



## Cadra Version 2002Plus Release Notes

SofTech is pleased to provide you with Cadra - Version 2002Plus. Cadra version 2002Plus includes a number of major enhancements in addition to some high priority corrections. This document will briefly review the new features and changes to Cadra. A summary of the installation process is also included toward the end of the document. The enhancements include:

1. Support for Multiple Undo and Redo of Operations
2. AutoCAD file Read and Write Enhancements
3. Support for up to 32000 Internal and External Figures
4. Support for Compressed Cadra Files
5. A new COM Session Interface
6. Backup Filename Parameterization
7. Support for Adobe PDF as a Plot file format
8. A new Free Cadra File Viewer (Cadra View Express) available over the web
9. Ability to display overlays using entity colors
10. Much more thorough Japanese translation of the Cadra GUIs
11. Windows Terminal Server sessions now separately licensed

### ***Multiple Undo/Redo***

A new multiple Undo and Redo capability has been added to Cadra. It allows multiple Undo and Redo of most operations within a single file edit session. These operations include all geometric construction and modifications and the changing of settings. The number of operations that can be undone and redone is settable on the **Database** page of the **Setup/Preferences** dialog. The default is 25. This value can be set to a minimum of 1 and a maximum of 32767. When the number of operations on the Undo stack exceeds this limit the older operations are dropped from the list. It should be noted that the Undo history stack uses runtime memory and so the larger the stack the more memory will be used.

The settings handled include all those altered on the following Windows GUI Setup dialog pages:

- Text Fonts
- Line Fonts
- Dimension Style (all pages)
- Preferences/Database
- Preferences/Part Display

Other global settings handled include:

- Workspace coordinate mode (view, model or drawing)
- Current figure partition
- Current view partition
- Current model
- Current active database layer
- Current color

When a new file is opened the Undo history stack of operations is cleared. *Note that foreground input translation is equivalent to opening a new file.*

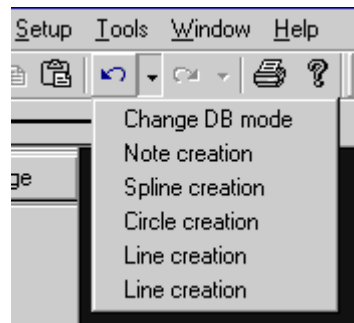
The operations that are not Multiply Undoable in this release include:

1. File saving.
2. Plotting.
3. Loading external figures.
4. Background Translation.
5. Windows GUI modifications (on the View menu).
6. Viewing operations including zoom and pan.
7. CadraNC – (Multiple Undo/Redo is already separately supported)
8. Rasterize operations
9. Information requests.
10. Flexdesign operations.
11. Help menu options.
12. Overlay operations.
13. The insertion of OLE/COM objects.
14. The effects of COM client and AutoGeometry programs.
15. Interactions with CadraWorks.
16. Operations with entities in associative views.
17. Manipulations of 3D Workplanes.

Note that running an AutoGeometry program or interacting with CadraWorks or a Cadra instance from a COM client program will delete the contents of the Undo history stack.

If you create a new file with associative views enabled (by either manually setting it or by reading a file with associative views) you will be placed in Single Undo mode. To re-enable Multiple Undo you will need to manually set **Setup/Preferences/Associative Views** to the **Associative view** setting.

A new set of toolbar buttons has been added to facilitate multiple Undo and Redo:



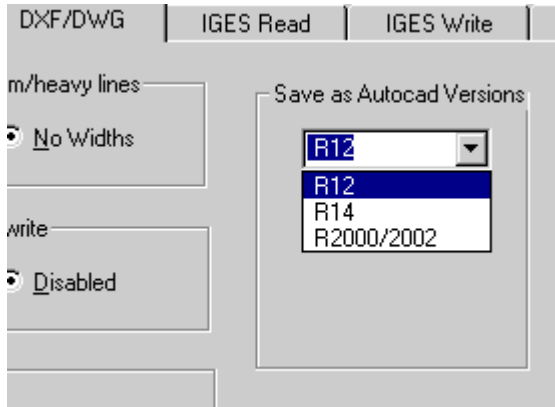
There are instances when the Undo behavior reverts to the older Cadra single undo style. These are instances when Cadra's older Undo behavior is more appropriate to the operation. In these instances a "Single step undo enabled" message is displayed in a status bar. When going back to the new Undo behavior a complementary "Multiple undo enabled" message is displayed.

These instances include:

- entering Spline points
- entering NURB points
- entering Line/Linestring points
- entering Line/Pnt to Pnt/Chain mode
- a Flexdesign dimension change
- all Raster functions
- when associative views and/or associative entities are present

## New AutoCAD File Read and Write Enhancements

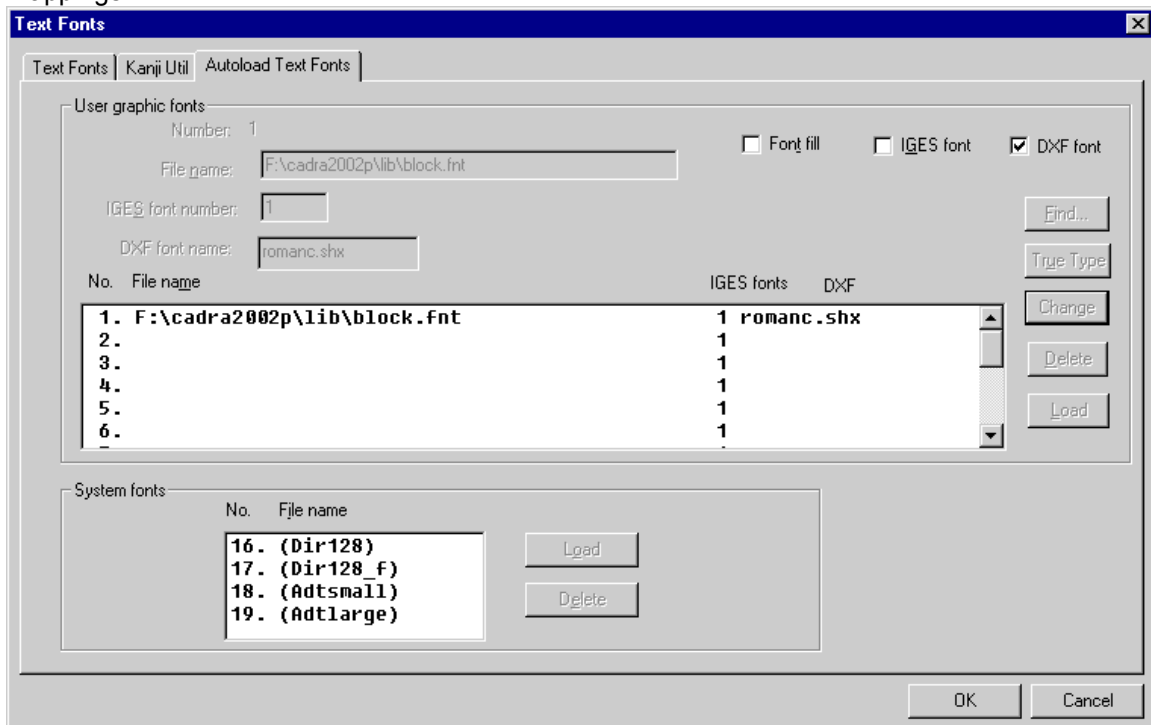
It is now possible to write out AutoCAD files in AutoCAD Version 12, 14 and 2000/2002 formats.



AutoCAD output has also been enhanced as follows:

- Crosshatch and pattern entities are output from Cadra as AutoCAD crosshatch entities but are not associative.
- Geometric tolerance text and symbols attached to labels are output as AutoCAD tolerance entities.
- Cadra now writes out AutoCAD leader, mtext (multi-line text) in labels, lwpolyline (lightweight polyline) and basic spline entities.
- All Cadra dimension arrowhead styles are preserved on output to AutoCAD and when reading in an AutoCAD file arrowhead styles are matched to the closest corresponding style supported in Cadra.
- The user can now set up a mapping of AutoCAD fonts to Cadra fonts.
- AutoCAD figure attributes are now preserved on a round trip through Cadra. Users should no longer add an attribute and key an attribute number of 65535, as it is used to denote an attribute from AutoCAD.

The user can set up a mapping of AutoCAD fonts to Cadra fonts using the **Autoload Text Fonts** tab of the **Text Fonts** dialog (Setup/Text Fonts...). The user can add up to sixteen font mappings.



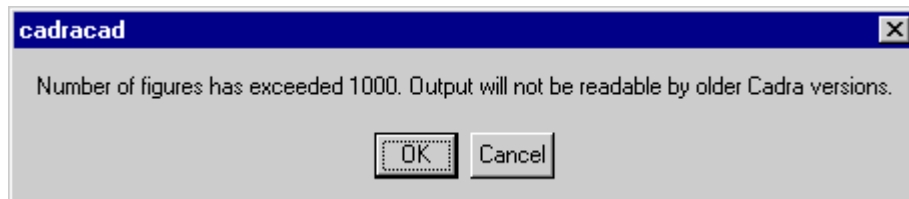
The steps to map an AutoCAD font to a Cadra font are:

1. Select **Setup/Test Fonts/Autoload Text Fonts**
2. Load your desired Cadra fonts.
3. Check the **DXF font** button.
4. Select the line with the Cadra text font you want to map to an AutoCAD font.
5. Key in the AutoCAD font file name (e.g., scriptc.shx, romanc.shx, etc.). It is not necessary to type in the .shx file extension – it will be assumed.
6. Press the **Change** button and the AutoCAD font name will appear in the font box along with the Cadra font to which it is mapped.

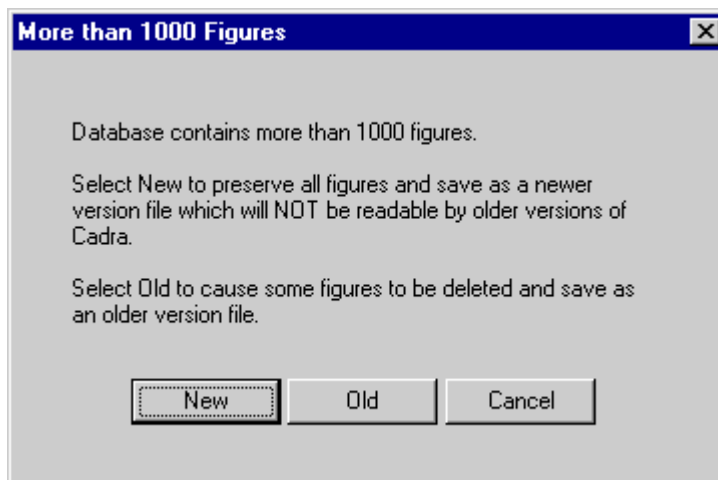
## ***Support For 32000 Figures***

Files can be read into Cadra 2002Plus that include up to 32000 figures. The file version written out by Cadra depends upon the number of figures defined. If there are 1000 or less figures defined then a .cad (or .czp) file write will write a version 11 Cadra file. Version 11 Cadra files can be read into Cadra Version 11, 12, 2002 and 2002Plus. If there are more than 1000 figures defined then a .cad file write will write a version 13 (2002Plus) Cadra file. Version 13 Cadra files are NOT readable by older versions of Cadra.

When the number of figures exceeds 1000 a status message will be displayed informing the user of the occurrence.



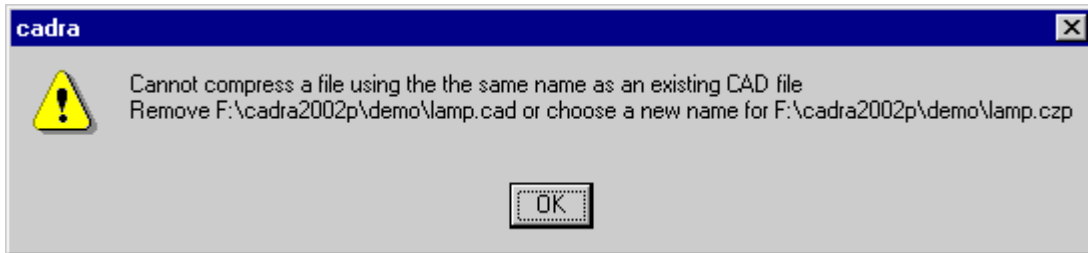
If a save operation is attempted when more than 1000 figures are in the database the following dialog will appear asking the user to choose which version to output the file in:



## Compressed Cadra Files

A Cadra database can now be written out in a compressed file format. Compressed Cadra files use the new **.czp** file extension. A compressed Cadra file is written if the **.czp** file type is selected in the file **Save As...** dialog. **.czp** files are also a selectable option in the **File Open...** dialog.

You can only have a file in either an uncompressed or a compressed form – not both simultaneously. Therefore, if you are attempting to save a file compressed (\*.czp) and there already exists an uncompressed form of the file (\*.cad) on disk you will be prompted to choose a different file name:



**Applications that interact with Cadra to open Cadra files (via AutoGeometry programs or the COM interface) will need to be modified to use these new compressed files.**

## A New COM Session Interface

This release provides a new COM interface to allow client applications to obtain a list of the currently active Cadra sessions. There are three new properties that have been added to the Cadra Application object: **Sessions**, **SessionHandles** and **SessionPIDs**. The following shows the Visual Basic usage of these new properties:

```
Dim numSessions as Long
Dim CadObj as Cadra.Application
Dim CadObj2 as Cadra.Application
Dim procs as Variant
Dim pids as Variant
```

```
CadObj = GetObject(, "Cadra.Application.1")
```

```
numSessions = CadObj.Sessions()
```

The **Sessions** property causes Cadra to retrieve the Cadra session information and return the number of sessions currently running. This property must be called before the other two.

```
procs = CadObj.SessionHandles()
```

The **SessionHandles** property returns an array of Cadra Application COM dispatch handles. The dispatch handles returned by this property can be utilized in the same manner as CadObj in this example code. This array is indexed the same as the array returned by SessionPIDs.

```
If numSessions > 1 then
    CadObj2 = procs(1)
Endif
```

Setting CadObj2 to a session handle in procs (where the index used is between zero and numSessions-1) will allow your application to address all the active Cadra sessions.

```
pids = CadObj.SessionPIDs()
```

The **SessionPIDs** property returns an array of Cadra session process identifiers. This array is indexed the same as the array returned by SessionHandles.

Note that the Autogeometry systat\$(type) function will return the current Cadra session PID if type is 24. So if your application is started from Autogeometry it can have the knowledge of the PID of the Cadra session from which it was started.

## ***Backup File Parameterization***

The name of the backup file written can now be specified to include elements that make it unique and more identifiable. The backup file is specified in the **Auto save options** box on the **Database** page of the **Setup/Preferences** dialog.

The following single letter codes, all preceded by a percent (%) character, are expanded as described when a backup file is written.

- %d -- date (MmmDDYYYY)
- %m -- machine name
- %n -- document name (not including path or extension)
- %u -- user name
- %p -- process id
- %t -- time stamp (HHMMSS)

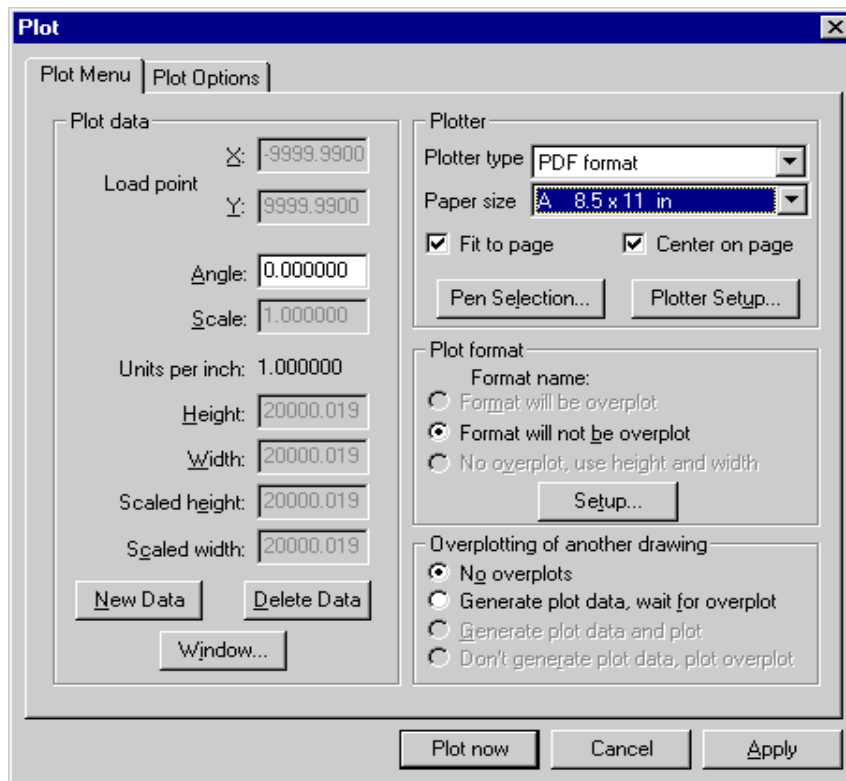
Example: d:\temp\backup\_%u\_%d.cad

will expand to the following for user jdoe on June 30, 2002:

d:\temp\Backup\_jdoe\_Jun302002.cad

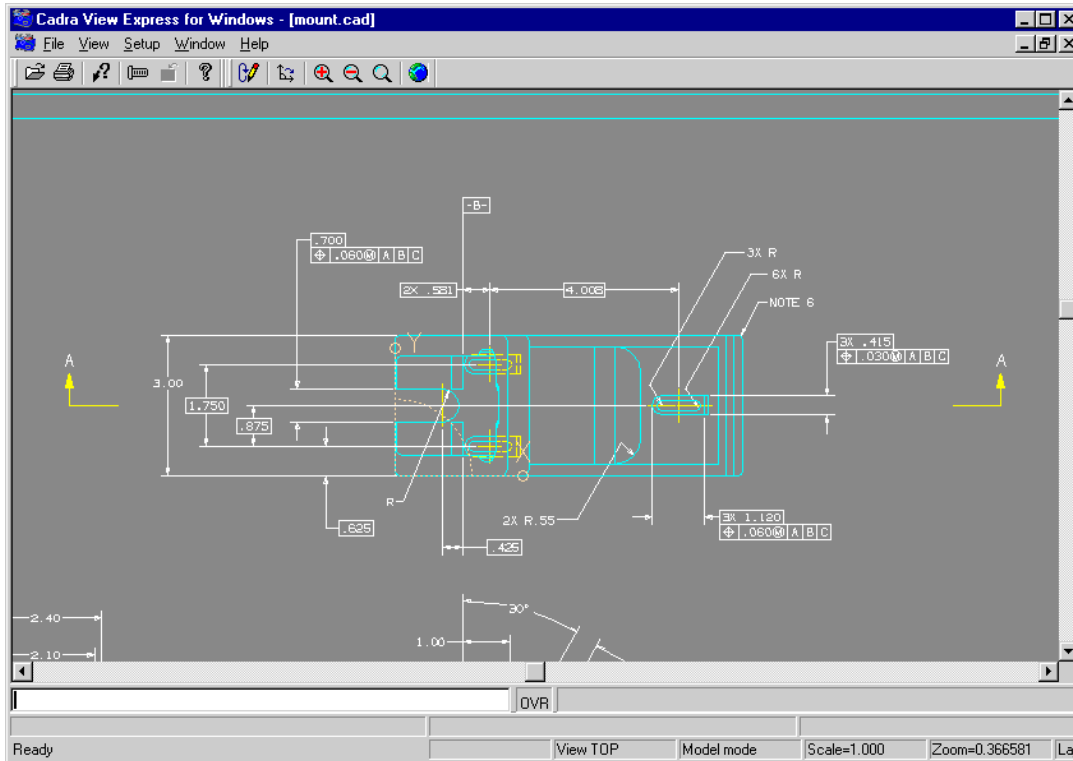
## Output of PDF Plot Files

The Adobe Portable Document Format (PDF) Version 1.4 is now supported as a Cadra plot output format (**File/Plot...**). Just select "PDF Format" as the desired plotter type. The output file uses the .pdf file extension.



## ***New Cadra Viewer – Cadra View Express***

A new free Cadra file viewer application is being introduced with this release.



Cadra View Express is a new program that will run without a Cadra license and will allow the user to do the following:

1. Read and display Cadra files.
2. Zoom and pan the Cadra file.
3. Plot the file.
4. Choose a drawing view.
5. Set background and foreground colors.
6. Set memory size.
7. Toggle the visibility of layers.
8. View figures.
9. Load external figures.
10. Autoload text fonts.
11. Set and display a grid.

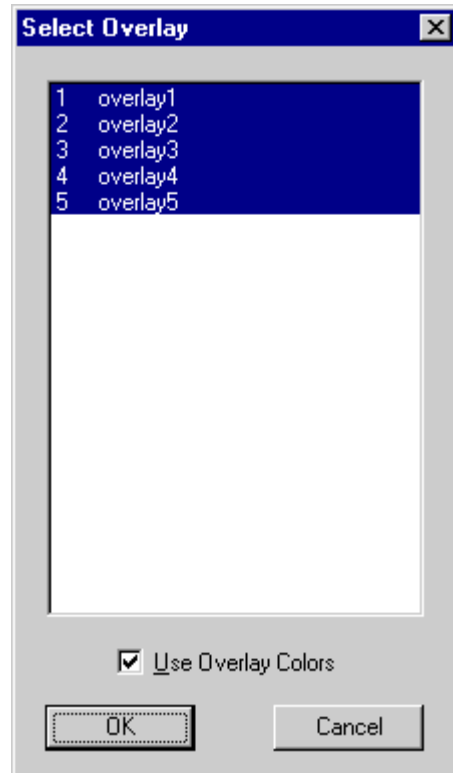
Cadra View Express can be run as a standalone program or within the Microsoft Internet Explorer. It is downloadable from the <http://www.softtech.com/cadviewexpress> web site.

## ***Complete Japanese Translation of the Cadra GUIs***

All Cadra GUI text has now been translated to Japanese.

## ***Overlays can now be displayed using entity colors***

A new option has been added to allow the user to display overlays using entity colors rather than overlay colors. In the Windows GUI the new Use Overlay Colors option is on the **Select Overlay** (File/Open) dialog box (shown below) and the **Overlay** dialog box (File/Overlay). By default overlays are displayed using overlay colors. Only if the check box is unchecked will overlays be displayed using entity colors.



## ***Windows Terminal Server Sessions Now Separately Licensed***

All sessions of Cadra on non-console client terminals attached to a Windows Terminal Server system now use a separate floating Cadra license seat. Only the Terminal Server console will function with a dedicated Cadra license.

## ***SolidWorks Versions Support***

The versions of SolidWorks supported by CadraWorks 2002Plus includes:

- SolidWorks 2000
- SolidWorks 2001Plus Service Pack 5.1
- SolidWorks 2003

# ***Installing Cadra Version 2002 Plus***

## **Recommended System Requirements**

Windows Systems:

- Microsoft Windows XP Pro SP1, 2000 (SP2), NT 4.0 (SP3 or higher) or Windows 98
- Intel Pentium-based computer
- 64 MB RAM
- 65 MB free disk space
- Screen resolution setting of 1024 x 768

## **Before You Begin Installation**

- Have your Product Authorization License (PAL) available during the installation procedure.
- On Windows platforms, close all other programs before proceeding.
- Cadra requires either Internet Explorer 3.02 or greater, or Netscape Navigator 3.0 or greater to read the help files.
- For detailed information on installation options including license installation, print a copy of the **Installation Guide** in HTML format on the top level of the CD.

## **Installation Media**

Multiple platform and languages versions of Cadra are available on the CD-ROM.

## **Cadra Installation**

### ***Windows Systems:***

These instructions assume an English installation on Intel, with d:\ as the CD drive.

1. Log on to an Administrator account or one with Administrator privileges.
2. Insert the Cadra CD into the CD-ROM.
3. If autorun is active, the installation procedure should start automatically.
4. If you do not have autorun capabilities:
  - a. Click the **START** button and select **RUN**.
  - b. Type d:\setup.exe in the **OPEN** box.
  - c. Click **OK**.
5. Follow the Install Shield wizard to complete the installation.
6. After you have installed Cadra, reboot your system.

### ***Troubleshooting a Hardware Lock Problem:***

If your hardware lock is creating a host ID of host-ID 0000000, try the following steps. If this solution doesn't work, contact Cadra/SofTech Customer Service at 1-800-321-2372.

1. Open Windows Explorer and go to the **CADRA\DRIVERS\WIN\_NT** directory (or Win9x if you are running Windows 98 instead of XP Pro or NT).
2. Double click **SETUPX86.exe** (or **sentw9x.exe**).
3. Select **FUNCTIONS / INSTALL SENTINEL DRIVERS** (the path should be the directory listed above).
4. Click **OK**.
5. Before you reboot make sure that your registry entry (**AFH000**) is set for **2**. This value can be set in Cadra run using the older Cadra GUI. Select **Parameter/License** and then set the **HardLock/Local Card** toggle to enable a hardware lock. Alternatively, continue with the following steps:
  - a. Select **START / RUN / REGEDIT / OK**
  - b. Select **EDIT / FIND**
  - c. Key in AFH000
  - d. Double click the **a/b** icon to change default value to a **2**

You may need to reboot your system.

## Corrective Maintenance

Every release of Cadra addresses corrective maintenance issues our customers and partners report as problems or issues throughout the world. The table below lists the most significant problems and issues addressed for this release:

SOFTECH SPR NUMBER	DESCRIPTION
52798	Handle title block as attribute in an AutoCAD DWG file.
53141	Japanese message in status bar has been corrected.
53186	DXF read of a specific file resulted in an "impossible geometry" error.
53359	DXF read – unable to read title block with attributes from ACAD.
53456	DXF read – fixed problem where small arcs were being changed into full circles.
53699	Swapping to CadraNC takes a long time.
53772	Fixed the order of figures read from a CCD symbol file.
53774	Read in CCD, attributes differ from original ones.
53801	Delete rectangular view (Sel/Rect Win) leaves entities behind.
53807	DWG read results in "internal software failure" error.
53825	Add Normal and Backward Axis Rotation option.
53828	Unresolved external figure text too large in CCD.
53829	External figures represented incorrectly in CCD.
53830	Group attributes in text incorrect on write/read of CCD .
53832	CCD read only takes 40 characters of attribute data.
53839	Splines ignored on read of CCD file.
53840	Allow larger spline entities to be read in from Catia .model files.
53852	Degree symbol incorrectly translated in MicroCadam translator.
53853	Tolerance symbols incorrectly translated in MicroCadam translator.
53854	Ellipses do not convert using MicroCadam.
53892	Figure usage count incorrect – count for inserted figure is zero.
53910	Corrected TrueType font loading so mapped index is correct.
53911	Correct line font and weight for spline entities.
53926	Software failure modifying dimension with 2-byte pre-text.
53928	Adding a set (Group/Set/Add set) was hanging Cadra for files with detail views.
53965	When attempting to align dimensions the basic and align items were missing from the menu
53966	It was possible to edit text and dimensions on locked layers
53967	A specific CCD file causes crash in Cadra
53972	Unable to read DXF files belonging to an assembly.
53973	CCD files created in Cadra will not display figures correctly in CCD 4.2.4 on HP.
53979	Keyboard input calculation error in the Line/Point/Spaced function.
54013	Figure usage count incorrect – usages incorrectly zero and figures can be deleted.
54021	Cadra crashes when a figure is renamed after a Figure/Transfer operation.
54032	Balloon with attribute not preserved in DXF round trip.
54042	Raster erase area erasing incorrect area if Raster not loaded before doing the operation.
54062	FlexDesign not showing labels correctly – multiple instances of the same label used.
54145	Read DXF file results in "internal software failure" error
54345	Fixed the IMS Sel menu in Japanese Cadra version.

## Platform Support

Version 2002 Plus has been qualified for the platforms listed in the table below. The CD distributed with this update release contains software for all the supported platforms.

Workstation	Operating System	Revision Level
Intel Pentium PCs	Windows XP Pro	Service Pack 1
Intel Pentium PCs	Windows 98	All
Intel Pentium PCs	Windows NT	4.0 with Service Pack 3 or higher
Intel Pentium PCs	Windows 2000	Service Pack 2

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SofTech, Inc.  
Two Highwood Drive  
Tewksbury, MA 01876, USA  
Telephone: 978.640.6222  
Fax: 978.858.0440  
Web Address: [www.SofTech.com](http://www.SofTech.com)