WinMax FAQs for distributor partners

Benefits

1. What is WinMax?

WinMax is simply the best control software ever developed for the machine tool industry. WinMax Control Software is the new control that will be featured on all Hurco machine tools in the future.

The power of the WinMax control is the result of Hurco's 22 years of customer-centered CNC software expertise and the proven platform of Microsoft® Windows®. Due to the use of the Microsoft Windows platform, WinMax is truly a customer's window to limitless technology—today and as the technology is developed in the future. Benefits include compatibility with standard peripherals and accessories, streamlined upgrades, standard fonts, USB interface, folder and file management improvements, simplified networking, fonts, easy cut/copy/paste operation, and more! The expertise of the Hurco software team is evident in the motion control system and the real-world benefits WinMax Control Software provides customers. The Hurco WinMax development team focused on increasing productivity and improving surface finish for WinMax users. With WinMax, customers will notice programming and setup time have been significantly reduced and the surface finish quality has been improved by providing a consistent tool path.

2. What prompted Hurco to develop the new WinMax Control Software?

As a leader in the design of machine tools for more than three decades, Hurco made a strategic decision to invest in the future and once again lead the industry. Our CNC expertise, strong software development team, and the technology available prompted us to create the WinMax Control Software in order to make our customers, primarily small to medium-size job shops, more productive, more efficient, and ultimately, more profitable.

3. What are the new features we should highlight in WinMax?

There are 25 new features using patented technology and many enhancements to existing UltiMax features. Key new features include:
- Swept Surface
- NC/Conversational Merge
- SelectSurface Finish Quality
- Tool & Material Library
- Tool Center Point Management
- 4th Axis Rotary Wrap
- WinMax Mill: Advanced Verification Graphics with 3D Solid Rendering including Dynamic Rotation/Pan/Zoom, Single Step, Next Tool/Turbo Display Modes
- WinMax Lathe: Advanced Verification Graphics with 3D Solid Rendering, Dynamic Rotation/Pan/Zoom and a cross section/cut-away viewing capability that is a real "wow" feature.

Certain features have the most benefits for certain types of customers. You may want to target features that would be most beneficial for how each customer runs his shop. An overview follows:
- <u>All users:</u> Tool & Material Library; the Windows based platform with popular Windows features, such as context sensitive help, USB interface, networking, data base, true type fonts—this platform will promote better networking, portability, flexibility, streamlined upgrades for the future.

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- <u>NC users:</u> The strength of our NC engine is one of the best kept secrets in the industry. We need to expose and promote the WinMax Control's NC capabilities. Some new features that will impress the G-Code users include, Tool Center Point Management; SelectSurface Finish Quality; Canned Probing Cycles; Multi-line G-Code; NC/Conversational Merge.
- <u>Moldmakers</u>: Swept Surface; NC/Conversational Merge
- <u>Conversational users</u>: Advanced Verification Graphics with 3D Solid Rendering and Real Time Tool Display; SelectSurface Finish Quality; 4th Axis Rotary Wrap.
- <u>Existing Hurco Users</u>: Compatibility with existing Hurco machines; Same look and feel with enhanced graphics, addition of help text, improved file management; NC/Conversational Merge; Swept Surface (extension of 3D Mold Option on UltiMax).

4. What performance improvements have been made in WinMax that make it better than current controls available?

WinMax has better cutting quality performance due to new smoothing algorithms and improvements in the motion subsystem. Additionally, programming is much faster on WinMax because we have reduced the number of keystrokes whenever possible. We also designed the WinMax Control Software to give customers more control over surface finish quality and cycle times. Another key contributor to increased productivity with WinMax is the new Tool and Material Library. For example to perform rigid tapping of 49 holes, WinMax reduced the cycle time by 27 percent (cycle time using UltiMax was 5 minutes, 41 seconds; cycle time using WinMax was 4 minutes, 9 seconds).

What benefits will NC users, who rely heavily on CAD/CAM, experience when using WinMax?

With an enhanced NC interpreter, the level of compatibility with CAD/CAM packages has been increased to make it extremely powerful. Customers can take posts from other machines and dump them into the WinMax control quite easily.

- <u>SelectSurface Finish Quality</u>
  The SelectSurface Finish Quality (SFQ) feature lets you increase performance of the machine tool and increase the quality of finished parts. Higher SFQ values remove the material quicker while lower SFQ values let you cut a part with improved surface finish. SFQ values can be assigned to a tool and automatically invoked with a tool change or can be programmed with a G5.3 code at any location.

- <u>Multi-line G-Code</u>
  Additionally, we have added a multi-line NC run time monitor with a G-Code modal display.

- <u>Advanced Verification Graphics with 3D Solid Rendering</u>
  The new WinMax graphics let you see an accurate representation of the part that isn't possible with wire-frame graphics—especially for complex surfaces that combine both roughing and finishing passes in the same G-code file.

- <u>Canned G-Code Cycles</u>
  A new set of canned G code probing cycles will bring all of the existing conversational probing benefits to the NC users.

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- Tool Center Point Management
  Cut the same part at any location on the 5-Axis table without having to repost the program.

- Tool and Material Library
  The Tool and Material Library will benefit both Conversational and NC only shops. For NC customers having the tooling information retained with the ATC and manually changed tools makes it easier to verify tooling that has been loaded onto a machine.

- NC/Conversational Merge
  Existing G-Code programs can be incorporated into current conversational features, such as tool probing, part probing, pattern operations, and scaling.

5. What benefits will 3D moldmakers get from using WinMax?

- Swept Surface
  Perhaps the most dramatic improvement for making complex parts is the ability to define a 2D surface and sweep that surface along a contour, creating complex 3D geometries within one conversational data block. There are numerous details that comprise the Swept Surface feature. In total, this feature easily reduces programming time of complex parts by 80%.
- NC/Conversational Merge
  Existing G-Code programs can be incorporated into popular conversational features. For example, by programming conversational hole cycles, bored or boss circles, and calling out G-Code based mold features you can integrate both programs into one. This makes it easy to view the entire job graphically as well as running both programs without interruption.
- Additionally moldmakers will benefit from many of the features listed in the previous question regarding benefits for NC users.

6. What changes to the control console will customers notice?

Most of the WinMax changes aren't visible because they are internal performance improvements, such as higher performance processors (2.8 GHz Pentium 4 CPU), high speed expanded memory (2 GB), more hard drive capacity (up to 40 GB), and improved motion control components. The only visible difference to the console is the replacement of the trackball with a second touch screen on our dual screen consoles. Although it's not on the control console, customers will also notice the addition of a USB port.

7. Since WinMax is a Windows operating system, what should I tell customers who want to know if they can use the Windows features and programs they use on their PC?

It's important for customers to understand that they can't use other Windows programs on their WinMax machine. Please make sure the motive for this is understood—Hurco developed the WinMax Control Software to be completely dedicated to operating Hurco machining and turning centers because other Windows programs would cause interference and affect performance. However, there are still standard Windows features that will prove beneficial, such as folder and file management, cut and paste procedures, the ability to use more characters for naming files, and true type fonts. In the future, WinMax might support certain shop floor productivity programs that operators will be able to access at the machine.

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8. What portable data transfer/storage devices are supported in WinMax?

A standard floppy for backward compatibility is included. Additionally, WinMax supports standard USB based storage devices. A multimedia card reader will be available as an option in the near future.

9. How will WinMax help customers who want to "network" the machines in their shop?

The networking features of Windows will make it easier to configure machines to a network. The file management of WinMax is easier to navigate because the folders are displayed as they are in a standard Windows interface. This is true for selecting files locally as well as for files that are mapped to the network. WinMax will have the ability to interface with existing UltiMax controls utilizing the Ultinet option familiar to many existing Hurco customers.

10. Does WinMax support improved machine diagnostics and error reporting?

Yes—Authorized Service Personnel can access the error messaging and advanced diagnostic systems, including a log viewer, real-time diagnostics, graphical soft PLC monitoring, and improved motion diagnostics.

11. When will WinMax be available?

Early 2007

12. What software security features are built into WinMax?

WinMax provides a non-hardware based security system which eliminates the need for an externally attached hardware key. This provides improvements in both flexibility and speed of authorizing machine options. Additionally, each instance of WinMax utilizes a firewall protection methodology and is encrypted with a state of the art D.O.D. security mechanism to eliminate unlawful duplication and/or distribution.

13. Will the Hurco software license/warranty policy remain the same with WinMax?

Yes

Options

14. What features are standard with WinMax ?

Customers have the benefit of standard features provided by the Microsoft Windows platform, such as streamlined cut and paste operation, true type fonts, enhanced file naming abilities, and folder navigation. Hurco will outline the WinMax standard feature list and the WinMax Classic list of options to distributors in the near future.

15. What hardware and software options will be supported?

All existing options will be supported. Some options will be combined or have new names indicative of advances in their capabilities. Standard WinMax feature list and WinMax Classic feature/option list will be distributed in the near future. Some of the new options for WinMax Classic are:

- NC/Conversational Merge
- SelectSurface Finish Quality
- Swept Surface (replaces current 3D Mold package)
- Tool and Material Library
- Advanced Verification Graphics with 3D Solid Rendering

UltiMax User Transition

16. How easy will it be for existing Hurco users to start using WinMax?

We have kept our loyal and long time Hurco programmers in mind during the entire WinMax design and development process. We've made sure WinMax Control Software is compatible with existing machines. We've kept much of the same look and feel while improving the wire frame graphics by replacing them with 3D Solid Rendering graphics and adding help text.

We've listened to customer requests from the field and found ways to make programming easier, such as combining certain screens when appropriate, eliminating steps, adding personalized program default settings, and adding an informative tool review screen. While adding new tool setup features, including a Tool and Material library, customers can still set up tools in an interface that will be familiar. As customers gain expertise, they can take advantage of the new Tool and Material Library features.

The conversational screens have changed slightly, but we believe customers will quickly see the advantages. The geometry data is programmed in the upper section of the data block while the process data is programmed in the lower "tabbed" section. The advantages of programming explicit finish feeds and speeds, specifying Surface Finish Quality parameters on a per block basis, automatic programming of peck depth and plunge feeds from the tooling library, and a more convenient method of selecting tools are a few of the reasons you'll find the switch to WinMax beneficial. Customers who currently use the 3D Mold option in UltiMax will really appreciate the Swept Surface feature in WinMax—it easily reduces programming time of complex parts by 80%.

17. Are UltiMax program files compatible with WinMax?

Yes. We have taken great strides to ensure backward compatibility for our Hurco customers. Customers will be able to read and write programs between the two systems. Obviously, the new features that have been developed for the WinMax Control Software, such as Swept Surfaces, SelectSurface Finish Quality, NC/Conversatinal Merge, etc. won't be available on the UltiMax machine, but customers will still be able to read the program.

Training

18. Will customers need new training to switch to WinMax?

Although existing Hurco users—especially those that use Windows on their office or home computer—should be able to get up to speed quickly with the manuals provided and the context sensitive help system, training from one of our distributor partners or at the factory would be beneficial to get the most out of the new WinMax features.

19. What WinMax training materials are available for customers who have an "UltiMax savvy" staff?

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All distributor sales representatives will have demonstration units and a CD that contains a demonstration of the WinMax Control Software.

Upgrades

20. Can customers upgrade a current UltiMax system to WinMax?

It depends upon the model and the date of manufacture. In general, customers can upgrade a current UltiMax system to WinMax if the machining center was purchased in 2001. Customers need to check with their Authorized Service Representative to confirm whether their machine can be upgraded to WinMax. For your information, there are several types of upgrades kits and we have created a matrix to track what machines will require what type of upgrade kit. Internally, Tim Cloud is the "go-to" person for upgrades. However, retrofits (a.k.a., WinMax upgrades) will not start being scheduled until the production release of WinMax is complete. The production release of WinMax machines is the first priority—upgrades of UltiMax machines will follow. We will have pricing information in the future once we complete the production release of all WinMax machines.

21. When can customers upgrade UltiMax to WinMax?

Upgrades for will not begin until the production release of WinMax machines is completed. The service department needs time to prepare for these upgrades and parts will have to be placed on order.

See the answer to the previous question for more details.

22. What upgrades will be available for customers who purchase machines before the WinMax availability date?

The transition to WinMax is an exciting time, but will require consistent communication to make sure all of our customers have a positive experience. During the product transition period, customers can purchase an existing UltiMax model that is in inventory, they can purchase an existing UltiMax model that is in inventory and request that a WinMax upgrade be made at the earliest time available (they will be charged for the upgrade when it is made), or they can purchase a WinMax model and wait for delivery*

* Delivery is dependent upon WinMax release date schedule, which varies for different Hurco models.

UltiMax Support

23. How long will UltiMax be supported?

The UltiMax hardware will continue to be supported for many years. All new control enhancements will take place on the WinMax platform.