

Your ELSA *POWERdraft for AutoCAD R14* Driver

Please see the [README.TXT](#) file's last section **Updates to the Help file**. It may contain more recent information than this help file.

Quick Start

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Overview

Seamlessly integrated into the AutoCAD environment, your *POWERdraft for AutoCAD R14* driver offers significant improvements over existing driver technology. First, your *POWERdraft* driver provides the fastest and most reliable platform available for AutoCAD. Proven 32 bit display list technology and an intimate knowledge of your ELSA graphics adapter combine to provide an excellent solution for the most demanding AutoCAD for Windows users.

Additionally, your *POWERdraft* driver includes powerful utilities, the *MagniView*, the *MultiView* and the *Cockpit*, each designed to accent the AutoCAD drafting environment without inhibiting it. Fully dynamic and integrated through ELSA's [SmartFocus](#) technology, each utility is fully transparent to AutoCAD and available during any AutoCAD command.

***POWERdraft* [Cockpit](#)**

A tool without equal, the *Cockpit* offers dynamic zooming and panning of the current viewport with just a flick of the mouse, even while sized small enough to fit within the AutoCAD scrolling area. Shaped to resemble two joy sticks, adjusting your view is as easy as pick, drag and release. Through ELSA's [SmartFocus](#) technology, the *Cockpit* is completely transparent and fully dynamic, making it perfect for small adjustments to your view while editing.

***POWERdraft* [MultiView](#)**

Enclosed within the *Cockpit* window, the *MultiView* offers a configurable visual history of previous views. Displaying a record of one to one hundred prior views, the *Multiview* represents each view visually on a button face. This gives instant access to any previous view and can be used to record and playback selected views consistently.

***POWERdraft* [MagniView](#)**

Unique among spy glass" devices, the *MagniView* offers maximum functionality with a minimum size. ELSA's [SmartFocus](#) technology makes the *MagniView* completely modeless allowing the *MagniView* to update dynamically, tracking the AutoCAD cursor to display a "zoomed in" view of the editing area. This magnified view can aid the drafter in picking AutoCAD entities including grips and other editing artifacts, or in finding special information within the drawing.

***POWERdraft* [Toolbar](#)**

The ELSA toolbar provides a convenient way to call some *POWERdraft* [commands](#).

For Help on Help, Press F1

POWERdraft Toolbar

Some *POWERdraft* commands are easily accessible via the *POWERdraft* toolbar. At the first start of *POWERdraft* the toolbar opens automatically.

When the ELSA *POWERdraft* toolbar is closed, you can open it again via the [PdMenu](#) command or a mouse click on the ELSA logo in the Cockpit window. If this doesn't help, use the command [PdMenuOn](#).

The toolbar has the following buttons:



Opens/closes the [Cockpit](#) - equivalent to command **PdCockpit**



Opens/closes the [MagniView](#) - equivalent to command **PdMagniView**



Opens the ELSA [POWERdraft Settings](#) - equivalent to command **PdConfig (*)**




Invokes windows help about ELSA *POWERdraft for AutoCAD R14* - equivalent to command **PdHelp**

These and other *POWERdraft* commands are described in section [Commands](#).

MagniView

Overview

To open the *POWERdraft MagniView*, the [command PdMagniView](#) or the MagniView icon  in the ELSA [toolbar](#) may be used (if the toolbar is closed, you can re-open it via the [PdMenu](#) or [PdMenuOn](#) command). Once opened the *MagniView* will track AutoCAD's cursor in the current viewport updating its display dynamically. The *MagniView* displays the current magnification factor in an editable text field. Edit this text field to set the magnification factor to specific values.

Another way to set the **magnification factor** is the slider at the bottom of *MagniView's* window. Manipulating the slider will change the magnification factor used by the *MagniView*, the text field immediately displays the numerical value.

To set a specific magnification factor you can use the [command "PdMvSet<fac>"](#); e.g. to set a factor of 3.5 type "PdMvSet3.5"

The *MagniView* magnification factor may be set **GLOBAL** or **LOCAL**. Using **LOCAL** mode allows the *MagniView* to use different magnification factors in each AutoCAD viewport, updating as the current viewport is changed. In **GLOBAL** mode the current magnification level is used in all open viewports. The mode may be toggled by double clicking in the mode field of the *MagniView's* status bar.

MagniView's Window


The *MagniView's* window titlebar may be toggled off by **double clicking** the **right mouse button** anywhere in the display area. Double clicking again will re-enable the disabled titlebar. **Turning off the titlebar** will give extra room for the *MagniView's* display. The window can be moved by dragging the display area. Double clicking the left mouse button over the green rectangle will close *MagniView*.

Configuration

The *MagniView* has some configurable options that can be set in the [POWERdraft Settings](#). A complete description can be found on the corresponding help page.

Cockpit

Overview

To open the *POWERdraft Cockpit*, use the **PdCockpit** [command](#) or the *Cockpit* icon  in the ELSA [toolbar](#) (if the toolbar is closed, you can re-open it via the [PdMenu](#) or [PdMenuOn](#) command). Once opened, the *Cockpit* offers two "joy stick" like devices and a slider. If enabled, the *MultiView* is also included in the *Cockpit's* window. The two "joy sticks" are used for zooming and panning the current AutoCAD viewport. This tool can be especially valuable on screens with little room to spare as it offers full dynamic zooming and panning functionality in a compact space.

Furthermore there is a configurable **remote control** for the joy sticks. Using this feature, you need not move the mouse cursor above the *Cockpit* window, since zooming and panning can be activated via the keyboard. The remote control function is only available, when the *Cockpit* window is open with the sticks enabled.

Dynamic Panning

To **pan** the current viewport, simply select the knob of the two dimensional joy stick and drag. The current viewport will pan in the direction of your drag at a speed proportional to angle your drag. The farther the joy stick handle is "depressed" the faster the viewport will pan.

Remote Control: To pan the current viewport via remote control, press the configured key combination (e.g. <Ctrl> and <Shift>) and the configured mouse button (e.g. <left mouse button>) in the viewport window. Now by moving the mouse you can pan, until the mouse button is released (you do need not to hold the key combination while panning).

The preferred key/mouse button combination for remote control can be set in the [POWERdraft Settings](#).

Dynamic Zooming

To **Zoom** the current viewport, simply select the knob of the smaller, one dimensional joy stick and drag. Depressing the joy stick upwards will zoom deeper into the current view, pulling back on the stick will zoom out. The speed of the dynamic zoom is proportional to the depression of the joy stick.

Remote Control: To zoom the current viewport via remote control, press the configured key combination (e.g. <Ctrl> and <Shift>) and the configured mouse button (e.g. <right mouse button>) in the viewport window. Now by moving the mouse you can zoom, until the mouse button is released (you do need not to hold the key combination while zooming).

Zooming via remote control has a **special feature** (in contrast to zooming directly in the *Cockpit* window): The current cursor position is used as "zoom point" (fix point), i.e. you zoom into this point or out of it. So the view center point changes while zooming. When zooming directly in the *Cockpit* window, the zoom point is always the view center point, so the center point is fixed.

The preferred key/mouse button combination for remote control can be set in the [POWERdraft Settings](#).

Acceleration

To **adjust the speed** range available when zooming and panning, set the knob of the acceleration slider. The lower the knob, the lower the increment that the joy sticks will use to zoom or pan the view.

Additionally, you can adjust the speed range for zooming and panning independently from each other via the two entries **Zoom** and **Pan** of the **Sensitivity** group within the [POWERdraft Settings](#). Normally there is no need to change these factors.

Cockpit's Window

The *Cockpit's* window titlebar may be toggled on by **double clicking** the **right mouse button** on the ELSA logo. Double clicking again will hide the titlebar. **Turning off the titlebar** will give extra room for the *Cockpit's* display. If the window titlebar is enabled, it may be used to **move** or **close** the *Cockpit*. With the

titlebar disabled, you can move it by dragging the ELSA logo. A double click of the left mouse button on the green rectangle will close the *Cockpit*.

Configuration

The *Cockpit* has some configurable options that can be set in the [POWERdraft Settings](#). A complete description can be found on the corresponding help page.

MultiView

Overview

An element of the *Cockpit* display, the *MultiView* view history array offers a selection of prior views for recall. Each button holds a visual representation of the view that it would recall. The number of views stored is configurable via the POWERdraft Settings. Recalling any view displayed by the *MultiView* is as simple as picking the desired view. That view will be sent to the current AutoCAD viewport.

Fix Button: The fix button is below the *MultiView* area left to the help button. When turned **off**, every view change (e.g. via Zoom or Pan) will automatically save the last view to the history array. When turned **on**, *MultiView* is "frozen", i.e. no new views are saved. Opening the *Cockpit* or a new drawing will automatically turn the fix button off.

Additionally there are the commands **PdCpFix** (turning fix button on/off) and **PdCpAddView** (saving the actual view to the history array). With these commands you can write a script, that generates a sequence of views in the history array and freezes them. (see section [Commands](#)).

There are some Icons below the *MultiView*:



MultiView is frozen (fix button on) (equivalent to command [PdCpFix](#))



MultiView stores new views (fix button is off) (equivalent to command [PdCpFix](#))



MultiView stores the actual view if not already stored (equivalent to command [PdCpAddView](#))

Configuration

The *MultiView* has some configurable options that can be set in the POWERdraft Settings. A complete description can be found on the corresponding help page.

SmartFocus

ELSA's SmartFocus technology, used in all POWERdraft windows, eliminates the switching of Windows input focus between POWERdraft utilities and AutoCAD's drafting window. After having used a function in one of the utilities, keyboard input or cross hair movements will make AutoCAD's window the active window immediately. An explicit click as in other drivers is not required.

Grip Frame

A grip frame is a colored rectangular frame used to describe a view. It has three separate functional areas, inside the rectangle, on the rectangle itself, and outside the rectangle. A grip frame may typically be resized by picking and dragging the frame much like a Windows window. Other functionality offered depends on the view the grip frame represents.

Installation

The driver supports **AutoCAD R14** under **Windows NT3.51/4.0** and **Windows 95/98**.

Requirements

To install the ELSA *POWERdraft* driver you need:

- AutoCAD R14 already installed.
- Microsoft Windows 4.0 or Windows 95/98
- ELSA Synergy II, ELSA WINNER or GLoria graphics controller - see the header of the [README.TXT](#) for list of supported ELSA graphics boards
- ELSA's display driver for the used Windows version
- CD "*WINNERware*" or floppy disk "*POWERdraft for AutoCAD R14*"

Installation

- **Installation from CD:** Start CDSETUP.EXE in the root directory of your WINNERware CD. You can double click CDSETUP.EXE in the File Manager or Windows Explorer.
 - **Installation from floppy disk:** The *POWERdraft* installation set consists of several floppy disks. Start SETUP.EXE from the first one. During installation you will be requested to insert the other disks.
 - **Installation from a separate directory:** The *POWERdraft* directory contains several subdirectories called DISK<n>. Start SETUP.EXE in subdirectory DISK1.
 - The driver will be installed in a separate driver directory.
 - SETUP creates a program group containing four icons:
 - ***POWERdraft Help***: Invokes this help file.
 - ***Configure POWERdraft***: Configures *POWERdraft* as AutoCAD's display driver.
 - ***Configure Original Driver***: Configures AutoCAD's original display driver (CoolWhip).
 - ***Uninstall POWERdraft***: Removes *POWERdraft* from the system.
- NOTE:** The two ***Configure...*** icons only work while AutoCAD is **not** running.

Access Rights

At **setup time** SETUP needs write access to the following directories:

- AutoCAD directory: SETUP generates the file PD14PATH.INI, which holds the driver path, here.
- Driver directory: SETUP copies almost all *POWERdraft* files to here.
- Windows System directory: SETUP copies the ELSA *POWERlib* files to here.
- Windows directory: SETUP generates the file DSELSA14.INI, which holds the *POWERdraft* settings, here

At **execution time** *POWERdraft* needs write access to the following directories:

- Driver directory
- Windows directory: *POWERdraft* updates its settings in DSELSA14.INI when it finishes

At **configuration time** the configuration utility needs write access to the following directory:

- AutoCAD directory: The display driver configuration (*POWERdraft* / AutoCAD's original display driver) is changed by exchanging the display driver dll DSWHIP.DLL

NOTE :

The driver is based on ELSA's *POWERlib*, a driver independent, fast graphics library. Since other applications and drivers use it, this component may already be installed on your system. In the unlikely event of an incompatibility with an existing *POWERlib*, the SETUP will inform you and let you decide whether to continue the installation or abort. The SETUP program will show the names of the applications which will be affected if you continue the installation.

Commands


POWERdraft for *AutoCAD* defines additional Commands to be used in *AutoCAD*.

PdCockpit[0 1]	Opens/Closes the <u><i>Cockpit</i></u> Optional Parameters: 0 : opens <i>Cockpit</i> 1 : closes <i>Cockpit</i> none: toggles <i>Cockpit</i>
PdConfig	Opens the <u><i>POWERdraft Settings</i></u> to change <i>POWERdraft</i> settings.
PdCpAddView (<i>Cockpit</i> command (*))	Saves the actual view to the history array of <u><i>MultiView</i></u> , unless the actual view has already been saved.
PdCpFix[0 1] (<i>Cockpit</i> command (*))	Sets the fix button for <u><i>MultiView</i></u> in the <i>Cockpit</i> window. Optional Parameters: 0 : turns fix button off 1 : turns fix button on (freezes <i>MultiView</i>) none: toggles fix button
PdHelp	Invokes windows help about <i>ELSA POWERdraft</i> .
PdMagniView[0 1]	Opens/Closes the <u><i>MagniView</i></u> Optional Parameters: 0 : opens <i>MagniView</i> 1 : closes <i>MagniView</i> none: toggles <i>MagniView</i>
PdMenuOn	same as PdMenu except that the <i>ELSA</i> toolbar will be positioned in the center of <i>AutoCAD</i> 's drawing area. This is useful e.g. when the <i>ELSA</i> toolbar was shifted out of the visible area by docking other toolbars.
PdMvSetm.n	Sets the factor m.n as the new magnification factor for <i>MagniView</i> .
PdVer	prints the version number of <i>POWERdraft</i> in <i>AutoCAD</i> 's text window

(*) these commands are only available, if the corresponding tool is open.

POWERdraft Settings

The *POWERdraft Settings* offer a personal user configuration of the driver and the provided Tools.

To open the *POWERdraft Settings* type the [command PdConfig](#) to AutoCADs command line or click the  button within the the *POWERdraft toolbar* (if the toolbar is closed, you can re-open it via the [PdMenu](#) or [PdMenuOn](#) command).

The *POWERdraft Settings* contains four pages:

- [General](#)
- [Cockpit](#)
- [MagniView](#)
- [True Type Fonts](#)

Each of the pages contains a **Default** button to restore preset values.

Click **OK** to close the *POWERdraft Settings* and make the modified configuration become valid. Click on **Cancel** in order to reject the changes you've made.

NOTE: The settings will be written to the file **dselsa14.ini** in your Windows directory. Do not edit **dselsa14.ini** while the driver is running, as the driver will overwrite your changes when it terminates.

NOTE: In **dselsa14.ini**, do not change any other entries than documented below. Normally there is no need to edit **dselsa14.ini** manually, since all options can be configured via the *POWERdraft Settings*.

Currently available settings in **dselsa14.ini** are:

description	section	value	default value
Cockpit On	[POWERdraft]	Cockpit (0, 1)	1
Titlebar	[Cockpit]	Caption (0, 1)	0
MultiView	[Cockpit]	History (0, 1)	1
MultiView Rows x Columns	[Cockpit]	HistorySize (1,1 .. 10,10)	4,3
Pan & Zoom Sticks	[Cockpit]	Sticks (0, 1)	1
Pan Sensitivity Factor	[Cockpit]	PanFactor (1 .. 999)	50
Zoom Sensitivity Factor	[Cockpit]	ZoomFactor (1 .. 999)	100
Enable Remote Control for Pan & Zoom Sticks	[Cockpit]	RemoteControl (0, 1)	1
Remote Key for Pan	[Cockpit]	RemotePan (*)	2817 (*)
Remote Key for Zoom	[Cockpit]	RemoteZoom (*)	2818 (*)
Remote Key for Sensitivity	[Cockpit]	RemoteAccelerate (*)	2832 (*)
MagniView On	[POWERdraft]	MagniView (0, 1)	0
Titlebar	[MagniView]	Caption (0, 1)	0
Magnification	[MagniView]	MagLevel (1.0 .. 99.99)	1.0

(*) : available Remote keys:

	<u>left mouse</u> <u>button</u>	<u>middle mouse</u> <u>button</u>	<u>right mouse</u> <u>button</u>
Shift	2305	2320	2306
Ctrl	2561	2576	2562
Shift+Ctrl	2817	2832	2818
Alt	3073	3088	3074
Shift+Alt	3329	3344	3330
Ctrl+Alt	3585	3600	3586
Shift+Ctrl+Alt	3841	3856	3842
disabled	0		

POWERdraft Settings: *General*

Driver Version

This field holds the current version of your *POWERdraft* driver.

Display Update

There are four possibilities to adjust the display update behaviour.

- **Immediate** - The display is updated with each operation.
- **Minimal Caching** - In script mode the display is not updated more frequently than given by the refresh rate
- **Moderate Caching** - running scripts will be accelerated
- **Aggressive Caching** - running scripts will be strongly accelerated

Tools

Provided tools can be activated or deactivated alternatively.

- **Cockpit** - This tool is divided into two components.
 - **Sticks** offer dynamic zooming and panning of the current viewport and
 - **MultiView** offers a configurable visual history of previous views.
- **MagniView** - *POWERdrafts* spy glass.

Hotkey Control

A comfortable way to assign a suitable key combination to a given action.

1. Select the appropriate action within the **Action** list field.
2. Type the desired key combination to the **Hotkey** field.
3. For zoom and pan actions an additional factor is required.

See the default key combinations listed below.

Action	Description	Key Combination	Factor
pan down	Shift the drawing downward by pan offset	<Alt><DOWN>	Pan Offset = 0.25
pan left	Shift drawing to the left by pan offset.	<Alt><LEFT>	Pan Offset = 0.25
pan right	Shift drawing to the left by pan offset.	<Alt><RIGHT>	Pan Offset = 0.25
pan up	Shift drawing upward by pan offset.	<Alt><UP>	Pan Offset = 0.25
pan to center	The current cursor position becomes the new view center.	<SHIFT><F1>	
redraw all	Force a redraw all	<SHIFT><F2>	-
zoom in	Zoom-in by zoom factor. The current cursor position serves as zoom center.	<SHIFT><F3>	Zoom Factor = 1.5
zoom in center	Zoom-in by zoom factor. The current view center serves as zoom center.	none	Zoom Factor = 1.5
zoom out	Zoom-out by zoom factor. The current cursor position serves as zoom center	<SHIFT><F4>	Zoom Factor = 1.5
zoom out center	Zoom-out by zoom factor. The current view center serves as zoom center.	none	Zoom Factor = 1.5

Note: If a chosen key combination has a function in AutoCAD, then this function won't be available any more.

POWERdraft Settings: *Cockpit* / *MultiView*

Look & Feel

The appearance of the cockpit can be modified.

- **Titlebar** - It can be enabled for ease moving and closing or it can be disabled to preserve display space.
- **Style** - Different styles are provided for the *Cockpit*.

Sticks

Configuration of the dynamic behaviour.

- **Reverse Pan Direction** - Alternatively switch the pan direction.
- **Sensitivity** - The acceleration factor can be adjusted separately for pan and zoom operations. The default factor is 50 for pan and 100 for zoom, resp.. Generally, the sensitivity factor ranges between 1 and 999.
- **Remote Control** - The remote control for pan & zoom sticks can be turned on or off. It's available only if the pan & zoom sticks are enabled. The default key/mouse button combination to activate remote control can be changed by switching to the hotkey field of the specified operation (Pan, Zoom, Sensitivity) you want to change the key/mouse button combination for. Then type the desired key combination together with the desired mouse button or one of the keys <L>, <R> or <M>, which identify the **Left**, **Right** or **Middle** mouse button, resp.. See the default key/mouse button combinations below.

Pan	<Ctrl><Shift><LeftMouseButton>
Zoom	<Ctrl><Shift><RightMouseButton>
Sensitivity	<Ctrl><Shift><MiddleMouseButton>

Note: If a key/mouse button combination chosen for remote control has a function in AutoCAD, then this function won't be available any more.

MultiView

- **Rows** - The number of rows of history views to be represented can vary between 1 and 10. The default value is 3.
- **Columns** - The number of columns of history views to be represented can vary between 1 and 10. The default value is 4.

Please refer to the sections [Cockpit](#) and [MultiView](#) for a general description of these features.

Configuration: *MagniView*

Look & Feel

- **Titlebar** - It can be enabled for ease moving and closing or it can be disabled to preserve display space.

Control

- **Magnification Faktor** - A magnification factor between 1.0 and 99.99 can be chosen.
- **Magnification Mode**
 - **LOKAL** - Each opened viewport has a private-like magnification factor.
 - **GLOBAL** - The chosen magnification factor is valid for all opened viewports.

Please refer to the section [MagniView](#) for a general description of this feature.

POWERdraft Settings: True Type (TT) Fonts

Whip Compatibility - If enabled, the representation of true type fonts is compatible with that of the native driver.

POWERdraft Compatibility

If Whip Compatibility is disabled, some additional settings relating true type fonts are possible.

- **Outlined Fonts** - True type fonts will be represented outlined only. This will accelerate regen and redraw operations for those drawings including true type fonts.
- **Filled Fonts** - True type fonts will be represented filled.
- **Optical Resolution** - The relative number of vertices used to represent true type fonts will effect their optical resolution. With a low resolution chosen, true type fonts will be represented more edged. With a high resolution chosen, the quality of representation will be much better. The performance of regen and redraw operations will be biased unfavorably when using high resolved true type fonts.

The default setting is *POWERdraft Compatibility* with *Filled Fonts* and a medium *Optical Resolution*.

Important: Any changes in true type font configuration will take effect after the next Regen/RegenAll.

Note: With a very high *Optical Resolution* configured, it may be possible that parts of a true type text can't be displayed; in this case the message

POWERdraft: TT font resolution is too high for this TT font
is shown in AutoCAD's text window.

Whip Compatibility versus POWERdraft Compatibility

As a result of different display list technologies used by POWERdraft and Whip, there are some differences between the two compatibility modes; these differences are shown in the following table:

	<u>Whip Compatibility</u>	<u>POWERdraft Compatibility</u>
MagniView displays TT text	No	Yes
Aerial View displays TT text	No	Yes
TT text is displayed during Cockpit Pan/Zoom	No	Yes (outlined)
AutoCAD's display order is considered	No (TT text is always displayed beneath all other entities)	Yes
optical resolution	automatic	configurable
filled/outlined	always filled	configurable
Regen/Redraw speed	fix	depends on optical resolution
Memory usage	fix	depends on optical resolution
TT text in slides files (command MSLIDE)	as filled fonts with lowest optical resolution	as outlined font with configured optical resolution
TT text in WMF (export Metafile;	as text	as solids (if configured filled)

command COPYCLIP)

or polylines (if configured
outlined) with configured
optical resolution

Version Report / Latest Revisions

Version History

Version 14.00(beta)

14.00.00(beta)

- first Beta Release (speed only release)

14.00.02(beta)

- Crashes with Genius are fixed.

14.00.05(beta)

- implemented Cockpit with remote control
- implemented MultiView; now MultiView is able to handle non-perspective 3D views
- Problems with AutoSnap are fixed.
- Fixed: The cursor wasn't cleared properly on multi processor systems.

14.00.06(beta)

- Now POWERdraft will be installed in a separate driver directory (no longer in the AutoCAD directory)
- For ease manipulating driver/tool settings, the [POWERdraft Settings](#) have been implemented.
- Hotkeys for Pan & Zoom and redraw all. These are configurable via the [POWERdraft Settings](#).
- Display errors with Genius PowerSnap have been fixed.
- MultiView has been revised regarding its functionality.
- A crash with AMD 2.0 has been fixed.

14.00.07(beta)

- A regen following a pan or zoom operation on raster images left behind a kind of *ghost images* among the real images. This problem has been fixed.
- The POWERdraft Settings have been revised.

14.00.08(beta)

- Fixed a crash with Genius standard components.
- Improved the behaviour of Pan/Zoom via the Cockpit.
- The Cockpit got a new look.
- Windows 95 is supported.

14.00.09(beta)

- ELSA GLoria-XXL is supported.

Version 14.01

14.01.00

- Fixed problems with the preview, which is saved within the .DWG file:
 - Now in the "Open" dialog the quality of the preview is much better.
 - Non-drawing elements are not part of the preview any more.
 - Now the file size is much less.To fix these problems with a drawing saved with an older version of POWERdraft (V14.00.xx(beta)), you may save this drawing again after calling AutoCAD's command PURGE, which will reduce the file size to a normal level.

14.01.01

- The *Cockpit* now performs dynamic zooming and panning also for models in paperspace.
- Fully support of subentities. As a consequence of this item, a problem with marking sketch planes has been solved.

14.01.02

- A problem with wrong colors on hidden layers has been fixed.
- Shaded entities have not ever been removed correctly. This problem has been fixed.

Version 14.02

14.02.00(beta)

- Instabilities under AMD + Genius are fixed.
- Fixed startup problems with some Arx applications.
- Highlight/Select operations became faster and need less memory.
- Fixed: Drawing entities were drawn top of a rendered scene.

14.02.01(beta)

- Eliminated occasional regen requests after totally zooming out via cockpit.
- The hotkey functions "zoom in" and "zoom out" changed; now the cursor position is used as zoom fix point, whereas the new new hotkey functions "zoom in center" and "zoom out center" take the viewport's center point as zoom fix point.
- The new hotkey function "pan to center" pans the view from the current cursor position to the viewport's center point.

14.02.02(beta)

- [MagniView](#) - POWERdraft's spy glass - has been implemented.

14.02.03(beta)

- A problem with damaged POWERdraft Settings under Windows NT 3.51 has been solved.
- The POWERdraft Settings have been expanded by a new property page allow for MagniView settings.
- Now the preview bitmap (stored within the .DWG file) includes all entities (prior versions of POWERdraft didn't include TT fonts and raster images).

14.02.04(beta)

- Display errors with Genius' shaft generator have been fixed.
- Layer operations have been fixed.
- TT fonts and raster images now will be displayed correctly within the print preview.
- Viewport border flickering now will be avoided in most cases.
- Fixed: moving viewports in paperspace sometimes left garbage on screen.
- The SAVEIMG command is fully supported.
- Instabilities with COPYCLIP, EXPORT WMF and EXPORT DWF have been fixed. Nevertheless, these commands are not fully supported yet.

14.02.06

- A problem with ELSAview 3D's in-viewport-feature is fixed with v1.03.08 (or higher) of ELSAview. MultiView did not restore history views while render mode was active.

14.02.07

- Deadlocks on multi processor systems are fixed.
- No more flickering while resizing the *MagniView* window.

Version 14.03

14.03.00(beta)

- ELSAinfo support.

14.03.01(beta)

- Support for ELSA Synergy II

- The display update modes have been reworked completely

14.03.02(beta)

- [TrueType \(TT\) Fonts](#) are fully supported by POWERdraft.
- Fix for Mechanical Desktop: In the Desktop Browser's Scene mode selected parts weren't highlighted in the viewport.

14.03.03

- Slide files (filename *.sld; command MSLIDE) are supported by POWERdraft (about true type text inside slide files see section [TrueType Fonts](#))

14.03.04

- Windows Metafiles (filename *.wmf; commands COPYCLIP and EXPORT METAFILE) are supported by POWERdraft (about true type text inside WMF see section [TrueType Fonts](#))
- Fix: Under Windows 95 and Window 98 the preview bitmap was not stored with the DWG file.
- Fix: With 8bpp the preview bitmap stored within the .DWG file had wrong colors.
- Fix: Wrong colors with 8bpp color depth on Synergy II.

14.03.05

- Fix: Under Windows 98 multiscreen in certain situations the MultiView showed empty history buttons.

14.03.06

- Fix: Launching ELSAview 3D on a Synergy II caused AutoCAD to crash.

14.03.07

- Fix: Anomaly with AutoCAD's object snap feature.

14.03.08

- POWERdraft's toolbar loading mechanism changed in order to reduce interference with other applications during AutoCAD's startup phase.

Known Problems and Restrictions

- Raster images will always be drawn beneath the remaining graphics.
- Raster images will not be displayed within the Aerial View window nor by *MagniView*.
- When using raster images, the background color can be slightly falsified.
- Together with OpenGL applications, e.g. Autodesk Mechanical Desktop, display errors may occur. So far, these errors have been observed on a GLoria-XL board only. Such kind of errors can be suppressed by turning on the 'Force Buffer Blit' option within the 'Application Settings'. At runtime the display can be repaired immediate by pressing the hotkey for the redraw action, <shift><F2> for default.
- During some commands (PLINE, MLINE, SPLINE) MultiView views cannot be recalled.
- The contents of viewports in paperspace will not be displayed in *MagniView*.
- Inside a Slide file (filename *.sld, command MSLIDE) TT text is always outlined, unless you configure 'Whip Compatibility' in the 'TT Fonts' tab of the POWERdraft Settings.

