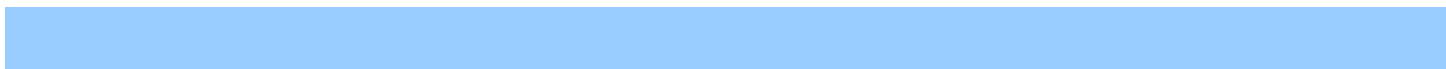# Eagle - Certified Release

Release Notes

Release   12.8.0

Release notes 12.8.0
Build 02
Certified Release : 6th December 2011

About this version

This version follows from Eagle v12.8.0 b01

The lists below outline the new features and fixes of this version. Please refer to the Help documentation with the release together with supporting documentation files located in the "Version Documents" directory for full history of features and changes..

NBB − This version 12 Eagle SDK (Software Developer Kit) MFC version supports a combined license system with V14 and V11. All existing users already running Flex Plus licensing need a new license file. All old versions of Eagle and licensing should be uninstalled before installing this version. The directory structure and executable naming is as follows:

Eagle\Bin directory contains the standard Eagle executables
Eagle standard release with MFC Eagle
- Eagle.exe   (FlexID licensed Eagle)
- EagleMCM.exe (HaspID licensed)

Eagle\SDK directory contains Programming Interfaces for Eagle and Services
- EPI – Eagle Programmer Interface API for Eagle services and functions
- LibUFO – C routines library to read and write Eagle SM UFO files
- LibEagle – C routines library to read and write Eagle model files
- Eagle3DActiveX (ActiveX component – contact R&D for version details)

Eagle will run on Windows Xp, Windows 2003, Windows Vista, Windows 2008 and Windows 7 but may not be fully certified for specific service pack releases. If the version is fully certified, then Eagle will run automatically without warning. If Eagle runs on Windows 7 for example but is not yet fully certified for example for a specific service pack, then Eagle will run normally after warning the user first. If Eagle is not recommended for a particular version of Windows, then usually it will not run at all.

Dublin, December 6th, 2011

Licensing Details

The Eagle 12 license code changes in this version from 12.770 to 12.800. All existing users with a license file containing FEATURE lines less than 12.800 need a new license file.

All old versions of Eagle and licensing should be uninstalled before installing this version. These versions may now use the same license file and vendor daemon. The LMGRD license service and LMTOOLS used must be FlexLM/FlexNET greater than v.9.5 (please note that it is recommended to use at least v11.7 (32 bit version) (which do not require DEP exclusion) for compatibility with 64bit and latest operating systems. Note that MVISION still requires DEP exclusion. The revised licensing system known as Flex Plus also incorporates the usage of a system specific Serial Number. The license system incorporates two unique executables MVIISON and SNGEN. The latter SNGEN is used to generate a unique serial number and the MVISION.EXE vendor daemon is also changed. The usage of SNgen is:

```
C>Sngen
```

The output text from this utility should be communicated to the supplier together with the usually supplied other information about the licensing server, such as the server hostid and the server name. The output of Sngen.exe is formatted in six groups of numbers separated by a minus sign something like:

```
SN=123456-12345-12345678-123456-123456789-1234
```

The possible number of digits in each sequence is not fixed. The Serial Number is generated only for the machine where LMGRD.EXE and MVISION.EXE run, not needed for the client/s.

Virtual machine licensing of V12 is supported since version 12.7.5 for VMware Virtual Machines (VMs) and vSphere. Additional licensing debugging information is also introduced in new versions 2.80 of SNGEN (13-May-2011) and MVISION (13-May-2011). Whilst backward compatibility in licensing is maintained for non VM machines it is recommended you use the newest version of MVISION and SNGEN for the VM and non VM machines. Note the SN generated by newer version of SNGEN on non virtual machines remains the same – existing license will work.

In a standard Eagle install the Sngen utility output is called from a GenHostID script located which gathers information about the system (including the sngen) which is output to text file. This file which is needed for licensing Eagle from this utility should sent to the supplier agent or emailed directly to licensing@macrovision.ie or submitted in the secure submission form at https://www.macrovision.ie/lics/license.php

The delivered license file is similar in format to the v12 license file with long security keys. The only items which can be edited are the hostname and port number (default 31050) on the SERVER line and the daemon-path on the VENDOR line. Other changes will invalidate the license.

An example of a license file follows:

```
SERVER luna FLEXID=9-3c468959 31050
DAEMON MVISION MVISION.exe
USE_SERVER
FEATURE fv MVISION 12.770 10-feb-2012 10 FDDB23FB64AE4ACAFA04
\
    VENDOR_STRING="ESBI" \
    SN=B6XfseluEECjl3akaYBugj2f01jpuzreJVnx58ffRcjaB
```

```
NOTICE=123456-12345-12345678-123456-123456789-1234
FEATURE sm MVISION 12.770 10-feb-2011 10 DDFBB34B9EBBC4A41325
```

NBB Warning : The release feature line of the license file must be aligned to the latest version number of the release in order run that version. This means that feature lines listed with 12.740 will for example run v12.7.4 and previous versions but not future versions without first replacing the license with a higher version, example:

```
FEATURE sm MVISION 12.740 10-feb-2011 10 DDFBB34B9EBBC4A41325
```

NOTE: When a license file has been supplied for a license host the current hostID and the serial number must always match the data in the license file. If a license is moved to another server with the same hostID (FlexID for example) a new serial number must be generated.   If Eagle detects a different serial number than the one in the license file then a watermark will appear. By default the license watermark should not be present, it is an indicator that something is wrong with the licensing system and a new license file is required. The license file must be update within a period of three weeks otherwise Eagle will cease to work permanently.

The license file structure including the SN line should not be altered in any way. In first lines the server name may be changed and the MVISION.exe location may be altered but nothing else.

A valid FlexID and license file may be moved to a new machine for which a SNgen code has not yet been generated. The new server will display a watermark in the Eagle graphic screen indicating an updated license file is required.

A document detailing the structure of the licensing system and custom installation troubleshooting issues is available in this release and for download in the documentation section of the Macrovision website.

Release v12.8.0 (b02)

- This version requires license code to be 12.800 or greater.

- See changes since the previous version 12.8.0 b01 refer to the Bug Fixes section.

Release v12.8.0 (b01)

- #5449 This version supports Vista SP2

- #5449.1 This version supports Windows 7 SP1

- [LICENSING] Version in the license file changed from 12.720 to 12.770

- A new version XPlot v.7.2.3 is released. Refer to individual release notes for details. Use in conjunction with Winplot v2.1.10

  A new version Winplot v.2.1.10 is released. Refer to individual release notes for details. Use in conjunction with Xplot v7.2.3

Release v12.7.7(b01-b02)

- [LICENSING] Eagle writes the MVISION version in the lmgrd LOG file. A new setting in the INI file LM_MVISION_VERSION_LOG which when set writes the MVISION version being used into the FLEXLM log file.

- [LICENSING] The "watermark" text shown when a license is moved to a different machine has been changed. The license file pathname used as well as the first 6 lines of the actual license file in use is shown for troubleshooting purposes.

- [LICENSING] Debug information can be generated from the SNGEN by using the SNGEN- d primer and the –v primer for debug and version information respectively. Details of output and log files should be sent to support if requested.

  PATCH5340 in the INI file used to resolve polling with highlight is no longer required.

Internal Release v12.7.6(b01)

- A new Educational and Learning version is made available. The version is the same as the previous Educational version in most respects but includes a smaller watermark in the corner of the screen.   The previous EDU version remains available as before.
  The appropriate version is defined an EDU (original) or EDUX (new) line in the license file. At startup Eagle detects if which the feature is in the license file and starts the appropriate version.   No RUNMODE setting is required and no other features may be present in the license file.

Certified Release v12.7.5(b01-b05)

- Licensing extended to support VMWARE VMs and vSphere.   This functionality implemented with v12.7.5 b04 and in order to implement it you need to use a new SNGEN utility generating license requests and install a new MVISION vendor daemon; Eagle.exe is not affected. The license file changes for VM machines and VSphere, so a new file must be issued by Macrovision. No new license file is required for standard installations which do not make use of virtualization. This important backward compatibility has been guaranteed to avoid massive re-licensing of sites which have been updated to the new licensing system in recent months.

- POLLING HIGHLIGHT: PATCH5340 introduced. Refer to #5340 in the Bug Fixes section for details

- Documentation Note : If ONCHANGE command is used comment out the usage of PATCH4034 entirely. In certain released INI files the default is set.

- See changes since the previous version 12.7.4 b03 refer to the Bug Fixes section.

Internal Release v12.7.4(b01-b03)

- See changes since the preceding version 12.7.4 b02 refer to the Bug Fixes section

- Flex Plus Licensing - A new MVISION 2.05 is released to improve startup speed. The correct MVISION.EXE version to use is dated 5-Jul-2010.   The correct SNGEN.EXE version is dated 11-Jun-2010 (unchanged).

- The value of the DXF_EXPORT_FORMAT variable has been redefined according to the following table:
  ```
  DXF_EXPORT_FORMAT=        ;AD_ACAD14 (default)
  DXF_EXPORT_FORMAT=old   ;AD_ACAD11
  DXF_EXPORT_FORMAT=R2000 ;AD_ACAD2000
  DXF_EXPORT_FORMAT=new   ;AD_MAXACADVER(currently R2000)
  ```

- Flex Plus Licensing - A new SNGEN.exe is released which is consistent in behavior when Windows APIs fail with hardware contention problems.
  The correct SNGEN.EXE version to use is dated 11-Jun-2010

<u>The serial number generated does not change from the previous version (</u><u>dated 13-</u>
<u>Apr-2010</u><u>)</u>, so no change of the license files is required if already running the new
licensing system.

MVISION.exe is improved for custom installation troubleshooting to make a
compatibility check between MVISION and EAGLE. If the incorrect MVISION
is used Eagle now displays an appropriate message.
This applies to MVISION.EXE version dated after 11-Jun-2010

Certified Release v12.7.3(b01)

- #5156.1 This version has reinforced licensing and software protection Flex
  Plus. The combined licensing system allows multiple sessions per workstation
  and diffuse versions to run from 1 license token.

  A new license file is required to run this version.
  The correct MVISION.EXE version to use is dated 13-Apr-2010
  The correct SNGEN version to use is dated 13-Apr-2010
  FlexLM /FlexNET lmgrd, lmtools, and lmutils is 9.5 or later (11.8
  recommended)

- #5229   SYS(50) returns 0,0 if root window is maximized

  #5230   EXPORT function now includes the possibility of exporting the set
  UNITS. A new environment variable has been introduced which controls this
  functionality and it is enables when the environment configuration includes

  ```
          EXPORT_UNITS=yes
  ```

  The ACAD-MEASUREMENT variable is set according to the following
  correspondence:

Unit = in,ft,yd,mi	MEASUREMENT=0	*(Imperial/English)*
Unit = <other>	MEASUREMENT=1	*(Metric)*

  The default is EXPORT_UNITS=no, which retains the default ACAD setting.

- #5179   GETDEVICEINFO may now use DECODE_SEPARATOR to encode
  the returned values

- #5234   The LISTDEVICE environment variable is now dynamically
  changable during run time.

Internal Release v12.7.2(b02)

- A new EPI V3.9.25 has been released.

  #5218   A new EPI_setYesFlag(flag) has been implemented to force the
  IFYES and IFNO.   As a result two new EPIs functions have been
  implemented:

  ```
  void APIENTRY EPI_setYesFlag( HMODULE hEagle, int flag )
  ```

  used to set the Eagle IFYES indicator: 1 (YES), 0 (NO)

```
void APIENTRY EPI_getYesFlag( HMODULE hEagle, int *flag )
```

used to get the Eagle IFYES indicator: 1 (YES), 0 (NO)

Internal Release v12.7.2(b01)

- #5156   This version has reinforced licensing and software protection for OEMs. The combined licensing system allows multiple sessions per workstation and diffuse versions to run from 1 license token.

  A new license file is required to run this version.

- A new EPI V3.9.24 has been released.

  The prototype for `EPI_changeAnnot` has been changed:

  ```
  BOOL  APIENTRY  EPI_changeAnnot(  HMODULE  hEagle,  EPI_Item  handle,
  EPI_ANNOTATION annot, int mode, int line, char *new_text)
  ```

  where:

  ```
  mode = 1    EDIT_LINE
  mode = 2    INSERT_LINE
  mode = 3    APPEND_LINE
  mode = 4    DELETE_LINE
  ```

Certified Release v12.7.1(b01)

- #5156   A new string function PARAM has been introduced that returns command line parameters and its value. There are three cases:

a.   Parameter specified as –parameter=value:

eagle -ini=eagle.ini -mode=virtual

```
s1=PARAM(mode)
Value is "virtual"
iferr tell 'Error: parameter not specified'
```

b.   Parameter specified as –parameter

eagle -ini=eagle.ini -fast

```
s1=PARAM(mode)
Value is ""
iferr tell 'Error: parameter not specified'
```

c.   Parameter not specified

eagle -ini=eagle.ini

```
s1=PARAM(mode)
Value is ""
iferr tell 'Error: parameter not specified'
Error: parameter not specified
```

- #5016   EPI. EPI_changeAnnot did not allow removing of one line of text, it simply changed the specific line to an empty line. The functionality has now changed but in implementing this change the prototype for EPI_changeAnnot has not been changed:

```
BOOL APIENTRY EPI_changeAnnot( HMODULE hEagle, EPI_Item handle,
            EPI_ANNOTATION annot, int line, char *new_text)
```

In order to remove the generic "line" of text it is sufficient to set to "" (NULL) the value of the new_text parameter, i.e.:

```
    EPI_changeAnnot( he, id, annot, 2, "" );
```

A new EPI v3.9.23 is release with this version.

Internal Release v12.7.0(b08)

- #5132 A new environment variable is used to dynamically draw silhouette edges for pipes and Ufos in the OpenGL window:

```
    OPENGL_SILH=yes.
```

The default value is "no", which indicates that pipes and Ufo silhouettes are drawn statically.

Internal Release v12.7.0(b05)

- #5132   Angled   t-junctions   are   rendered   incorrectly   when HIDE_MODE=advanced and meshed incorrectly in OpenGL. This is resolved by assigning a new value to the HIDE_MODE   environment   variable. When setting   "HIDE_MODE=evr"   the   resolving   fix   is   active.

  This solution can also be driven by a further new environment variable HIDE_MINIMUM_APP which indicates the minimum approximation to be used for all pipe entities.

- A new environment variable is used when HIDE_MODE=evr:

```
    HIDE_MODE_THRESHOLD
```

  This variable can be set to indicate the percentage of the size of the object against the full screen above which no optimization is made whilst faceting the object. The default value is "0.2", indicating that if the object size is bigger than 20% of the full screen then the approximation is the specified value (e.g. APPROX 32).

- PO_FACTOR and PO_UNITS are now dynamic and re-evaluated when the GLMODE changes.

- A new environment variable is used when HIDE_MODE=evr:

```
    HIDE_MODE_NON_ORTHOGONAL
```

  This can be set to "yes" to indicate that pipes that are not orthogonal to the current view (i.e. that are not visible as circles in the current view) are not subject to approximation optimization when faceting (i.e. they are faceted using the current approximation). The default value is "no", which indicates that all pipes are considered for optimizing their approximation when faceting.

Internal Release v12.7.0(b02)

- # 5109 A new EVR version 12.3 is released.
  Starting from this version a new primer MATCHATT has been implemented for the EVR utility. This enables the ability to avoid merging vectors or arcs with different layers or attributes. When this primer is specified, items are merged only if layer and user-defined attributes are coincident. Example:

  ```
  EVR Origin.plo Result.plo MATCHATT

  EVR Origin.plo Result.plo + + MATCHATT
  ```

- #5112   There is a new primer for the HOOK command,

  ```
  HOOK…..CMD=<string>
  ```

  that is passed as a parameter to the function.   A new version of the PLNGHOOK.DLL, is required for this release.

Internal Release v12.7.0(b01)

- #4917 DUMP and ETCH commands now work with an extended PLO format (PLX) that includes attributes.

  Facilitating this is new feature a new SET PLOT option has been made available:
  ```
  SET PLOT=ETCH
  ```
  This option enables creation of temporary PLO files that can only be used by the ETCH command. These PLO files also include attribute definition for items.
  The functionality can be disabled using:
  ```
  SET PLOT=STD
  ```
  Note that the old fashioned (and, in any case, previously undocumented) SET PLOT=A and SET PLOT=C have been removed).

- #5063   The implicit calculation of the middle point for text placement must be calculated as the midpoint of the dimension line and also consider arrows. This implementation overrides the implemented behaviour of the environment variable that was used for the feature #4645: DIMENSION_MID_POINT.

  If the "DIMENSION_MID_POINT=new" the new behaviour is active and it has the effect to changing the geometrical text placement in the Eagle database when creating new dimensions.

  The default environment setting is DIMENSION_MID_POINT=old, that means that the midpoint is calculated as before, i.e. considering the arrows.

Certified Release v12.6.2(b02)

- A new environment variable has been provided to implement fix #5038 which relates to specific case failure to LATCH on pipe ends when in orthogonal view and when the view shows the pipe just as a circle. Enable this fix by setting the PATCH5038. The default value is PATCH5038=yes. When the setting "PATCH5038=no" is present, the fix is not active.

- TRACE_MACROS facility has been extended to obtain information from encrypted macros when the "encrypt" feature is available in the license file. In

the instances where macros are encrypted but no "encrypt" feature is available then only the last 100 lines will be available in the trace file. When no "encrypt" feature is available, the extended functionality can only be used consistently when either all macros are encrypted or all macros are unencrypted, but not in a mixed environment.

Internal Release v12.6.2(b01)

- The TRACE_MACROS facility has been extended to obtain information from encrypted macros when the "encrypt" feature is available in the license file. In the instances where macros are encrypted but no "encrypt" feature is available then only the last 100 lines will be available in the trace file. When no "encrypt" feature is available, the extended functionality can only be used consistently when either all macros are encrypted or all macros are unencrypted, but not in a mixed environment.

- #4685 DRAG has been extended to include handling annotation dragging the enclosing box and recalculating the character size and ratio.

- #5011 The ESTAR (the parser generation) has been ported to Windows from IBM AIX to Windows

Certified Release v12.6.1(b02)

- #4889. Definitive VISTA certification.

- #4413. Dynamic allocation for treeview nodes array has been implemented, to avoid the limit of 2046 nodes.

- #4758. The need to define the roof-value for the stack size (DEF W=max) has been removed.

- #4881. Two new numeric SYS functions have been made available.

  SYS(49). Size of the FULL desktop
  SYS(50). Position of Eagle Root with respect to top-left of desktop origin.

- #4914. New numeric SYS function and a new string SYS function have been made available.

  Numeric `SYS(52)`. Winfont parameters: Size, Bold, Italic, and Underline.
  String `SYS(40)`. Winfont parameter: name

  #4894. The NOTIFY command has now two new primers: TITLE=<title_string> which is used to define a title for the dialogbox and DEFAULT=<digit> which is used to define which is the default button with possible values of 1 or 2 which address the first or second button if the latter is present.

- #4895. `FILE` command: the file type combo lists the value of a dynamic configuration (INI) variable called `FILE_TYPE_COMBO`. This variable requires two new settings:
  `FILEDIALOG_FILETYPES`, which is set in pairs of
  <label>,<extension>;<extra_extension> for example
  `FILEDIALOG_FILETYPES = All,*.*, Text,*.txt;*.dat,`
  `Script,*.py;*.pyc, Model,*.mod, Iges,*.iges;*.igs, BREP,*.brep`
  `FILEDIALOG_FILETYPES_DEFAULT` to specify the default index to use when the

dialog is opened. So `FILEDIALOG_FILETYPES_DEFAULT=3` will reference Script type from the above list when the FILE dialogue is opened.

- #4896. The request to monitor the memory and resources usage during long sessions has been implemented.

- #4897. When Eagle crashes it stores into a log file information about the more recently executed macros and commands.

  The functionality derived from the above two options is driven by a new environment variable called `TRACE_MACROS`, which allows monitoring of resource usage during the entire Eagle session but also in the event of an Eagle crash, where a log file is used to store information about the monitored resources, the history of the macros and commands used during the entire current session. Tracing is only available when is set `TRACE_MACROS=yes` at the start of the Eagle session. The log file is stored in the current working directory and is named "trace.txt".

  The format of the created file is:

  ```
  <V1> <V2> <V3> <V4> #<standard echo information>
  ```
  Where:
  $V1$ is the Memory usage, in K
  $V2$ is the CPU usage, in milliseconds
  $V3$ is the number of used GDI objects
  $V4$ is the number of used GUI USER objects
  i.e.:
  ```
  11432 343 87 69 #<.../test.cmd...4>   get $model
  ```

  Note that when ECHO is active these information are also displayed in the message area.

Official Release v12.6.0(b12)

- A new UNLOAD command has been introduced to unload a previously loaded DLL instead of having to use the LOAD command again. When "unloading" a DLL with the LOAD command if SUP M has been set then the warning message is not shown anymore.

- A new EPI_changeAnnot has been added
  This new epi function EPI_changeAnnot() allows changing of any attribute of an annotation item, including the text, by specifying its ID. There is no need to place the relevant annotation under partition and the current partition index is not changed by this function.

  ```
  BOOL APIENTRY EPI_changeAnnot(
      HMODULE hEagle,        // the Eagle handle
      EPI_Item handle,       // the ID of the annotation item
      EPI_ANNOTATION annot,  // the annotation item
      int line,              // the line to change
      char *new_text)        // the new text
  ```

- It is now possibility to launch more than one instance of Eagle on the same machine for the same user just using one Flex license token. This feature was already available in the Hasp version

- Improvements implemented to the SHOW command and display process for very large drawings

- Improvements to the SELECT command and process particularly for very large drawings.

- If -1 is passed to the COL function then the top-background color (COL H…) is returned. The STATUS 8 shows this color also

  Example
  ```
  V1 = col(-1)
  ```

Certified Release v12.5.5(b01)

- #4669.1 The GLCLIP command has been extended to handle up to 6 planes for OpenGL volume rendering at the same time. The numeric array passed to the command should contain a quadruple of values (the plane equation) for each plane.

- #4675   PULL command - - dynamic zoom/pan is now also available in the PULL command

Internal Release 12.5.4 b05

- The EPI function EPI_getWindowHandle has been extended to now that a return of -9 is made if the requested control is a radio box

- #4577   The request to add a setting for the IMPORT command so that SCANLAYER also returns the info on the Layer-status: i.e. Frozen, Visible. This option has been implemented a new environment setting: "DWG_NEW_SCANLAYER". Which when set to yes implements this functionality and then then the format of the SCANLAYER file is changed according to the following information format:

  ```
  INDEX   NAME  ON/OFF  FROZEN/THAWED  VPFROZEN/VPTHAWED
  LOCKED/UNLOCKED

  DWG_NEW_SCANLAYER=yes [Activated] | no [Default]
  ```

  The default setting is "DWG_NEW_SCANLAYER=no", which means that the SCANLAYER file will only include: INDEX NAME
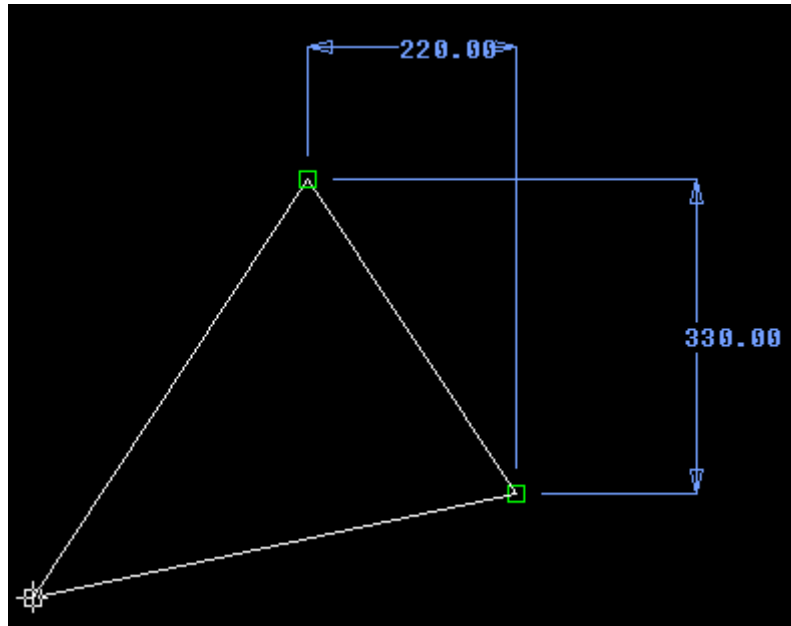
- #4644   The request to EXPORT an arc with a very large radius, which was not displayed in ACAD, as a line - C286

  This option fix is driven by an environment variable. When setting the variable "PATCH4644=yes" the fix is active.
  ```
  PATCH4644=yes [Active] | no [not active Default]
  ```

- #4712   HIDE: There were certain cases when the HIDE X= caused the program to hang (ref 4712). This fix is driven by an environment variable. When setting the variable "PATCH4712=yes" the fix is active.
  ```
  PATCH4712=yes [Active] | no [not active Default]
  ```

- #4373   The request to Export one Face/Hatch as a single object in ACAD (ALSO REF: C270) has been implemented.

- #4608   GDIM - A new type of G-Dimension has been introduced: TYP=14 that represents orthogonal dimensions, as:

The "reference items" for this type of G-Dimension is the G-Node object only. An example is as follows:

```
partition
gnode ...
v1=inf(28)
partition
gnode ...
v2=inf(28)
gdimension
typ=14,r1=v1,1,r2=v2,1,pos=p3,txt='#',w1=25,w2=25,arr=3,m=1
gdimension
typ=14,r1=v1,1,r2=v2,1,pos=p4,txt='#',w1=25,w2=25,arr=3,m=1
```

- #4609   DRAG – The "Automatic orthogonal positioning" is not achieved through a specific primer of the DRAG command but simply doing:

```
partition
gdimension ...
drag
```

- #4610   DRAG command - hotkeys implemented. This means that the DRAG command has been extended with the following options:
SIN=<numeric_array>, to define accelerators active during dragging.
OS=<string>, to define the output string where Eagle stores the ASCII code of the accelerator pressed, if any.

When a configured accelerator is recognized, then the command stops and set the VB variable to 5 and the "output-string" to the accelerator's ASCII code. Example:

```
        DRAG SIN=narr[1],OS=s1
```

Internal Release 12.5.4 b02

- The EPI function EPI_getWindowHandle has been extended to now that a return of -9 is made if the requested control is a radio box

- A new EPI function has been added, EPI_getRadioHandles with the following prototype: `int EPI_getRadioHandles( HMODULE hEagle, int panel, int button, int *num, int *whandle );`
  where hEagle is the Eagle process handle, panel and button as usual, num is the returned number of options in the radio box and whandle is an array with the radio options handle. (see related Help topic).

- A new EPI function has been added, EPI_hook with the following prototype:
  `int EPI_hook( HMODULE hEagle, int sense )`
  The functionality is as described in the HOOK command introduced in the previous 12.5.4 (b01)release.

Internal Release 12.5.4 b02

- A new EPI function EPI_getDynainputHandles has been added, with the following prototype:
  `EPI_getDynainputHandles(HMODULE hEagle, int *whandle1, int *whandle2 )`
  If successful, the EPI returns the two handles of the two edit controls of the dynainput control. . (see related Help topic).

- A new EPI function EPI_getListHandle has been added, with the following prototype:
  `int EPI_getListHandle(HMODULE hEagle,int list,int *whandle1,int *whandle2 )`
  where hEagle is the Eagle process handle, list is the list number.

  If successful, the EPI returns two handles, the first is the listbox (type=0) or listview (type=1) handle and the second is the handle of the list frame, which is the parent of the listbox or listview. (see related Help topic).

- A command called HOOK has been introduced which substitutes the usage of the COORDINATE command for setting the initial value (sense) of the PlngHook.DLL.

  So, instead of:
  ```
  COORD P=I, B=j, T=103
  ```
  You must use now:
  ```
  HOOK SENSE=3   or
  HOOK S=3
  ```
  The usage of the COORDINATE command is retained to avoid legacy coding problems, but the relevant functionality is be deprecated and removed in a future release. (see related Help topic).

Internal Release 12.5.3 b04

- There are certain cases when IMPORT of DIMENSION has the wrong or missing dimension ref #4148.1. A patch to address this problem. Setting the "PATCH4148=YES" will activate the fix. The default setting is is "PATCH4148=NO", which means no fix is active.

- Following the introduction of fix #4147 in this version the use of PATCH3596 is no longer required.

- A new command called MASK has been introduced. MASK implements a filter mechanism that is used by the selection commands (see related Help topic and the example files located in the Examples Version Documents Folder).

- A patch which enables Eagle to catch and managed a crash in the GETDEVICEINFO command. Setting the PATCH4587=YES in case of a crash will enable this process.   The default setting is "PATCH4587=NO", which means the behavior remains as it is now.

- Most entries in the INI file can now be Section-independent allowing for custom organization to suit the application. Please note that some system variables required for initialization at startup of the environment remain section dependent e.g. EAGLEPATH, EAGLESITE and LOGIN for example.

Internal Release 12.5.3 b02

- A new command called GLCLIP is introduced which enables the display in OpenGL only the part of the model which is on the positive side of a given clipping plane. The syntax of this command is : `GLCLIP On|Off, equation=<numeric_array>`
  Where the given numeric array holds the four values that define the clipping plane.

  Example:
  ```
  SELECT F,p1
  NUMERIC Narr[4]
  Narr[1]=NORM(p1,p2,p3)
  GLCLIP ON,EQ=Narr[1]
  . . .
  GLCLIP OFF
  ```

- Development #4473 extends the length of a DAT file to 256 characters. In addition to that, we have also changed the behaviour of the READ command. Now when reading a line longer than 132 characters, the "next" variable is filled with the value which exceeds this 132 character limit. This means that if a command like "READ #1,(L)S1" is issued and the relevant line is longer that 132 characters then the S2 variable will also be filled.

  This new behaviour is active by default and it is driven by an environment variable. When setting the variable "PATCH4473=no" the new behaviour is not active.

  The default is "PATCH4473=yes"

- It is now possible to define a gradient background for the OpenGL window, using COLOUR B for the "bottom" color and COLOUR H for the "top" colour of the gradient.

  Example:
  ```
  COL B,r=0,g=0,b=0
  COL H,R=100,G=100,b=100
  PAINT
  ```

- #4645. There is a new environment variable which defines the mid-point for dimension text. The variable is called DIMENSION_MID_POINT when set to "new" then the system defines the mid-point for dimension text calculated as the mid point of the dimension line without considering the arrows.

  The default setting is "old", which means that the mid point continues to be calculated as before, i.e. by considering the arrows in the calculation of the mid-point.

Official Release v12.5.2(b09)

- #4297   Improve VANE arrows and thickness OPENGL mode: C316

- LibEagle includes the possibility to mark Solids and Irregular Solids as "malformed" (twisted shell frames) see EIF_add_extrusion and EIF_add_irreg.

- #4657   LibEagle introduces a new EIF for checking self-intersecting solids

- #4521   A new INI/Registry setting is available to enable or disable offsetting on faces in OpenGL. The variable POLYGON_OFFSET_DISABLED is set to yes or no. The default is no. Refer to SET command and Configuring Eagle for information.

- #4591   Introduced improved color quality in WIRE and HIDE modes

- #3987. The request has been implemented to add two new primers SIN= and OS= to the PULL command, to allow accelerator settings and output string to be set.

- #4296. SET GLMODE=FAKE has been renamed in HIDE and re-implemented for improved performance and quality.

- #4466. A new type of resizable floating dialog which is modal has been added; use PIN=-22.

- #4452. OPENGL - The request has been implemented to use tessellation also for solids.

- #4529. The request has been implemented to add a new SET GLMODE=BEDGES to draw boundary edges and silhouettes with thickness combined with STD mode (shading). The default usage is to prefer Quality and polygon are offset when overlapping lines are drawn (FAKE/HIDE and SHADE/EDGES), but there is a INI file setting that can be used to prefer Speed, disabling offsetting: POLYGON_OFFSET_DISABLED=yes.
  The two modes: FAKE and SHADE, are now deprecated.

- #4541. The request has been implemented to introduce a new NUMERIC function, INF(37) to return information on new dimension characteristics. Two values are returned:
  Arrow fill (values: 0, 1 or 2)
  Internal text mode (values: 0, 1 or 2)

- A new STRING function, INF(7), has been implemented to return information on new dimension vertical lines. Two values are returned:
  AR1 (values: null - BI - BO - TM - TT - TB - TTO - TMO – TBO)
  AR2 (values: null - BI - BO - TM - TT - TB - TTO - TMO – TBO)

- #4551. The request has been implemented to introduce two new primers for the SET GLMODE:
  HIDE, to make deprecated the current FAKE
  EDGES, to make deprecated the current SHADE

- #4553 Import of frozen layers from ACAD has been implemented. The relevant environment variable is used as follows :
  IMPORT_FROZEN_LAYERS=yes the feature is active.
  The default is:
  IMPORT_FROZEN_LAYERS=no

- #4554. The request has been implemented to import Attributes linked to Block definition as items joined to the block to which they are linked and also belonging to the same layer.

- #4559. Three new dimension styles have been implemented:
  Style 31, whose arrows are in antithesis to style 1.
  Style 32, whose arrows are in antithesis to style 17.
  Style 33, whose arrows are in antithesis to style 22.
  Refer to the updated DIMENSION.DOC

- #4563. The request has been implemented to add the style WS_EX_CLIENTEDGE to LIST.

- #4565. The request has been implemented to make the PULL R command working using L (for latching). To implement this feature a new primers has been made available in the PULL command to allow the definition of a starting point for the rotational PULL:
  PULL R,L,START=<point>

- The SYSTEM_VARIABLES environment variable is still present with the previously defined behaviour, i.e.:
  Setting its value to "no" will address the program to search the INI file first and eventually search the environment variables only if no entry is found in the INI file. Setting its value to "yes" keep the old behaviour, that is to search the environment variables first and eventually search the INI file only if no entry is found in the environment. This is the default.

Previous v12

- #3986   The request has been implemented to add a new mode for direction PULL with primer: PULL D,P1\2.

- #4430. The request has been implemented to select all lines of a list (standard and multi-column) with POS=-1 and deselect all lines with POS=-2.

- #4443. The request has been implemented to extend latching to show the perpendicular and mid point. Comment: The perpendicular has been implemented with the new primer SET LATCH=Q, and the mid point (for lines and arcs) has been implemented with the new primer SET LATCH=M. Note that the SET LATCH=Q is similar to the "N" criteria, but it's not related to CC. It is defined as: Normal to model entity edge (arc or line), relative to selection point

- #4447. A new primers has been made available in the NEAREST command: NEAREST <params>,TOL. This makes the NEAREST command to get only items within the selection tolerance. Also, selections on annotations are now performed using as a reference a straight line across the middle of the text, for each line of the annotation.

- #4452. The request has been implemented to enhance the ENVIRONMENT, getenv() and resolution of names for speed enhancements.

- #4447. The request has been implemented to import dimensions from Personal Designer according to their block representation. Comment: we introduced a setting to allow this. PATCH_DIM_PDESIGNER=yes. Default is "no"

- #4479. The request has been implemented to add a new mode for latching PULL with primer: PULL T,L.

- #4487. A new SYSENV command has been implemented to write (Windows) system environment variables. A corresponding SYSENV function to read (Windows) system environment variables has been implemented. When using the SYSENV command to set variable the ENV function and command will no longer read or write system environment variables. Note that the Eagle environment called SYSTEM_VARIABLES is used to define whether or the SYSENV or ENV function not the standard previous behavior environment variable defined behavior.

- #4488. Starting from this version, the variables read from and written to the INI file are now "cached" in memory. Note also that changes made to the INI file during an Eagle session from outside the Eagle environment (for instance hand-code changes or changes made by external programs) are no longer synchronized with the values that are present in the Eagle cache until the cache is refreshed in a new session.

- #4497. Four new EPI have been implemented: EPI_getenv, EPI_putenv to access INI variables and EPI_getsysenv and EPI_putsysenv to access system environment variables through the same mechanism used by Eagle.

- A new rubber effect has been added, R=O for orthogonal that is the combination of vertical and horizontal

- #4411 A new type of dialog panel that can be resized when docked and when floating, PIN values -17 to -22 have been added. So for example Value -17 corresponds to value -7 but with in this case the panel has its resizable attribute enabled. Icons are not repositioned when resizing the takes place. Refer to EagleEye – Tutorial Overview.pdf and PANEL command for details.

- #4381 Function keys have been enabled when focus is on GUI controls

- #3930 TreeView · user-defined icons have been fully implemented. Refer to EagleEye – Tutorial Overview.pdf and Tree control topic in the GUI section of the Help file for details.
  The default maximum number of different images in a treeview is 16. That can be extended setting the variable TREEVIEW_MAXLEN_IMAGELIST in the INI /Registry entries :TREEVIEW_MAXLEN_IMAGELIST=32
  Also, the default for a TreeView is with icons. If icons are not required the variable TREEVIEW_WITHOUT_ICONS is set "yes".

- #4423   Treeview -Possibility to run a macro instead of a popup menu when right mouse click

- #4430   It is possible now to select or deselect all lines in a multi-column list.
LIST W=1,POS=-1
will select all the lines in the list, whilst
LIST W=2,POS-2
will deselect all lines.

- #4408   An INI/Registry setting SELECTION_MARKER_SIZE has been made available to specify the size for selection markers. The units used are defined in terms of pixels.

- #4372   OpenGL functionality has been certification for VISTA

- #4387.1 WINPLOT can take the available formats (papersize) from the printer driver or the customer driver instead of from the INI file. This is obtained using the new "-t" option, and so the [DefaultWindowsPapersize] entry of the INI file will no longer be required.

- #4393   GETDEVICEINFO has been extended to gather additional information about the available media sizes, these are:

  ```
  HORZSIZE                        horizontal size (in mm)
  VERTSIZE                        vertical size (in mm)
  PHYSICALOFFSETX/LOGPIXELSX left margin (in inches)
  PHYSICALOFFSETY/LOGPIXELSY top margin (in inches)
  ```

- #3911. The request has been implemented to extending the Export command providing a log file with geometrical information about all incorrect geometries identified when triangulating faces. A new environment variable has been made available to inform the application if any incorrect geometry was detected during the export:

  EXPORT_LOG=yes
  If   no   incorrect   geometry   error   is   found   then
  EXPORT_LOG=no

- #3916. The request has been implemented for the popup default position being set to the last gin position.

- #3918. The request has been implemented for extend tabbing to combo-box.

- #3928. The request has been implemented to extend the maximum width/height for panels.

- #3931. The request has been implemented to allow the graphic preview of a model file to a BMP. Refer to PREVIEW.TXT for a complete description of the new functionality.

- #3934. The request has been implemented to allow an advanced spin around the object. Refer to SPIN.TXT for a complete description of the new functionalities. Refer to COMMAND.TXT for a complete description of the new functionality.

- #3936. The request has been implemented to enhance the performance of the message window compared to the 11.9's.

- #3938. The request has been implemented for a new COMMAND on/off - to view/hide the command window.

- #3940. The request has been implemented to use a new environment variable to define an eventual submodels path to be used as a prefix for imported blocks. A new environment variable can be set for implementing this: DWG_BLOCK_PREFIX=<full path>, example: DWG_BLOCK_PREFIX=c:\tmp\ Comment: ALSO REF: C273

- #3950. The request has been implemented to make a fully 3D perspective blowup. Note: in particular the blowup now sets the proper viewing parameters (EYE, FOCUS and SCOPE).

- #3981. The request has been implemented to have better icon for the command history.

- #3982. The request has been implemented that pressing escape terminates the polling with VB=1 with the mouse pointing to gwind or panels or lists or barmenu or anything else.

- #3993. The request has been implemented to allow LOCK and unLOCK for toolbars. Refer to LOCK.TXT for a complete description of the new functionality.

- #3759. The request to extend the maximum number for the PEN attribute to 256.

- #3760. The request has been implemented to extend the maximum number for the COLOUR attribute to 256.

- #3761. The request has been implemented to extend the maximum number for the HATCH attribute to 256.

- #3762. The request has been implemented to extend the maximum number for the DASH attribute to 256.

- When a panel (toolbar, dialog or std panel) is closed (PANEL OFF), Eagle now fires a message whose value can be read from the INI file in the variable CLOSE_CUSTOM_MESSAGE.
A new variable in the INI file exists, called:
    CLOSE_CUSTOM_MESSAGE
To set the value of the message to be fired when a panel, dialog or toolbar is destroyed. The default value is 61210.

- Only in v.12 EagleEye version there is a new variable called FONT_INTERLINE that can be set to a value that helps in tuning the height of the message window. Eagle does some calculations, especially on Windows XP, there is less control on a RichEditCtrl.
Default suggested value is:
FONT_INTERLINE=3.2
Suggested value when:
MESSAGE_WINDOW_FONT_NAME=Arial
MESSAGE_WINDOW_FONT_SIZE=12
is:
FONT_INTERLINE=2.6

- POPUP. When clicking with left button outside the popup menu now causes the popup to exit

- #3920. The new DYNAINPUT command has been made available. (refer to the related entry in the Eagle Help).

- #3925. The request has been implemented for adding a hook function for custom behavior or the Coordinate command

- #4016. A new string function: FORMAT(filename) has been made available. It allows knowing if the model file is in v.11. or v.12 format. Comment: the following string values are returned:
  "12"   for V12 MOD-files format
  "11"   for MOD-files earlier then V12
  ""   for non-MOD files

- #4018. A new numeric function, called INFOPANEL, is available to get information about a panel, such as:
  V1=INFOPANEL(PANEL_ID)
  V1 - 0 if the panel does not exists
     - 1 if the panel exists and is open
     - 2 if the panel exists and is closed
  V2 - the PIN = value
  V3 - the ATT= value
  V4 - the x position in pixels
  V5 - the y position in pixels

- #4039. The new functionality of multi-level UNDO and REDO has been implemented. A new set of commands has been introduced: UNDO, REDO, BOOKMARK (see related help).
  NBB: the new command AGAIN replaces the old fashioned REDO, to re-execute the last command line.

- #4051. The new POINTINBODY command has been made available for Ufos (it was already available for Acis bodies). The syntax of the new command is the same than the one for Acis objects:

  POINTInbody point=p1, id=item_id, result=answer

- #4066. The following commands have been extended to handle spaces and underscore in file names.
  COPY, IFFILE, LIBRARY, LOWER, MERGE,PROTECTION, RENAME, SORT, UPPER
  This list is now added to the commands that already did it:

  ```
  A2MODEL
  CATALOG
  DIRECTORY
  DO
  DRAW
  DUMP
  EDIT
  ETCH
  EXPORT
  GET
  IMPORT
  ITEMISE
  LOAD
  M2ASCII
  ```

```
OVERLAY
PATH
QUANTIFY
REPLACE
SAVE
UPDATE
```

- #4070. When PIN<0 JPOS is now expressed in pixels. When opening a floating toolbar, the position specified with J=<x_value>,<y_value> is now defined in pixels instead of   proportions of the graphic window, like for the standard Eagle panels. So, when
ATT=-999 is used the J-position must be specified in pixels.

- #4071. The new INFOGUI numeric function has been implemented that returns the list of the active panels (only toolbars and dialogs and not std panels) in the order they are at the moment of execution of INFOGUI function. "Order" means anti-clockwise from top toolbar:

```
                    1
                    2
                    3
        4 5 6                  12 11 10
                    9
                    8
                    7
```

Supposing panels from 1 to 12 were mounted as toolbars and docked dialogs. Complementary with the INFOPANEL function, this function helps in making the user interface persistent and to be able to recreate it at the next run of the application.

- #2882. The request for multiple cursors in DB transactions to access more result set simultaneously has been implemented. For a complete description of the new functionality refer to "DatabaseCursors.pdf".

- #3919. The request to extend the Guide command with a text aside like the grid, where the text is always displayed on the left and bottom sides of the screen no matter is the zoom area has been implemented. The presence of the text is driven by an environment variable that indicates the user attribute used to   place   the   text   value,i.e.:
GUIDE_TEXT_ATTRIBUTE=2
means that att(2), if defined, contains the text to be displayed

- #3999. The request to implement a new a new utility (Ref. Ector.exe) to realize a raster image vectorization considering vectors, arcs and circles has been implemented. For a complete description of the new functionality refer to the related document.

- #4042. It is now possible to use CTRL-<digit> during the POLLING command (e.g.: ctrl-5), which returns the digit in the output string like the accelerators (SIN=) and a different   VB value, which is 7 by default or can be defined in the INI file with the variable DIGITHOTKEYSVB.

- #4043. The request to activate the dynamic pan/scroll pressing just the wheel (or middle button) has been implemented.

- #4060. It is now possible to use the keys INS,HOME,DEL,END as "digit" hotkeys, with VB returned as 7 by default or as defined in

DIGITHOTKEYSVB. The output string is set to 10, 11, 12 and 13 respectively.

- #4044. The new command SNAP has been introduced to allow cursor snapping on latched items during polling. For a complete description of the new functionality refer to "Snap.txt".

- #4046. The request to extend the dimension styles has been implemented. For a complete description of the new functionality refer to "DimensionUpdates.pdf" or the relevant Dimension command.

- #4083. The request to scroll DB cursors, in order to re-read the record set has been implemented. Comment: The new syntax: DB REWIND CURSOR %<n> (n>5). For a complete description of the new functionality refer to "DatabaseCursors.pdf" or the relevant database command.

- #4084. The request that Focus-in / focus-out terminating the polling has been implemented.
  Comment: We have introduced a workaround to implement this behavior.
  Setting the environment variable PATCH4084 to "yes" does this.

- #4090. Since this version Eagle is also available with an Educational Version, for both the dongle and the FlexLM version. Note: the dongle must be re-programmed for this version onward, while for the flexLM version the feature "edu" is required.

- #4095. The request to update the state of check buttons has been implemented.

- UNDO. Besides the functionalities described in the UNDO and REDO commands the following enhancements have been introduced:

  a. It is possible to "undo" the last N bookmarks with:
     UNDO 3
     that corresponds to UNDO; UNDO; UNDO.
     The same is also available for REDO.

  b. It is possible to use the UNDO command to specify a   fragment-range
     to indicate which fragments are to be   ignored during the "undo" process.
     UNDO SKIP=8,20\25,100
     This functionality is very useful for minimize the data transferred in and
     out during UNDO and REDO. Also, it is   useful when part of the
     geometry cannot be replaced (that is "removed and re-created") because the
     item IDs must   be kept without changes.

- #4172. A new entry in the INI file to define the size of the message window buffer: DIALINES_BUFFER. Default is 512 lines.

- #4122. The request for disabling the automatic bookmark has been implemented. This is driven by INI variable: UNDO_AUTOBOOKMARK=no.
  The default is 'yes'

- There is now a variable in the INI file called MAX_UNDO_LEVELS to define the maximum levels of undos; the default is 16.

- #4028. The request to extend the maximum number of layers (FRAGMENT) to 256 has been implemented.

- #4034. The request for ONCHANGE activated on DDE command to interrupt the POLLING has been implemented. We have introduced a workaround to implement this. It can be activated by means of the PATCH4034. When the following setting:

  PATCH4034=YES
  The default is PATCH4034=NO, that is the old behavior.

- #4060. The request for POLLING to handle DEL,BSP,INS,HOME, and other keys with hotkeys has been implemented.

- #4125. The request to set in the INI file the maximum number of undos with the variable BOOKMARKS_MAX_VALUE (default=16) has been implemented. There is now a variable in the INI file called MAX_UNDO_LEVELS to define the maximum levels of undos; the default is 16.

- #4131. The request to extend the use of the PLNGHOOK.DLL (hook function) to the COORDINATE command has been implemented. This is done by using extended T-values to pass a configuration parameter (T=100+n).

- Note: When the command COORDINATE is executed with a T-value greater then 100, the function PlngHookInitialize() from the PLNGHOOK.DLL is called with parameter equal to (T-value - 100), to allow a custom initialisation of the hook function.

- #4175. The request to use the current mouse position as the focus for the zoom has been implemented. Note: The dynamic zoom, both via the mouse wheel or the <shift> key, keep the current mouse position at the same model coordinates position, avoiding to drift the viewport sideways.

- #4180. The request to extend the EPI_getWindowHandle to return the handle of the tab panel (id=96) has been implemented. Note:

  The behaviour of the EPI_getWindowHandle changes into:
  - passing a valid panel and a valid button it returns the handle
    of the button (existing behaviour);
  - passing button=-1 it returns the handle of the panel (including
    panel 96 the tab-container)(existing behaviour);
  - passing panel=96 and button=0 it returns the handle of the tab-
    control object (new behavior);

- #4183. It is now possible to specify the maximum of characters for a button type 6. The value can be specified with the default value using a # character as separator. E.g.: ....,6,'obrien#20' : ...

- #4185. The request to extend the CLICK command to allow changing of background color in button type 4 through the primer COL= has been implemented. Note:

  The command CLICK with primer COL=<color> has been implemented
  to allow to change the background color of a button type 4, which
  is a Windows standard icon (not those with TU,TD and TF prefix),
  tipically used in toolbar.
  Also, if the name of the bitmap file is suffixed with the
  character # and a text label, such label is displayed just under

the button.
Example:
4,98,2,32,32,0,0,4,'se4.bmp#Surface': tell '4'

- #4193. The request has been implemented of new command GETDEVICEINFO to get the printer's form size name, orientation, width, height and scale.

- #4195. A new primer for the UNDO command, INDEX=ON|OFF to enable or disable the restore of the indices when undoing a saved state). The default is INDEX=ON, which means that the indices are restored. Example:

  UNDO ON
  ...
  BOOKMARK
  ...
  UNDO INDEX=OFF
  UNDO

- #4210. The request has been implemented for the Dynainput to allow focus in the control until <enter> (confirm) or <escape> (cancel).

- #4222. The request has been implemented for Toolbars that if J=-3,-3 then the toolbar is shown in the same direction of its caller.

- #4223. The request has been implemented for Toolbars that when J=A,B then B is used to determine the number of rows or columns. Default is 1.

- #4224. The request has been implemented that when the display of a toolbar is partially on screen, then the position is adjusted to fit the toolbar inside the screen.

- #4226. The request has been implemented for the graphic window tabs to be removed.

- #4234. The request to remove the controls when overlapping with the border and repositioning "inside" the cursor has been implemented.

- #4244. The request for the READ DB to return NULL when strings filled with all-blanks are returned has been implemented. Note: There is a new variable in the INI file called PATCH4244. When set to "yes" the string returned by a READ DB containing only "blanks" are converted in <null>, so in Eagle the correct test is if <string_name>=".

- #4246. The request to add a new environment variable to handle error codes from the IMPORT program has been implemented. The new variable is called: DWG_ERROR. Note: There is a new variable in the INI file called DWG_ERROR that contains the error code and message after an IMPORT command. Example is "*0008 Unsupported file version*", that is returned when the DWG or DXF file comes from a version newer than ACAD 2002.

- #4247. The request has been implemented that the right click on a toolbar executes the macro defined in TOOLBAR_CONTEXT_ACTION and returns the correct MN, BN and VB.

- #4248. The request for the OpenGL to handle thickness has been implemented.

- #4249. The request for the OpenGL to improved overlapping of lines onto rendered faces has been implemented.

- Starting with 12.3.0.b.07 there is the possibility to manage "pulldown" toolbars that are toolbars, horizontal or vertical, that appears attached the button from where it has been called.

  Example:

  ```
  #calling toolbar
  panel p=3,on,u=1,r=32,c=32,pin=-5,att=-1
  option p=3,f=menu3.tab
  ```

  where menu3.tab is:
  ```
  ...
  8,226,2,32,32,0,0,4,'se8.bmp': tell '8'
  9,258,2,32,32,0,0,4,'se9.bmp': tell '9'
  101,0,0,24,24,0,0,4,'separator':;
  10,290,2,32,32,0,0,4,'se10.bmp': do pulldown     <--------
  11,322,2,32,32,0,0,4,'se11.bmp':;
  12,354,2,32,32,0,0,4,'se12.bmp':;
  ...
  ```
  and pulldown.cmd:
  ```
  panel p=40,on,u=1,r=32,c=32,pin=-5,att=-999,j=-2,-2     <-------
  option p=40,f=menu30.tab
  ```
  the behaviour is automatically managed by Eagle, and the pulldown toolbar is shown horizontal if the calling toolbar was vertical and vice versa.

- Starting with 12.3.0.b.07 there is the possibility to choose if a popupmenu has a title or not, setting the INI file variable: POPUP_IGNORE_TITLE=yes. (default is no).

- The command SETUPDEVICE requires now the primer SETUP to open the printer device panel. Eg:
      SETUPDEVICE name=devs[1],SETUP
  That because it is now possible to set the format size, orientation and scale with:
  SETUPDEVICE name=devs[1],SIZE='A4'
  SETUPDEVICE name=devs[1],ORIENT='PORTRAIT' (or ANDSCAPE')
  SETUPDEVICE name=devs[1],SCALE=50
  Important: the SIZE must be set before the orientation and scale.
  Note: A new command GETDEVICEINFO has been introduced to query information from the selected printer, such as format size, orientation, scale and supported formats. For instance, to get the current properties, such as format size, orientation, scale:
  GETDEVICEINFO name=devs[1],CURRENT=data[1]
  The returned string array first entry contain five information separated by a comma. These are format, size_x, size_y, orientation, scale. Eg:
  GETDEVICEINFO name=devs[1],CURRENT=data[1]
  DECODE data[1]:s1,s2,s3,s4,s5
  tell 'NAME=',s1
  tell 'SIZE=',s2,'x',s3
  tell 'ORIENTATION=',s4
  tell 'SCALE=',s5
  To get the selected printer's supported format sizes:
  GETDEVICEINFO name=devs[1],SIZE=formats[1]

- #3978. The request to improve the speed of the OPENGL ON command has been implemented with tessellation. OpenGL tesselation for ufos has been improved and it is up to 15 times faster. Also visualization in OpenGL has been improved with the creation of less polygons.

- #4167. The use of INTERN=0|1 option for dimensions has been extended also to dimension styles 10, 11 and 12. Comment: refer to the new Dimension.doc document for all the new features implemented in the dimension command.

- #4168. The dimension command has been extend to handle the AR1 / AR2 flags to new types: TTO, TMO, TBO.

- #4169. The dimension command has been extend with four new dimension styles: 27, 28, 29 and 30.

- #4170. The INTERN flag for dimensions has been extended to have three different meanings:
  0, to indicate std
  1, to indicate always beyond start point
  2, to indicate always beyond end point

- #4217. A new entry in the INI file has been made available to avoid the usage of the "system environment variables". The new variable is called SYSTEM_VARIABLES. Setting its value to "no" will address the program to search the INI file first and eventually search the environment variables only if no entry is found in the INI file. Setting its value to "yes" keep the old behaviour, that is to search the environment variables first and eventually search the INI file only if no entry is found in the environment. This is the default.

- #4254. Toolbars: the request has been implemented for a new value for PIN, -14, to create a floating toolbar that cannot be docked (always floating)

- #4256. The request has been implemented for the environment variables DYNAINPUT_FONT and DYNAINPUT_FONT_SIZE to be set dynamically.

- A new entry in the INI file to enable the coloring of the rubber box during the POLLING command:
  RUBBERBOX_COLORS=yes
  default is "no". The colour can be defined with the command COLOUR:
  COLOUR CR,R=<value>,G=<value>,B=<value>
  for the "right" colour, which is the colour when the rubber box expandson the right, and:
  COLOUR CL,R=<value>,G=<value>,B=<value>
  for the "left" colour, which is the colour when the rubber box expands on the left.

- It is now possible to enable/disable the usage of the <shift> and <ctrl> keys for dynamic spin, setting the INI entries:
  SPIN_SHIFT_CTRL_ENABLED=yes|no

- #4116. Import of PDF formats for the Hybrid module has been implemented. Two new utilities have been made available: Tiff2Pdf and Pdf2Tiff. Ask MacroVision for detailed documentation about these.

- #4270. The request has been implemented for disabling the Highlight for items belonging to a fragment or fragment-range during the POLLING H. For this

purpose the command HIGHLIGHT has been extended with the parameter: SKIP=<fragment-range>

- #4283. The request of some new sys functions has been implemented: SYS(43) to get the currently active graphic window SYS(44) to return the position and size of the current active gwind (4 values). SYS(45) (string) to return the title of the current active gwind

- #4292. The request has been implemented for Combo box selection to returns in RN the index of the currently selected item, starting from index=1. When an option is selected from a Combo box, beside the string value store in ST, the row number is stored in RN (keeping LN=0).

- #4300. The request has been implemented that when UNDO_AUTOBOOKMARK=no and patch4300=yes, the pruning of "zombie" bookmarks is done at the next BOOKMARK instead of at the next stack change.

- #4301. The request has been implemented to disable and enable the UNDO mechanism with two new primers PAUSE and AWAKE, to suspend the undo mechanism (pause) and activate (awake) it again, in order to handle critic sessions.

- #4306. The command MHINT has been re-introduced with the possibility to print a message in the left part of the status bar if present. To avoid that other Eagle messages are printed in the same area set the INI variable POLLING_HINT_IN_STATUSBAR to "no".

- #4354. The request that the SUPPRESS command must be ignored when displaying on the GL window has been implemented

- #4386. The request has been implemented that the InfoPanel command return a 6th value which is:
  1 - If the toolbar/dialogue is locked
  0 - otherwise

Other new features

- To set the message window control to be read-only it is necessary to set a new variable in the INI file, called MESSAGE_READONLY. Example:
  MESSAGE_READONLY=1
  The default value is 0 that means read/write.

- Now every panel has its own "close button". It is possible to associate an action to the closing event, just setting in the INI file the variable MENU_CLOSE_ACTION to the macro that must be executed. Example:
  MENU_CLOSE_ACTION=do close_me
  Where close_me.cmd is in the form:
  # CLOSE_ME.CMD
  # global action for WM_CLOSE of a panel
  arguments numeric iPan
  {
    tell '++++ closing panel',iPan

}

In this macro it is required to do a PANEL OFF. If the macro is not set, then the PANEL OFF it is automatically done by the "close button" event.

- The commands FREEZE and UNFREEZE can now freeze/unfreeze:
  - the entire menubar   FREEZE mb
  - a single menubar option   FREEZE mb, p=2
    - a single pulldown option   FREEZE mb, p=2, b=3

- Now every list has its own "close button". It is possible to associate an action to the closing event, just setting in the INI file the variable LIST_CLOSE_ACTION to the macro that must be executed. Example:
  LIST_CLOSE_ACTION=do close_me
Where close_me.cmd is in the form:
  # CLOSE_ME.CMD
  # global action for WM_CLOSE of a list
  arguments numeric iList
  {
     tell '++++ closing panel',iList
     list w=iList, off
  }
In this macro it is required to do a LIST OFF. If the macro is not set, then the LIST OFF it is automatically done by the "close button" event.

- The execution of the "close button" of a Panel event cause the polling to exit and returning a BN (button number) value set to − 1 to inform about the special event occurred.

- The execution of the "close button" of a List event cause the polling to exit and returning a RN (row number) value set to −1 to inform about the special event occurred.

- **Only EagleEYE.** With this build there is a new utility for "command line users": the command history. When the mouse cursor approaches the bottom-right corner of the command line a button appears; if selected it opens a dialog box with a list containing the latest commands executed from the command line. The user can scroll, resize the list, close it with an <Esc>, or select a line double-clicking on it; the chosen command will be proposed in the command line ready to be executed, just with a <Return>. The commands are stored in the history box without repetitions that means that if a command has been already recorded with the same syntax then it won't be recorded again. In future versions of this utility a context menu and other functionalities will be added.

- Two new EPI have been made available: EPI_getEagleFrameHandle() and EPI_getGraphicHandle.

- Starting from V12.1.1.B01 Eagle has been enhanced with the possibility of setting 256 different pen, 256 different dash, 256 different thickness and 256 different colours.

- The new version handles a new format for the .MOD and .PLO files, and consequently the new Eagle is fully capable of loading its own models (new ones) and all the old ones, but previous versions, like Eagle V119, are not capable of reading .MOD or .PLO coming from this new version.

- Only the old-basic 16 colours are pre-allocated at the new Eagle startup, and so it is up to the application to initialize the colour definition according to its needs.

- This version also allows to set shades for basic 256 pens in a different range, and so the application can issue commands like:

  COLOUR 52,R=100,S=300\340

  to indicate that colour 52 is RED and has shades ranging from index 300 to index 340 in the currently defined colourmap.

- The Advance Hybrid module has been made available also for dongle-based protection.

- The usage of INI file access has been optimized. Note that there is the possibility to use the Registry but we recognize that many sites like the flexibility of the INI file arrangement.

- #4361   Commands that modify single objects have been optimized to improve performance with OpenGL.

- XPLOT now handles up to 256 layers.   See v7.1.3 located in the MacroVision/Eagle/Bin/Xplot directory of the release.

Additional Notes

NOTE : Things you can do if OpenGL sometimes produce strange on screen results.
- You should always ensure that your graphics card is equipped with the correct drivers optimized for OpenGL
 - Ensure that the OpenGL setting are present and correct in the INI file settings.
- Disable "triple-buffering", cards such as NVIDIA have the triple buffering option which is usually set to Off by default. Triple buffering is typically of benefit to gaming software where it can help cure low frame rate. Enabling triple buffering also means it requires 50% more frame buffer spaces. Triple buffering has no effect with Direct3D.

NOTE : HybridCAD commands such as OVERLAY can crash with JPG and TIFF color images unless the correct settings are made in the INI file. We recommend that users upgrading should use a recent INI file and make your modifications to this rather than trying to add settings to an older INI file.

NOTE : The policy of installing DLLs in the Windows directory has been changed to including the files in the directory that Eagle.exe is located. With Windows Vista and later writing to specific system areas is not recommended and this policy enables compliance and possible clashes with other programs.

Eagle 12.8.0 (b02)

- #5522 EXPORT: When boxed annotations with actual character height were exported, the box produced was very small. Comment NCG-REF: C377

- 5281 EXPORT: Special characters for degrees etc.

- #4795 EXPORT: Color filled faces with multiple holes and invisible edges generated a incorrect ACAD element.

- #5544 When an empty annotation was present then POLLING L crashed.

Eagle 12.7.7 (b02)

- #5166 There were cases when annotations from file were misplaced. Comment: this depended on the justification

- #5294 EXPORT: When the DXF_OUTPUT_FORMAT was set to "old" or NULL then the generated DXF files cannot be loaded in ACAD

- #5360 EXPORT: when exporting underlined multi-line annotation, the resulting DXF or DWG file had no underlining. Comment: NCG-REF: C367 (also C280-#3966.1)

- #5477 EXPORT: Font information for multi-line annotation was not exported correctly.

- #4669.2 GLCLIP ON without the EQ= crashed

- #5479 When GLMODE=edges and a UFO was highlighted and a subsequent SHOW command was issued, some of the silhouette edges of the selected UFO were missing

- #5488 There were cases when the GETDEVICEINFO command returns garbled paper sizes

- #5177   GLMODE=HIDE was slower than EDGES when OPENGL_SILH=yes

- #5184.1 WRITE: There were cases when the write command with lines longer than 132 characters produced incorrect output lines. Comment: Specifically the line was filled with NULL characters. Refix.

- #5490 OPENGL: GET $ of a model containing a UFO returned error messages in the display of the ufo

Eagle 12.7.7 (b02)

- #license Version in license file changed back to 720.

Eagle 12.7.7 (b01)

- #5427   The edges of solids and faces were sometimes incorrect, depending on PEN numbers greater than 16 licensing   Eagle writes the MVISION version in the lmgrd LOG file

- #4799   EDU/EDUX – new version did not save and dump

- #5444   IMPORT read null-radius arcs causing visualization problems

- #5165   There were cases when annotations from file were not exported at all. Comment: this happens when the name is in the form "LB1/subdir/datafile" macrovision

- #5441   IMPORT: When no TABFONT was defined then importing Text items caused them to be assigned with font 2 instead of font 1.

- #5184   WRITE: There were cases when the write command with lines longer than 132 characters produced incorrect output lines. Comment: In particular when the line is filled with NULL characters

Eagle 12.7.5 (b01-b05)

- #5376   EXPORT: When there was spaces in the font name in the TABFONT file then Eagle crashed

- #5258   HASP MCM version for Vista, Windows 7 and Server 2003/2008 worked but did not in a remote session on these platforms (A "Too many workstations" error occurred)

- #5379   There were cases when the UNBUFFER command corrupted attributes on sub-models, causing subsequent crashes. The fix is implemented by using the PATCH5379. PATCH5379=yes
The default is not to use the patch, i.e. PATCH5379=no

- #5299 In opengl with mode HIDE or EDGES boolean ops do not show the new reloaded item correctly

- #5351   There were cases when the LISTDEVICE command didn't report all the network printers. Comment: This happened on Windows 7

- #5352   PUNCH: There were cases when the PUNCH command failed.

- #5355   There were cases when hatched faces with holes showed an incorrect extra edge when HATCH ON

- #5357   Selection on annotations defined "from file" didn't always work.

- Licensing FlexLM 9.5 check of socket consistency when calling flx API due to an inconsistent behaviour on certain configurations.

- # 5350 Check license file existence before calling FlexLM to avoid that FlexLM hangs or causes an error in Eagle. An error panel is displayed.

- #5293.1 HIGHLIGHT when SUP then did not highlight anymore (see SUP V #5293)

- #5253 CLICK on a treeview with SELECT pointing to a root node did not work when multiple roots are present

- #4639.1 ComboBox immediately opening and closing a Combobox if the focus was already set on it (you needed to combo every close so the options of the first overlapped the second combo)

- #5322 When executing macros while both V12 and V14 were active, after some macros were executed Eagle gave an error relating to "License Server down" and exited.
  Note: This happened on Windows 7 and Vista but was ok on XP.

- #5298 OPENGL: when a panel overlapped the rendered image, then SPINing or ZOOMing and moving panel resulted in the underneath image not being repainted

- #5340 POLLING HIGHLIGHT: using polling with highlight, the highlight color was still visible after highlighting has been made for faces.   To implement this fix a workaround has been introduced that uses an environment variable. When setting the variable "PATCH5340=no" the workaround is not active. The default is "PATCH5340=yes"

- #5267 TRIM raster: the background color of the removed area was always black

- #5321 EXPORT: When exporting annotation in DWG format with justification

- TM/BM, editing them inside ACAD resulted in a small shift. ALSO REF: C364

Eagle 12.7.4 (b03)

- #5293   HIGHLIGHT when SUPV did not highlight

- #5182.2 If the size of the arrow of a dimension was bigger than half the size of the dimension line, its appearance was not preserved after a modification was made in ACAD. Comment: ALSO REF: C360

- XPLOT #5282. Thickness for pen is not handled correctly when there are more than 16 pens defined. Comment: this applies to HPGL-2 format – A new Xplot version 7.1.9 is released

Eagle 12.7.4 (b02)

- #5283   LIST: There were times when multiple selection crashed.

- #5282   XPLOT - Pen thickness with more than 16 pens were all handled with pen 17. A new version XPLOT v.7.1.9 is released.

- #5182.1 If the size of the arrow of a dimension was bigger than half the size of the dimension line, its appearance was not preserved after a modification was made in ACAD. Comment ALSO REF: C360

- #5284   Setting DXF_EXPORT_FORMAT= (default) the resulting file was generated in ACAD11 format instead of ACAD14.

- #5285   EXPORT. There are cases when editing exported dimension from within ACAD they lost their original appearance

- #5186.2 When Eagle starts and MVISION is running on a server, it could take more than 10 secs. A new MVISION v.2.05 (5-JUL-2010) is released.

Eagle 12.7.4 (b01)

- #5243   ZERO ALL on a string array does not reset the last cell of the array

- #5186.1 The serial number can randomly change on some installations only occasionally noticeable depending on the frequency of restarts in the destination application. New MVISION and SNGEN are released. The first for checking the version against the Eagle version for better troubleshooting, and the second for solving unstable response from Windows APIs.

Eagle 12.7.2 (b02)

- #5228   There are cases when the RASTER command caused strips to be produced in the output image

- #5229   SYS(50) must return 0,0 if root window is maximized

- #5186.1 On 64bit servers the Serial Number generated by SNGEN.exe could have problems.

- #5235 In OPENGL triangle facets in UFOs were not shown.

- #5233 TILE command KEYED option did not work

Eagle 12.7.2 (b02)

- #5182 If the size of the arrow of a dimension was bigger than half the size of the dimension line, its appearance was not preserved after a modification was made in ACAD. Comment: ALSO REF: C360

- #5180 / #5167 Export: there were cases when faces were not exported and the error message "Self intersecting object identified at ..." was produced. Comment: ALSO REF: C362

- #5146 Annotations were sometimes drawn incorrectly in 3D views. Comment: this happen when Dimensions were present in the workspace Comment: ALSO REF: C357

- #5225 CLICK on toolbar cause a GDI leak

Eagle 12.7.1 (b01)

- #5149.2 PANEL OFF still caused (1) GDI-object leak

- #5157 PANEL with PIN=-18 (resizable dialogbar) docked under the message and command windows while PIN=-8 was correct

- #5158 When HIDE_MODE=EVR there were problems with "joined arcs"

- #5140 PULL R: At the start of the PULL there was a jump

- #5162 GETDEVICEINFO crashed when the returned string was greater than 132 chars.

Eagle 12.7.0 (b08)

- #5038.4 Latching on pipe bends did not always work correctly.

- #5131.1 Optimization of GLMODE=EDGES when SILH is set to yes

- #5141 OPTION OFF caused GDI-object leaks

- #5142 OpenGL was slow for pipes when compared with performance of v.11.9.9.b07 and earlier versions.

Eagle 12.7.0 (b07)

- #5132.1 Approximation for pipe bends was incorrect when HIDE_MODE=advanced

Eagle 12.7.0 (b06)

- #5138 In OpenGL the fragment of an item in a sub-model overwrote the fragment of the sub-model as a whole

- #5135 There are case where latching on SOLID vertices did not work

- #5136   ENV command: when an environmental variable was numeric and was "unset" then Eagle applied "zero" as the value and thus voiding the correct setting of the default value

Eagle 12.7.0 (b05)

- #4114.1 HIDE: intersection between pipes was sometimes incorrect. Comment: this happened when sub-models contains pipes.   *Note:* PATCH4114 environment variable is no longer required.

- #5133   Angled t-junctions were rendered incorrectly in HIDE when HIDE_MODE=advanced and meshed incorrectly in OpenGL.

- #5134   Sometimes tee junction were rendered incorrectly in the OpenGL window. Note: this happened when the two radii were very different.

- #5132   When HIDE_MODE=advanced and the approximation was high (64 or higher), pipes that were small compared to the view generated polylines that were not converted correctly into circles by EVR

- #5130   When OpenGL was in GLMODE=EDGES the edges of a pipe were NURBS that mismatched with the faceted approximation; use ufo edges instead.

- #5137   PO_FACTOR and PO_UNITS should be dynamic and evaluated when SET GLMODE changes the mode. A re-faceting of the model is required (e.g.: MOD TH=1)

- #5131   Ufo silhouttes are mistaken in OpenGL

Eagle 12.7.0 (b02)

- #5110   EVR on PLX format when + or ++ are specified then the attributes were lost

- #5086   Interactive selection on angular dimensions sometimes failed depending on the zoom level

- #5083   REPLACE command in OpenGL the new symbol was not visible and the image of the supposed replaced one remained.

- #5111   DUMP with HIDE and ETCH for PLX (attribute persistence) were very slow if compared with std PLO format.

- #5043   When GRAMODE was set to HIDE, KILL P cleared the graphic window incorrectly.

- #5107   When OpenGL was set to mode EDGES, transformations were leaving a trace of object/s previous position

- #5087   When in the OpenGL window and rendering mode was EDGES, MODIFY REN in mod suppress + SHOW P doesn't show the requested result

- #5108   In OpenGL EDGES mode the HIGHLIGHT command showed the object as if in the STD mode

- #5107.2 In OpenGL and GLMODE is EDGES or HIDE then CLEAR;SHO P showed everything

- #5107.1 When OpenGL was in mode HIDE transformations were leaving a trace of object/s previous position

- #5107.2 When OpenGL was in mode EDGES, HIGHLIGHT did not work properly

- #5043.1 In OpenGL when GLMODE was set to HIDE, KILL P still sometimes cleared the graphic window incorrectly.

- #5115   In OpenGL when the mode was EDGES or HIDE then BUFFER P,E and KILL P did not show the edges

- #5054.1 PULL T and similar. In OPENGL with GLMODE=HIDE caused flickering

- #5056.1 PULL T and similar did not remove the OPENGL object for re-creation

- #5116   If PULL T is made in STD graphics then in OpenGL the position of the pulled object was correct

- #5114   Command PREVIEW generated "blurred" images because it referred to the entire window

Eagle 12.7.0 (b01)

- #5053 WHERE with SWITCH OFF did not work correctly in OPENGL

- #5054   PULL T in OPENGL when used with GLMODE=HIDE caused flickering.

- #5055   PULL T in OPENGL showed strange things in the output at the start.

- #5056   PULL T did not remove the OPENGL object for creation.

- #5057   In OPENGL when mode GLMODE=HIDE the item creation did not show the item.

- #5070   There were cases when DUMP in HIDE didn't store attributes correctly in the PLO file.

- #5072   There were cases when MODIFY W was applied incorrectly

- #5060   There was a crash experienced when EXPORTing DWG with text-less dimensions.

- #5074   In OpenGL mode pipe tee-junctions were not faceted

- #5046   GET $model in OPENGL was very slow as well as experiencing successive SHOW commands

- #5076   Slider controls were not removed from a panel when OPTION OFF was executed and if OPTION ON was done again the slider controls were not created

- #5077   COUNT sometimes failed to return the correct number of items

- #5078   PART X= and COUNT X= with a long index names crashed

Eagle 12.6.2 (b02)

- #4766   POLLING H did not work nicely in GL mode and the corrupted result when GLMODE=EDGES and HIDE was even worse

- #5035.1 Dimensions in Isometric views with did not show arrows correctly. Comment: ALSO REF: C353

- #5040   Dimension text was sometimes shifted out of place. Comment: This happened in non orthographic views

- #5038   Latching on pipe ends sometimes failed. This happened in orthogonal views when the view was showing the pipe just as a circle

- #5039   There were cases when exporting Ufos in DXF format produced incorrect files in the output. Comment: This was due to an incorrect PEN translation

- #4791   EXPORT: If an exported dimension was edited, copied or moved in AutoCAD the color of the dimension text changes

- #4793   EXPORT: If a dimension contained two text lines, one underneath and one above the line, both lines were repositioned above the dimension line if the dimension was edited, copied or moved in AutoCAD

Eagle 12.6.2 (b01)

- #5017   The TRACE_MACROS facility did not display information from encrypted macros

- #5014   The sequence "ECHO ON; ECHO" leaves the echo facility active.

- #5034   IDENTIFY command didn't work on polylines with LIN>0

- #5035   Dimensions in 3D views with occurrence=all did not show the arrows

- #4854   PREVIEW command created the image from the screen instead of the back buffer; if a panel overlapped the graphics it was included in the image.

Eagle 12.6.1 (b02)

- #4748. Lock crashed on dialogbars.

- #4816. When a pulldown in a menubar was missing then the options were mixed up.

- #4838. There were cases when the SURX function returned incorrect results.

- #4856. While pulling with the Latch option, latching was also applied to the selected items.

- #4859. When using the sequence DUPLICATE, MODIFY COL=<n>, SHIFT <vector> in the OpenGL window, the resulting image was incorrect.

- #4868. Panel OFF crashed because of new Tooltips changes.

- #4872. Export. There were cases when SET ANGLE=HALF produced an incorrect result exporting to AutoCAD.

- #4885. Cursor positioning to the appropriate monitor when Eagle runs on the secondary monitor is fixed.

- #4892. There were cases when latching caused the program to crash. Comment: ALSO REF: C351.

- #4991. SELECT V did not select polylines that had the property LIN set to a value larger than 0.

- #4993. The retrieval of values of environment variables always accessed the INI file for cached variables, and so the result of ENVIRONMENT command was not considered when Registry entries were used.

- #4994. Setting environment variables was very slow on Vista. Furthermore, setting environment variables is now cached and flushing the INI only at the END command.

- #4995. When DynaInput was active there was both flickering and mad-rabbits while polling in the OpenGL window. NBB: This happened on Vista.

- #4996. Starting the OpenGL window required a further SHOW to display the model. NBB: This happened on Vista.

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- # #4828 UNDO did not work when multiple Eagle instances were initiated on the same computer

- #4830   With OpenGL was active and two panels were on, moving a panel after a change of view with dynamic zoom/pan/spin, corrupted the graphics.

- #4831   In OpenGL when DYNAINPUT was used the cursor was not always shown

- #4812   The string INF(7) returned incorrect information with dimensions

- #4832   Tooltips on docked toolbars sometimes were not shown

Eagle 12.6.0 (b11)

- #4742   LOAD command, in the event of an error the command returns more information about the error

- #4826   Extra lines with sections in OpenGL when sub-models are present

Eagle 12.6.0 (b09)

- #4800.2 SUPPRESS and MOVE showed the cursor while it shouldn't Also: SUPP V+WHERE, SUPP V+VANE and SUPP V+GRID ON

- #4800.3 SUPPRESS and SELECT V,H did not highlight the object as in previous versions

Eagle 12.6.0 (b06)

- #4800.1 Fix #4800 clashed with fix #4674.2 and the resulting display during item creation was slow

- #4765   PULL command, all forms of PULL did not work in OpenGL

- #4808   There were cases when the HIDE command caused the program to hang. Comment: this was due to the setting of HIDE_MODE=advanced

Eagle 12.6.0 (b05)

- #4803.1 OPENGL mode, when dealing with sections (EAST j,j) and zooming it section lines still disappeared.

- #4802.1 SELECT/NEAREST V did not split a polyline anymore

- #4806   GDIM returned an error message if during the loading of the model a non-existent sub-model generated an error

- #4807   Toolbar positioning had a small gap when using J=x,y on Windows XP when using Windows classic theme, and at the same time the Eagle window was maximized

Eagle 12.6.0 (b04)

- #4796   There were cases when the GETDEVICE info returned "\<formname\>-UNSUPPORTED"

- #4797   After selection optimization the POLLING H command didn't highlight certain items

- #4799   EDU version did not save and dump.

- #4800   SHOW command, if supp+unsup v were used the SHOW did not work

- #4798   PACk did not work after #4520

- #4804   SELECT V with highlight set on did not highlight anymore (solids, circles, etc. worked fine)

- #4802   SELECT command could not select a specific line which belonged to a set of joined items

- #4803   OPENGL mode, when dealing with sections (EAST j,j) and zooming section lines disappeared.

Eagle 12.6.0 (b03)

- #4674   POLLING and dynamic zooming was slow on big drawing. A new INI file variable, called PATCH4674, has been introduced to decide if the above #4674 is active. The default value is PATCH4674=yes, that means using the new SHOWIT. Setting PATCH4674=no keeps using the old method

- #4674.1 SHOW implements huge improvement in display speed

- #4776   LIST command when L= was defined, a incorrect error message was returned

- #4762   Encrypt: stored in the file a different version from the one displayed at start. It has also been requested that the errors are printed on STDERR

- #4763   In OpenGL mode SELECT V on a polyline caused the selected vector to have double reference in the display-list

- #4603 When using <ESC> to abort the POLLING command fix whatever the focus or cursor position, when the <ESC> key is pressed the returned value for the system variable WT is 9, VB is 1 and the OS-string is not set.

- #4520.2 Improvements made for SELECT command on big drawings

- #4710   SELECT command had cases when batch selections did not work

- #4520.3 Improvement for SELECT command skipping items in respect to their to their 2D-box

- #4785   LIST command single line selection crashed randomly

- #4674.2 Show process speed during item creation in suppress mode has been improved to match the SHOW command

- #4786   EXPORT command - If an exported dimension was edited, copied or moved in AutoCAD then a dimension which had one or two thickness lines lost these thickness lines

- #4789   IMPORT command - When a dimension with one arrow type 0 and another not equal to 0 was exported and then imported again the side of the dimension with arrow type 0 got a witness line

- #4790   EXPORT: If a dimension with 2 witness lines and text outside the witness lines was exported then in AutoCAD the text is inside the witness lines. Comment: ALSO REF: C347

- #4743. When issuing MOD REN=<value> in the OpenGL window the rendering was not updated properly

- #4746. If a MODIFY COL=<n> was issued out of the OpenGL window, the modified object was not rendered accordingly when the OpenGL window was invoked again.

- #4744. OpenGL - IGNORE did not consider the submodel fragment but its elements' fragments only

- #4741. IMPORT: When re-importing dimension with "small vertical lines" previously exported, the result was not correct

Eagle 12.5.5 (b02)

- #4755   LISTDEVICE crashes when a share name is NULL entry

- #4754   PULL command when in raster mode the dynamic pan/zoom must not be enabled

Eagle 12.5.4 (b07)

- #4734.1 PBUTTON ADD altered to cover all possible syntaxes constructions for the ADD-string

- #4520.3 Crash caused by 4520.2 fix for SELECT on large drawings resolved

- #4740 When using POLLING R=L (rubber effect) and zooming or panning in such a way that the starting point of the rubber effect moved out of the screen then the rubber effect itself became inconsistent. Note that this fix requires that the CC is visible (CUR ON).

- #4274 Dynainput implemented for OpenGL

- #4587.3 Resolved crash on shared networked printers

- #4738 SNAP implementation was missing in OpenGL

Eagle 12.5.4 (b06)

- #4732 POLLING - <Esc> was not handled for tabbed panels, input buttons in toolbars or the DYNAINPUT edit field

- #4726 If the graphic window is maximized MOV J did not start from the last point but instead made little jump

- #4734 PBUTTON ADD - if the button text contained a semicolon the resulting parsing was incorrect

- #4735 TOOLBARS - when a toolbar started horizontally and then it was used a second time, the subsequent use of the same ID showed a vertical toolbar (i.e. the default orientation was lost)

Eagle 12.5.4 (b05) & Xplot 7.1.7

- #4705 DUMP: Dash definitions greater than 16 were not generated in the PLO file This fix (DUMP) requires that Xplot V7.1.7, released with this version, to be used.

- #4706 XPLOT: Dash definitions larger than 16 are not handled, causing an incorrect message: "file format error"

- #4707 XPLOT: Annotation angle was not handled properly for HPGL2 driver.

- #4708 XPLOT: PEN setting didn't allow indices greater than 16

- #4713 OPENGL: There were cases when the OPENGL command caused the program to crash.

- #4712 HIDE: There were cases when the HIDE X= caused the program to hang.

- #4501 There were cases when some block definition were not imported at all. Note a "WARNING : undefined block <block-name>" was provided.

- #4648 OPENGL - doing GET model;last;modify several times can be many times slower in GL than in Eagle default.

- #4550 HIGHLIGHT in the OpenGL window didn't work correctly when the rendering mode was HIDE

- #4711 GETDEVICEINFO – crashed on strange circumstances

- #4723 When Sub-models were cached the SHOW command was much slower. The expected result was caching similar to expanded

- #4723 PULL D=p1,p2 had a jump at the start due to rounding problems

- #4725 The DIMENSION command produced a message "Warning - point is not in view"

- #4727 The DIMENSION command drew annotation-text twice in two different positions.

12.5.4 (b02)

- #4520.2 Improvement for SELECT command on big drawings when dealing with polylines

- #3997 Export - no triangulation submitted when there aren't holes for faces used for hatches

- #3966.1 Boxed Annotation attributes were not exported - C280

- #4636 EXPORT - There were cases when solids were not exported correctly. Comment: ALSO REF: C293

- #4616 The GET command incorrectly translated pen attribute of POINT entities causing subsequent EXPORTs to create inconsistent entities.

- #4641 Resolution of the annoying action that when the GUI is installed, Eagle pops out each time there is a paint of the message window.

12.5.4 (b01)

- #4698 LIST - multiple selection crashed when it exceeds max 4096 chars

- #4697 Moving the caret with keyboard arrows in a text field the movement was two chars by two

- #4677 Check to see if it is possible to have icons on all barmenu options i.e. on submenu option.

- #4635 IMPORT - There were cases when block-entities were not imported correctly. Comment: more on ALSO REF: C210-C212

- #4679 Export: the placement of the dimension text was lost after the dimension was edited in ACAD. Comment. This happen for non-horizontal dimensions

- #4561.1 When DXF_EXPORT_FORMAT was not set the file cannot be opened in ACAD

- The DisableProcessWindowGhosting was not available on Windows 2000

12.5.3 (b04)

- #4520.1 Improvement for SELECT and POLLING Latch and Highlight command on big drawings has been implemented

- #4473.1 READ #1,(L)svar where SVAR is not an array then S1 is used.

- #4640   DELETE command did not work with the combination of an environment variable and wildcards e.g. DELETE -currdir/test/*.dat. C339

- #4696   DIMENSION when dimension_mid_point=new the text was not cleared from the previous position

- #4148.1 IMPORT – A seemingly incorrect dimension import was made as it seemed it was missing, see PATCH in release notes above for fix.

- #4647   MARKERS for DIMENSION without text were left in the original position when the dimension was moved

- #4147.1 There were conflicts with patch3596

- #4598   IMPORT - There were cases when imported hatch entities produced incorrect geometries. ALSO REF: C334

- #4620   IMPORT: There were cases when importing polylines with UCS, resulted in an incorrect Eagle drawing

- #4453   FRA ?,s60 returned an incorrect value if all the fragments were ignored

- #4454   COUNT v60,x=partition returned zero while COUNT v60,p was correct

12.5.3 (b03)

- #4672   DIMENSION: the intern= specification didn't work when the character height was expressed as actual values (i.e. 2A)

- #4587.1 GETDEVICEINFO - error messages such as "CPMGetSupportedSheet failed with error the "1902: The specified form name is invalid" when the size is "Custom size"

- #new   Works on VISTA certification – Using MOVE J and similar commands no longer hangs but instead consume almost 100% of the CPU processing power.

- #4642.1 The <Alt> key did not visualize the mnemonics in the bar menu

- #4670   When the command and message windows are OFF and the DIALOG <n> command was executed then both windows were shown, whilst the correct behaviour should be that the command window shouldn't be shown.

12.5.3 (b02)

- #4587.1 GETDEVICEINFO - paper formats seemed to be all the same no matter what the printer

- #new   The (E) and (W) messages were sometimes are not colored properly

- #4587   GETDEVICEINFO had problems when dealing with print-queues or shares

- #4666   INFOGUI - the command crashed if there is a dialog docked

- #4612   OPENGL - approximation based on a maximum deviation of circle/pipe to the representing lines

- #4634   If dimension were exported the dimension text was shifted a little bit to the left in the DXF file. Comment: ALSO REF: C338.

- #4614   C336 - If a dimension contains a thickness line the dimensions are not imported correctly after export

- #4613   C335 - While exporting dimensions the setting "DO", the offset between dimension lines and associated annotations drawn parallel, is not used

- #4368.1 Export: the arrowtype was not exported at all, consequently its editing in ACAD will loose the appearance C298

- #4652   Facetting of Ufos with approximation greater of 128 causes a crash

- #4642   Funkey F10 acts like pressing <ALT> and did not execute the associated command

- #4651   INFOPANEL returned the position at creation and not the last position

- #4618   DIMENSION - small vertical lines were not drawn if no witness lines

- #4658   SEARCH command on #10 caused a memory problem that interfered with fragments and display process.

- #4646   DIMENSION - MODIFY intern= did not work for types 27,28,29,30

- #4449   POLLING FOC=…,H turned the focus from the input field to the graphic window while it should have restored the focus in the input field when the cursor hits the panel again.

- #4645   DIMENSION: the middle point instead of being calculated did not work with ACTUAL text

- #4587.2 GETDEVICEINFO - paper size are returned as zeros

- #4618.1 DIMENSION - small vertical lines are drawn incorrectly if the witness value is positive

Official Release v12.5.2(b09)

- #4666   INFOGUI command crashes if there is a dialog docked

- #4658   SEARCH command on #10 causes a memory problem that interfered with fragments and the display process.

- #4640   DELETE - did not work when used with the combination of an environment variable and wildcards (e.g. DELETE -currdir/test/*.dat). C339

- #4655   OPENGL - Windows VISTA – When in OpenGL mode the cursor had a noticeable delay when moving

- #4653   OPENGL – Windows Vista - If the cursor of a MOVE J hit the caption bar then Eagle hangs. The hangs also occurs if the cursor is left idle for an undetermined time.

- #4431.1 Still cases when repositioning of toolbars is wrong

- #4462.1 Remove the DEFAULT button attribute because it is assigned to all the buttons (VISTA)

- #4638   Remove WS_BORDER in button type 6 (edit control) and combobox

- #4639   ComboBox opens and closes immediately if the focus is already set to it (you need to combo very close so the options of the first overlap the second combo)

- #4615.1 Libeagle - Creates SOLIDS and IRREG with "malformed" flag. LibEagle uses "dummy" field for SOLID and IRREG (set to 999)

- #4615   OPENGL - use the old triangulation for SOLIDS and IRREG instead of the new GL Tessellation when it is marked "mal-formed"

- #4594   There were cases when the position of the dimension text was misplaced. Comment: This happened when the '#[value]' was used.

- #4539   There are cases when exporting SOLIDS caused a system crash.

- #4579   EJECT in OPENGL : When removing the item (two vertices remained) the display list for the object is not removed

- #4580   EJECT : when removing a vertex from a solid/face the new edge is invisible

- #4596   The EIF_add_modufo didn't properly handle the FILL parameter for submodels. The same happened for EIF_add_irreg.

- #4584   There were still cases where annotations were not translated correctly to ACAD. Comment: This happened when TR justification vs. DWG files and also when non-LEFT justified on in multi-line text vs. DXF files 1.0

- #4583   Small vertical lines were not drawn for arrow types

- #4595   When the "small vertical line" is assigned to dimension style 0 or 16, the resulting export was incorrect. Comment: "Small vertical line" attribute should have been ignored while it is not!"

- #4590   Problems in OPENGL on VISTA for cursors on top of GL

- #4592   OPENGL: solved the remaining cursor traces problems.

- #4593   ENV: if the "-" sign is used in the name of a file there are conditions where the IFFILE command fails. This was due to Fix #2543 (provided as requested by NCG-GT in 1996). We introduced a fix via PATCH2543. If PATCH2543 is unset or different from YES, then the IFFILE command DOES NOT resolve inner ENV-VAR definition. The default value is PATCH2543=NO.

- #4588 ENV returns rubbish when the value of the variable is longer than 79 characters

- #4358. Changing GLMODE required the regeneration of the entire model display lists.

- #4358.1. An UNSUPPRESS in OpenGL with GLMODE set to HIDE or EDGES caused the graphics to blink and slow down the display.

- #4444. A solid with more than 4095 points created with LibEagle makes Eagle crashing when switching to OpenGL mode. Comment. A check has been added to the Libeagle, but the limit to 4095 has been left.

- #4445. A polyline with different z-values was exported as separated vectors. Comment: ALSO REF: C309

- #4451. EPI_overrideControl did not tab on Econtrols.

- #4451.1. EPI_overrideControl did not return correct previous and next button handles.

- #4452.2. The DO command did not work with the environment variables in pathname.

- #4480. When a nominal dash pattern (DASH x=0,0) was present at the DUMP command, the resulting plot file caused Xplot to take a long time creating huge output files. Comment: ALSO REF: C311

- #4504. If drawing with items on layer and DEF F= has been specified, the UNDO-REDO mechanism loose the layer distributes.

- #4505. Dimensions coming from V119 drawings sometimes showed an incorrect style for the arrows.

- #4506. The DB DATABASE command caused crashes when the error message "connection not yet established" was returned.

- #4507. When exporting to DXF annotations with justification BL, they had a small shift.

- #4508. PARTITION -H=64 removed from partition also unwanted items. Comment: ALSO REF: C318

- #4509. Importing ACAD-Solid entities used to represent solid-fills sometimes caused an incorrect geometry to be generated.

- #4510. FIL parameter and INTERN parameter, used for new dimension styles, sometimes interfered one to the other, displaying the incorrect type.

- #4511. When a syntax error was produced, like PARTITION COL=256, the partition was still changed with unpredictable results.

- #4512. If the panel MENU_CLOSE_BUTTON was not defined or was set to "no" the close button was frozen

- #4512.1. If the list LIST_CLOSE_BUTTON was not defined or was set to "no" the close button was frozen.

- #4514. There were cases when the ETCH command required splitting the model even if it was not necessary.

- #4519. If MENU_CLOSE_BUTTON was not defined or was set to "no" the close button was frozen.

- #4537. List command hung the system if rows were longer or equal than 132 characters

- #4538. There was a random clash between MANUBAR and POPUP options.

- #4545. There were memory leaks when passing from OpenGL ON to OpenGL OFF

- #4546. When the GLMODE was set to FAKE and the graphic window was restored from another overlapping window, the graphic that was shown was STD instead of FAKE

- #4547. When the rendering mode was FAKE, the result of DUPLICATE+SHIFT caused the new object to be rendered in STD mode instead of the proper mode.

- #4548. When the DISORDER was active, rendering in the OpenGL window was incorrect.

- #4552. Highlight didn't highlight hatched faces, while POLLING h did it.

- #4555. When exporting multi-line annotations an extra space was added at the end of each line.

- #4556. The length of the line for the Dimension items with arrow type 25 was shorter than other arrow types.

- #4557. When using a tolerance factor for the Dynainput command, if the mouse moved inside the tolerance while the user was typing, then the text was selected and overwritten.

- #4558. There were cases when the WIRE and HIDE mode in OpenGL showed non-existing lines for Ufos.
  Comments: this happened when the Ufo is defined only by non-visible edges, due to incorrect normal setting.

- #4560. There were cases when Exporting and Importing back the exported drawing results in witness lines for dimension being reversed.
  Comment: ALSO REF: C323

- #4561. If an Eagle model that contained dimensions was exported the DXF cannot be opened in AutoCAD if the environment DXF_EXPORT_FORMAT was set to the value '' or 'old'.

- #4562. There were cases that contain a surface with a hatch that caused Eagle to crash when Export was issued.
  Comment: ALSO REF: C326

- #4564. EXPAND in the OPENGL window didn't show anything when the rendering mode was HIDE.

- #4569. PANEL with PIN=-11 disappeared and its buttons were installed in the graphic area.

- #4570. PANEL on top of OPENGL were slow when the model was complex.

- #4571. Sometimes the PUNCH command caused the lost of the fragment mask (FRAGMENT   ?).
  Note: it happened with DISORDER ON

- #4572. When DISORDER was ON the DUMP loose the fragment attribute of the items.

- #4573. Creation of new binary files used an old-fashioned Unix mask. It has been changed to _S_IREAD | _S_IWRITE.
  There is a new patch setting to disable fix #4573, which is enabled by default.
  If you want to disable this patch, use:
  PATCH4573=no

- #4574. _fmode is restored whenever is changed in EIF calls

Previous v12

- #3930. TREEVIEW: the icon name was not resolved for LB1,… @, STD and environment variables.

- #4231. SNAP - LOCK when used together with DYNAINPUT resulted in crazy behavior.

- #4249. The changes implemented with this reference number to alter performance of overlapping of lines onto rendered faces has been removed because it was depreciating the performance of OpenGL.

- #4371. The tolerance was not being used when the dynainput field received the focus by a <tab>

- #4442 Execution of a macro at Eagle startup did not work in EagleEYE. Note that this is now possible by using the primer -cmd=<filename> e.g. :eagle.exe cmd=mymacro.cmd

- #4425. Resizable dialogs reported wrong titles when floated

- #4426. Resizable dialogs when floated did not resize horizontally until a vertical resize was first done.

- #4427. Resizable dialogs with an unspecified title showed a title caption when docked and when floating a showed the wrong title.

- #4428. Selecting a line outside the visible area in a multi-column list did not scroll to make the line visible as it does in normal lists.

- #4429. Selection a line in a multi-column list kept the previously selected line as selected, while it worked fine in standard lists.

- #4441. Xplot: when the colour-fill of a face was bigger than 16 then it was not applied to the resulting face. Comment: ALSO REF: C306.

- #4442. FLOOD COL=<n>, with n>16, gave a syntax error.

- #4448. POLLING: CTRL-digit was caught at desktop level

- #4450. If SNAP ON the dynainput showed the mouse position instead of the coordinates of the snapped point.

- #4478. There are conditions when trying to insert duplicated records using the DB INSERT command caused the program to crash. Comment: this happened when the error message returned by the ODBC driver was longer than 256 characters.

- #4482. When using the A2M on models coming from V12 sometimes the line-style was not handled properly.

- #4483. The DUMP <name>,HIDE loose DASH and THICKNESS info when dash or thickness indices were > 16. Comment: ALSO REF: C311.

- #4485. Drag and drop from a treeview caused the D&D_FILENAME environment variable to obtain an extra <CR> as a value

- #4489. The DISORDER command caused an important decrease of performance in the show and dynamic zoom/pan commands when big drawings were involved.

- #4490. The AR1 and AR2 small vertical lines were misplaced when the W parameter of the dimension is positive.

- #4491. The justification of ATTRIBUTE entities was incorrect.

- #4492. The visibility flag of ATTRIBUTE entities was not handled.

- #4494. The UNDO and REDO commands caused a flash of the grafix when dashes were shown.

- #4495. When polylines with more than 4095 points were imported, the resulting item was empty, or anyhow incorrect.

- #4496. When SNAP ON the cursor that indicates the latched point was sometimes placed in an incorrect position, even outside any geometry.

- #4498. COLOR_ACTIVE_INDEX did not work on some item types: dimensions, gdimensions.

- #4499. PANEL OFF on a tab panel sometimes caused Eagle to crash.

- #4365 When switching panels or applications sometimes the tooltips were lost until another operation occurs to restore them.

- #4431 There was still remaining some cases when repositioning of toolbars was problematic.

- #4440 There were cases when the dimensions produced in V11 models showed non existing lines in V12. (C307)

- #4409 A checkbox button did not set the ST to 1 or -1 if placed in the statusbar

- #4410 Double-clicking on a toolbar gripper/caption to undock/dock the toolbar, caused the POLLING to exit with a graphic window button event remaining.

- #4426 When resizable dialogs were floated they did not resize horizontally until a vertical resize is done

- #4425 Resizable dialogs reported an incorrect title when floated

- #4424 Execution of a macro specified in the Eagle launching statement does not work in EagleEYE

- #4427 If no menu title was specified, then a title bar, including a close button, was visible if the panel was docked

- #4428 Selecting a line outside the visible area in a multi-column list did not scroll the line to be in a visible state as is the case in a normal list control.

- #4429 Selection of a line in a multi-column list kept the previously selected line as selected whilst in a normal list it is deselected

- #4400 The MAP command failed finding the data file

- #4403 Combo boxes crashed if there were more than 64 options in the array

- #4397 HIDE crashed if the stack contained a reference to a submodel that did not exist on the drive (C302)

- #4398 Export dimensions with two lines of annotations but the last line is a space to get the annotation above the dimension line

- #4399 Dimension lines without annotation and with on one side an arrow and on the other side no arrow are apparently turned around after being Exported and then re-Imported.

- #4349 PULL T when finishes leaves two images of the cc in the view.

- #4350 HATCH ON in OpenGL when sections are displayed causes a black screen

- #4396 If the treeview control exceeds 2047 nodes Eagle crashes (C301)

- #4395 When DISORDER was active it was possible that item modification didn't apply regularly

- #4394 After a change of the background color the cursor (cc) was not visible.

- #4392 In IMPORT there were cases when items inside a nested block are not imported (ALSO REF: C290). including "locked layers".

- #4371.2 If <Return> was entered without moving the mouse the returned OP1 point which was incorrect

- #4368 If an exported dimension is copied in ACAD, sometimes the appearance of the dimension changes (ALSO REF: C298)

- #4369 If a dimension containing two lines of annotations is exported and imported back the result contains only one line of text (ALSO REF: C299)

- #3966.2 Annotation attribute underlined is not handled both from Import and Export

- #4390 Text justification for dimensions was not retrieved correctly when Exported dimensions are re-imported into Eagle

- #4391 Text font for dimensions was not retrieved correctly when Exported dimensions were re-imported in Eagle

- #4404 Xplot: Special cases of hang when Longaxis (ALSO REF: C304). A new Xplot V7.1.5 has been made available.

- #4441. Xplot. When the colour-fill of a face was bigger than 16 then it was not applied to the resulting face (ALSO REF: C306). A new Xplot V7.1.6 has been made available.

- #3345. LIBEAGLE: handling file names and directory names with spaces and underscore characters was missing for `EIF_get_attach`

- #3596. When IMPORTing specific DWG files where UNNAMED blocks were present, the geometry of the imported model is sometimes different from the one visible in ACAD. OK with DXF. Files from MicroStation. Comment: ALSO REF: C169. Comment: we introduced a patch to handle this fix. Setting PATCH3596=YES resolves this problem. The default is "PATCH3596=NO", i.e. as a default this fix is not active.

- #3676. The shape and the presence of individual arrowheads was not always exported correctly. The "presence" of individual arrowheads is now correct, but the shape is still incorrect. In particular the shape is always an arrow. Comment: ALSO REF: C204.

- #3735. There were conditions when some parts of the drawing were mirrored during the Import process.
  Comment: ALSO REF: C210 / C211

- #3736. There were conditions when dimension texts were not imported correctly.
  Comment: ALSO REF: C212

- #3846. There were cases when color assignment for hatch-filled faces was incorrectly assigned as "byblock". Also, the colour number of the hatch was set to the number of the hatch definition and not the colour number in the hatch definition.
  Comment: ALSO REF: C247

- #3848. There were cases when hatches are not imported correctly. Comment: ALSO REF: C249

- #3883. Arrowhead type 16 (that means no arrow) for dimension items was always exported with the arrowhead defined.

- #3892. If a DXF/DWG file which was first exported by Eagle and then imported back into Eagle the dimension text contained an extra "\P". Also, the witness lines were not correct.
  Comment: ALSO REF: C267

- #3893. When a UFO was loaded in an Eagle model and it was no longer present on the disc, then the BUFFER / UNBUFFER command replaced its definition incorrectly using the definition of another UFO in the workspace.

- #3897. There were conditions when the program allowed creating faces only defined by two key points. Comment: This is linked to ALSO REF: C258

- #3898. There were cases when this command caused crashes or writes out-of-memory.
  Comment: ALSO REF: C265

- #3901. There were cases when dimension text positioned through the dimension line.
  Comment: ALSO REF: C266

- #3904. There were some geometrical errors when importing polylines. Comment: ALSO REF: C272

- #3908. When exporting in DXF format sub-models with a full-pathname like /U/name, the corresponding file could not be loaded in ACAD. The file name should be exported without any path-prefixed

- #3912. When exporting to DXF models with sub-models with pen cancellation for them, the resulting DXF file could not be loaded in ACAD.

- #3913. Sections on orthogonal views were incorrect in the OpenGL window. In particular, they represented the full view and not the section.

- #3917. Picking outside a combo was selecting a combo option.

- #3935. Drag'n Drop on tree-view controls crashed in V12

- #3937. POLLING hint message and STEP ON had incorrect hints.

- #3939. When HIDE_MODE was set to "advanced" then the HIDE process didn't mesh tee junctions.

- #3941. There were conditions when MOVE LE didn't work properly in orthographic views.

- #3942. There were cases when the PARTITION command failed to select items with specific attribute settings. Also, in other cases the program crashes, still selecting on attributes.

- #3943. After having set the HIGHLIGHT to a specific pen (i.e. Set high=on,m2), then the highlighting is done incorrectly on polylines. In particular, the first invisible edge is displayed as if it were visible.

- #3945. When HIDE_MODE was set to "advanced", tee junctions with different radii were hidden incorrectly.

- #3946. There were conditions when the DECODE command failed.

- #3951. There were cases when in OpenGL the rendering on orthogonal full-views misses items. Comment: this is related to the value of the NORMALIZE variable.

- #3954. Items selection didn't return the correct points when the linestyle included the thickness info.

- #3955. There were conditions when the HIDE command crashed the program.

- #3956. The request has been implemented to handle only optionally scale info on dimensions. We have introduced a workaround for resolving the problem: DWG_SCALE_DIM=no
The default is: DWG_SCALE_DIM=yes, that scale the dimension value according to the specified scale. This is only valid when "DWG_TEXT_FROM_DIM=yes"

- #3959. In the OpenGL window, orthogonal sections with just one point (es: PLA J) behaved just like full section (PLA)

- #3960. There were cases when loading a model that contained a UFO without expansion then the program gave an error "Error - failed to initialize inquiry routines".

- #3962. There were cases when INSERT entities caused the program to crash.
Comment: ALSO REF: C277

- #3963. There were cases when multi-line texts were exported with en extra "\P". Also, this caused an incorrect positioning of the text.
Comment: ALSO REF: C278

- #3964. When exporting dimensions and hatches, the color assignment was incorrect and created incorrect DXF files.

- #3965. When exporting dimension with arrow size actual and EXPORT_DIMENSION_WITH_BLOCK was set to NO, the size of the arrows was "0".

- #3967. Multi-line annotations were always exported with aspect ratio 1.
Comment: it is due to the fact that ACAD doesn't handle such attributes in multi-line annotation.
Comment: ALSO REF: C281

- #3968. There were cases when dimensions were exported with a Z value >0.
Comments: this happened when dimension had no text.
Comment: ALSO REF: C269

- #3969. There were cases when exporting annotations defined by external files caused errors and the annotation was not exported at all.
Comment: ALSO REF: C274

- #3974. When the message window was forced on by a PAUSE, BREAK command, then the command window didn't popup

- #3975. If the option menu was defined too big (more than 64 elements) Eagle crashed.

- #3976. OpenGL window was not repainted correctly when resized

- #3979. The coordinate displayed in the status bar is enabled only if the entry =yes, otherwise it should not be created at the startup.

- #3980. Menus: if the font was small then the icon, if present, was truncated.

- #3983. Popup menu were disappearing after PANEL <n>,clos

- #3988. PULL R didn't not return the selected items into their original position after using mouse button 2.

- #3989. PULL R – didn't not set the VB system variable

- #3991. When docked toolbar were present there was a jump at the start of the pull command.

- #3992. On W2000 and in EagleAE the selection on a combo-box with many options crashed

- #3994. Grid pen and type were not handled correctly.

- #3995. B-spline, C-spline and Bezier commands didn't handle the default layer.

- #3996. There were conditions when the BSPLINE command caused a crash of the program.

- #3998. There were errors importing items with group codes 210,220,230.
  Comment: ALSO REF: C271

- #4002. Repaint of graphic window BORDER sometimes was missed

- #4005. There were cases when the text of the imported dimension was an "O" character instead of the proper one. A new environment variable has been added to workaround this problem: It is named PATCH4005. When the setting:
  PATCH4005=yes
  is defined then the workaround is active. The default is:
  PATCH4005=no

- #4006. There were cases when a simple pipe with height of 100 units was not rendered properly in the perspective view of the OpenGL window.
  Comment: this happened when small values for the NORMALIZE parameter.

- #4007. There were cases when importing hatch items caused the program to crash.

- #4008. There were cases when only a part of the whole selected items was shifted. Comment: this happened when incorrectly defined faces were selected for the shift (in particular faces with normal (0,0,0)). Comment: such faces were also affecting the GET/SAVE commands. NBB: We have introduced a workaround that uses an environment variable When setting the variable "PATCH4008=yes" the workaround is active. The default is "PATCH4008=no"

- #4009. There were cases when the display of the Ufo terminates with the error message "Error failed to get the next edge of the Ufo".
  Comment: this happened sometimes when the Ufo was created using the Libufo.
  NBB: We have introduced a workaround that uses an environment variable When setting the variable "PATCH4009=yes" the workaround is active. The default is "PATCH4009=no"
  NBB: Note that this has been made obsolete from #4026.

- #4010. There were cases when exported dimensions could not be edited in ACAD without loosing the text of the dimension.
  Comment: ALSO REF: C279

- #4011. Importing splines didn't handle dash pattern.
  Comment: ALSO REF: C283

- #4012. Imported dimension lines always got two arrows. Also, sometimes extension lines had wrong attach points.
  Comment: ALSO REF: C282

- #4014. Exported DXF/DWG files produced errors when "audit" was run on them from within ACAD.
  Comment: ALSO REF: C275

- #4015. There were cases when special control characters in imported text were not translated properly.
  Comment: ALSO REF: C284

- #4017. There were cases when section views didn't show anything at all.

- #4019. Moving popup menus with docked toolbars presence mistook the position

- #4020. Message window font setting causes the command history to be unreadable

- #4021. Color fill hatches didn't work in v.12.1.0

- #4022. The speed of the display process after an OPENGL ON + OPENGL OFF was very slow

- #4024. There were cases when duplicated symbols didn't preserve INDEX definition (ref. IND(x))

- #4026. Silhouettes were calculated incorrectly when PATCH4009 was active.
  Comment: after this fix, PATCH4009 is no longer required

- #4027. Sometimes the DUMP command created faces with only N=2 vertices, with subsequent problems in the ETCH when DEF I=0,O=0

- #4029. Crosshatch patterns were not exported correctly.

- #4032. There were cases when the VOLUME specification of the CONFLICT command didn't select the required items

- #4033. There were cases when imported annotations had a length bigger than the standard 132 characters, then causing crash in the display process.

- #4035. There were cases when the VOLUME specification of the CONFLICT command using P<i> ranges with i>1 caused error messages "The allocated array is too small".

- #4036. CLICK on toolbar buttons caused POLLING not to work on such buttons.

- #4037. PBUTT DEL didn't work properly on toolbars

- #4038. Treeview context menu appeared on CC instead of near the selected treeview option

- #4041. Allow disabling <Shift> and <ctrl> from the dynamic zoom/pan and parse them as hotkeys during polling. Note: It is possible to enable/disable the

usage of the <shift> and/or <ctrl> keys for dynamic zoom and pan, setting the INI entries:

    ZOOM_SHIFT_ENABLED=yes|no
    SCROLL_CTRL_ENABLED=yes|no

It is also possible to detect when a right or middle or left mouse button click occurs with the <shift> or <ctrl> key pressed; a different VB value is retuned:

VB-value	Mouse button	Key	
1	left	-	
2	middle	-	
3	right	-	
11	left	<CTRL>	(already available)
12	middle	<CTRL>	(already available)
13	right	<CTRL>	(already available)
14	left	<SHIFT>	
15	middle	<SHIFT>	
16	right	<SHIFT>	

It is possible to check the three different cases:
key pressed
shift+key pressed
ctlr+key pressed
Just using the correct codes in the hotkeys SIN-array of the POLLING command; for instance:

    117   ;# u
    85   ;# shift-u
    21   ;# ctrl-u

- #4050. Toolbars callbacks sometimes got mixed with menubar callback

- #4067. The FILE command caused a crash when the FULL=Y option was on and the full path-name was bigger than 96 characters.

- #4068. The ENVIRONMENT command caused a crash when the value was bigger than 96 characters.

- #4069. Vertical toolbars were not painted when created by command file.

- #4072. Panel with PIN=1 or no PIN and with title had the "System Menu" icon displayed.

- #4073. Export for faces with more than 4096 points caused the program to crash.

- #4074. When an empty field was assigned at the Prompt command, the default value was returned instead of an empty value.

- #4075. Left button outside the menu caused Popup command to exit without event.

- #4076. There were syntax error in the Dimension command with the <= and the >= options

- #4079. There were cases when exporting solids the program crashed.
  Comment: ALSO REF: C285.
  We have introduced a workaround that uses an environment variable When
  setting the variable:
  PATCH4079=yes
  the workaround is active.
  The default is PATCH4079=no

- #4080. Freeze command didn't handle toolbars

- #4081. Freeze command didn't handle tabbed panels

- #4085. Resizing the main window the VB value returned from the Polling
  command was dirty and polling exited.

- #4087. There were situations when then DATA(var,file) returned an error even
  if the variable was present in the data file.

- #4088. The READ DB command removed leading spaces. We have introduced
  a workaround that uses an environment variable When setting the variable:
  PATCH4088=yes
  the workaround is active.
  The default is PATCH4088=no

- #4089. Copy file=-MYVAR/file created an empty file

- #4091. The POPOSITION <n1>,<n2> didn't work

- #4100. The EXPORT command didn't handle the spacing between annotation
  lines (SET CS=<n>)
  Comment: ALSO REF: C289
  Comment: this is only available when the environment variable
  DXF_EXPORT_FORMAT is set to 'new', since the feature is not supported
  from ACAD R14 and earlier

- #4101. There were cases when polylines are exported incorrectly. In particular,
  invisible   edges   were   translated   as   visible   edges.
  Comment: ALSO REF: C287

- #4102. There were cases when MOVE L didn't latch on the requested point.

- #4105. The ENVIRONMENT command crashed when the string was bigger
  than 80 char.

- #4106. There were cases when the COPY with absolute path failed

- #4107. Popup command crashed when checked options were used

- #4108. Checked options in pulldown menus are now evaluated dynamically
  when the menu is being to be opened. There is a syntax difference from
  previous MEN format. The current status of a checked option in the .MEN file
  must be defined without the ^ sign as before, so the correct form is:
  10,'OpenGl graphics#turnit': do turnit
  where the string variable TURNIT is set to "on" or "off" by the application.

- #4111. The value returned in SQL_ERROR was meaningless

- #4112. When working in SQL_AUTOCOMMIT_OFF and ROLLBACK are requested then DB EXIT command returned errors.

- #4114. Intersection between pipes was sometimes incorrect. Comment: this happened when sub-models contained pipes. To fix the above problem we have introduced a workaround that uses an environment variable. When setting the variable "PATCH4114=yes" the workaround is active. The default is "PATCH4114=no"

- #4115. If button J is frozen then tabbing from button <j-1> stopped instead of jumping to button <j+1>.

- #4117. When the GRAMODE=hide was set the HIGHLIGHT did not work properly, highlighting everything but the selected item.

- #4118. CC disappeared during Polling. Comment: this happened since SNAP command.

- #4119. There were cases when dimensions coming from V119 or earlier were displayed incorrectly. To fix the above problem we have also used an environment variable: MAX_DIM_OFFSET=<value> If this is not defined a default value of 100 is used

- #4120. Polling output was not empty when Dynainput field was empty (hex value 01).

- #4121. The length of the hint for the Dynainput was not correct

- #4123. There is no hint message on the status bar if HINT_MESSAGE=no in the INI file

- #4124. When the Dynainput is active it shouldn't display the hint in the status bar. There is a new setting in the INI file called POLLING_HINT_IN_STATUSBAR, which is "yes" by default. If set to "no" then the hint of the   POLLING command is not shown in the status bar

- #4127. There were cases when memory leaks cause the Pointinbody command to fail.

- #4128. KILL n done in the Eagle standard graphic window was leaving display lists in the GL stack and consequently the OpenGL Window didn't match the standard window.

- #4129. Opengl - display has been improved and it is now 3 times faster. Also some problems with geometry editing commands have been fixed.

- #4130. COORDINATEs display: it was not possible to use a field of a panel as in v.11.9 but only fields of the status bar

- #4133. From v.12.3.0.03 to 12.3.0.b07 included there was a latency problem in the dongle-based version that could crash Eagle at startup.

- #4134. When selecting a guide line by use of e.g. select j,cl,vselect[1],pselect[1], the numeric selection variables were not stored in the right way, while select j,cl,v1,p1 showed the right result.

- #4135. COORDINATE OFF disable only T=1 (x,y,z display).

- #4138. The hint message of the Dynainput command is incorrect and is "Empty..." no matter what the command POLLING specifies.

- #4139. The returned string from a Dynainput was incorrect.

- #4140. There are problems of paint at creation of Toolbars.

- #4141. Pbutton del and add of a button of type 27 in a toolbar had repaint problems (see also #4140)

- #4142. Dynainput fields sometimes lost focus, due to a message external to Eagle.

- #4144. After the confirmation on a Dynainput field the value of LN was 11 while it should have been the value of WT.

- #4145. When SET MOUS=G the initial position of the cursor (ie: POLLING) was slightly wrong.

- #4146. If no graphics were displayed and dynainput was active, the graphic window flashed

- #4148. There were cases when imported dimension had incorrect arrows.

- #4148. There were cases when imported dimension had incorrect arrows.

- #4149. There were cases when hatches from ACAD were not imported correctly.

- #4151. There were cases when exporting dimensions caused the program to crash.
  Comment: this happened when dimension with no text were present.

- #4152. There were crashes when importing multi-line-annotations that had text with a length bigger than the standard 132 characters. This caused a crash in the CHECK process.

- #4153. There were cases when dimensions from V119 are exported incorrectly.

- #4154. Dimension. The use of both primers "ar1=" and "ar2=" when creating a new dimension caused a syntax error.
  Comment: this also happened when MODIFY ar1=,ar2= was issued.

- #4155. The option "intern=1" did not work for justification different from L.

- #4156. When using the "intern=1" option and then applying geometrical transformation such as FLIP or ZROTATE to the dimension, the result of the display process was not correct.
  Comment: in general the adjustment was incorrect if the definition points went from right to left.

- #4157. Polling with Latch & Highlight since build 07 bounced the starting point of the rubber line:
  POLLING R=L,H;;

- #4158. Annotations from data-file were always exported with aspect ratio 1. This fix extends previous #3967.

- #4160. Dynamic zoom via mouse wheel did not draw the current cursor if present, while if done via the <Shift> key it worked fine.

- #4164. Snapping left a trace when zooming with mouse wheel.

- #4165. This command didn't work on the statusbar.

- #4166. When assigning FILL=1 to a dimension with one arrow only the display of the dimension line was shortened.

- #4171. The UNDO command activated bookmarks also when the PARTITION command selected something

- #4173. The FONT? didn't list the defined fonts.

- #4174. The TAB control didn't use font definition. NBB: This was related to the caption of the individual TABs

- #4176. The title field text of the panels was not left aligned.

- #4177. First right mouse click in popup command was ignored (menu disappears).

- #4178. Message window context menu "Erase All" option did not re-initialize counters.

- #4179. Wrong VB value was returned when popup command exited by a fast left mouse click next to the popup menu

- #4181. INFOGUI reported multiple dialogs id after removal.

- #4182. CTRL-V (paste) on MFCeg's controls worked fine, but on EagleAE's controls it copied the value twice. The right-click + Paste command worked fine instead. Note:

  It is possible to specify the maximum number of characters for a
  button type 6. The value is specified in the default value using
  a # character as separator. E.g.:
       ....,6,'obrien#20' : ......
  When typing in the input field, if the maximum number of allowed
  characters is exceeded, a warning message is printed in the
  message window.

- #4184. When STEP is ON, a <Return> in the command line must not set WT to 12 and VB to 0 otherwise it is impossible to debug.

- #4186. Using OpenGL, when the SPIN command is used in the Eagle standard graphic window, it happens that the visualization is empty.

- #4187. Left-button click outside a popup menu to close the popup, does not return WT=3.

- #4188. Clicking quickly the left-button after moving a popup menu with the right-click returned two events: WT=3,VB=1 (correct) and WT=1,VB=1 (not correct)

- #4190. The DB SELECT commands hung if no database connection has been initialized.

- #4191. PARTITION: using x=indexname,m=<pen> the selected items are doubled

- #4192. The command SETUPDEVICE has been extended to allow the setting of the current form size, orientation and scale.

- #4194. PROMPT dialogue persists if PULL or MOVE J are executed just after it.

- #4196. When exporting polylines with DXF_COLOR_BY_LAYER=yes, polylines are exported incorrectly. Note: this causes crashes in V12 Comment: ALSO REF: C288

- #4197. Pulldown toolbar: when labels were used the opening was wrong. For instance a top toolbar opened a pulldown toolbar with 2 lines and 4 columns of icons instead of 8 lines 1 column. Same problem happened when without labels the master toolbar is on the sides

- #4198. When a toolbar got the focus it repositioned attached Eagle panel.

- #4200. When the cursor went over a panel or exits the graphic window there were traces of the dynainput control left on the screen.

- #4203. BAR ON and again BAR ON caused a flash of the windows' frame.

- #4204. There were wrong colors in SHADE. (Verified in v.12.3.0.b12, working in v.12.3.0.b10)

- #4206. Preview: if @ or an environment variable was used in the filename, then the image is not created correctly

- #4207. SEE and IGNORE were still limited to 128 layers, despite the extension to N=256 layers (see #4028).

- #4208. This Bookmark command didn't work when SET UNDERSCORE=OFF

- #4211. Pack command didn't remove redundant invisible vectors that could cause wrong box calculations and also didn't sane polylines created in old drawings.

- #4212. Pulldown toolbar could cause icons to disappear on toolbars with non-bitmap controls.

- #4213. The LICENSE command did not work for custom features.

- #4215. If a "locked" toolbar was moved by the docking of another toolbar, then it was not "unlocked" automatically by Eagle.

- #4216. J-values for panel specification were processed only in pixel unit, while it must be allowed also to specify relative values, ie: J=0,0.7

- #4218. LATCH. The tangency condition now work with the tolerance around (and select only) the points of tangency

- #4219. DDE: The message "Unsupported topic : ...." (DDE) didn't depend on SUP/UNSUP M

- #4225. When SET MOUS=N, at the start of the POLLING command the crosshair was not shown and if dynainput was active the <tab> event was not managed.

- #4227. Selection markers: markers of ignored items belonging to the selection index were shown.

- #4228. Multi-column list - if a column value is <null> then the other values were shifted to the left misaligning the data

- #4229. Sometimes the changes to a submodel was not reflected in the cache.

- #4230. Markers - the entry of the INI file required capitol letters (case sensitive).

- #4232. Annotations in dimension were always exported with aspect ratio 1 (see also   #3967).
  Comment: this was due to the fact that ACAD did not handle such attributes in multi-line annotation

- #4235. There were conditions where ETCHed plo files cause the subsequent SELCET or INDEX commands to be extremely slow. Comment: we have introduced a workaround to resolve this problem. PATCH4235=yes, resolves it.

- #4239. Fonts with more than 3500 words size could not be loaded. Extended to 10,000 words size.

- #4240. The OS string from a list-selection should use the MULTI_COLUMN_LIST_SEPARATOR to encode fields and not the "," separator. Note: The selection of multi-column LIST row returns a comma-separated string after a POLLING. Now it is possible to have a string where the separator is the same defined in the variable MULTI_COLUMN_LIST_SEPARATOR. This is achieved setting the variable PATCH4240 to "yes".

- #4241. CLUMP causes the creation of wrong invisible vectors that can cause wrong box calculations

- #4242. ETCH causes the creation of wrong invisible vectors that can cause wrong box calculations.

- #4243. Tooltips in dialogs and panel were not correct when crossing the border of the screen.

- #4245. When using big models there were conditions when the selection was very slow.

- #4250. OpenGL – Wireframe view was rendered with wrong colours.

- #4251. Untreat command didn't behave properly

- #4255. Zooming by Mouse Wheel - the drawing suddenly disappeared when moving the mouse cursor to the message window while zooming using the mouse wheel.

- #4258. When creating annotations with TH=<n> it was created with TH=<n+1> instead

- #4259. PLAN x,y in the OpenGL window didn't work, while PLAN J,J worked fine.

- #4260. If a model far from p0 was loaded after: OPENGL; ON; BOX; ISO, then there was no way to visualize it, unless OPENGL OFF and OPENGL ON again.

- #4261. There were conditions when SELECT U did not work. Comment: this was related to ufos created using LibUfo

- #4262. When nested submodels were present in the workspace, sometimes they were not displayed properly.

- #4263. Flipped sub models and Ufos were visualized in the wrong direction in the OpenGL window.

- #4265. Dynamic Zoom did not work in some orthographic views (ie: NORTH)

- #4266. When annotations with text length > 132 are exported the program crashed. Note: also the CHECK command crashed. Comment: ALSO REF: C291

- #4267. Popup menus in OPENGL - When clicking with the crosshair in the graphical screen then the popup command stayed active.

- #4268. Annotation in OpenGL were not vector-based.

- #4269. When a panel was shown in the OpenGL window and OpenGL was on and something was on the screen behind the panel, if the panel was moved, then the part which was behind the panel, was not repainted

- #4271. Command SHO P in the OpenGL window has been implemented

- #4272. OPENGL ON on ufos created using LIBUFO sometimes produced error messages like "Warning - failed to inquire vertex normal".

- #4273. Dynamic zoom with mouse-wheel in the OpenGL window now works fine.

- #4275. ZOOM_SHIFT_ENABLED did not work in OpenGL window.

- #4276. Closing a list attached to a hidden panel caused the panel to be shown

- #4277. Closing a hidden panel with a list attached caused a flash.

- #4278. If the crosshair cursor was small then the rectangle area of a rubber-box was not shown

- #4279. Polylines with vectors defined by different line-styles were all converted to the same line-style in the OpenGL window.

- #4280. There were cases when submodels were not shown in the OpenGL window.

- #4281. Dimensions in OpenGL window were drawn using the wrong pen information and also with no arrows.

- #4282. Pixmap buttons on statusbar didn't react to clicking. Also, FREEZE and CLICK did not work on pixmap buttons on status bar.

- #4284. There were cases when HIDE $=1 crashed the system

- #4285. Libeagle. There were cases when the EIF_get_box failed returning the proper box.
  Comment: this happened when there were arcs in the model.

- #4286. Highlight on submodels in the OpenGL window didn't work

- #4288. Erase mode in the OpenGL window was very slow.

- #4289. In the OpenGL window both Annotations and Dimension had only one possible occurrence.

- #4291. There were cases when solids were transparent in the OpenGL window.
  Comment: this happened after fix #4079 was implemented.

- #4293. If UNDO_FORCE_BOOKMARK=yes (default is "no") and UNDO_AUTOBOOKMARK=no then the BOOKMARK command always created a bookmark no matter if the stack was changed or not.

- #4294. Status bar was shorter that std Windows'. Beside button type 220 were not vertically centered.

- #4302. Section like EAST p1,p2 in the OpenGL window did not display anything when objects were sectioned. GL silhouette edges drawing were required.

- #4305. HIGHLIGH - mistaken grammar production caused IFERROR to be set.

- #4307. DYNAINPUT. After a <Return> with different size for the input fields, a trace of previous one was left.

- #4308. When using the READ DB command for reading FLOAT values using STRING variables, sometimes the values returned were "approximated". For instance, instead of returning the value "35.27" the program returned the value "35.2699999"
  Comment: this happened using SQL_SERVER database. We introduced a workaround that solves this problem. The fix can be activated setting an environment variable: PATCH4308=yes
  The default is to not use this patch.

- #4309. When the full-name length was bigger than 96 characters the program crashed.

- #4310. Libeagle. When the full-name length was bigger than 80 characters the use of EIF_open_model caused a crash of the application. This fix has produced a new Libeagle v.4.1.1.

- #4311. There were problems with submodels for the POLLING H in the OpenGL window.

- #4312. Zooming (dynamic) in a viewport smaller than the full graphic window lost the view-porting factor.

- #4313. The panel persisted when PULL was executed just after a PANEL CLOS.

- #4315. There were cases when SELECT U doesn't select the requested UFO. Comment: this happened on UFOs created with LIBUFO and where all edges were SILH edges.

- #4316. SNAP cursor left traces when cursor interacted with overlapping panels.

- #4320. When HIDE_MODE was set to "advanced" the tee-junction were rendered with an extra intersection

- #4322. NOTIFY: an icon is shown in the task bar and it is not modal since v.12.2.b03

- #4323. There were crashes when importing JPG or colour TIFF

- #4325. There were cases when importing HATCHes or 3DFACES creates null faces or faces with too big coordinates that cause an incorrect box definition and also the program crashing in different situation.
  Comment: ALSO REF: C294.
  To control the Fix #4235 about automatic packing of vectors at the end of an ETCH command, a variable called PATCH4235 has been introduced. The default value is "yes" that means automatic packing yes, but it can be set to "no" to have the same behaviour Eagle had before v.12.3.2.b01.

- #4326. When the RASTER command created a TIF file it always set the error flag

- #4327. Raster with scale caused incorrect stripes in the image result (ref. Raster4)

- #4328. The TRIM command crashed on large images. Comment: this is still pending for 24 bit images

- #4330. TOOLBARS - the presence of SEPARATORS sometimes caused the last icons not to be shown.

- #4331. WHERE: Didn't show the point label in the OpenGL window

- #4332. Annotations and Dimension in OpenGL window were not removed after a KILL P.

- #4333. OpenGL window: once the thickness was used it seemed that everything was shown in that thickness

- #4334. HIGHLIGHT in the GL window when a section was displayed didn't work properly.

- #4335. The point returned from an hotkey event was different from the same returned from a mouse click in the OpenGL window (in the std window they were the same)

- #4336. PDF2TIFF: the conversion of a PDF image to TIFF generated a wider image cut on the right side

- #4337. LIST: Multiple selections sometimes did not select the second row.

- #4338. After fix #3885, DUMP with HIDE placed on F=256 those items that belonged to F=0

- #4340. The P1=SIZE(file) function always returned "File not found". Also the S1=CLAS(file) didn't work.

- #4341. Toolbar: Buttons of type "push", "toggle" and "edit" did not execute the associated action

- #4342. Toolbar: Edit controls were not scrollable and handle a size-blocked no. Of characters

- #4344. PARTITION M= on submodels did not work

- #4345. HIGHLIGHT in OpenGL - when a section (EAST p1,p2) was shown, HIGHLIGHT failed after a SHOW P

- #4346. SHOW did not use the correct color for submodels when "pen-cancellation" was used in OpenGL

- #4347. Exporting dimensions with an angle <> 0 and a multi-line text caused a dimension with an incorrect text being created in ACAD. Comment: ALSO REF: C295

- #4348. Exporting to DXF dimensions with an angle <> 0 and a multi-line text cause a wrong alignment of the dimension text, while the one for the corresponding DWG file is correct. Comment: ALSO REF: C295. Comment: To fix this problem we have introduced a workaround that uses an environment variable. When setting the variable "PATCH4348=yes" the workaround is active. The default is "PATCH4348=no".

- #4351. In OpenGL when sections were displayed ufos transformations were not considered causing objects to be displayed in wrong positions.

- #4352. OpenGL backing store recomputed the view since v.12.4.5.b01

- #4353. The LIST command produced error messages.

- #4356.   When OpenGL is on pressing Function key 1 (F1 should not print the error message if both the USER and EAGLE help files as set in the INI/registry settings are not found. This change is requested to allow the calling of context based help topics when using OpenGL windows. This behavior is set by setting the INI/Registry setting
  F1_GENTLE=yes
  The default is not to set this variable.

- #4359. OpenGL - still sometimes traces of the cursor were left when panels were involved

- #4360. EXPAND was very slow when OpenGL was on

- #4361. OpenGL - commands that modified single objects were slow (i.e.: NIB, KILL)

- #4362. When exporting invisible faces with colour fill assigned the resulting 3DFACE had the colour-ByBlock. This resulted also in a change of the border colour when the resulting DWG file was imported back. Comment: ALSO REF: C296

- #4363. When exporting invisible faces with hatch pattern assigned the resulting 3DFACE had the colour-ByBlock. This resulted also in a change of

the border colour when the resulting DWG file was imported back. Comment: ALSO REF: C297

- #4364. Repositioning of toolbars still had some problems on the right and bottom (on the long bottom toolbar)

- #4366. OpenGL- When changing GLMODE, Ufo's silhouettes were rendered incorrectly

- #4370. When a floating toolbar was repositioned before a LOCKED toolbar, the latter became "unlocked"

- #4371. DYNAINPUT - if POLLING used FOC=0,1 then the focus was not set in the first dynainput field. Note that When using FOC=0,1 in POLLING it is possible to set a tolerance for deciding when the mouse move remove the focus from the dynamic input edit field. A new variable in the INI file called DYNAINPUT_TOLERANCE can be set to such tolerance value, expressed in pixels. The default is 0, suggested values are in the range [10,20].

- #4374. There were cases when exporting DXF files these could not be loaded in ACAD. Comment: The resulting DXF file contained extra lines written using an Eagle-MERGE command earlier on.

- #4376. PRINT command displayed a MessageBox if <escape> was pressed and the print dialog was exited.

- #4378. When changing GLMODE in a section view the subsequent SHOW command displayed incorrect elements. Also, a subsequent full-view still contained section elements.

- #4380. Often when using the command line the focus was lost and it was very annoying to debug.

- #4382. IMPORT: Nested blocks were not imported at all.

- #4383. IMPORT: Splines and Ellipses inside blocks were not imported correctly. Comment: they missed the relocation point

- #4384. When redefining the size of the main-frame with two toolbars vertically aligned, they were placed side by side instead of remaining in column. There is a new INI variable called PATCH4384 that when set to "yes" allow the repositioning of docked toolbars that becomes hidden (v12.4.5.b08 behaviour), while when set to "no" leaves the docked toolbars where they are (same as Autocad). Default is "yes"

- #4385. When using the READ DB command for reading FLOAT values using STRING variables, values like ".0" or "0.0" were not handled properly. Comment: this happens using SQL_SERVER database

- COMBOBOX. Default option for Combo box could be wrong if option texts were sharing the same prefix.

- FREEZE didn't work on panels and dialogs

- FREEZE. When freezing the barmenu with P=x also panel p=x was frozen if present.

- On XP button type 8 always returned −1.

- When the command COORDINATE is executed with a T-value greater then 100, the function PlngHookInitialize() from the PLNGHOOK.DLL is called with parameter equal to (T-value - 100), to allow a custom initialization of the hook function.