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SOFTWARE BULLETIN

DATE: December 12, 1993

ISSUE NUMBER: 001

SUBJECT: Ultipocket

Reference Number: 1459

CONTROL: Max32 & Max3

PAGE 1 OF 1

VERSION: V1.30 Max32 & V1.21 Max3

“ERROR IN BLOCK 1: POSITION OUT OF MACHINE LIMITS IN Z” ERROR OCCURS IN ULTIPOCKET PROGRAM:

If a Pocket Boundary Data Block with Islands (with spiral inward pocket type) is the first data block of the program, then a “MACHINE OUT OF LIMITS IN AXIS Z” error will occur.

WORKAROUND:

Insert a Position Data Block or other “dummy” Data Block which uses the same tool used in the Pocket Boundary Data Block, if the Pocket Boundary Data Block is the first operation of the program.

Another solution is to set the current Tool in Spindle equal to a Calibrated Tool (not necessarily a tool used in the program) when Checking for Errors.

FIXED, V1.22 MAX3

FIXED, V1.40 MAX32

ORIGINATOR: David Skrzypczak

REVISED BY:

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SOFTWARE BULLETIN

DATE: December 5, 1994

ISSUE NUMBER: 002

SUBJECT: Hard Drives

SCR NUMBER: 1748

CONTROL: ULTIMAX 3 and MAX 32

VERSION: V1.00 through V1.52

PAGE 1 OF 1

Numerous Hard Drive failures, which have required a reformat of the C Drive and a reload of the Hurco Boot Sector to repair them, have been attributed to a software fault which occurs whenever the bytes used on the Hard Drive (C and D together) exceeds approximately 32M. This primarily affects only those Hard Drives that are larger than 40M although there is a slight chance that it can occur in a 40M Hard Drive. In most cases, the fault only damages the Executive on the Hard Drive but the fault has the potential of corrupting any File, Directory, File Allocation Table, Partition Table, or Boot Sector on either the C or the D Drive.

The fault will occur during the writing of a file to the Hard Drive but may not show up until the next Control reboot. This fault has been seen most frequently with NC customers who typically use more Hard Drive space. After the fault occurs and the Hard Drive is repaired, the fault can occur again unless the file size in use on the D Drive is significantly reduced.

When the fault occurs, it is recommended that the following actions be taken:

1. Obtain a bootable DOS diskette, boot DOS, and reformat the C Drive only (set the volume label to EXECUTIVE_1)
2. Use the appropriate BOOT utility file for the Hard Drive (note that with V1.52, a universal BOOTSTRP has been included on the Machine Configuration Disk with every machine that replaces the specific BOOT utility files); the new command is "BOOTMERG BOOTSTRP.BIN C:"
3. Copy the HURCO.LDR file first to the C Drive (verify that it is in Cluster 2) then either copy the Executive files to the C Drive or boot the Executive from the Floppy Drive and execute an UPGRADE EXECUTIVE
4. If this does not correct, the entire Hard Drive may need reformatted and/or repartitioned
5. Copy all unnecessary files from the D Drive to a floppy diskette for storage and delete those files from the D Drive

SOFTWARE CORRECTION:

4M RAM or more: V1.53 for versions of ULTIMAX 3, MAX 32 Dual Axis, and MAX 32 DSP2

2M RAM: V1.31 for MAX 32 Dual Axis and MAX 32 DSP2 and V1.23 for ULTIMAX 3

ORIGINATOR: David Skrzypczak

REVISED BY:

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SOFTWARE BULLETIN

HURCO MANUFACTURING COMPANY
 One Technology Way
 Indianapolis, IN 46268-0180

DATE: 09 November 1995 **ISSUE NUMBER:** 003
SUBJECT: Software Releases
CONTROL: Ultimax 3/486, Ultimax 3, Max 32 **SCR Reference:** n/a
VERSION: V1.00 thru V1.60 **PAGE 1 OF 2**

PURPOSE: To document the latest software versions available for each Control configuration and the proper Engineering Document for Parameters.

DESCRIPTION:

VERSION - The version number available for each Control platform/configuration. It is always recommended to use the most recent version for the machine/memory configuration.
MACHINES - The listing of machines that can be installed with the indicated version.
MIN MEM - The minimum RAM configuration that can be installed on the indicated machines.
MAX MEM - The maximum RAM configuration that can be installed on the indicated machines.
DATE RELEASED - The Date that the software was first made available. Each date corresponds to the Version
PARAMETER DOCUMENT - Use the Parameter Document indicated for the version that is installed on the machine; use the most recent Parameter Document unless otherwise indicated (note that even though the Parameter Documents are released with a software version, not all software versions are released with a Parameter Document).

ULTIMAX 3/486 (ISA)

Version	Machines	Min Mem	Max Mem	Date Released	Parameter Doc
V1.60	Hawk 5M, SSM	4M	16M	06 Nov 95	757-4002-048,
V1.54	BMC 30/M			26 Sep 95	Rev E
V1.53	BMC 30HT/M			10 Apr 95	D8419E.DOC
V1.52	Hawk 5M	4M	16M	02 Nov 94	757-4002-048,
	BMC 30/M				Rev B
	BMC 30HT/M				D8419B.DOC
V1.51	Hawk 5M	4M	16M		757-4002-048,
					Rev A
					D8419A.DOC

V1.52 thru V1.60 all use the same security key. To upgrade from V1.51 (or V1.52P), order 002-4136-003, Optikey Software Modifier.

ORIGINATOR: David Skrzypczak
REVISED BY:

ULTIMAX 3 (MULTIBUS)

Version	Machines	Min Mem	Max Mem	Date Released	Parameter Doc
V1.60 V1.54 V1.53 V1.40	BMC 20-50 MD1 VSX	4M	8M	06 Nov 95 26 Sep 95 10 Apr 95 27 May 94	757-4002-029 Rev C D8310C.DOC
V1.23 V1.22 V1.21 V1.20	BMC 20-50 MD1 VSX	2M	8M	16 Jan 95 02 Nov 93 19 May 93 02 Feb 93	757-4002-029 Rev A D8310A.DOC
V1.14 V1.13 V1.12 V1.11 V1.10 V1.00	BMC 20-50	2M	8M	02 Feb 93 10 Dec 92 01 Nov 92 09 Nov 92 16 Oct 92 13 Dec 91	none available

V1.52 thru V1.60 all use the same security key. To upgrade from V1.14-V1.40, order 002-4136-003.

MAX 32 DUAL AXIS

Version	Machines	Min Mem	Max Mem	Date Released	Parameter Doc
V1.54 V1.53 V1.40	BMC 20-50 (all) KM3/3P (all) KM5P	4M	8M	26 Sep 95 11 Apr 95 27 May 94	757-4002-031 Rev D D8267D.DOC
V1.31 V1.30	BMC 20-50 (all) KM3/3P (all) KM5P	2M	8M	16 Jan 95 25 Oct 93	757-4002-031 Rev B D8267B.DOC
V1.21	BMC 20-50 (all) KM3/3P (V2) KM5P	2M	8M	19 May 93	
V1.20	BMC 20-50 (all)	2M	8M	02 Feb 93	

V1.53 thru V1.54 all use the same security key. To upgrade from V1.20-V1.40, order 002-4136-003.

MAX 32 DSP2

Version	Machines	Min Mem	Max Mem	Date Released	Parameter Doc
V1.54 V1.53	BMC 20-50 (all) KM3/3P (all) KM5P	4M	8M	26 Sep 95 11 Apr 95 27 May 94	757-4002-034 Rev C D8271C.DOC
V1.40	BMC 20-50 (V2) KM3/3P (V2) KM5P	4M	8M	27 May 94	757-4002-034 Rev C D8271C.DOC
V1.31 V1.30	BMC 20-50 (V2)	2M	8M	16 Jan 95 25 Oct 93	757-4002-034 Rev A D8271A.DOC

V1.53 thru V1.54 all use the same security key. To upgrade from V1.30 thru V1.40, order 002-4136-003.



SOFTWARE BULLETIN

HURCO MANUFACTURING COMPANY
One Technology Way
Indianapolis, IN 46268-0180

DATE: 09 November 1995 **ISSUE NUMBER:** 003-A
SUBJECT: Software Releases
CONTROL: Ultimax 3/486, Ultimax 3, Max 32 **SCR Reference:** n/a
VERSION: V1.00 thru V1.60 **PAGE 1 OF 2**

PURPOSE: To document the latest software versions available for each Control configuration and the proper Engineering Document for Parameters.

DESCRIPTION:

VERSION - The version number available for each Control platform/configuration. It is always recommended to use the most recent version for the machine/memory configuration.

MACHINES - The listing of machines that can be installed with the indicated version.

MIN MEM - The minimum RAM configuration that can be installed on the indicated machines.

MAX MEM - The maximum RAM configuration that can be installed on the indicated machines.

DATE RELEASED - The Date that the software was first made available. Each date corresponds to the Version

PARAMETER DOCUMENT - Use the Parameter Document indicated for the version that is installed on the machine; use the most recent Parameter Document unless otherwise indicated (note that even though the Parameter Documents are released with a software version, not all software versions are released with a Parameter Document).

ORIGINATOR: David Skrzypczak
REVISED BY:

ULTIMAX 3/486 (ISA)

Version	Machines	Min Mem	Max Mem	Date Released	Parameter Doc
V1.60 V1.54 V1.53	Hawk 5M, SSM BMC 40/M BMC 30/M BMC 40/50/M BMC 30HT/M BMC 50/50/M	4M	16M	06 Nov 95 26 Sep 95 10 Apr 95	757-4002-048, Rev E D8419F.DOC
V1.52	Hawk 5M BMC 40/M BMC 30/M BMC 40/50/M BMC 30HT/M BMC 50/50/M	4M	16M	02 Nov 94	757-4002-048, Rev B D8419B.DOC
V1.51	Hawk 5M	4M	16M		757-4002-048, Rev A D8419A.DOC

V1.52 thru V1.60 all use the same security key. To upgrade from V1.51 (or V1.52P), order 002-4136-003, Optikey Software Modifier.

ULTIMAX 3 (MULTIBUS)

Version	Machines	Min Mem	Max Mem	Date Released	Parameter Doc
V1.60 V1.54 V1.53 V1.40	BMC 20-50 MD1 VSX	4M	8M	06 Nov 95 26 Sep 95 10 Apr 95 27 May 94	757-4002-029 Rev C D8310C.DOC
V1.23 V1.22 V1.21 V1.20	BMC 20-50 MD1 VSX	2M	8M	16 Jan 95 02 Nov 93 19 May 93 02 Feb 93	757-4002-029 Rev A D8310A.DOC
V1.14 V1.13 V1.12 V1.11 V1.10 V1.00	BMC 20-50	2M	8M	02 Feb 93 10 Dec 92 01 Nov 92 09 Nov 92 16 Oct 92 13 Dec 91	none available

V1.52 thru V1.60 all use the same security key. To upgrade from V1.14-V1.40, order 002-4136-003.

MAX 32 DUAL AXIS

Version	Machines	Min Mem	Max Mem	Date Released	Parameter Doc
V1.60 V1.54 V1.53 V1.40	BMC 20-50 (all) KM3/3P (all) KM5P	4M	8M	08 Dec 95 26 Sep 95 11 Apr 95 27 May 94	757-4002-031 Rev D D8267D.DOC
V1.31 V1.30	BMC 20-50 (all) KM3/3P (all) KM5P	2M	8M	16 Jan 95 25 Oct 93	757-4002-031 Rev B D8267B.DOC
V1.21	BMC 20-50 (all) KM3/3P (V2) KM5P	2M	8M	19 May 93	
V1.20	BMC 20-50 (all)	2M	8M	02 Feb 93	

V1.53 thru V1.54 all use the same security key. To upgrade from V1.20-V1.40, order 002-4136-003.

MAX 32 DSP2

Version	Machines	Min Mem	Max Mem	Date Released	Parameter Doc
V1.60 V1.54 V1.53	BMC 20-50 (all) KM3/3P (all) KM5P	4M	8M	08 Dec 95 26 Sep 95 11 Apr 95	757-4002-034 Rev C D8271C.DOC
V1.40	BMC 20-50 (V2) KM3/3P (V2) KM5P	4M	8M	27 May 94	757-4002-034 Rev C D8271C.DOC
V1.31 V1.30	BMC 20-50 (V2)	2M	8M	16 Jan 95 25 Oct 93	757-4002-034 Rev A D8271A.DOC

V1.53 thru V1.54 all use the same security key. To upgrade from V1.30 thru V1.40, order 002-4136-003.



SOFTWARE BULLETIN

HURCO MANUFACTURING COMPANY
One Technology Way
Indianapolis, IN 46268-0180

DATE: 12 September 1996 **ISSUE NUMBER:** 003-C
SUBJECT: Software Releases
CONTROL: Ultimax 3/486, Ultimax 3, Max 32, PC **SCR Reference:** n/a
VERSION: V1.00 thru V1.70 **PAGE 1 OF 3**

PURPOSE: To document the latest software versions available for each Control configuration and the proper Engineering Document for Parameters.

DESCRIPTION: The software versions are grouped in the following tables by system (Ultimax 3, Max 32 Dual Axis, and Max32 DSP). The versions are listed in each of the tables by Machine, Min Mem, Max Mem, Date Released, and Parameter Document.

VERSION - The version number available for each Control platform/configuration. It is always recommended to use the most recent version for the machine/memory configuration.

MACHINES - The listing of machines that can be installed with the indicated version.

MIN MEM - The minimum RAM configuration that can be installed on the indicated machines.

MAX MEM - The maximum RAM configuration that can be installed on the indicated machines. Note that ISA machines can now be installed with up to 64M of memory.

DATE RELEASED - The Date that the software was first made available. Each date corresponds to the Version

PARAMETER DOCUMENT - Use the Parameter Document indicated for the version that is installed on the machine; use the most recent Parameter Document unless otherwise indicated (note that even though the Parameter Documents are released with a software version, not all software versions are released with a Parameter Document).

ORIGINATOR: David Skrzypczak
REVISED BY: David Skrzypczak

ULTIMAX 3/486 (ISA)

Version	Machines	Min Mem	Max Mem	Date Released	Parameter Doc
V1.70	Hawk 5M, SSM BMC 40/M BMC 30/M BMC 40/50/M BMC 30HT/M BMC 50/50/M	4M	64M	17 Oct 96	757-4002-048, Rev H D8419H.DOC
V1.63 V1.62 V1.61 V1.60 V1.54 V1.53	Hawk 5M, SSM BMC 40/M BMC 30/M BMC 40/50/M BMC 30HT/M BMC 50/50/M	4M	64M	12 Sep 96 02 Aug 96 04 Mar 96 06 Nov 95 26 Sep 95 10 Apr 95	757-4002-048, Rev H D8419H.DOC
V1.52	Hawk 5M BMC 40/M BMC 30/M BMC 40/50/M BMC 30HT/M BMC 50/50/M	4M	64M	02 Nov 94	757-4002-048, Rev B D8419B.DOC
V1.51	Hawk 5M	4M	64M		757-4002-048, Rev A D8419A.DOC

V1.52 thru V1.63 all use the same security key.

V1.70 is the Industry Standard NC Option.

ULTIMAX 3 (MULTIBUS)

Version	Machines	Min Mem	Max Mem	Date Released	Parameter Doc
V1.70	BMC 20-50 MD1	4M	8M	17 Oct 96	757-4002-029 Rev C D8310C.DOC
V1.63 V1.62 V1.61 V1.60 V1.54 V1.53 V1.40	BMC 20-50 MD1 VSX	4M	8M	12 Sep 96 02 Aug 96 04 Mar 96 06 Nov 95 26 Sep 95 10 Apr 95 27 May 94	757-4002-029 Rev C D8310C.DOC
V1.23 V1.22 V1.21 V1.20	BMC 20-50 MD1 VSX	2M	8M	16 Jan 95 02 Nov 93 19 May 93 02 Feb 93	757-4002-029 Rev A D8310A.DOC
V1.14 V1.13 V1.12 V1.11 V1.10 V1.00	BMC 20-50	2M	8M	02 Feb 93 10 Dec 92 01 Nov 92 09 Nov 92 16 Oct 92 13 Dec 91	none available

V1.52 thru V1.63 all use the same security key.

V1.70 is the Industry Standard NC Option.

MAX 32 DUAL AXIS

Version	Machines	Min Mem	Max Mem	Date Released	Parameter Doc
V1.61 V1.60 V1.54 V1.53 V1.40	BMC 20-50 (all) KM3/3P (all) KM5P	4M	8M	04 Mar 96 08 Dec 95 26 Sep 95 11 Apr 95 27 May 94	757-4002-031 Rev D D8267D.DOC
V1.31 V1.30	BMC 20-50 (all) KM3/3P (all) KM5P	2M	8M	16 Jan 95 25 Oct 93	757-4002-031 Rev B D8267B.DOC
V1.21	BMC 20-50 (all) KM3/3P (V2) KM5P	2M	8M	19 May 93	
V1.20	BMC 20-50 (all)	2M	8M	02 Feb 93	

V1.53 thru V1.61 all use the same security key.

MAX 32 DSP2

Version	Machines	Min Mem	Max Mem	Date Released	Parameter Doc
V1.61 V1.60 V1.54 V1.53	BMC 20-50 (all) KM3/3P (all) KM5P	4M	8M	04 Mar 96 08 Dec 95 26 Sep 95 11 Apr 95	757-4002-034 Rev C D8271C.DOC
V1.40	BMC 20-50 (V2) KM3/3P (V2) KM5P	4M	8M	27 May 94	757-4002-034 Rev C D8271C.DOC
V1.31 V1.30	BMC 20-50 (V2)	2M	8M	16 Jan 95 25 Oct 93	757-4002-034 Rev A D8271A.DOC

V1.53 thru V1.61 all use the same security key.

ULTIMAX PC/PC+

Version	Date Released
V1.70	17 Oct 96
V1.55	01 Dec 95
V1.40	27 May 94
V1.30	20 Aug 93
V1.21	19 May 93

V1.21 thru V1.55 all use the same security key.



SOFTWARE BULLETIN

HURCO MANUFACTURING COMPANY
One Technology Way
Indianapolis, IN 46268-0180

DATE: 30 November 1995 **ISSUE NUMBER:** 004
SUBJECT: UltiPocket Boundary (Inward) Fault if First Data Block
CONTROL: Ultimax 3, Max32 **SCR Reference:** 1960
VERSION: V1.40 thru V1.60 **PAGE 1 OF 1**

DESCRIPTION: The UltiPocket problem can occur:

1. if a Hurco Conversational Data Block program begins with a Pocket Boundary Data Block that uses an Inward Pocket Type as the first Data Block, or
2. if a Hurco Conversational Data Block program is restarted at a Pocket Boundary Data Block that uses an Inward Pocket Type

Note that this problem does not occur if the Pocket Boundary Data Block is Outward Pocket Type or if Pocket Boundary with Inward Pocket Type is not the first executed Data Block in Auto mode (either Run Program or Recovery Restart).

Both situations occur as a result of the Machine location that is displayed before entering Auto mode to run the program. For example, if the Machine is located at X=10.0 and Y=5.0 in Manual mode, in Auto the machine will attempt to move to X=10.0 and Y=5.0 from the Part Zero before beginning the Part Program.

If this motion would be beyond the travel limits of an axis then an "out of limits" error occurs for that axis; there is no machine motion. If this motion will fit within the travel limits then the machine moves the X and Y axes to the Part position that was equal to the Machine position in Manual mode before entering Auto. If Retract Clearance is programmed then the Z axis will also try to move to the Retract Clearance value.

REQUIREMENTS: Applicable only to Machining Centers with the UltiPocket option.

WORKAROUND:

1. Do not program the first Data Block of a Conversational program as a Pocket Boundary with Inward Pocket Type. If this is required then insert a Position Data Block before the Pocket Boundary Data Block using the same Tool.
2. When using Recovery Restart, do not select the Pocket Boundary Data Block with an Inward Pocket Type as the Start Block. Instead, either select the previous Data Block or insert a Position Data Block before the Pocket Boundary Data Block to be restarted and set the Start Block to the Position Data Block.

ORIGINATOR: David Skrzypczak
REVISED BY:



SOFTWARE BULLETIN

HURCO MANUFACTURING COMPANY
One Technology Way
Indianapolis, IN 46268-0180

DATE: August 14, 1996 **ISSUE NUMBER:** 005

SUBJECT: Executive Upgrade Problems from V1.60 or V1.61

CONTROL: Ultimax 3 and Max32 **SCR Reference:**

VERSION: V1.60 and V1.61 **PAGE 1 OF 1**

DESCRIPTION: Recently, the Security Key used on Machining Centers was changed from the DS1255 KeyRing to the DS1410D Button style. This change required software to support both Security Keys. Versions 1.60 and all subsequent versions are capable of supporting the new Button Security Key as well as the old Security Key. However, a software fault was introduced in software versions V1.60 and V1.61 only which may not allow the Upgrade Executive function to complete successfully.

This only affects machines with the new Button Security Key that are currently running either V1.60 or V1.61. Any newer software version (V1.62 or later) that is installed on a Machining Center with the Button Security Key will have this fault corrected.

WORKAROUND: Follow the attached instruction sheet that is being released with the V1.62 Executive (this will be released with all future Executives). Essentially, the V1.62 (or greater) Executive must be booted from the floppy disk (so that V1.62 will be running on the Machining Center) before selecting the Upgrade Executive function. Before this can occur, the Machine Configuration directory on the backup diskette needs to be renamed to the version that is to be upgraded. Alternatively, a Field Service Engineer can boot DOS and manually copy the Executives from the floppy disks onto the Hard Drive (reference TIN 1057) and then rename the directory on the C drive to the new version number.

ORIGINATOR: David Skrzypczak
REVISED BY:



SOFTWARE BULLETIN

HURCO MANUFACTURING COMPANY
One Technology Way
Indianapolis, IN 46268-0180

DATE: August 14, 1996 **ISSUE NUMBER:** 006

SUBJECT: Tool Door Setup

CONTROL: Ultimax 3 with Type 2 ATC **SCR Reference:**

VERSION: V1.62 or greater **PAGE 1 OF 1**

DESCRIPTION: A software change in V1.62 could have an affect on the Automatic Tool Change (ATC) function on the Machining Centers with the Type 2 ATC (BMC 30/M and BMC 30/HT/M). In the normal ATC cycle, the Tool Door opens before the magazine moves to the right.

In V1.61 or less, Ultimax checked for the Tool Door to be not closed before the magazine moved to the right. In V1.62 or greater, Ultimax checks for the Tool Door to be opened before the magazine moves to the right.

Though the difference appears to be subtle, the V1.61 or less Machining Centers could still execute an ATC function if the Tool Door Open limit switch was not seen (due to incorrect setting or defect). However, an incorrectly setup Tool Door Open limit switch would generate a Tool Door Not Open error during an ATC function with V1.62 or greater.

ACTION: If the Tool Door Not Open error is seen for BMC 30/M and BMC 30/HT/M machines during an ATC function with V1.62 or greater then check and adjust the Tool Door Open limit switch. Verify its operation in ATC Diagnostics.

ORIGINATOR: David Skrzypczak
REVISED BY:



SOFTWARE BULLETIN

HURCO MANUFACTURING COMPANY
One Technology Way
Indianapolis, IN 46268-0180

DATE: August 14, 1996 **ISSUE NUMBER:** 007-A

SUBJECT: ATC Type 1

CONTROL: Ultimax 3 with Type 1 ATC **SCR Reference:** 1997

VERSION: V1.62 **PAGE 1 OF 1**

DESCRIPTION: Any Ultimax 3 Control with an ATC Type 1 Tool Changer will not be able to complete an automatic tool change (in Manual or Auto) from one tool in the magazine to another tool in the magazine.

During the ATC cycle, the Previous Tool will be removed OK but the rotation of the Magazine to the Next Tool will not stop rotating at the Next Tool position. The Z axis can descend down to Tool Change Height with the Magazine still rotating and the Magazine will move left. After returning to the left, the Magazine may even change directions of rotation (if it were running counter-clockwise, the direction will change to clockwise). Emergency Stop will stop rotation but re-enabling Control Power will also resume Magazine rotation. Only a complete Machine Power cycle will clear the output.

This software fault does not affect any Ultimax 3 ISA system with ATC Types of 0 or 2.

ACTION: Do not install V1.62 on an ATC Type 1 machine with an Ultimax 3 Control. Revert the customer back to the previous version until the release of V1.63.

ORIGINATOR: David Skrzypczak
REVISED BY:



SOFTWARE BULLETIN

HURCO MANUFACTURING COMPANY
One Technology Way
Indianapolis, IN 46268-0180

DATE: October 3, 1997

ISSUE NUMBER: 008

SUBJECT: DXF (UltiDraw) File Requirements

CONTROL: Ultimax 3, Max 32, Ultimax PC

PAGE 1 OF 1

The DXF Option (UltiDraw) for Ultimax 3, Max 32, and Ultimax PC products is compatible with any AutoCAD Version 9 or greater or other CAD systems capable of generating DXF output. However, AutoCAD version 13 (and greater) as well as other CAD programs have expanded CAD capabilities so that some DXF programs created with these versions may not be able to be read into the Ultimax 3, Max 32, and Ultimax PC products. However, all DXF programs can be made to work if the CAD programmer observes the following guidelines.

UltiDraw supports the following DXF entity types and no others:

1. 2-dimensional ARCS
2. 2-dimensional LINES
3. 2-dimensional POLYLINES
4. 2-dimensional POINTS
5. BLOCK INSERTS
6. Text Data exploded into 2-dimensional POLYLINES

UltiDraw does not support the following DXF entity types (not exclusive as other features are added):

1. Any 3-dimensional entity
2. POLYLINE MESH surfaces
3. RULED surfaces
4. Extended Data of any type
5. Text entities
6. Postscript entities within Extended Data
7. Line thickness of any type

Other CAD programming tips to improve DXF compatibility with the UltiDraw option:

1. DXF geometries should be drawn to scale.
2. Write the data using 8 or 10 decimal places when creating the DXF file.
3. When drawing DXF geometry, try to draw the segments in the middle of the tolerance value (to improve accuracy when the data is translated into UltiDraw).
4. If a DXF file is programmed in different units than what will be used on the machine then be sure to set the units properly in the DXF parameter screen in Ultimax.

ORIGINATOR: David Skrzypczak
REVISED BY:



SOFTWARE BULLETIN

HURCO MANUFACTURING COMPANY
One Technology Way
Indianapolis, IN 46268-0180

DATE: October 9, 1997

ISSUE NUMBER: 009

SUBJECT: V1.65 Rapid Response Builds

CONTROL: Ultimax 3

PAGE 1 OF 2

In an effort to provide more expedient response to software faults, Software Engineering has released intermediate software versions called Rapid Response Builds (RRB). The RRBs are not released versions so, therefore, are not available through the normal part number ordering system. The RRBs are distributed by Hurco Service only upon request to correct a particular software fault which has been corrected in the RRB. To achieve the expedient response, RRBs will not have the in-depth testing and certification that normally occurs with an official software release. Therefore, discretion with regard to the distribution of the RRBs should only be limited to those customers who can benefit from the RRB corrections and should not be widely distributed.

V1.65 RRB-1 Not distributed

MASTER PROGRAM V1.65-042097

Not distributed to any customers due to rough Incremental Jog.

V1.65 RRB-2

MASTER PROGRAM V1.65-052097

- The second Rigid Tap of a program containing a Rigid Tap, a tool change, then another Rigid Tap will now function properly. Spindle would oscillate during second Rigid Tap.
- To achieve chip-to-chip ATC time of 9 seconds or less for ATC Type 2 machines, the Tool Door will close as the axes and Spindle motion begins rather than waiting for the Tool Door to close before the Spindle and Z axis motion starts at the end of the Tool Change cycle.
- Machines with Siemens Spindles will now disable SOR at the end of an ATC in Manual Mode. This could have caused the Spindle to re-orient if the Spindle was forced out of position.
- Machines with Siemens Spindles now disable SOR after running a program with a Position block (with a different tool) as the last data block (after doing a Tap) while having the Tool Change Position parameter set to YES. This could have caused the Spindle to drift if the Spindle drive is not completely balanced. SOR is disabled properly in all other programs.
- Corrected the "Internal Motion Control Error, Code = 2".
- The Spindle will not orient if the SPINDLE UNCLAMP softkey is used. The Unclamp pushbutton on the Head does not cause this problem.

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REVISED BY:

- When doing a manual tool change in Auto ATC, the Shot Pin will now lock as the Magazine moves back left. The Tool Magazine could have moved from In Position, resulting in a tool change fault.
- The Spindle On LED will stay On after pressing the TOOL HOME softkey while in Tool Setup and the Spindle On.
- Corrected the rough Incremental Jog problem introduced in v1.65RRB1 (V1.65-042097).

V1.65 RRB-3 Not distributed

MASTER PROGRAM V1.65-061997

Not distributed to any customer due to lack of testing.

V1.65 RRB-4

MASTER PROGRAM V1.65-101797

- Same corrections as in V1.65 RRB-2 (V1.64-052097)
- Corrected Incremental Jog backlash kick which would occur if the backlash exceeded 0.0008”.
- 4020 SSM machines will now re-orient the Spindle during a manual removal of a tool while in Auto ATC and Tool Setup. If the Spindle were moved out of orient, an orient fault could have occurred.



SOFTWARE BULLETIN

HURCO MANUFACTURING COMPANY

One Technology Way

Indianapolis, IN 46268-0180

DATE: 09 November 1995

ISSUE NUMBER: 010

SUBJECT: V2.01 Rapid Response Builds

CONTROL: Ultimax 3

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PURPOSE: In an effort to provide quicker software corrections to documented software faults, Software Engineering has released intermediate software versions called Rapid Response Builds (RRB). The RRBs are not released versions so, therefore, are not available through the normal Part Number ordering system. The RRBs are distributed by Hurco Service only upon request to correct a particular software fault which has been corrected in the RRB. To allow these software corrections to be distributed quickly to customers, RRBs will not have the in-depth testing and certification that normally occurs with an official software release. Therefore, discretion with regard to the distribution of the RRBs should only be limited to those customers who can benefit from the RRB corrections and should not be widely distributed.

DESCRIPTION:

V2.01 RRB-1 June 6, 1997; this version was distributed to all V2.00 customers.

- Modified the Incremental Jogwheel motion for smooth motion.
- Corrected the Memory Fragmentation Error which can occur while running an NC program.
- Corrected a system lockup which would occur upon trying to read a Conversational program which contained an Insert Pocket Data Block.
- Corrected a problem with reading some Ultimax II diskettes.
- Corrected a problem with the Chip Breaker Cycle not properly dwelling at each Peck Depth for 2 Spindle revolutions (seen at RPMs above 300).
- Added a Surface Finish Quality Parameter to Program Parameters (used in NC only) to allow the user to control the amount of deceleration and acceleration between non-linear segments (see Operation Changes below).
- Rapid Override can now be enabled and disabled in Auto Run mode. Enabled allows for rapid adjustment from 50% to 100% of the Rapid Traverse parameter; disabled will run program at 100% of Rapid Traverse (see Operation Changes below).
- Spindle Override has been changed to +/- 640 RPM and adjusts in 20 RPM steps. Spindle overrides are clamped at Spindle minimum and maximum RPM configurations.
- Added support for four user M-code Input/Output pairs.
- During the Backup Machine Configuration function, the language files will no longer be backed up (this is not required) as it previously resulted in a "Disk Full" error message.

ORIGINATOR: Dave Skrzypczak
REVISED BY:

PROPRIETARY INFORMATION

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- ISNC: corrected a program numbering problem which registered multiple program numbers into the subprogram list when entering a program number.
- Clarified the information in the text entry Help window.
- Corrected the manual insert/removal of a tool in Auto Tool Change which previously required two presses of the Start Push-button; now, only one press is required.
- Spindle and Servo faults will display a pop-up window.
- The RESET SERVOS softkey now resets the Servo and Spindle Drives.
- In Auto, added a Feed display of the Feedrate override pot as a percentage of the programmed feedrate and a Rapid display of the Rapid Traverse override pot as a percentage of the Rapid Traverse.

V2.01 RRB-2 August 5, 1997; this version is available only to those customers who are reporting one of the following corrections; this is only available upon request through Hurco Service.

- Corrections to the program Autosave have been made so that the Autosave Timer may now be utilized.
- For Rotary A programs, Store Machine Position will now update the Part Zero A display.
- For Rotary A programs, Store Machine Position will now properly store negative Part Zero A values.
- For Rotary A programs, corrected a Following Error condition which could occur after a tool change if the current Rotary A machine position was negative.
- For Rotary A programs, Store Machine Position will now properly display 0.000 for the Part A display when setting Part Zero A.
- In Dry Run Mode of NC, corrected the Tap cycle from moving below the Minimum Z plane.
- In Dry Run Mode of NC, corrected the Spindle from turning on.
- In NC, deleted the pop-up message from appearing when a program is erased or deleted from memory if the time to erase or delete the program is less than 0.5 seconds.
- In NC, the operator is now prompted to delete the current file before beginning a serial load of a new file. This will allow the maximum amount of memory to be available for program storage.
- In NC, the operator is now prompted to delete the current file before a new file is read from the Hard Drive or the Floppy Drive. This will allow the maximum amount of memory to be available for program storage.
- In a Tap within a Pattern, aborting the program with Motion Hold / Spindle Off sequence during the Tap cycle will now properly complete the current Tap cycle being executed before aborting the program.
- In NC, corrected a Rapid move that would move at the Contouring feedrate when the Rapid move immediately preceded a Contouring move that was in the same direction.
- In NC, corrected a Contouring move to decel at the end of the move when the Contouring move immediately preceded a Rapid move that was in the same direction.
- In NC, corrected a Cutter Compensation problem with feedrates during the lead-in move.
- Improved ATC Diagnostics abort processing by allowing mode changes, the EXIT softkey, or a second selection of the selected softkey to abort the pending operation.
- Unclamping the Spindle will not unverify the Tool In Spindle.
- Coolant and Tool Change modes are properly resumed after Interrupt mode.
- Added Spindle Orient Diagnostics.
- Added quad-sized encoder count display for Axis Balance Adjust procedure.
- In Interrupt mode, Spindle On functionality is now allowed.
- Added support for a negative Spindle RPM in Manual mode for counter-clockwise Spindle rotation.