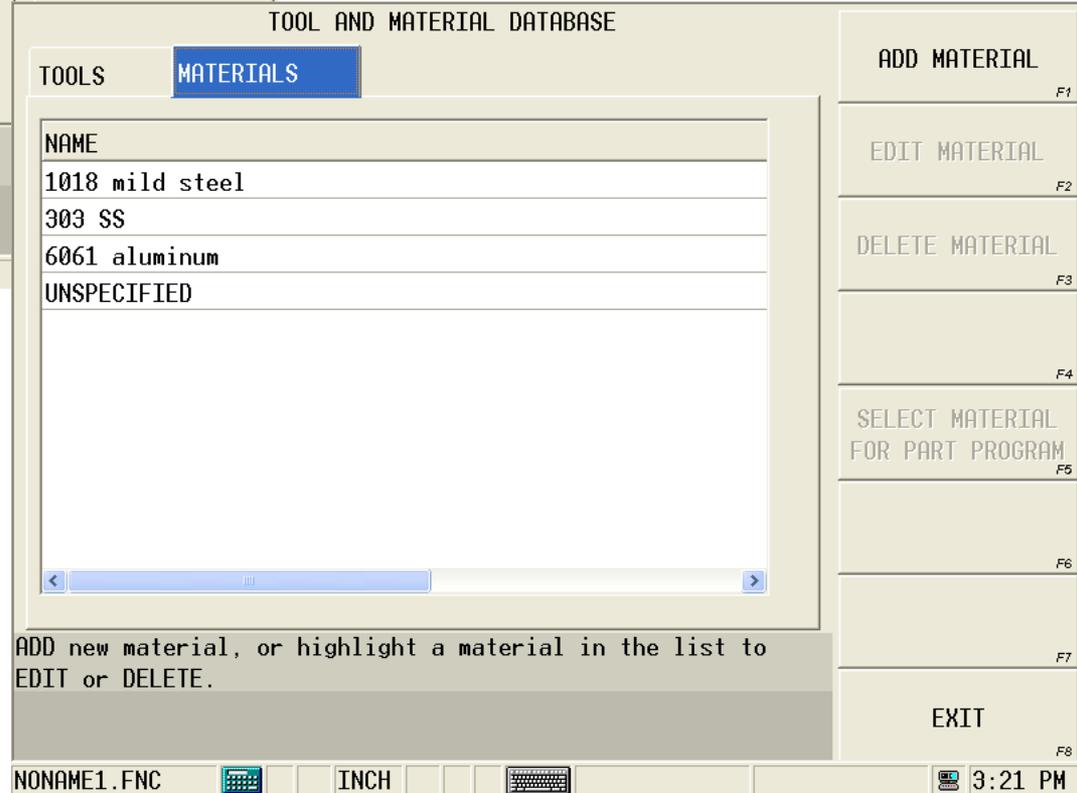After selecting the Tool and Material Database, you will be taken to a screen similar to below.
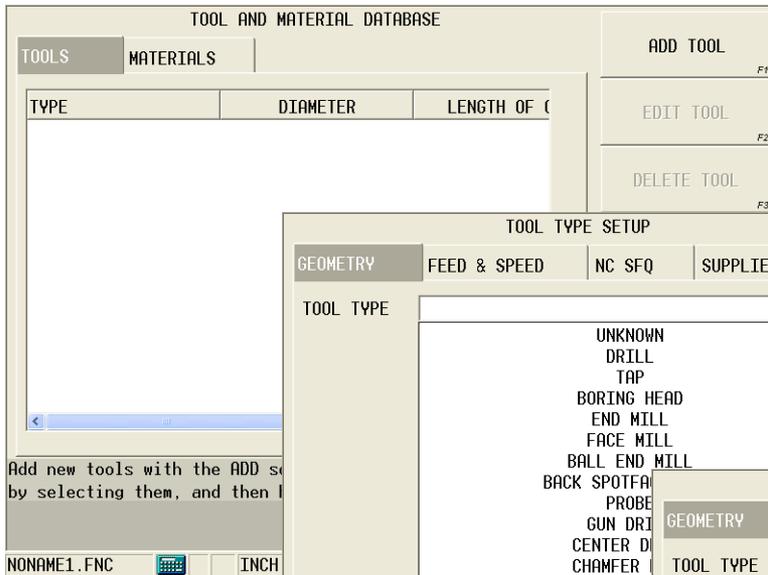
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The first step is to setup all the materials that you will typically run in the machine.
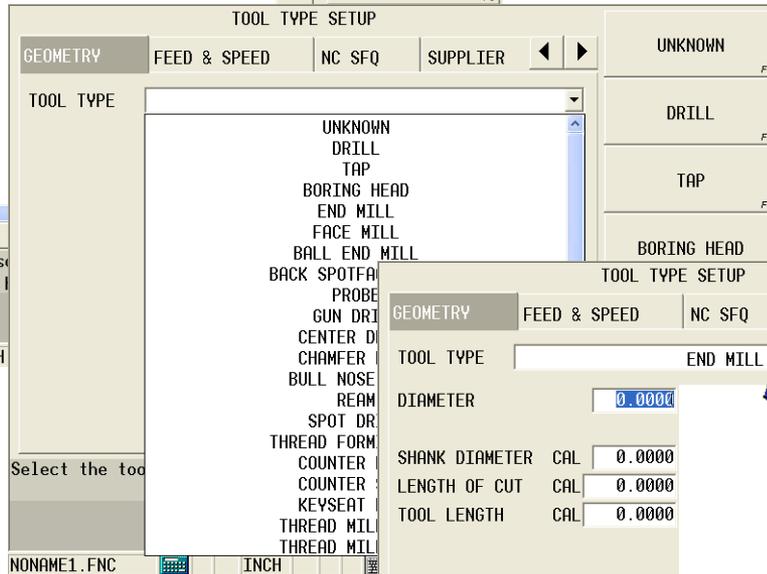
To do this select the Materials tab, and select Add Material. You will be just adding the name of the material at this point
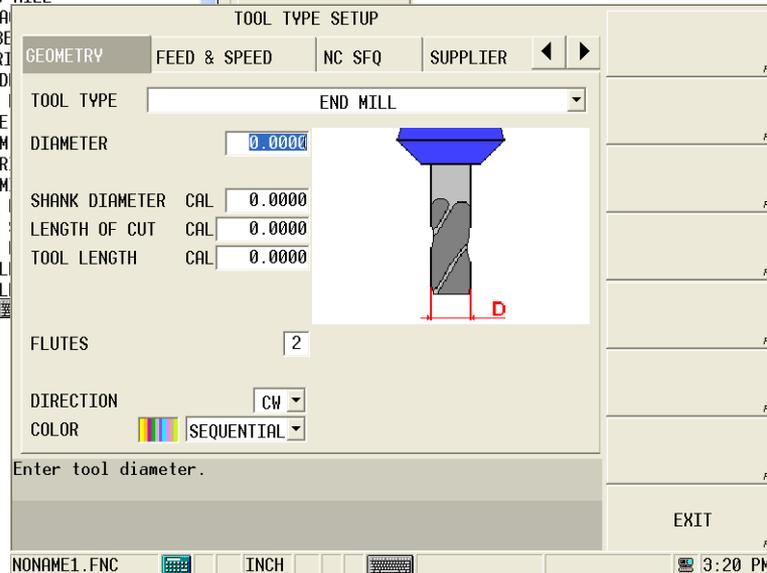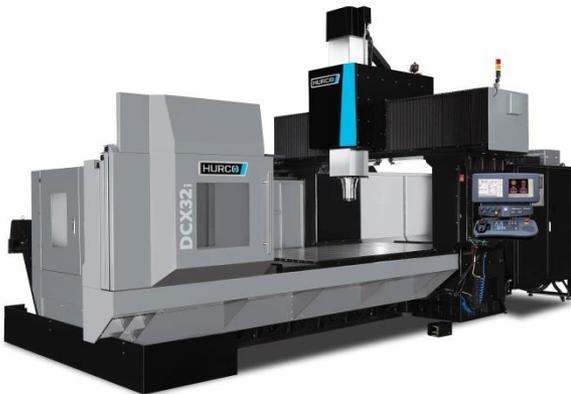
Now go back to the Tool and Material Database, and select the Tools tab, and Add Tool.

Select the tool type you want to create a template for.

To make things easy on yourself, leave the diameter blank. This will be set when we create an actual tool from this template.

*In this step we are just creating a **template**, that will later get a Surface Speed and Chip Load added to it. When we create an actual tool based off the template, we will give the tool an actual diameter. Once a tool is created, the diameter will then be used to calculate the actual speeds and feeds.*

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Once you have your tool type selected, go into the Feed & Speed tab.

Fill in the Surface Speed and Chipload for each material that you previously setup

Create a Tool Template for each type of tool that you will run in the machine.

TOOL TYPE SETUP

| GEOMETRY | FEED & SPEED | NC SFQ | SUPPLIER | ◄ | ► |

TOOL TYPE: DRILL

DIAMETER: 0.0000

SHANK DIAMETER CAL: 0.0000
LENGTH OF CUT CAL: 0.0000
TOOL LENGTH CAL: 0.0000
DRILL ANGLE: 0.0

FLUTES: 2

DIRECTION: CW
COLOR: SEQUENTIAL

Enter tool diameter.

NONAME1.FNC   INCH

TOOL TEMPLATE LIST

NO.	TYPE	DIAMETER	DESCRIPTION
	END MILL	0.0000	END MILL, dia. 0.0000
	DRILL	0.0000	DRILL, dia. 0.0000
	FACE MILL	0.0000	FACE MILL, dia. 0.0000
	TAP		TAP, M0 x 0
	BALL END MILL	0.0000	BALL END MILL, dia. 0.00

Create a tool with defaults copied from a selected tool template in the list, or create a new tool.

CREATE TOOL USING TEMPLATE F1
EDIT TOOL TEMPLATE F2
CREATE NEW TOOL F3
F4
F5
UP F6
DOWN F7
EXIT F8

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To add a new tool based off the template, press Manual Mode on the control, then choose Tool Management.

Choose the Manual Tab, and select Insert Tool

Choose Create Tool Using Template

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The control will create the tool, and give it the next available tool number it sees as being available.

Enter the Tool Diameter

To verify that the tool was created from the template, select More, and then choose Advanced Tool Settings.

If you select one of the materials, you should see the speeds and feeds have been calculated off the tool diameter entered

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If you wish to change the number assigned to the tool, choose Change Tool Number below Advanced Tool Settings.

You can choose if you want to change the tool number or copy the tool. Typically you want to Change Tool Number to prevent duplicate tools.

You will repeat the previous steps for each tool that you want to create from the template. By using the template, you are able to enter the speeds and feeds for each material only once. Because the feeds and speeds were entered as a Surface Speed and Chip Load, the actual speeds and feeds will be calculated once the tool diameter is entered.

Formulas

Surface Ft. Per Minute = (RPM x 3.14 x Tool Dia.) / 12

Chip Load = Feed in IMP / (RPM x Number of Teeth)

Feed in IPM = Chip Load x RPM x Number of Teeth

RPM = (12 x SFPM) / (3.14 x Tool Dia.)

To select a material type for a program select the program in Program Manager. Then select Program Properties.

Select Change Material, highlight the material needed, and then choose Select Material for Part Program. Feeds and speed for that material will now be used in the program

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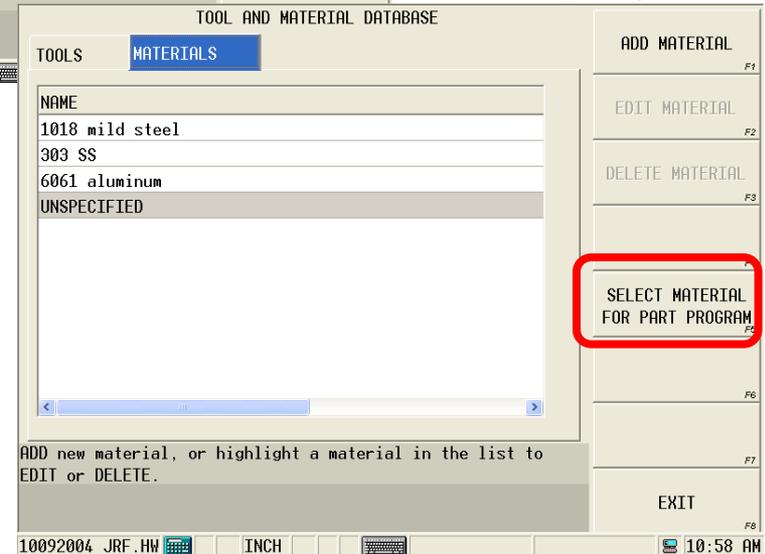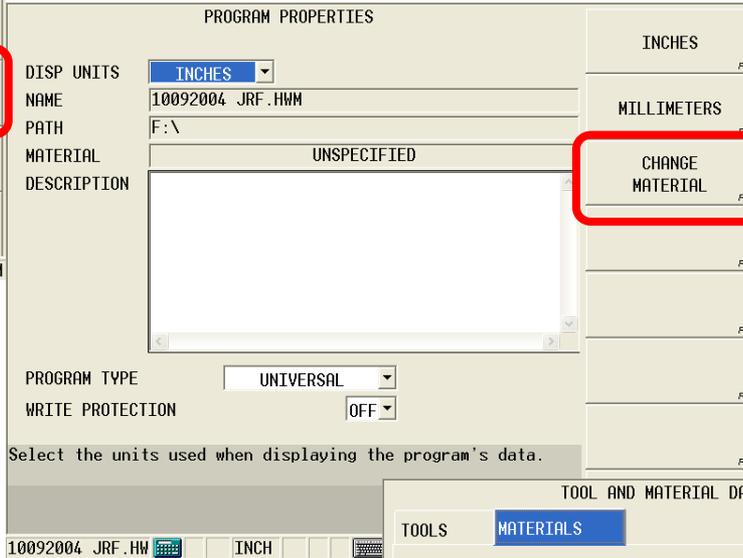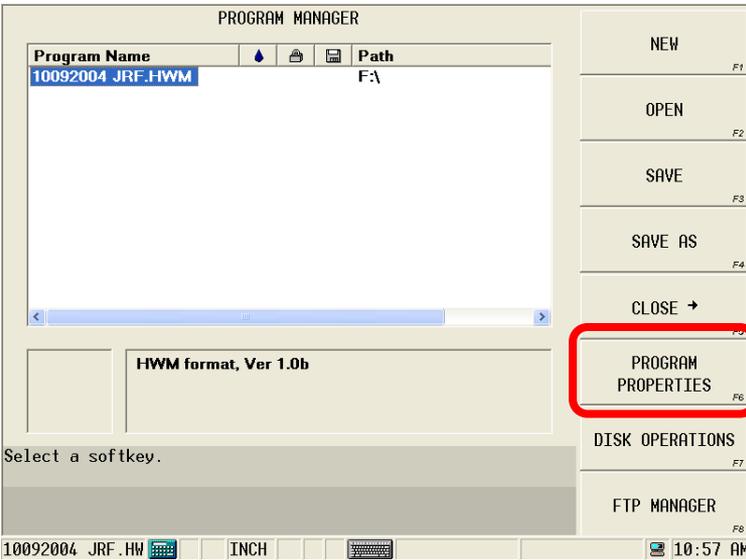
If you have any questions about this or any other application please don't hesitate to contact us.

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Thank You !