**Loading Files to the WinMax Control using WCF**

Hurco Companies, Inc.

**Record of Changes**

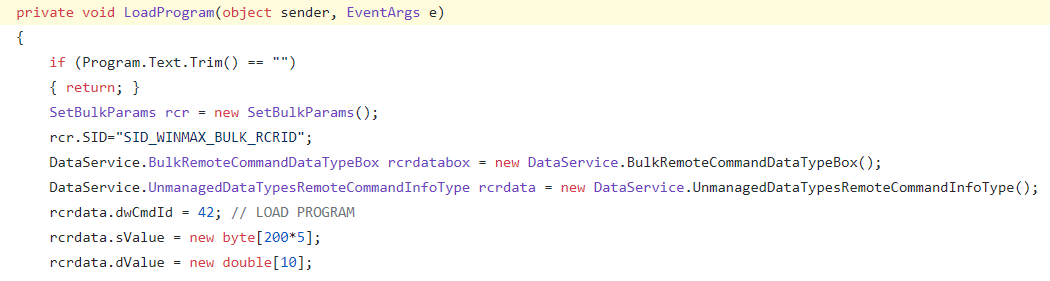
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| Rev. | Revision Description | Rev By | Date |
| 1 | Original Release | Robert Gorgol | 2017.10.19 |
| 2 | New remote program load argument to allow loading to be skipped when file is already in memory. | Robert Gorgol | 2018.01.08 |
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**Introduction**

This document covers the process for remotely loading part programs and other proprietary files to the WinMax control from a connected application using WCF. The document refers to the software provided in the sample integration package and requires an established connection following the procedure outlined in the document **Connecting to the WinMax Control using a VendorID and WCF.docx**. This connection is only available on Mill machines running v9 or higher control software and is presently not available on Lathes.

**Remote Command Request API**

The remote file loading process uses a generic remote command request API that sends a command index to the WinMax control (42 for the load command) with an array of 5 string arguments and 10 double arguments.



**Loading All File Types**

- 1st string argument (rcrData.sValue[0]) – Full file path and name in the form of an ASCII string that is fewer than 200 characters. The other string arguments are unused.



* All other string arguments are reserved for potential future use.

**Loading Part Programs**

* The file can have any extension that is not reserved for another known file type used by the WinMax system. If it a known conversational program extension (.HWM), WinMax will attempt to load the file as a conversational program. Otherwise, it will attempt to load the file as an NC program.
* 1st double argument (rcrdata.dValue[0]) – Close all other loaded programs before loading the specified program.

If WinMax identifies any loaded program as ‘in-use’ in a state where it cannot be safely closed, the remote request as a whole will be rejected. None of the loaded programs will be closed, and the requested new program will not be loaded in this case.

0 = no

1 = yes

* 2nd double argument (rcrdata.dValue[1]) – Automatically set the program up to run after loading, requiring only a Start Cycle command to initiate the cycle. The screen will automatically switch to the auto run DRO screen. This is limited to running the full program in normal program run mode. Partial program runs and special modes like Dry Run and Speed/Feed Capture are not supported.

0 = no

1 = yes

* 3rd double argument (rcrdata.dValue[2]) - Allow program loading step to be skipped if a program with the same full file path and name is already loaded in memory.

Minimum supported WinMax versions: 09.01.359.37, 10.01.230.53

0 = Force file to be reloaded even if the same file is already loaded.

1 = Skip file load and retain current version of file if already loaded.

This argument can be combined with other arguments. For instance, the combination of arguments 2 and 3 can remotely queue a program that is already loaded as the next program to run without requiring it to be reloaded.

* All other arguments are reserved for potential future use. Default values of 0 are recommended to avoid unexpected changes in behavior in the event of future WinMax software upgrades.

**Loading Tool Library Backup Files**

* Minimum supported WinMax versions: 09.01.359.25 , 10.01.230.36
* The file must have a .TCM extension in order to be loaded as a tool library backup file. Otherwise, the system will attempt to load it as a part program.
* 1st double argument (rcrdata.dValue[0]) - Specifies how to combine the tool list from the backup file with the current tools in the library.

0 = Merge/Replace

If a tool in the backup file has the same number as a tool already in the library, the tool from the file replaces the tool in the library. If any loaded conversational programs were using the tool that was replaced, it will be retained in the system as an unmatched tool. The user can then match it to another tool in the library or add it as a new tool, in which case it will be given the next available tool number.

1 = Append

If a tool in the backup file has the same number as a tool already in the library, the tool in the library remains untouched, and the tool from the backup file is given the next available tool number.

* All other arguments are reserved for potential future use. Default values of 0 are recommended to avoid unexpected changes in behavior in the event of future WinMax software upgrades.

**Loading NC State Backup Files**

* Minimum supported WinMax versions: 09.01.371.00, 10.01.247.00
* The file must have a .NCSX extension in order to be loaded as an NC state backup file. Otherwise, the system will attempt to load it as a part program.
* 1st double argument (rcrdata.dValue[0]) - Specifies the components of the NC state file that can be individually loaded. An NC state file contains part setup / work offsets, tool setup, tool offsets, program parameters (shared by conversational and NC), NC-specific parameters, NC program variables, and NC user preferences.

0 = Load all components

Nonzero values are interpreted as a bitmask, allowing restoration of a combination of individual sections.

0x0001 – Part Setup / Work Offsets

0x0002 – Tool Setup

0x0004 – Tool Offsets

0x0008 – Program Parameters

0x0010 – NC Parameters

0x0020 – NC Program Variables

0x0040 – NC User Preferences

Ex: rcrdata.dValue[0] = 0x23; // import part setup, tool setup, and NC program variables

* 2nd double argument (rcrdata.dValue[1]) – Specifies the target of the NC state import.

0 = Replace the global NC state shared by all NC programs.

1 = Import the NC state into the active editing part program.

* + - If the active program is NC, the global NC state is updated.
    - If the active program is conversational, the NC state components that are relevant for a conversational program are imported into that program only. (Part Setup, Tool Setup, and Program Parameters are imported. The other sections are ignored in this case.)
* All other arguments are reserved for potential future use. Default values of 0 are recommended to avoid unexpected changes in behavior in the event of future WinMax software upgrades.