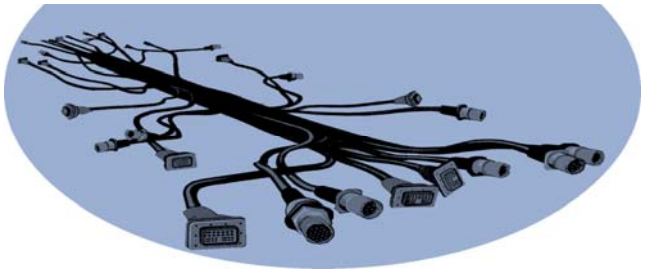
HarnesSYS™



Volume 0 - Getting Started

Utilities

User Manual

HarnesSYS Version hr20a

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Conventions

Italic text - is used to indicate a word or phrase, which has a special meaning with respect to *HarnesSys*, such as the name of a menu or option. Italic text is also used for examples. Smaller italic text is used for notes and helpful hints; these are also indicated by icons (see below)

Bold text - Bold text is used for emphasis a word, sentence or paragraph.

Bold italics - Bold italics is used for Procedure Heading.

COURIER - Text printed in Courier font represents text that appears on your screen.

Indicates note

Indicates an example.

Indicates a helpful hint.

Indicates additional information.

Indicates cautionary text or a warning. Both types of text are framed in a box. A Warning, however, is printed on a raster (gray) and has the title "WARNING!".

Indicates an operation that you, the user, are to perform. Operations in a series are also numbered.

Indicates a key on your keyboard.

Indicates a path to take. This usually entails selecting a number of options from menus.

Indicates a time consuming operation.

→→ Indicate Procedure start

→ Indicates Procedure continue

 Indicates what you should see on the screen - the computer's response.

 Indicates the end of the user guide.

About This User Guide

This user guide describes the utilities available for use by all user levels. Below is a brief description of the sections that comprise this user guide.

User Utilities

This section describes the various utilities available to the common users of the ***HarnesSys*** package and the instruction for running them.

DBA Utilities

This section describes the utilities provided for the management level of

HarnesSys users. These utilities, unlike the utilities described in the previous

section, are not for the use of the common user, but rather for certain responsible persons.

However, these utilities are important because they are tools for the maintenance and management of ***HarnesSys***.

Related Documents

This manual is one of the set of manuals that make up the ***HarnesSys*** user documentation.

HarnesSys user documentation is organized in the following volumes:

- Volume 0 - Getting Started
- Volume 1 - Schematic Wiring Diagram (SWD)
- Volume 2 - 2D Routing/Jig
- Volume 3 - Wires
- Volume 4 - Parts
- Volume 5 - Integration
- Volume 6 - Project Management

- Volume 7 - Manufacturing.
- Volume 8 - Generating Technical Publications.
- Volume 9 - Retrofit.
- Volume 10 - Utilities
- Volume 11 - Importer
- Volume 12 - Miscellaneous

Document Organization

This manual includes the following chapters:

Chapter Number	Title	Description
Chapter 1	User Utilities	This section describes the various utilities available to the common users of the ***HarnesSys*** package and the instruction for running them.
Chapter 2	DBA	This section describes the utilities provided for the management level of ***HarnesSys*** users.

Document Revision History

Revision	date	Change Summary
L	March 2012	Special case: Copy Project and Delete irrelevant Doc. added.

1 User Utilities

The utilities available to the users are grouped in several categories internally and externally to ***HarnesSys***.

In This Chapter:

1.1 Internal Utilities

The utility scripts are located in the ~harness/Local sub-directory.

The scripts may be added to the list of User Functions available per project.

To assign a utility as a user function within ***HarnesSys***, see the Authorizations Manual, Vol. 6.

1.1.1 Occupied Auto Splice Names

Utility name: BusyAutoNames

When the script is run, it produces a report listing all the automatic names the system generated for entities such as jumpers, ferrules and splices. This report is used to find the unused names, or holes in the automatic name-assignment sequence.

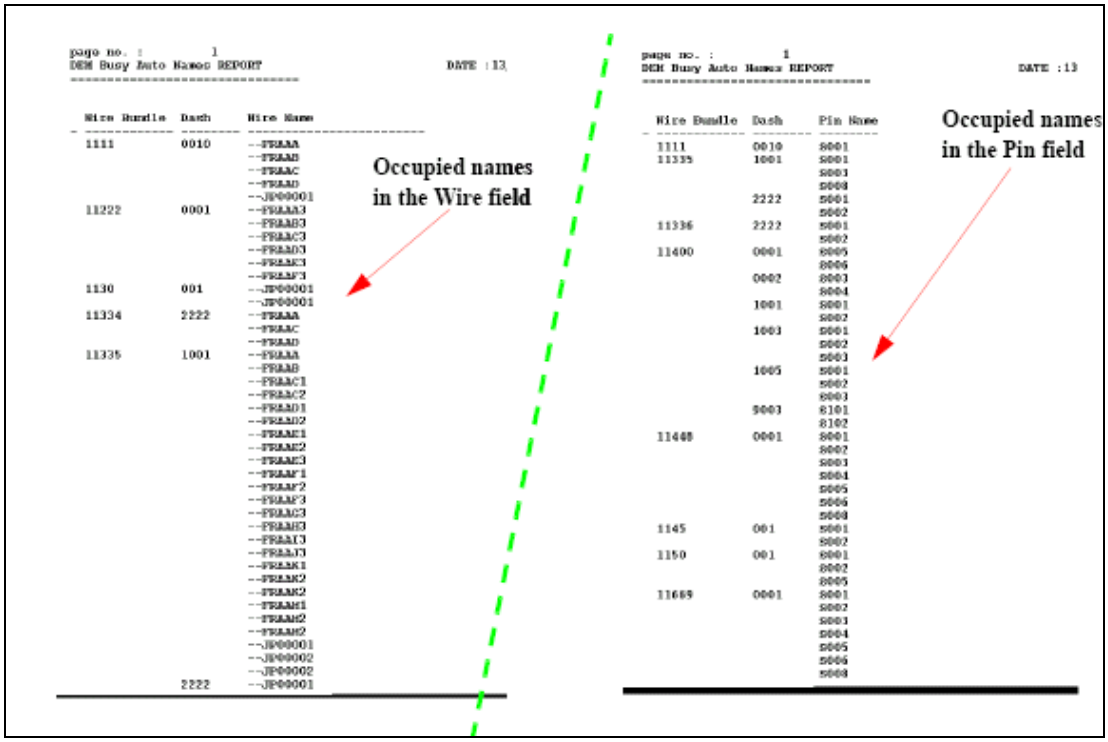


Figure 1: Utility name report

To invoke the utility;

→→ From Main window Select **User Functions**

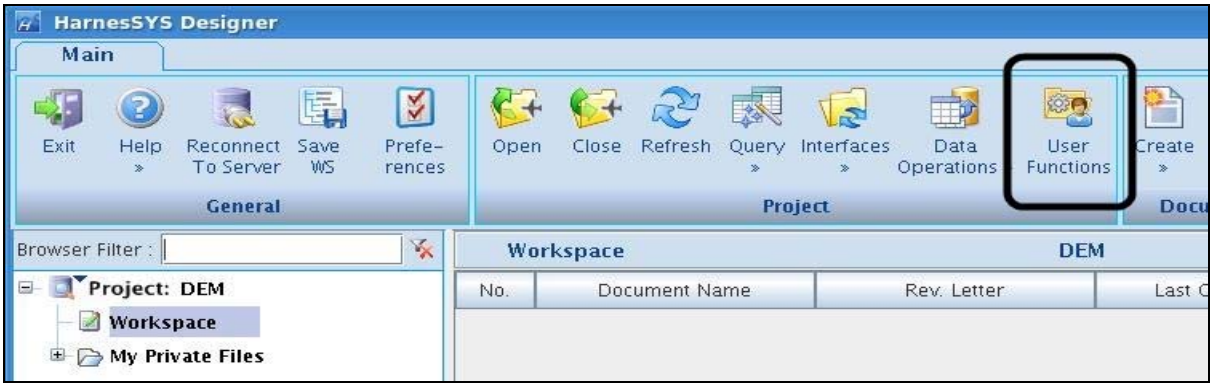


Figure 2: User Functions Icon

The User Functions Window appear

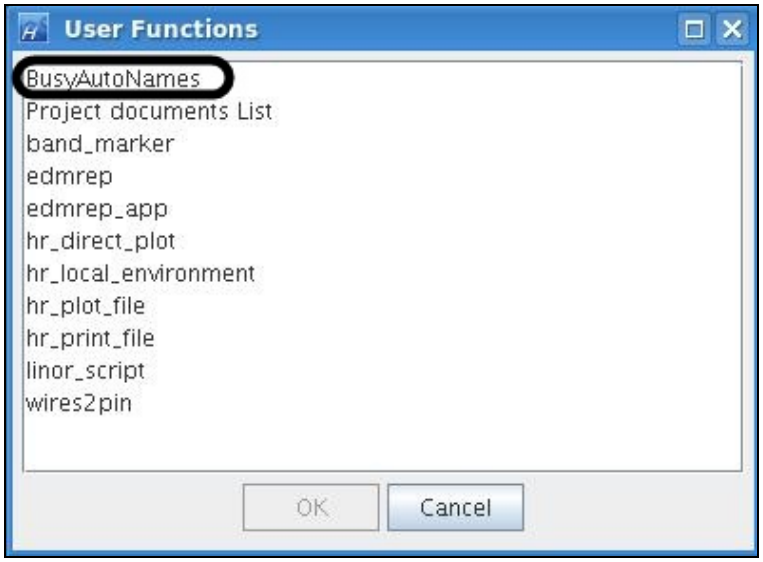


Figure 3: Select Script to Activate Window

→ **Selecet the BusyAutoNames** script.

The script name appears in the selection field.

→Click **OK** to invoke the report.

The user Function Window appears displaying the progress of the report creation, and is removed when the report is produced.

The report is created in the private library, and is not placed in the Working Space.

→ Select the report from the private library, then display it using **View**.

- The report appears sorted by Bundle, Dash.
- All the busses, ferrules, jumpers, shields, and twists are listed in the first group (sorted by Wire Name).
- All the splices are listed in the second group (sorted by Pin).

1.1.2 Top Drawing/EDM Report

Utility name: edmrep

A report displaying all the documents produced (per application), is used to monitor the system. All the sheets of each relevant Top Drawing are displayed as well.

The report includes each document's effectivity range, Base and Dash numbers and Revision Letter. Each document's owner is displayed, as well as the time and

date of the last change.

The report provides a correlation between the document names and their actual file names, important for many maintenance tasks.

The report may be produced repeatedly as often as desired. All copies are kept in the user's private directory and may be displayed and printed at will.

There are two options for producing the Top Drawing Report:

1. For the entire project ONLY:

→→ From Main window Select **User Functions**

The Select Script to Activate Window appears:

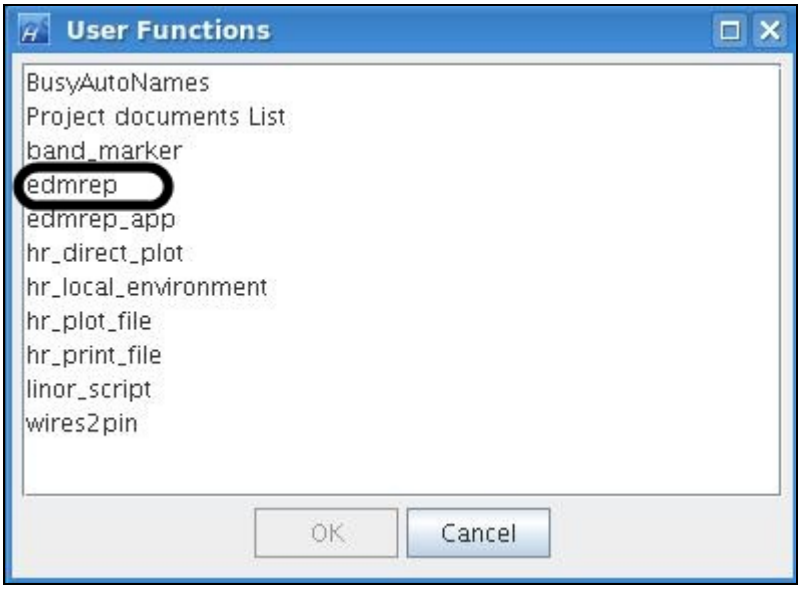
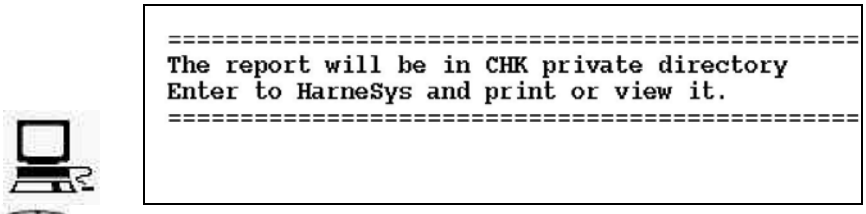


Figure 4: Select Script Window

→Select **edmrep** and click **OK.**

The following message is displayed until the report is ready.



please wait

When report is ready the message disappears and report is placed in the PRIVATE directory.

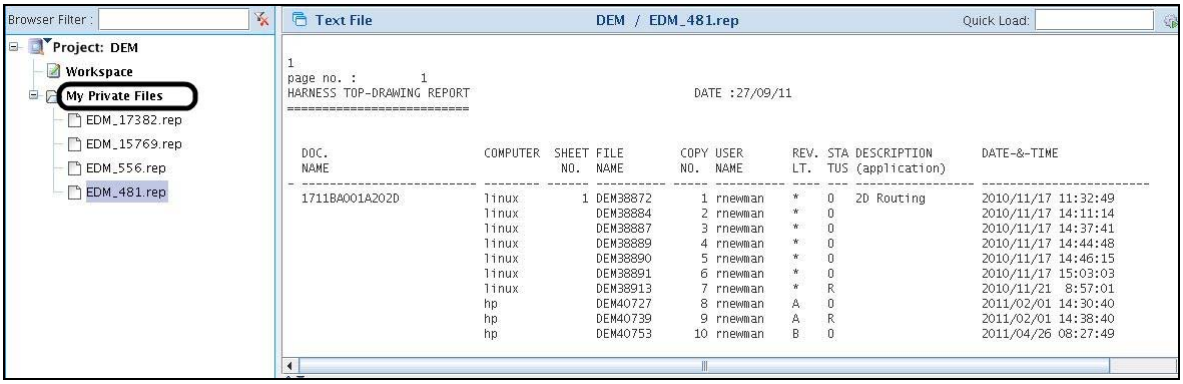


Figure 5: Top Drawing/Edm Report

2. For a specific document type:

→→ From Main window Select **Project Settings**→Select **Dcument Managemant**

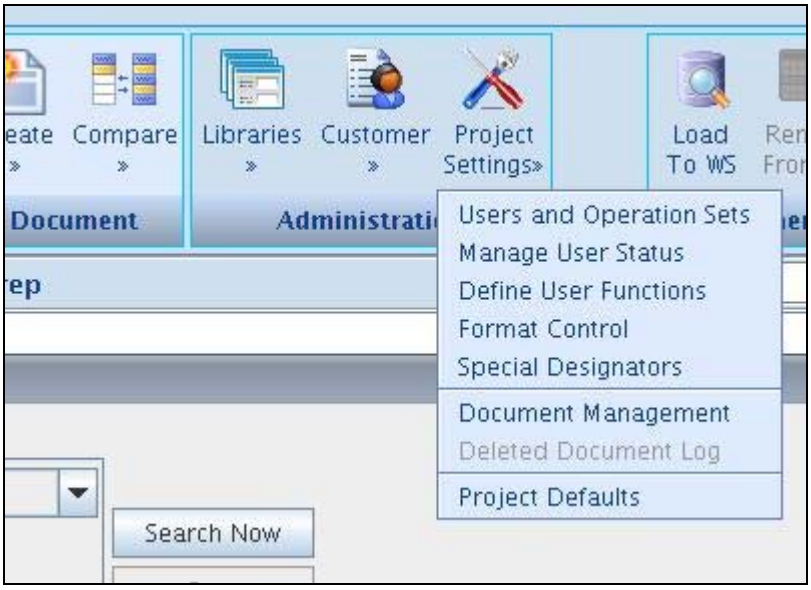
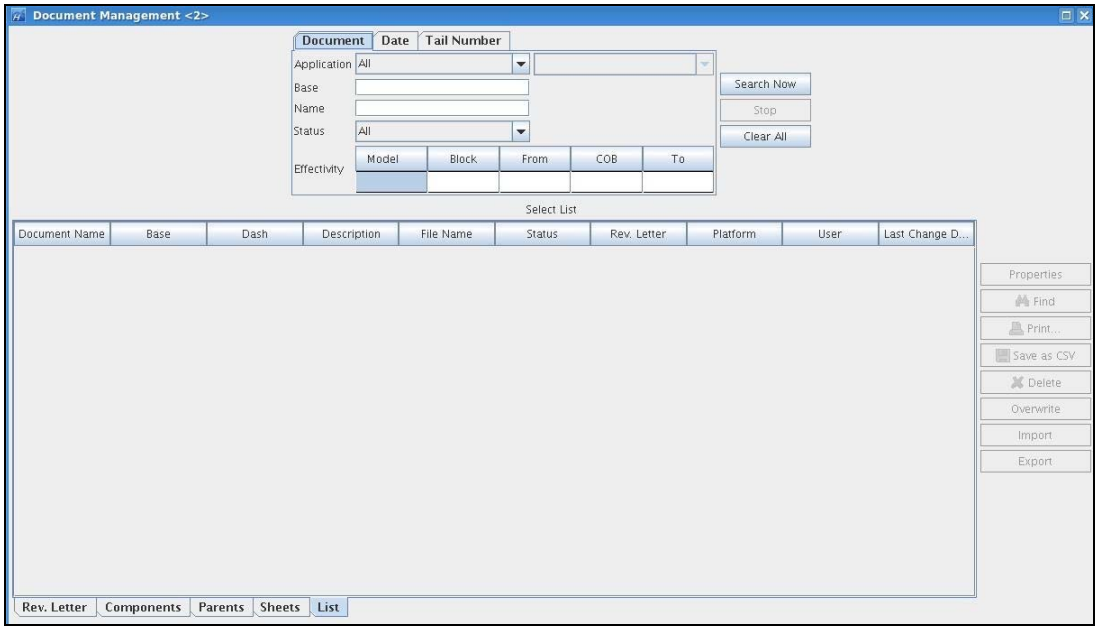


Figure 6: Document Management Window

The selection window appears.



→Enter all the parameters and press **Serch Now**

The report appears on screen.

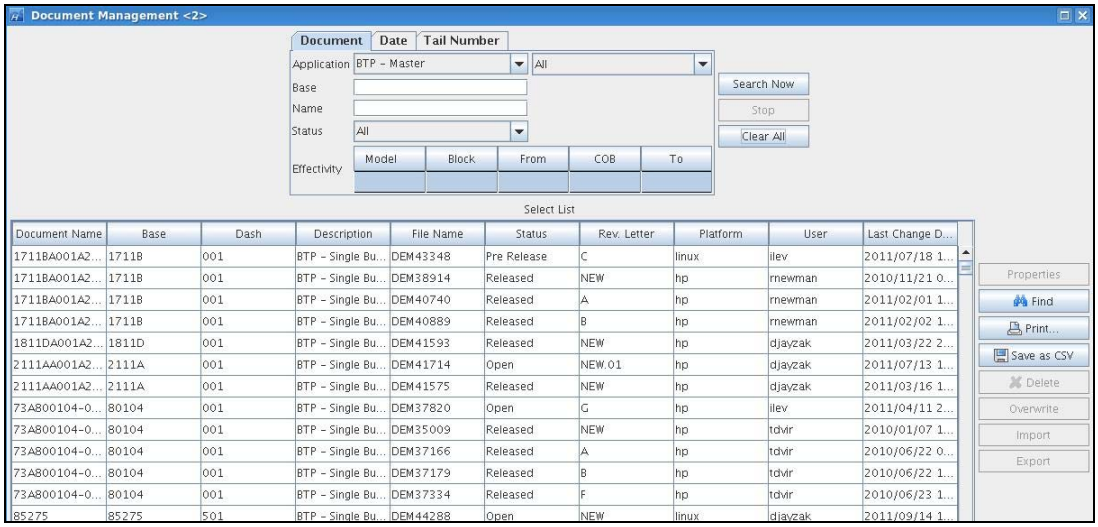


Figure 7: Top Drawing Report

The report may be printed at this stage.

1.1.3 Pins with Multiple Wire Connections

Utility name: wires2pin

The utility is designed to check an aircraft for multiple wire connections via a report.

The user is prompted for the specific requirements, and is able to alter the preset defaults for each category of connectors.

The utility scans an ENTIRE aircraft and creates an SQL that builds a report displaying all the pins connected to more than a specified number of wires, depending on the user input. The program also prompts the user for items to ignore, such as specific type of wires or pins.

The report is placed in the user's private ***HarnesSys*** directory, so the application's rules of display and print are valid.

To invoke the utility;

→→ Select **General** → **User Functions**→ from the Working Space menu.

The Select Script to Activate Window appears.

Figure 8: Select Script Window

→ Select the **wires2pin** script.

The script name appears in the selection field.

→ Click **OK** to invoke the process.

The user Function Window appears and the user is prompt for the report's requirements and changes in defaults.

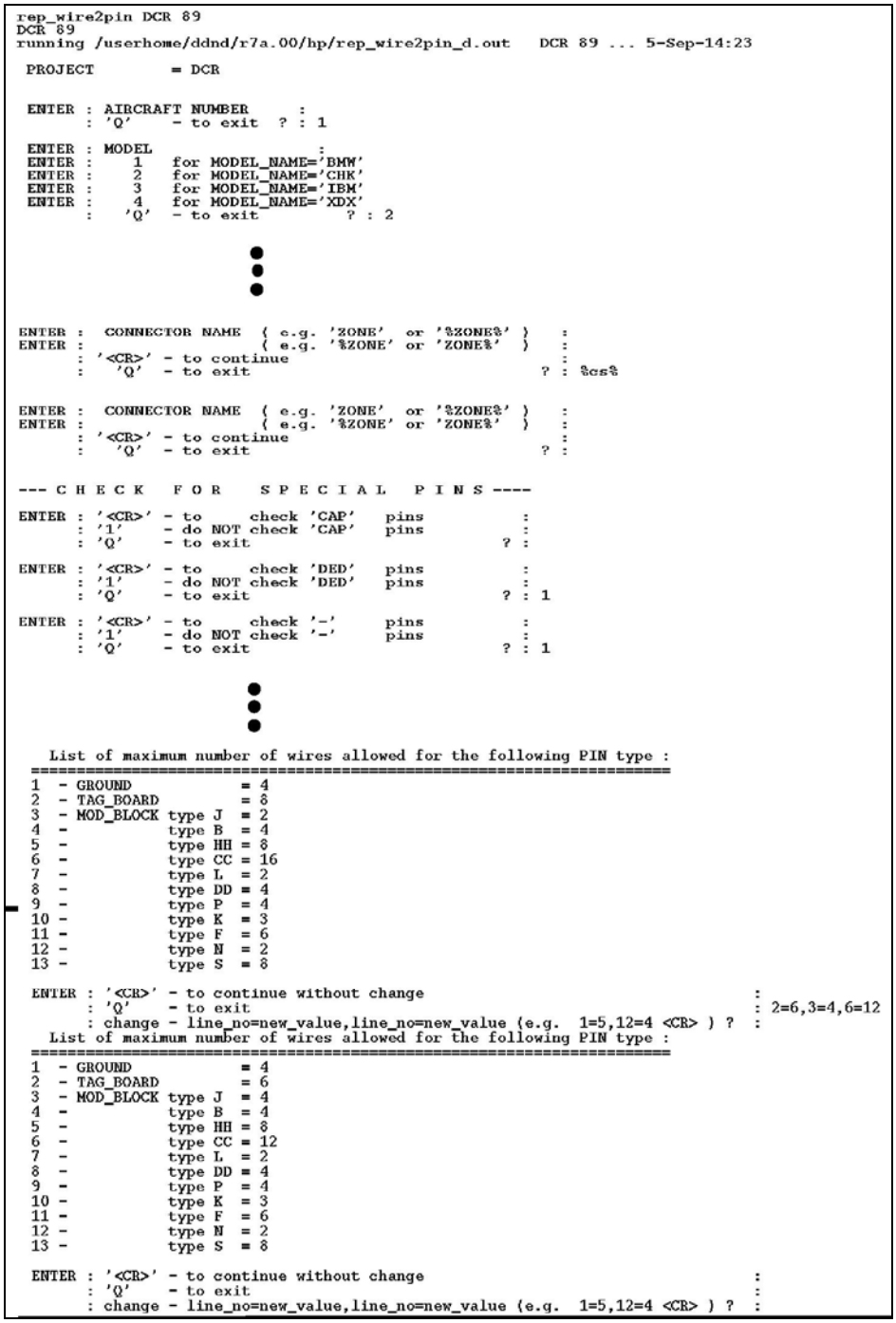


Figure 9: The wires2pin Parameter Building

Once all the parameters have been entered, the SQL created scans the database and extracts all the relevant wires for the report.

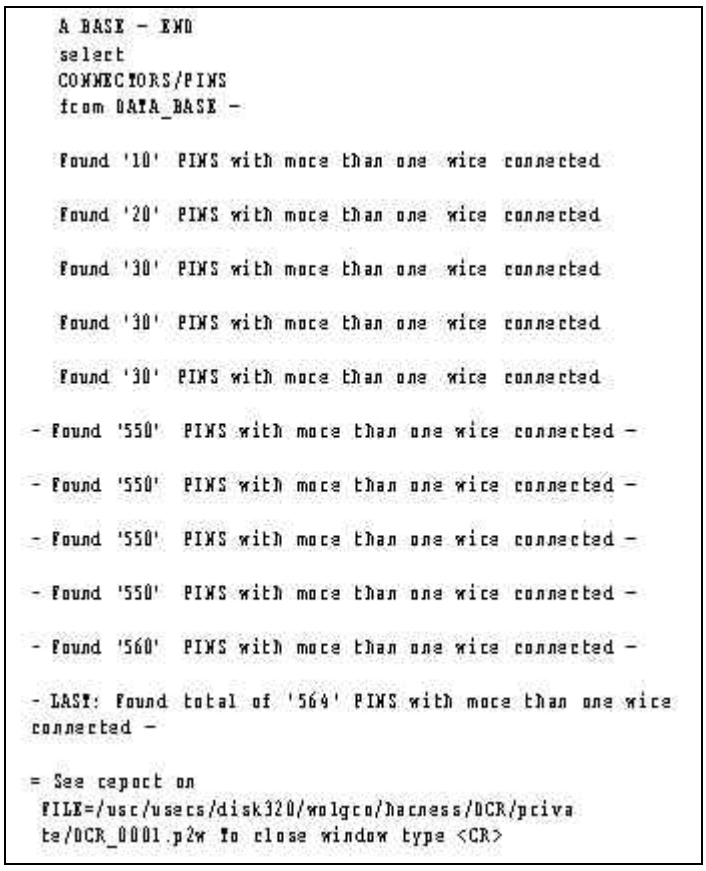


Figure 10: The Wires2pin Selection and Extraction Process

The report is created in the private directory, and is not placed in the Working Space.

→ Select the report from the private directory, then display it by clicking **View**.

The report appears on screen.

1.1.4 Harness ANSI

The various conversion options available in ***HarnesSys*** are grouped under the ANSI heading. These utilities were initially executed via alphanumeric terminals, hence the name "ANSI". Currently there are three groups of utilities;

- File Format Conversion Utilities.
- CAESAR to HarnesSys Conversion Utilities.
- LEGACY Importing Utilities.

To invoke the utilities;

→→In the Session Window, type **harness ansi** → press <**CR**>.

The following list of options appears.

```
Ansi terminal Options:
======================
```

1. file_convert

2. csr_convert

3. importer

4. drawing_generator

5. flag_legend_check

6. Exit (or 'q')

→Select an option (**1-5**) to chose one of the utilities.

→Select option **6** to exit or '**q**' to quit.

1.1.4.1 fileconvert

To display the File Format Conversion group,

→→ select option **1**→

The following list appears.

Conversion Options:

1.	Classic Drawing:	Binary (.wd, .jig)	-> ASCII (.asc)
2.	Classic Drawing:	ASCII (.asc)	-> Binary (.wd, .jig)
3.	Classic Symbol Library:	Binary (.sym)	-> ASCII (.asc)
4.	Classic Symbol Library:	ASCII (.asc)	-> Binary (.sym)
5.	Classic Drawing:	Binary (.wd, .jig)	-> IGES (.igs)
6.	Computer Graphics Metafile:	Binary, DOD (.cgm)	-> Clear text (.plt)
9.	Classic Symbol Library:	Binary (.sym)	-> XML (.xml)
10.	Classic Schematics Drawing:	Binary (.wd)	-> XML (.xml)
11.	Classic 2D Routing/Jig:	Binary (.jig)	-> XML (.xml)

12. Classic Schematics Drawing: XML (.xml) -> Binary (.wd)

13. Classic 2D Routing/Jig: XML (.xml) -> Binary (.wd)

14. Symbol Library: Next Look (.jar) -> Classic (.sym)

15. Symbol Library: Classic (.sym) -> Next Look (.jar)

q Quit

→Select option [**q**]:

- In the conversions the actual file name must be used.
- To find the file name the Top Drawing Report must first be run. The report displays the correlation between the document name within HarnesSys and it's actual file name.
- The file name must include a complete path or the file may be situated in the directory from which the utility is run.
- The conversion process does not erase the original file but rather creates a new file with the new suffix with the converted format.

1.1.4.2 The Schematic to ASCII Conversion Utility

This utility converts a Schematic Diagram (W/D, pin-to-pin, Block Diagram) from ***HarnesSys*** format to ASCII.


The files would most likely be found at ***/harness/<project>/<computer>/<file_name>***

To invoke the utility;

→→ Enter **1** and press <**CR**>

The following prompt appears:

Enter Schematic file name [ ] (<**CR**> to exit) : |

→ Enter the schematic file name and press <**CR**>.

The file is converted to a file with **.asc** suffix and the confirmation appears as follows:

```
DEM10954
              ----> DEM10954.asc

STOP Translation completed successfully.
```

Figure 11: Schematic Diagram to ASCII Conversion.

1.1.4.3 The ASCII to Schematic Conversion Utility

This utility converts **ASCII** files back to **Schematic** format.

To invoke the utility;

→→ Enter **2** and press <**CR**>.

The following prompt appears:

```
Enter Ascii  file name  [.asc] (<CR> to exit)  :
```

→ Enter the ASCII file name and press <**CR**>.

The file is converted and the confirmation appears as follows:

```
DEM10954.asc
             ----> DEM10954

STOP Translation completed successfully.
```

Figure 12: ASCII to Schematic Conversion Utility

1.1.4.4 The Schematic Symbol Library Conversion Utility

This utility converts the schematic library of symbols to a file in ASCII format.

To invoke the utility;

→→ Enter **3** and press <**CR**>

The following prompt appears:

→Enter symbol file name `[.sym] (<CR> to exit)`

→ Enter the symbol file name (including the suffix) and press <**CR**>.

The symbols are converted and the progress is registered 10 symbols at a time. When done, the prompt returns to the option list.

10 Symbols Converted

20 Symbols Converted

30 Symbols Converted

40 Symbols Converted

50 Symbols Converted

60 Symbols Converted

70 Symbols Converted

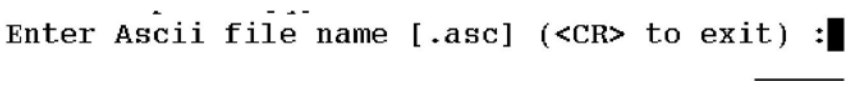
80 Symbols Converted
90 Symbols Converted
100 Symbols Converted
110 Symbols Converted
120 Symbols Converted
130 Symbols Converted
140 Symbols Converted
150 Symbols Converted

1.1.4.5 The ASCII file to Schematic Symbol Library Conversion Utility

This utility converts the ASCII file format back to schematic library symbols.

To invoke the utility;

→→ Enter **4** and press <**CR**>.



The following prompt appears:

→ Enter the Schematic symbol file name (including the suffix) and press <**CR**>.

The ASCII code is converted back to symbols and the progress is registered 10 symbols at a time. When done the prompt returns to the option list.

10 Symbols Converted
20 Symbols Converted
30 Symbols Converted
40 Symbols Converted
50 Symbols Converted
60 Symbols Converted
70 Symbols Converted
80 Symbols Converted
90 Symbols Converted
100 Symbols Converted
110 Symbols Converted
120 Symbols Converted
130 Symbols Converted
140 Symbols Converted

150 Symbols Converted

1.1.4.6 The Schematic to IGES Conversion Utility

This utility converts the schematic file format to Initial Graphics Exchange Specification format. The IGES is a system independent, neutral graphical format, used by different packages as an interface format (not used for direct display).

To invoke the utility;

→→ Enter **5** and press <**CR**>.

The following prompt appears: `Enter project name :`

→Enter the three character project code (upper case) and press <**CR**>.

The following prompt appears: `Enter Schematic file name [] (<CR> to exit) :`

→ Enter the file name and press <**CR**>.

The following prompt appears.

```
Select input file type :
 1. Block_Diagram
 2. Pin-To-Pin
 3. Wire_Diagram
 4. 2D_Routing
 5. Jig
Enter       file type ('q' to quit) [ 3 ] ?
```

→Enter the schematic file type and press <**CR**>.

The file is converted and the following message is displayed.

```
********  End of       processing  ********

Saving IGES file - DEM10954.igs
```

Figure 13: Schematic to IGES Conversion message

1.1.4.7 The CGM (DOD) to CGM-Clear-Text Conversion Utility

This utility converts the CGM (Common Graphics Metafile) binary format

(Department of Defense standard) to an ASCII CGM format.

Unlike the IGES format, this format may be displayed on screen and even zoomed.

To invoke the utility;

→→ Enter **6** and press **<CR>**.

The following prompt appears.

→Enter the binary CGM file name and press <CR>.

The file is converted and the confirmation message is displayed.

|cGM clear text file 74A910092-SHl_l.cgm-001 was created.

1.1.4.8 The Schematic to XML Conversion Utilities

The option **9** utility converts the schematics symbol library to XML. Options **10** and **11** convert the ***HarnesSys*** schematic file to XML format.

To invoke the utility;

→→ Enter **9** and press **<CR>**.

The following prompt appears:

```
Enter symbol file name [.sym] (<CR> to exit) :
```

→ Enter the symbol file name (including the suffix) and press **<CR>**.

The file name would most likely be found at **/harness/dat/elcid_symbol_library_<computer>. sym.**

The symbols is converted to XML format and the progress is registered.

1w Symbols Converted

200 Symbols Converted
210 Symbols Converted
220 Symbols Converted
73 B Symbols Converted
24 B Symbols Converted
2S0 Symbols Converted
260 Symbols Converted
270 Symbols Converted
?.T| Symbols Converted

1.1.4.9 Schematics Drawing Binary to XML Conversion Utility

The option **10** utility converts the schematic to XML.

To invoke the utility;

→→ Enter **10** and press <**CR**>.

The following prompt appears: `Enter project name \2`

→Enter the three character project code (upper case) and press <**CR**>.

The following prompt appears:

`Enter Schematic file name [] (<CR> to exit)`

→ Enter the file name and press <**CR**>.

The file name is the physical file name that would most likely be found at ***/harness/<project>/<computer>/<file_name>. To get the file name, activate in HarnesSys:***

Configuration->Query->Top Drawing Rep. (option 2 - Wire Dia).

The converted file <**file_name**>**.xml** is created and the following message is displayed.

STOP Translation Completed successfully!

1.1.4.10 2D Routing/Jig Binary to XML Conversion Utility

The option 11 utility converts the 2D Routing/Jig to XML.

To invoke the utility;

→→ Enter **11** and press <**CR**>.

The following prompt appears: `Enter 2D file name U (<CR> to exit)`

→Enter the file name and press <**CR**>.

The file name is the physical file name that would most likely be found at ***/harness/<project>/<computer>/<file_name>***.

To get the file name, activate in HarnesSys:

→→ **Configuration→ Query→ Top Drawing Rep. (option 3 - 2D Routing (BLO))**.

The converted file <**file_name**>**.xml** is created and the following message is displayed.

STOP Translation Completed successfully!

1.1.4.11 Importer

The importer utility is beyond the scope of this document. The utility is designed for importing functions of LEGACY files to ***HarnesSys*** and is documented with the LEGACY functions.

1.2 External Utilities

1.2.1 colorsetup

This utility enables the user to change the colors used in the ***HarnesSys*** display.

To invoke the utility;

→→ Enter Harness colorsetup in the Session Window and press **<CR>.**

The following message displayed:

```
Starting HarnesSys version xxxxnn    on xxx.nn You have
nothing in message gueue.

Oracle on node @xxx_xxxxx

Color Options:
```

1. RainForest

2. Metro

3. CoralReef

4. White

q) Quit

```
Selection: |
```

→ Enter a selection number, where;

RainForest = Evergreen

Metro = Gray/Blue

CoralReef = Bordeaux

→ Press **<CR>**.

The source file is updated.

 The new color configuration can only be seen when entering ***HarnesSys*** the next time.

 The colors may alter, depending on the platform used.

1.2.2 plotback

This utility enables the user to prepare a group of drawings for the plotter, using a previously prepared batch file.

The process contains two stages.

Stage 1:

1. Using any external text editor, create a list of all the drawings to be prepared for the plotter.

Each drawing is represented by a single record, using the following format:

<PRJ_code> <document name>

<sheet number> <copy number> <output file name>

-external [or –**customer] < external_name [**or **customer_name]**>

Where:

-PRJ_ code	Project name
Document name	The drawing name.
sheet number	The number of the specific drawing sheet (use 1 as default)
Copy number	The drawing version number (use 1 as default).
Output file name	The name of the plot (.plt) file created in the home directory, in addition to the temp plot (.plt) file automatically created in the project's temp directory.
external_name/ customer_name	The external name or customer name to work in External View or Customer View mode.

The following is an example:

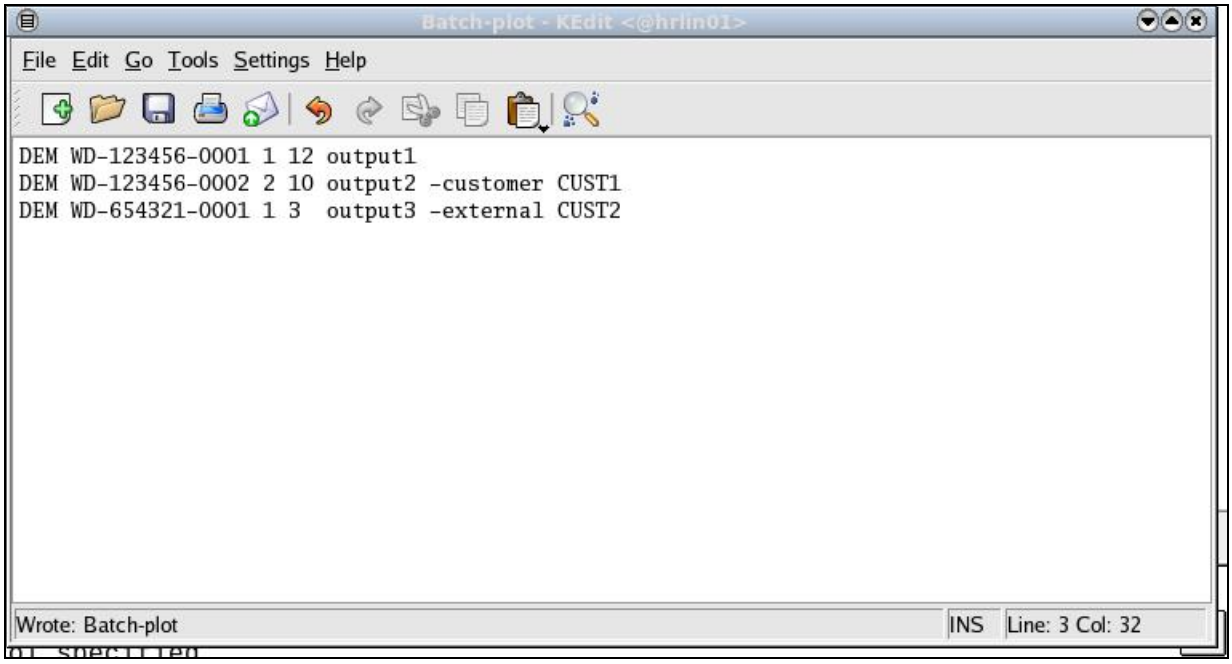


Figure 14: Batch plot Window

Stage 2:

To invoke the utility:

→→ Run **harness plot_back.**

After ***HarnesSys*** is invoked and the temp files are handled, the following prompt appears.

Enter File Name:

→Enter the name of the text editor file, containing the list of drawings to be plotted. press <**CR**>.

The following prompt appears:

Do you want to change plot driver [HPGL2]:

→Reply "**N**" to continue, "**Y**" to change.

If the reply is "**Y**" the following options are presented:

1. CGM ATA
2. CGM DOD
3. CGM CLEAR TEXT
4. HPGL
5. POST SCRIPT
6. HPGL2

 The various drivers are more fully discussed in the **Sending a Diagram to the Plotting manual**, Vol. 6.

→Enter the desired number and press <**CR**>.

The program begins plot file preparation:

Preparing plot file:

the following prompt appears.

Check Print (y/n/q) [y] ?

 Fully discussed in the Sending A Diagram to the Plotter manual, Vol. 6.

Default = **Y**

→Reply appropriately and press <**CR**>.

The following prompt appears.

Include part list (y/n/q) [n] ?

→If you wish the part list included press "**Y**" then <**CR**>.

Dafault = "N".

The following prompt appears.

Enter the required scale [1.0] :

Scale of 1.0:1.0 is maximum.

For legible information a 0.6 is quite sufficient.

→Reply and press <**CR**>.

The following prompt appears.

Is file CLASSIFIED (y/n/q) [n] ?

→Reply and press <**CR**>.

The following prompt appears.

Rotate the drawing(s) if possible (y/n/q) [n] ?

→Reply and press <**CR**>.

The following prompt appears.

Dashed Dummy Wire Line (y/n/q) [y] ?

→Reply and press <**CR**>.

The following prompt appears.

Color (y/n/q) [n] ?

→Reply and press <**CR**>.

The following prompt appears.

Print Emi Codes (y/n/q) [n] ?

→Reply and press <**CR**>.

The following prompt appears.

Print Wire Type Codes (y/n/q) [n] ?

→Reply and press <**CR**>.

The following prompt appears.

Print Windows (y/n/q) [n] ?

→Reply and press <**CR**>.

The following prompt appears.

Include Signal for PTP (y/n/q) [n] ?

→Reply and press <**CR**>.

The following prompt appears.

Inner drawing area only (y/n/q) [n]?

→Reply and press <**CR**>.

The following prompt appears.

Inner frame (y/n/q) [y]?

The preparation process begins.

For each file processed the following message is produced.

```
=========================================================
Converting WD-123456-0001 1 12 ..............................
=============================================
Starting HarnesSys version r19a.08 on hrlin01
 Oracle on node @dor_harnd
   .... Working. Please wait ...
   .... Still working. Please wait ...
/userhome/nafeh/harness/DEM/tmp/             WD-123456-0001_1.plt
/userhome/nafeh/harness/DEM/tmp/30713.pen
 /userhome/nafeh/harness/DEM/tmp/ WD-123456-0001_1.hpgl2 created.
 /userhome/nafeh/harness/DEM/tmp/ WD-123456-0001_1.plt created.
File saved on output1.hpgl2
```

When any parameters of the selected file are incorrect, the following message is produced.

```
==========================================
Converting WD-123456-0001 1 12 ..........
==========================================
Starting HarnesSys version r19a.08 on hrlin01
 Oracle on node @dor_harnd
   .... Working. Please wait ...
ls: No match.
ls: No match.
ls: No match.
sort: option requires an argument -- k
Try `sort --help' for more information.
```

Files also appear in the home directory as requested.

The files are now ready for the plotter.

1.2.3 Part Specification External Catalog

1.2.3.1 General

This new functionality allows the user to update the ***HarnesSys Part Specification Libraries*** with external catalog data. The relevant ORACLE Data-Base tables must have been created and loaded by the DBA, before this functionality can be used. (See DBA section below).

1.2.3.2 ex_release General

The External Release utility is a batch process designed to externally perform the Release, PreRelease or UnPreRelease processes on documents detailed in the Export Document List. The Export Document List file must exist in the user's private directory prior to the invocation, and the file name is the required parameter when running the External Release utility.

The External Release process performs the same functions as the internal Release, PreRelease and UnPreRelease functions, found in the ***HarnesSys*** Configuration menu. Using a batch format, the External Release process is designed to perform the functions on a list of documents, where each document is treated according to an operational code assigned to the document in the Exported Document list.

In R13a.00 the current Issue of the document is checked against the assigned issue in the record and also the authorization of the user is checked for the selected action.

The Project Defaults interface will contain the toggle RELEASE ONLY FROM PRERELEASE (Y/N) to determine whether the document's status MUST be "PreRelease" before Release operations can be performed, as well as a list of files to be exported.

1.2.3.3 The Export Document List

The External Release utility employs the Export Document List, automatically produced by the PreRelease function or manually produced for the External Release utility using any external editor.

The Export Document List is a simple ASCII file. It contains a header record and a single record for each of the documents to be manipulated.

The file resides by default in the user's private directory **(~/harness/<PRJ>/private)**, unless otherwise directed in the Project Defaults.

The Exported Document List File Format has the following format:

Header:

PROJECT=XXX

Records:

NAME=xxxxxxx,ISSUE=xxxxx,ACTION=x

where:

Field Name	Description
PROJECT	Three (3) letter code (upper case) of the project exporting/releasing file to/from document list.
NAME	Name of the document being released (in ***HarnesSys*** format - up to 32 characters).
ISSUE	The current issue (up to 5 characters) of the document being prereleased.
ACTION	A single character code defining the action to be taken by the External Release program. Options: **R** = Release document. **P** = PreRelease document. **U** = UnPreRelease document.

1.2.3.4 Operation

To invoke the utility:

→→ Make sure the Export Document List exists or create it using any external editor.

 See the Project Defaults, Release/PreRelease in the Administration panel, for file location.

→Run **harness exrelease <*PRJ*> <*Export Document filename*>.**

The procedure is performed and the files are updated.

```
================================================================================
*    Welcome to HarnesSys Importer
*    =============================
*    Date: 12-JUL-1910   Start Time:  9:54:25 AM
================================================================================
*    Total number of sentences in file:      1
*    Total number of sections  in file:      1
================================================================================
*    Processing File section 1
*    File Name:    test_batch_release.IMP
*    File Type:    DOCUMENT
*    For Project:  DEM
*    Author:
*    Bundle Base:
*    Dash:
*    Date:         2000/07/12
*    Document:
*    Issue:
*    Origin:
*    Time:         09:54:20
*    Version:
*    Comment:
--------------------------------------------------------------------------------
```

A summary of the release and a confirmation appear as well

The entire process is mirrored in the log file <Export Document filename>.<suffix>.log.

```
  ============================================
  ***   Documents   R e l e a s e   summary  ***
  ============================================

  Total Number of Documents in File......      1

  Number of release actions..............      1

  Documents released to HarnesSys........      1

  Documents not released to HarnesSys....      0

  ============================================



================================================================================
** There are NO Error/Warning Message in this run **
================================================================================
```

1.2.3.5 ex_release_param

General

General

The External Release Param utility is a process designed to externally perform the Release, PreRelease or UnPreRelease processes on the specified document, according the parameter in the command line. The External Release process performs the same functions as the internal Release, PreRelease and UnPreRelease functions, found in ***HarnesSys***' Configuration menu.

In R13a.00, the current Issue of the document is checked against the assigned issue in the record and also the authorization of the user is checked for the selected action.

 The project Default interface will contain the toggle RELEASE ONLY FROM PRERELEASE (Y/N) to determine whether the document's status MUSt be "PreRelease" before Release operations can be performed. as well as list of files to be exported.

Operation

To invoke the utility:

 See the Project Defaults, Release/PreRelease in the Administration panel, for file location.

→→Run **harness exreleaseparam <*PRJ*> <*Document name*> <*Document RevLetter*> <*Action R/P/U*>.**

The procedure is performed and the document is updated.

The results and error/warning are printed in file:

/tmp/ex_release_<***PRJ***>**_**<***Date***>

1.2.3.6 Reports

General

The Reports utility is a process designed to produce reports externally for a specific document according the parameters in the command line. The External Report process performs the same functions on the document as the internal View function.

The user can produce several reports at a time by using the sum of the **<*option value*>**.

The report is produced and saved in the user private directory.

Operation

To invoke the utility run:

harness reports ***<prj> <report type> <queue> <document name> <option value>***

<document revision> <document status> <document type> <document subtype>

<include weight >

<prj>	the 3-letter project code
<report type>	0: standard report, 1:compare report, 2:SQL report, 3:length report
<queue>	the attached queue or -99
<document name>	the document name
<option value>	the types of report to be created
<document revision>	the document revision number or -1 for last revision
<document status>	the document status 0=open 1=released
<document type>	the document type number (see application table)(9 – for BTP)
<document subtype>	the document sub-type, or -1 if not applicable
<include weight >	0:no weight, 1:report includes weights (mandatory field since r17)

Report with Spare Pin: add +1 to option value

Report with Termination Code: add +2 to option value

Report with Authority: add +4 to option value.

Table 1: BTP/RBTP/PRBTP options:

id	Description	Option value
0	With Spare Pin	1
1	With Termination Code	2
2	With Authority	4
3	BTP Full Report	8
4	BTP Short Form	16
5	Battle Damage Report	32
6	Diameters	64
7	EO Component	128
8	Flat Form	256
9	Wire Short	512
10	Pin Sort	1024

11	Wire Sort	2048
12	Wire Designator Sort	4096
13	Wire Check	8192
14	Wire Cut And Stamp	16384
15	Wire splice	32768
16	Wire EO Report	65536
17	Wire Flat	131072
18	Part short	262144
19	Part Designator Sort	524288
20	Part - Part Number sort	1048576
21	Part Mating	2097152
22	Part EO Report	4194304
23	Part Flat	8388608
24	Length And Weight	16777216
25	Flat File Project Default	33554432
26	Pipe Form	67108864
27	Extended Wires	134217728
28	Wire Sort - Multi System List	268435456
29	Full Grouped BTP report	536870912
30	BTP Grouped Wire Sort report	1073741824

For example in order to produce the BTP Full Report (not including weight) run the command:

harness reports DEM *0 -99 BTP-123456-0001 8 1 0 9 -1 0*

If you want to produce several reports you have to set <option value> to the sum of the desired reports.

For example to produce the Wire Sort and the Part Designator Sort, enter: 526336 (2048 + 524288) for <option value>

1.2.3.7 External Reports

General

The External Reports utility is a process designed to produce reports externally for a specific document. The External Report process performs the same functions as the internal View function on that document.

The external_reports utility produces only ONE report at a time. The user will be prompted for different report types according the document type.

The report is produced and saved in the user private directory.

Operation

To invoke the utility run the command line:

→→ **harness external_reports <*PRJ*> < *document name* > < *document revision* or *-1* for Last Revision> <*Report Type* > <*Report kind*> <*XML format, Y/N*>**

or run the following line and insert the arguments:

harness external_reports

→Enter Project Code - <***prj***>

→Enter Document Name - < ***document name***>

→Enter Document Revision - **<*document revision*>** or ***-1*** for Last Revision

For BTP/RBTP/PRBTP:

Report Type:

0 - STANDARD_REPORT

1 - COMPARE_REPORT

2 - SQL_REPORT

3 - LENGTH_REPORT

4 - EXPORT_ASCII_FOR_3D

5 - EXPORT_PDM

6 - EXPORT_CATIA5_EWR

7 - EXPORT_3d_UG

8 - COMPARE_DIAMETERS

9 - EXPORT_CATIA4_E3D

10 - EXPORT_WIRES_CATIA5_EWR

11 - EXPORT_PARTS_CATIA5_EWR

12 - CHECK_BTP_DIAMETERS

13 - CHECK_BTP_DIFFERENCES

→Enter Report Type [**0-13**][**0**] - <**report type**>

If you chose 0 – Standard Report, you will prompt for the following:

Report Kind:

0 - Full Report

1 - List of Components

2 - Battle Damage Report

3 - Diameters

4 - EO (Components)

5 - Flat Form

6 - Short Wire Sort

7 - Pin Sort

8 - Wire Sort

9 - Connector Sort

10 - Check

11 - Cut and Stamp

12 - Splice List

13 - Wire EO Report

14 - Wire Flat

15 - Short Part Sort

16 - Reference Designator Sort

17 - Part Number Sort

18 - Mating Connector Discrepancies

19 - Part EO Report

20 - Part Flat Form

21 - Length & Weight

22 - Part Flat File per Project Defaults

23 - Pipe Line Form

24 - Extended Wires

25 - Wire Sort - Multi System List

26 - Full Grouped BTP report

27 - BTP Grouped Wire Sort report

→ Enter report kind [0-27][0]: <***report kind***>

If one of the report kinds: 14 - Wire Flat, 20 - Part Flat Form or 22 - Part Flat File per Project Defaults, is selected the following prompt will appear:

Do you want to save the report in XML format also **Y**[es]/**N**[o] [N]?

→Enter **Y** for XML format also.

See results in file /tmp/ExtReport_< ***document name***>.log and in your private directory.

1.2.3.8 User Operations

The new function involves the Part Specification, Part Occurrence, Wire Specification forms:

- ***Part Specification*** - (**Maintenance ⇨ Modify Libraries ⇨ Parts ⇨ Specifications...**)
- ***Part Occurrence*** - (**Project ⇨ Parts ⇨ Occurrences...**),

- ***Wire Specification*** - (**Maintenance ⇨ Modify Libraries ⇨ Wires & Types Spec. ⇨ Wire Spec. ...**)

1. When a user adds a new part or wire specification in the HarnesSys Library, then, if the part already exists in the external catalog, all the relevant data is copied to HarnesSys.

2. When a user uses Part Number-LOV in the Part Occurrence Form, all parts from HarnesSys Spec. Library and the External Catalog are displayed together. No difference is visible.

3. If a user selects a Part Number that does not currently exist in HarnesSys, the program automatically adds a HarnesSys Part Specification. An appropriate message is issued to the user.

 During creation of Parts List (BTP) reports or release, parts that are not in the ***part specification external catalog*** cause the following warning to be issued:

WARNING (WL-4711):

Part Number XXXXXX was not found in external part catalog.

2 DBA Utilities

In This Chapter:

2.1 Add a New Project

Utility name: add_project

This utility creates a new project, including the project definitions and database. The utility does not insert any data into the project.

To invoke the utility follow these steps:

→→Log-in to the **harness** account.

→ Run **harness add_project**

The following prompt appears.

Enter Oracle database user-name :

→Enter the Oracle database user-name and press <**CR**>.

The following prompt appears.

Enter Oracle database password :

→Enter Oracle database password and press **<CR>**.

The following prompt appears.

Enter project code :

→Enter the three character project code (upper case) and press **<CR>**.

The following prompt appears.

Enter Project Manager user-name for <PRJ> :

→Enter the (UNIX) user-name (the user/account authorized to enable other users) and press **<CR>**.

The following prompt appears.

Short description for project <PRJ> :

→Enter text describing the project (this short description will show up in the Open **7** Project Window) and press **<CR>**.

The following prompt appears.

Project external (Y/N) [N] ?

→Enter "**Y**" and press **<CR>** if the project is an external project.

The following prompt appears

Oracle Node to be updated [<@SERVER>] ?

→Enter a new node or and press **<CR>** or just press **<CR>** to confirm existing node.

The following prompt appears.

Updating database on <@SERVER> for <platform> machine ...

→**Choose Parent project for project <PRJ> from list:**

Local Project

0. SDP @TSN_TPS7D

1. ARL @TSN_TPS7D

2. DEV @TSN_TPS7D

3. DEM @TSN_TPS7D

4. F4T @TSN_TPS7D

5. CHK @TSN_TPS7D

6. EST @TSN_TPS7D

7. AMN @TSN_TPS7D

8. IAI @TSN_TPS7D

Enter your choice (**1-n**) [**0**] ?

→If you wish to adapt an existing project as the parent project, enter the number from the list and press <**CR**>.

The following prompt appears.

Parent project - <parentPRJ>

To maintain the project as an independent entity (local) just press <**CR**>.

The following prompt appears. **Project <PRJ> is local.**

When adapting a parent project,* NO *tables associated with the Part Specifications (about 15 tables) are created independently, but rather the child project uses the parent's tables.

When a parent project is adapted the following prompt appears.

Authorization to INSERT from project <PRJ> to project <parentPRJ> (Y/N) [N] ? -

→If you, as a DBA, wish to give the user the authorization to insert new items into the parent's tables, enter "**Y**" and press <**CR**>.

The following prompt appears.

Are you sure to give INSERT authorization (Y/N) [N] ?

→Enter "**Y**" and press <**CR**>.

The following prompt appears.

Authorization to UPDATE from project <PRJ> to project <parentPRJ> (Y/N) [N] ? -

→If you, as a DBA, wish to give the user the authorization to update existing items in the parent's tables, enter "**Y**" and press <**CR**>.

The following prompt appears.

Are you sure to give UPDATE authorization (Y/N) [N] ?

→Enter "**Y**" and press <**CR**>.

The child project may be authorized to Add and/or Update the parent tables. However, under no circumstances may a child project erase entries in the parent tables.

The following prompt appears.

Do you want Small/Medium/Large/Extra tables definitions (S/M/L/E/q) [M] ?

→Enter the size of database you desire and press <**CR**>.

The following prompt appears.

Do you use ANALYZER functions No/Yes/A lot/Extra (N/Y/A/E/q) [Y] ?

→Depending on the frequency of usage of analyzer functions, select an option to determine the size of the analyzer tables and press **<CR>**.

The following prompt appears.

Do you use Manufacturing functions No/Yes/A lot/Extra (N/Y/A/E/q) [Y] ?

→Depending on the frequency of usage of manufacturing functions, select an option to determine the size of the manufacturing tables and press <CR>.

When done, the following message appears.

Directories for project <PRJ> created.

When done, the following message appears.

Tables for project <PRJ> created. HARNESSDB updated for project <PRJ>

=== Done adding project <PRJ> ===

If an error occurs during the creation of the tables the following message appear and the process stops.

Error occurred during create of <PRJ> tables. Check file

/harness/dbsclient_create_<PRJ>.lis Deleting client ...

2.2 Copy a Project

Utility name: copy_prj

This utility replicates an entire project with a different name.

The project is copied into an Oracle User account which **MUST** be empty for the

project to be inserted.

To invoke the utility, follow these steps:

→→ Log-in to the **harness** account.

→ Run **harness copy_prj**

The following prompt appears.

Enter FROM PROJECT code :

→ Enter the Source Project name and press **<CR>**.

The program checks the existance of such a project while the following prompt appears.

Checking project <PRJ> ...

If the project does not exist, the following prompt appears:

Project <PRJ> doesn't exist. Exiting.

and the program recycles to the **Enter FROM PROJECT** prompt.

Otherwise the following prompt appears.

→ **Enter TO PROJECT code (3 pos.) :**

→ Enter the Target Project name and press **<CR>**.

The following prompt appears.

Enter Oracle User :

→ Enter the Oracle user name and press **<CR>**.

The following prompt appears.

Enter Oracle Password :

→ Enter the Oracle user password and press **<CR>**.

The following prompt appears.

Enter Project Manager :

Enter the project manager name and press **<CR>**.

The following prompt appears.

Enter Project Description :

→ Enter a description and press **<CR>**.

The program checks the target project and the following prompt appears.

Checking project <PRJ> ...

If the project is not previously defined, the following message appears.

Project <target PRJ> is not defined. Export DB data from <source PRJ> ...

and then the imported tables are listed one by one.

```
importing HR_ZIANTS's objects into HRT45
. importing table              "ANAL_CONNECTOR"        912 rows imported
. importing table                   "ANAL_PATH"       1384 rows imported
. importing table                   "ANAL_TEST"          3 rows imported
. importing table                  "APPLICATION"        39 rows imported
. importing table                         "AREA"         5 rows imported
. importing table                   "AUTHORITY"          5 rows imported
. importing table             "BASENUM_CONVERT"        143 rows imported
. importing table                      "BINCODE"         43 rows imported
. importing table                  "BINCODE_AWG"        136 rows imported
. importing table               "BINCODE_RATING"          0 rows imported
. importing table                 "BINCODE_TOOL"          0 rows imported
. importing table                     "BINGROUP"          3 rows imported
. importing table                        "BRAID"          3 rows imported
. importing table                 "BRAIDY_COLOR"         12 rows imported
. importing table                  "BRAID_RULES"          7 rows imported
. importing table                        "CABLE"          0 rows imported
. importing table            "CIRCUIT_ANALYZER"       1612 rows imported
. importing table               "CIRCUIT_ORDER"         29 rows imported
. importing table                  "CLASS_NOTE"          6 rows imported
. importing table                        "CODE"          7 rows imported
. importing table                  "CODE_DETAIL"         18 rows imported
. importing table                        "COLOR"         10 rows imported
. importing table                    "CONDUCTOR"          0 rows imported
. importing table                "CONSOLID_FIELDS"       89 rows imported
. importing table                     "CONTACT"        2084 rows imported
. importing table          "CONTACT_CONNECTION"         36 rows imported
```

When all tables are copied the following message appears.

About to enable constraints...

Import terminated successfully without warnings. Copying flat files ...

Project CHK was copied to project D17

2.2.1 Special case: Copy Project and Delete Irrelevant Doc.

HarnesSys™ does not have functions for duplicating BTPs in a normal project because the wires must have SWDs linked to them.

For special cases, as a workaround, the user might duplicate the entire project and then remove irrelevant documents.

HarnesSys™ has a delete document tool that must be operated from user Harness. This tool works under some limitations, therefore the user should do the following:

a. When deleting "parent" (Folder,MBTP,BTP) and "child" documents first make sure to delete the "child" documents'. Otherwise a messages like "Document is component of another documents…" will appear.
b. If not all the documents were deleted after the first running of the script, the user must run the script once more.

 Not all the documents can be deleted by the command:

" harness del_document <PRJ> <Doc name>"

The Retrofit documents may require special deletion functions. When RMD and RBTP are exist, the user must use the following functions:

harness delete_rmd_document

harness delete_rbtp_document

To duplicate the entire project and remove irrelevant documents:


Copy source project.

harness copy_prj


Get full list of documents.

Classic :Configuration → Query → Top.DrawingReport

Next Look : User Function → edmrep_app

Or retrieve from the database:

SELECT CITYPE,NAME,DRAWNUM,DASH,DOCSTATUS,DOCISSUE FROM TOPDRAWING ORDER BY CITYPE DESC, NAME;


Choose from the above list (result of step 2) the irrelevant documents and create a script:

#!/bin/csh -f

harness del_document <PRJ> <Doc name>

harness del_document <PRJ> <Doc name>

harness del_document <PRJ> <Doc name>


Run the script from user **harness**


Check the result files for every deleted document (to see that they were deleted successfully).

/tmp/del_doc_<Doc Name>.lst

2.3 Copy Sets of Tables from One Project to Another

Utility name: copy_tables

This utility copies the contents of a set of tables from one project to another. The utility does not copy unique values, existing in the target project, with the exception of the NOTE/NOTETYPE tables (option # 4), where the entire content of the source table overwrites the entire content of the target table.

To invoke the utility follow these steps:

1. Log-in to the harness account.

2. Run harness copy_tables.

The following prompt appears.

Enter FROM PROJECT (3 CHAR.) in upper case:

3. Enter the Source project name and press <CR>

The program checks the existence of such a project while the following prompt appears.

Checking project <PRJ> ...

If the project does not exist, the following prompt appears:

Project <PRJ> doesn't exist. Exiting.

and the program recycles to the **Enter FROM PROJECT** prompt.

Otherwise the following prompt appears.

Enter TO PROJECT (3 CHAR.) in upper case :

4. Enter the Target Project name and press <CR>.

The program checks the existence of such a project while the following prompt appears.

Checking project <PRJ> ...

If the project does not exist the following prompt appears

Project <PRJ> doesn't exist. Exiting.

and the program recycles to the **Enter FROM PROJECT** prompt.

Otherwise the Table Selection prompt appears.

```
Select one of the following to copy:
```

1. HIRE_SEOKSC, Li 1 KtL_SET
2. HIRE JSPEC,HIRE JSREC_COLOR,CABLE
3. TERMINATOR
4. NOTES/NQTETYPE (Motes in EST will be deleted before copying)
5. SYMBOL
6. £PEC1AL_DH£1GNATUK
7. TEST_MACHINE_TYrE,TEST_MACHINE_SETUPtTEST_HACHIHE_LATCH,LATCH_CODES.
8. FORMAT_FIELD,FORHATJSUBFILED - format control (in EST will be deleted before copying)
9. AREA

10. PROJECT DEOAULTS [PROJECT Labis In EST will be deleted baiure uupyiny)

11. BRAIDs (BRAID,BRAIDY_COLORtBRAID_RULE£)

12. New TERH CODEs (HILj5TDS,TERM_C0DES,rERM_HAN_AHG,TERH_GAUGELE££jnRES,HIRE_ ACCON0DATION,GAUGE_CHA,MIL_U5AGE,EXPERT_WIRES2LUG, nONT_KFY_GROIIPSf CONT_K?:Y_fiROIJP_OPT TnWS, CnHT_Kr:Y_CTRni]P_nO>]TAnTS, TCX)I S, A] ,TEKN_TERI1_PAK,r_NUH, COMB INK D_TEKH_COI)K_COMP)

13. PDH_RERORTS_LIST

99. EXIT

→Enter your choice and press ENTER

5. Enter your choice and press <CR>.

The following warning appears.

```
You are going to copy table TERMINATOR
from project DEM to project EST.
(duplicate row will not be copied).
Continue? (Y[es]/N[o]) [ Y ] 
```

6. Reply with "Y" or "N", then <CR>.

If the answer is "N(o)" the program recycles to the Table Selection Menu otherwise The following is displayed:

```
Copying ...

-----------------------------------------------------------------
  COPY operation of tables TERMINATOR is completed.
  Check file /tmp/imp.error
-----------------------------------------------------------------
```

and the program recycles to the Table Selection Menu.

7. Enter "99" to exit the program.

2.4 Remove Released Documents

Utility name: deldocument

This utility enables the DBA to erase documents that were released at least once.

The utility can erase a document that is not linked to any other documents. At the moment, the utility applies to the following applications ONLY;

- Wire Diagram

Only if no individual wires from the list were released.

- Wire List.

- Manufacture Build to Package.
- ETA Wire List.
- Part List.

The utility erases the document and all it's links such as notes and NUDs.

To invoke the utility, follow these steps:

1. Log-in to the Harness account.

2. Run **harness del_document**

The following prompt is displayed;

Enter project Code:

3. Enter the three character project code (upper case) and press **<CR>**.

The program checks the project.

If the project does not exist the following message appears;

Project doesn't exist. Exiting.

Otherwise, the following prompt appears.

Enter document name (for deletion):

4. Enter the document name and press **<CR>**.

The program checks the document, the document is deleted and the following message appears;

Check file /tmp/del_documents.lst

2.5 Remove RMD Document

Utility name: delete_rmd_document

This utility enables the DBA to erase the RMD document and all links such as notes.

There is a possibility that the RMD appears in the part occurrence effectivity as a NUD. When this RMD is deleted, the part will contain an invalid NUD in its effectivity.To prevent this define the deleted RMD again.

To invoke the utility follow these steps:

1. Log-in to the Harness account.

2. Run **harness delete_rmd_document**

The following prompt is displayed;

Enter project Code:

3. Enter the three character project code (upper case) and press **<CR>**.

The program checks the project.

If the project does not exist, the following message appears;

Project doesn't exist. Exiting.

Otherwise, the following prompt appears.

Enter Retrofit Master Document name (for deletion):

4. Enter the document name and press **<CR>**.

The program checks the document and the following message appears;

WARNING: You are about to delete Retrofit Master Document <document name> and all its contents. Are you sure (Y/N)? \5*S* Enter Y and press **<CR>**.

The document is deleted and the following message appears;

Deleting wires and documents of RMD <document name>

PL/SQL procedure successfully completed.

SUCCESS: All files and data relating to Retrofit Master Document <Document name> have been deleted.

2.6 Remove RBTP Document

Utility name: deleterbtpdocument

This utility enables the DBA to erase the RBTP document and all it's links such as notes.

To invoke the utility follow these steps:

1. Log-in to the Harness account.

2. Run **harness delete_rbtp_document**

The following prompt is displayed;

Enter project Code:

3. Enter the three character project code (upper case) and press **<CR>**.

The program checks the project.

If the project does not exist the following message appears;

Project doesn't exist. Exiting.

Otherwise, the following prompt appears.

Enter Retrofit BTP Document name (for deletion):

4. Enter the document name and press **<CR>**.

The program checks the document and if the document does not exist or it is not a RBTP application, the following message appears;

ERROR: <document name> is not a Retrofit BTP Document.

Otherwise, the following prompt appears.

WARNING: You are about to delete Retrofit BTP Document <document name>. Are you sure (Y/N)?

5. Enter Y and press **<CR>**.

The document is deleted and the following message appears;

Delete Document of RetBTP <document name>.

PL/SQL procedure successfully completed.

SUCCESS: All files and data relating to Retrofit BTP Document <Document name> have been deleted.

See results in file /tmp/del_<document name>.log

2.7 Remove RBTP Last Open Document

Utility name: delete_rbtp_last_open

This utility enables the DBA to erase the Last Open revision of the RBTP document and all it's links such as notes.

This utility will revert the RBTP to the last released revision.This utility only processes RBTPs that were released at least once.

To invoke the utility, follow these steps:

1. Log-in to the Harness account.

2. Run **harness delete_rbtp_last_open**

The following prompt is displayed;

Enter project Code:

3. Enter the three character project code (upper case) and press **<CR>**.

The program checks the project.

If the project does not exist the following message appears;

Project doesn't exist. Exiting.

Otherwise, the following prompt appears.

Enter RBTP Document name (for deletion last open revision):

4. Enter the document name and press **<CR>**.

The program checks the document, and if the document was never released, the following message appears;

ERROR: No OPEN Retrofit BTP (once released) <document name> in project.

Otherwise, the following prompt appears.

WARNING: You are about to delete Retrofit BTP Document <document name>. Are you sure (Y/N)?

5. Enter Y and press **<CR>**.

The document is deleted and the following message appears;

Delete Last Open Revision of RetBTP <document name>.

PL/SQL procedure successfully completed.

See results in file /tmp/del_<document name>.log

2.8 Backup a Project

Utility name: export_prj

The utility **export_prj** enables the user to backup an entire project including all it's files, graphic, flat and ORACLE DB data.

This utility may be used to transport a complete project via a magnetic media.

This utility is a heavy disk-space consumer. Using this utility too often can clog-up the disk quickly. It is not designed as a periodical backup tool. Make sure the compressed files AND sub-directories are removed after use.

To invoke the utility follow these steps:

1. Log-in to the Harness account.

2. Run **harness export_prj**

   The program requests the name of the project to backup (export);

   Enter project code for Export:

3. Enter the project's three character project code (upper case) and press **<CR>**.

   The program checks the project and the following message is displayed;

   Checking project <PRJ>...

   If the project does not exist the following message appears;

   Project <PRJ> doesn't exist. Exiting.

   Otherwise, the program creates the subdirectory export_projects for the backup and compresses all the relevant files into the subdirectory. The following message appears;

```
Create  sub directory for export project EST ...
Export EST Database and compress ...
```

   The file names are echoed on screen as they are being compressed.

   Tar <PRJ> all files and compress

   The subdirectory created is:

   export_projects/<PRJ>_yyyy-mon-dd-hh:mm:ss

   The two compressed files are;

the data base : **expdat_dmp_<PRJ>.Z**

the project files : **all_files_<PRJ>.Z**

```
a hp/DEM12873
a hp/DEM12886
a hp/DEM12887
a hp/DEM12888
```

```
a hp/DEM12889
a hp/DEM12890
a hp/DEM12891
a hp/DEM12895
a hp/DEM12896
a hp/DEM12900
a hp/DEM12907
a hp/DEM12908
a hp/DEM12910
a hp/DEM12911
a hp/DEM12917
```

2.9 Remove a Project

Utility name: del_project

This utility **del_project** removes a project ENTIRELY, including the project definitions and database.

The project may not be restored with the import_prj utility unless the add_project utility is first run to create the project (project definitions).

To invoke the utility follow these steps:

1. Log-in to the harness account.

2. Run harness del_project

The following prompt is displayed.

```
This script is for internal use only.
```

3. Enter the three character project code (upper case) for the project to be deleted and press <CR>

The following prompt is displayed.

Checking for project = <PRJ> on node = <@SERVER>.

If the project code is not recognized, the following message is displayed;

Project <PRJ> doesn't exist. Exiting.

If project exists, the process checks if the project is a parent of another projects, if yes:

The following prompt is displayed:

```
------------------------------------------------------------------------
Project DEM is the parent of the following projects:
   SPF


These projects use the tables (Part Spec, Part Description, etc...)
of Project DEM.
Before deleting Project DEM either:
   1. Delete all these projects: SPF


            or
   2. Make these projects independent, i.e.,
      Copy the tables into each project.
      Use:     harness make_local
========================================================================
```

If the project is not parent of another project, the process continues;

Project tables on <@SERVER> will be deleted.

Project directory on /harness

will be deleted.

Do you really want to delete project <PRJ>

(Y/N) [N] ?

4. Enter "Y" and press <CR>.

The following messages are displayed:

Dropping tables

from = <USER> on node = <@SERVER>

Deleting entries for <PRJ> from HARNESSDB

Removing directory tree for project = <PRJ>.

***** del_project completed *****

2.10 Execute an SQL Script

Utility name: exec_sql_script

This utility **exec_sql_script** permits the DBA to run other scripts without having access to the Oracle user-name and password. The results are reported in the **result.lis** file.

To invoke the utility follow these steps:

1. Log-in to the harness account.

2. Run harness exec_sql_script

The following prompt is displayed;

Enter project Code:

3. Enter the three character project code (upper case) and press <CR>.

The program checks the project.

The following prompt is displayed;

Checking project <PRJ> ...

If the project does not exist, the following message appears;

Project <PRJ> doesn't exist. Exiting.

Otherwise, the following prompt appears.

Enter SQL script name:

4. Enter the name of the sql script to be run and press <CR>.


Script should have the .sql suffix.

The following message appears.

Ok. See results in file /tmp/result.lis

2.11 Restore a Project

Utility name: import_prj

The utility **import_prj** enables the user to restore the entire project that was compressed and stored, including all its files; ORACLE database, graphic and flat files.


The project must exist in order for the utility to work because it searches the project definitions to restore the data.

To restore the project follow these steps:

1. Log-in to the Harness account.

2. Run **harness import_prj**

The program requests the name of the project to restore (import);

Enter project code for Restart:

3. Enter the project's three character project code (upper case) and press <**CR**>.

The program checks the backups and displays the list of backup files consecutively numbered. (The last option number is quit - and it is presented as the default option).

```
Checking project DCR ...
Choose Project Version for import :
```

1. ./DCR_1998-May-12:14:50

2. Quit

```
Enter your choice   (1-2)   [2]   ?  1 Your choice:   1
*** Performinci restart DCR from version  ./DCR_1998-Mav-12:14:50
***
```

4. To quit at this point press the number representing the Quit option then press <CR>.

Otherwise press the number representing the option selected then press <CR>

The following message appears.

user= <USERNAME> node= <@SERVER> prj= <PRJ>machine= <machine>

Then the program requests confirmation for continuation.

Restart <PRJ> files on <machine> (y/n) [n] ?

5. Enter "Y" to restart restoration of project files then press <CR>.

At this point a two stage restoration process begins;

- The first - restoring the project files.
- The second - restoring the project database tables. Each one of the stages may be run independently of the other.

The program clears all current project files, then restores the files from the stored version and the file names are echoed on screen.

Clearing all <PRJ> files from <PRJ>/<machine> ... Copying <PRJ> files from version ...

do the combined zcat piped to tar ...

```
X hp/TFTI, 312995 bytes, 612 tape blocks
hp/TFTIGOO,   7G63 bytes,14 tape blocks
hp/TFT1G01,   7G63 bytes,14 tape blocks
hp/TFT10O2,   17577 bytes, 35 tape blocks:
hp/TFT 1(303, 1877  bytes4, tape blocks
hp/TFT1Q04,   7063 bytes,14 tape blocks
hp/TFT1Q05,   7G63 bytes,14 tape blocks
hp/TFTIGG/,   fG63 bytes,14 tape blocks
hp/TFTIGOfl,  6995 bytas,14 tape blocks
hp/TFT1G09,   6995 bytes,14 tape blocks
hp/TFT1G11,   7C63 bytes, 14 tape blocks
hp/TFT1Q12,   7G63 bytes,14 tape blocks
hp/TFT1G13,   7G63 bytes,14 tape blocks
hp/TFT1Q15,   7G63 bytes,14 tape blocks
```

```
hp/TFT1G16,    7G63 bytes,14 Lape blocks
hp/TFT1G1/,    1S199 byte,36 tape blocks
```

If "n " is selected, the program continues to the next stage.

The following message appears.

Update <PRJ> database on <@SERVER>

(y / n) [n] ?

6. Enter "y" to restart restoration of project database tables then press <CR>.

The program drops all current project database tables and then restores the tables from the stored version.

Dropping tables from<PRJ> *HarnesSys* database

Importing initial database <PRJ> from version ...

The table names are echoed on screen.

```
. importing table                    "WIRE"       4655 rows imported
. importing table                   "WIREM"       1176 rows imported
. importing table                   "WIRER"         93 rows imported
. importing table                   "WIRET"       5700 rows imported
. importing table       "WIRE_ACCOMODATION"         10 rows imported
. importing table              "WIRE_NOTE"          12 rows imported
. importing table          "WIRE_NOTE_RET"           0 rows imported
. importing table              "WIRE_SET"         108 rows imported
. importing table         "WIRE_SET_DESC"           3 rows imported
. importing table              "WIRE_SPEC"         33 rows imported
. importing table        "WIRE_SPEC_COLOR"           0 rows imported
. importing table              "WIRE_TYPE"         40 rows imported
. importing table       "WRK_PKG_SET_DESC"           1 rows imported
```

When all files are transferred, the following message is displayed.

Import terminated successfully without warning

***** Restart <PRJ> completed. *****

The size of the file created by the export process may cause *XMT* storage problems. Make sure that both the Export and Import of a file is

performed in the same version of *HarnesSys.*

2.12 Load Analysis Data Export

Utility name: load_analysis

This utility **load_analysis** creates a Visual Basic export file in the user's private directory, which may be imported into MicroSoft Excel Workbook with the Load Analysis data from the Oracle data base.

The Load Analysis functionality in ***HarnesSys*** enables the user to specify:

1. The loads in his electrical system, their behavior, effectivity and applicability to the various modes of flight.
2. The power distribution busses in the aircraft, and their characteristics.
3. The modes of flight that define the operational envelope of the aircraft.
4. The power sources in the aircraft, both primary and secondary, and their characteristics.
5. Default averaging intervals for the project, both AC and DC.

Note that system properties known at run time e.g. Oracle target, Java path will not be requested.

To invoke the utility follow these steps:

1. Log-in to the harness account.
2. Run harness load_analysis

   The following prompt appears.

   Enter Project Name :
3. Enter the project three character (upper case) code and press <CR>.

The program checks the project.

If the project does not exist the following message appears;

<project> is a wrong project name.

Otherwise, the following prompt appears.

4. Enter Effectivity : Enter the effectivity row e.g.

   <**PRJ**><**BLOCK**><**from**><**cob**><**to**>

The following prompt appears.

```
>>>>> Gather the project Averaging Intervals!
>>>>> Starting device processing!
Part Number= PTP_BOX_PN_111; Designator= #B1101; Key= 9047
Part Number= PTP_BOX_PN_222; Designator= #B1102; Key= 9048
Part Number= PTP_BOX_PN_222; Designator= #B1103; Key= 9049
Part Number= 5M1707-001; Designator= 00-02; Key= 8702
Part Number= 011-110-IRENA-1; Designator= 00-SPR1325; Key= 8954
Part Number= 55A0112-24-5LO; Designator= 0001; Key= 8624
Part Number= 55A0112-24-5LO; Designator= 0001-01; Key= 8656
Part Number= 5M1694-002; Designator= 001-IRENA; Key= 9021
Part Number= 00-3; Designator= 001-TEST-RET; Key= 9419
Part Number= 5M1694-005; Designator= 005-IRA; Key= 7863
Part Number= SSSSSS; Designator= 007-PP; Key= 9250
Part Number= TTT; Designator= 007-QQ; Key= 9249
Part Number= ZZZZZZ; Designator= 007-WW; Key= 9251
Part Number= 5M1694-005; Designator= 01-01-01; Key= 8678
Part Number= 5M1694-005; Designator= 01-01-01; Key= 8418


Length of listOiDevices Vector: 12
```

>»» Starting ili^ht condition processing!

Flight condition; 1 Description; C1-CROUP MAINTENANCE

Device occ_kcy; 78S3 Part number: 5H1694-005 Designator; QG5-IRA Hif>h/Lou Load:

HIGH

```
Flight condition; 2 Description; G2-CALIBRATION
```

»>!>> &I.H]'t_lT1£ **IlUK pi'0(J«KKlTlgt**

*Bue [lama; fcMHKGfcNCY BUS DaKurlpLiun: Luada supplied during a power failure AcDu

; D

```
'Bus name: LEFT DISTRIB* BUS Description: Loads supplied on left
side of aircraf
t AcDc: D
```

'Bus name: BATTERY BUS Description; Loads applied directly to battery AcDci D

'Device nnn_keyi H571 Part, number: M19012/01-3^03 Ttesi gna tor: 1B-7 RA

'Device uc;u_key; /86U Part number: L.M1&<M-HDL. DenIynaLor: DOLi-ikA

'Device occ_key: 11023 Part numbers C200-LQAD-101 Designator; G20G-LQAD-1G1

Creating summary row for: BATTERY BUS

'Bus name; RIGHT DISTRIB. BUS Description; Loads supplied on right side of aircr

aft AcDc: D

```
'Bus name: LEFT AVTOH./ACC. BUS Description; Avionics and
accessory loads on lef
t side a£ aircrafL AcDc: A
```

*Bue uaiue; RIGHT AV1UN/ACC. BUS Description: Supplier aviuiilta and attsssury lua

ds on riftht side of aircraft AcDc: D

'Bus name; LEFT MAIN BUS Description; Main supply bus for regular loads on left

side of aircraft AcDc: D

'Bus name; RIGHT T-fATM TSTIS Inscription; Suppl ies regular loads of right, side of ***a***

ircraft AcDc! D

A Visual Basic file JdaToExcel.basJ is saved in DEM private directory.

2.13 Link Existing Projects

Utility name: trans_tables

The utility **trans_tables** enables the DBA to link a project as a child, to another existing project as a parent.

The parent project tables associated with the Part Specifications (about 15 tables) are used by the child project and depending on the authorization of the child project whether it has/doesn't have permission to update or insert entries. Under no circumstances can a child project delete entries from the parent tables.

 IMPORTANT - This utility may also be used to simply transfer data from the child to the parent project. This is accomplished by answering the final question in the negative (N).

Do you want to use common tables (fromproject <parentPRJ) instead of local (<PRJ>) tables (Y/N) [N]?

To invoke the utility follow these steps:

1. Log-in to the harness account.

2. Run harness trans_tables

The following prompt appears.

Enter From Project Code :

3. Enter the child project three character (upper case) code and press <CR>.

The following prompt appears.

Enter From Project Netlink [<@SERVER>] :

4. Enter the new child project netlink and press <CR>, or just press <CR> to accept the default.

The following prompt appears.

Enter To Project Code :

5. Enter the parent project three character (upper case) code and press <CR>.

The following prompt appears.

Enter To Project Netlink [<@SERVER>] :

6. Enter the new parent project netlink and press <CR> or just press <CR> to accept the default.

The following message appears.

Transfer Common table data from <PRJ><@SERVER> to <parentPRJ><@SERVER>

Then the following prompt appears.

Do you want to see only the differences between project <PRJ> and <parentPRJ> (Y/N) [N] ?

A "Y" reply produces a report displaying the differences between like items - i.e. the same designator with different information. The report may be used to check and correct, at a later time. The following prompt appears:

A "N" reply continues the process.

7. Enter the reply and press <CR>, or just press <CR> to accept the default.

The following prompt appears.

Do you want to transfer tables data from project <PRJ> to <parentPRJ> (Y/N) [N] ?

8. Enter the reply and press <CR>.

A "Y" reply will cause the data from the child project to populate the parent project tables. A "N" reply will not add the data from the child project to the parent project tables.

If the reply is "**Y**" the data is transferred and the following is displayed.

```
Transfer Part Specification...
Transfer Part Description...
Transfer Part Spec Assembly...
Transfer Part Mating Connector,
Transfer Vendor...
Transfer Shell...
Transfer Contact...
Transfer Contact Connection...
Transfer Pinbincode...
Transfer Bincode...
Transfer Bincode AWG...
Transfer Bincode Tool...
Transfer Bincode Rating...
Transfer PPN...
Transfer Rating...
Transfer Tool...
```

When through, the following message appears.

See differences between local <PRJ> and global <parent PRJ> tables in file /tmp/transfr_report_diff.txt

Then the following prompt appears.

Do you want to use common tables

(from project <parentPRJ>) instead of local (<PRJ>) tables (Y/N) [N] ?

9. Enter the reply and press <CR> or just press <CR> to accept the default.

The following message appears.

Data from project <PRJ> was copied to appropriate tables in project <parentPRJ>.

If the reply was "**N**" the child project retains its own tables and the message that follows is.

Project <PRJ> uses its local tables.

Otherwise, if the reply was "**Y**" the child project will use the parent project tables and the following prompt appears.

Do you want to erase (drop) the local tables

or create synonymous tables for future

restore (LOC_<table_name>)? Drop (Y/N) [N] ?

10. Reply "**Y**" and press **<CR>** if you do not want to save the tables the child project is currently using for possible future restoration due to separation of projects. Reply "**N**" or just press **<CR>** if you think that in some future date the separation of parent and child projects is possible and you wish to save the child project's tables as they currently are, for that time.

A "**N**" reply saves the current local tables with the LOC prefix (LOC_<table_name>).

The following prompts top off the series.

Authorization to INSERT (Y/N) [N] ? Authorization to UPDATE (Y/N) [N] ?

 When the child project has a parent project, i.e. the common tables used by both are the parent project tables, a new parent may not be selected for the child unless the utility make local, separating the two, is run first. The following message is displayed:

Project (from) <PRJ><@SERVER> already has a parent project: <parentPRJ><@SERVER>

2.14 Separate Parent/Child Databases

Utility Name: make_local

This utility **make_local** breaks the link between linked parent and child projects rendering the child project independent, allowing the user to choose between saved synonymous tables and a copy of the parent's tables.

 If local tables were not previously saved, the global tables are copied and used as local.

To invoke the utility follow these steps:

1. Log-in to the Harness account.

2. Run harness make_local

The following prompt appears. **Enter Project Code :**

3. Enter the child project three character (upper case) code and press <CR>.

The following prompt appears.

Enter Project Netlink [<@SERVER>] :

4. Enter the project netlink and press <CR> or just press <CR> to accept the default.

The following message appears.

Do you want to recreate old tables (PART SPEC, PART DESCRIPTION ... etc.) or to copy these tables from parent project <parentPRJ>?

Recreate (Y/N) [N] ?

5. Enter a reply and press <CR> or just press <CR> to accept the default.

An "**N**" reply will cause the automatic copying of the current parent ^ project's tables and adapting them as the projects own.

A "**Y**" reply will restore the tables from stored tables with prefix "LOC".

These tables were saved from the project's old tables before linking to the parent project.

The project is now stand-alone and the following message appears.

Project: <PRJ><@SERVER> does not have parent project'

2.15 Change License Parameters

Utility Name: license

This utility permits the DBA to change the licensing parameters.

```
product Name  ;     HarnesSys
Site Code     ;     Development
Expiration Date     :     31/12/1999
Checksum ;     ssyol
HARNESSDD pwd :     Crn"*
```

The License File (~/harness/dat/license.dat)

To invoke the utility follow these steps:

1. Log-in to the **harness** account.

2. Run **harness license**

You must proceed with extreme caution.

The list of option is presented.

```
Options  :
```

1. Update HarnesSys LICENSE file

2. Change HARNESSDB password
3. Change HARNESSDB password for OTHER LICENSE file
4. Add HARNESSDB password to LICENSE file

q. Exit the program ?

2.15.1 Update HarnesSys License file

The utility updates the license file (**~/harness/dat/license.dat**) with parameters received from ***HarnesSys***.

The two parameters normally updated with the data received from the developer are the Checksum which is encrypted and the expiration date. The password is updated using another option of the utility.

1. Select option 1 from the list of options and press <CR>.

   The following prompt appears.

   Key in new HARNESSDB license code ?

2. Enter the new code (Checksum) received from the developer and press <CR>.

   The following prompt appears.

   Key in new HARNESSDB license code again for verification?

3. Enter the code again - for verification, and press <CR>.

   The following prompt appears.

   Key in new HARNESSDB license date (DD/MM/YYYY) ?

4. Enter the date received and press <CR>.

The code is scrambled and the new string is placed in the file that replaces the old file.

The following message appears.

Now copy /tmp/license.dat to ~/harness/dat/license.dat

2.15.2 Change HarnesSys Database Password

This utility is used to change the password for the database.

1. Select option 2 from the list of options and press <CR>.

   The following prompt appears.

   Key in new HARNESSDB passwd

2. Enter the new password and press <CR>.

   The following prompt appears.

Key in new HARNESSDB passwd again for verification?

3. Enter the new password again - for verification, and press <CR>.

The following message appears.

New Password file created

2.15.3 Change HarnesSys Database Password for Multiple Sites

This utility is used to change the password for the database.

1. Select option **3** from the list of options and press **<CR>**

2.15.4 Add HarnesSys Database Password to License File

This utility is used to initially enter a password for the database.

1. Select option 4 from the list of options and press <CR>.

The following prompt appears.

Key in new HARNESDB passwd

2. Enter the new password and press <CR>.

The following prompt appears.

Key in new HARNESSDB passwd again for verification?

3. Enter the new password again - for verification, and press <CR>.

The following message appears.

New Password file created

2.16 Modify Plotter Parameters

Utility Name: plotsetup

The DBA is able to change the default format of the Plotter File.

To invoke the utility follow these steps:

1. Log-in to the harness account.
2. Run harness plot_setup

The following prompt appears.

Plot types:

1. **CGM DOD**
2. **cgm:clear_text**

3. **ADM**
4. **HPGL2**

q - Quit Select Plot type [q] :

where:

Plot Type	Description
CGM DOD	Compute graphic Metafile. Standard for the Department of Defence.
CGMCLEARTEXT	Compute graphic Metafile. Non-DOD Standard. Advantage - easy to read (ASCII format).
ADM	For Gerber-ADM non-dimensional plotters.
HPGL2	HP Graphic Library. Standard for HP plotters and emulators.

3. Select an option and press <CR> or just press <CR> to select the defaulted Quit option.

The local environment is altered to the desired option, and following message appears.

Modifying hr local environment to have

HR_PLOT_MODE~set to <Plot_File_Type>.

2.17 Reset Project SDP

Utility Name: restart_sdp

The utility **restart_sdp** enables the DBA to reset the SDP project to a point prior to modifications.

This utility is particularly useful to the system checker, where he can conduct tests on the SDP project, and reset the project to run new tests.

To invoke the utility follow these steps:

1. Log-in to the harness account.

2. Run harness restart_sdp

The following prompt appears.

***** Performing restart_sdp *** user = <USER> node = <SERVER> prj = <PRJ> machine = <machine>**

Then the following prompt appears.

Restart dat files on <machine> (y/n) [n] ?

3. Enter a reply and press <CR> or just press <CR> to select the default.

The following prompt appears.

recreating SDP symboljibrary ... Restart SDP files on <machine> (y/n) [n] ?

4. Enter a reply and press <CR> or just press <CR> to select the default.

The following prompt appears.

Clearing all SDP files from SDP/hp... Copying SDP files from original ... Update database on <SERVER> (y/n) [n] ?

5. Enter a reply and press <CR> or just press <CR> to select the default.

The following prompt appears.

Updating database on <SERVER> ... Dropping tables from *HarnesSys* database ...

If any tables, sequences or views still remain, the following message appear:

The remaining items have to be removed using SQL.

Otherwise the following messages appear.

Importing initial database ...

importing HRSDP's objects into HRSDPImport

importing	table	ANAL_CONNECTOR"	0.0	rows	imported
importing	table	ANAL_PATH"	0	rows	imported
importing	table	ANAL-TEST"	34	rows	imported
importing	table	APPLICATION"	14	rows	imported
importing	table	AREA"	0	rows	imported
importing	table	AUTHORITY"	25	rows	imported
importing	table	BINCODE"	85	rows	imported
importing	table	BINCODE-AWG"	0	rows	imported
importing	table	BINCODE-RATING"	0	rows	imported
importing	table	BINCODE-TOOL"	23	rows	imported
importing	table	BINGROUP"	0	rows	imported
importing	table	BRAID"	7	rows	imported
importing	table	BRAIDY-COLOR"	7	rows	imported
importing	table	BRAID-RULES"	0	rows	imported
importing	table	CABLE"	0	rows	imported
importing	table	CIRCUIT-	0	rows	imported

		ANALYZER"			
importing	table	CIRCUIT-ORDER"	0	rows	imported
importing	table	CLASS-NOTE"	5	rows	imported
importing	table	CODE"	16	rows	imported
importing	table	CODE-DETAIL"	10	rows	imported
importing	table	COLOR"	0	rows	imported
importing	table	CONDUCTOR"	0	rows	imported
importing	table	CONSOLID-FIELDS"	1224	rows	imported
importing	table	CONTACT"	0	rows	imported
		CONTACT-CONNECTION"		rows	imported

Terminated successfully with warnings.

***** Restart sdp completed. *****

2.18 Display HarnesSys Users

Utility Name: status

The utility **status** displays to the DBA all the ***HarnesSys*** users on the current machine.

To invoke the utility follow these steps:

1. Log-in to the harness account.
2. Run harness status

The following prompt appears.

Following users are using HarnesSys:
User Machine

<User> <Machine>

<User> <Machine>

2.19 Create a Project Report

Utility Name: prj_report

The utility **prj_report** creates the Project Data Report.

The report displays all the variable projects in a specific environment with the project status.

To invoke the utility follow these steps:

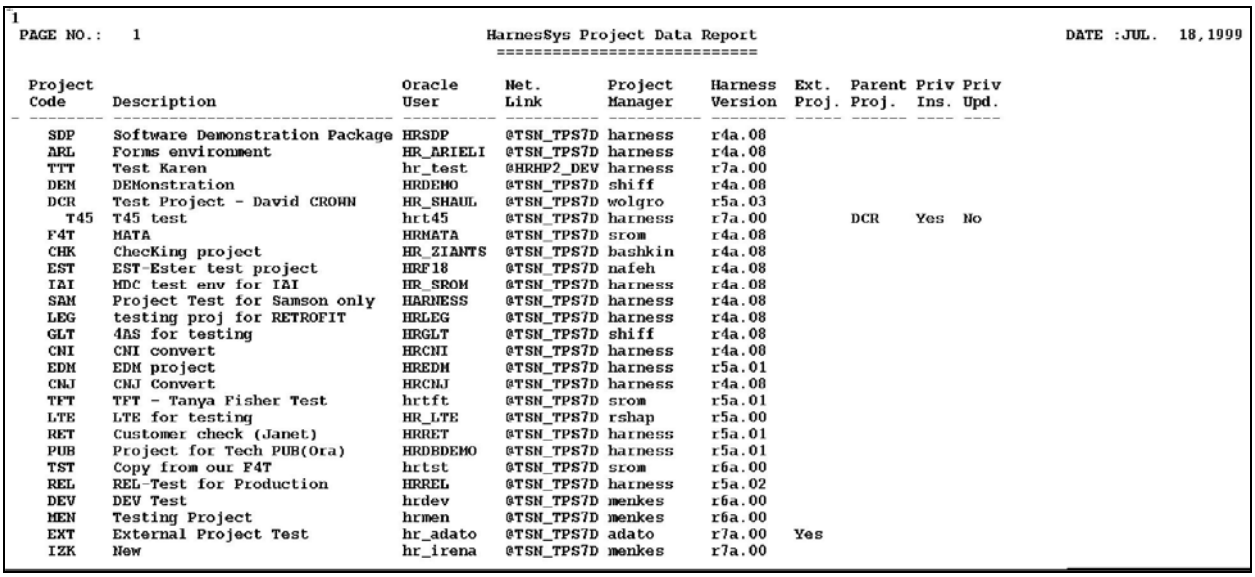
1. Log in to the harness account.

2. Run harness prj report

The report is produced in the /tmp sub-directory and the following message is displayed in the session window:

See project report in file /tmp/prj_report.lst

Any editor may be used to view the report, or the report may be transferred to any project's private directory where it may be viewed from within HarnesSys.



PAGE NO.: 1 — HarnesSys Project Data Report — DATE :JUL. 18,1999

Project Code	Description	Oracle User	Net. Link	Project Manager	Harness Version	Ext. Proj.	Parent Proj.	Priv Ins.	Priv Upd.
SDP	Software Demonstration Package	HRSDP	@TSN_TPS7D	harness	r4a.08				
ARL	Forms environment	HR_ARIELI	@TSN_TPS7D	harness	r4a.08				
TTT	Test Karen	hr_test	@HRHP2_DEV	harness	r7a.00				
DEM	DEMonstration	HRDEMO	@TSN_TPS7D	shiff	r4a.08				
DCR	Test Project - David CROWN	HR_SHAUL	@TSN_TPS7D	wolgro	r5a.03				
T45	T45 test	hrt45	@TSN_TPS7D	harness	r7a.00		DCR	Yes	No
F4T	MATA	HRMATA	@TSN_TPS7D	srom	r4a.08				
CHK	CheckKing project	HR_ZIANTS	@TSN_TPS7D	bashkin	r4a.08				
EST	EST-Ester test project	HRF18	@TSN_TPS7D	nafeh	r4a.08				
IAI	MDC test env for IAI	HR_SROM	@TSN_TPS7D	harness	r4a.08				
SAM	Project Test for Samson only	HARNESS	@TSN_TPS7D	harness	r4a.08				
LEG	testing proj for RETROFIT	HRLEG	@TSN_TPS7D	harness	r4a.08				
GLT	4AS for testing	HRGLT	@TSN_TPS7D	shiff	r4a.08				
CNI	CNI convert	HRCNI	@TSN_TPS7D	harness	r4a.08				
EDM	EDM project	HREDM	@TSN_TPS7D	harness	r5a.01				
CNJ	CNJ Convert	HRCNJ	@TSN_TPS7D	harness	r4a.08				
TFT	TFT - Tanya Fisher Test	hrtft	@TSN_TPS7D	srom	r5a.01				
LTE	LTE for testing	HR_LTE	@TSN_TPS7D	rshap	r5a.00				
RET	Customer check (Janet)	HRRET	@TSN_TPS7D	harness	r5a.01				
PUB	Project for Tech PUB(Ora)	HRDBDEMO	@TSN_TPS7D	harness	r5a.01				
TST	Copy from our F4T	hrtst	@TSN_TPS7D	srom	r6a.00				
REL	REL-Test for Production	HRREL	@TSN_TPS7D	harness	r5a.02				
DEV	DEV Test	hrdev	@TSN_TPS7D	menkes	r6a.00				
MEN	Testing Project	hrmen	@TSN_TPS7D	menkes	r6a.00				
EXT	External Project Test	hr_adato	@TSN_TPS7D	adato	r7a.00	Yes			
IZK	New	hr_irena	@TSN_TPS7D	menkes	r7a.00				

Figure 15: The project Report

2.20 Disable the Use of HarnesSys

Utility Name: stop

This utility **stop** allows the DBA to prevent users from entering ***HarnesSys.***

The utility does not stop users already in the application from continuing to use it.

To invoke the utility follow these steps:

1. Log-in to the harness account.

2. Run harness stop

The following prompt appears.

Select one of the following : all r00.00 ?

3. Enter the version of HarnesSys to be suspended and press <CR>.

If the wrong version is entered the following message is displayed and the ^ utility stops.

No such version <*HarnesSys*Ver>.

Otherwise the following message appears:

***HarnesSys* activities for version**

<*HarnesSys*Ver>

new sessions stopped.

HarnesSys disable the entry of all users to the specific version as of this point in time.

2.21 Enable the Use of HarnesSys

Utility Name: Start

This utility allows resumption of user activity in a version of ***HarnesSys*** after suspension by the DBA.

To invoke the utility follow these steps:

1. Log-in to the harness account.

2. Run harness start

The following prompt appears.

Select one of the following:

<*SuspendedHarnesSys*V er>

<*SuspendedHarnesSysVer*> ... ?

3. Enter the version of HarnesSys to be restarted and press <CR>.

If the wrong version is entered the following message is displayed and the ~ utility stops.

No such version <*HarnesSys*Ver>.

Otherwise the following message appears.

***HarnesSys* activity for version <*HarnesSys*Ver>**

new sessions reactivated.

HarnesSys enables the suspended version as of this point in time.

2.22 Part Specification External Catalog

This new functionality allows the user to update the ***HarnesSys Part Specification Libraries*** with external catalog data. In order to use this functionality, the DBA must create the ORACLE Data-Base table shown below. The external catalog must then be accessed and the relevant fields formatted as shown below for each part. The catalog data is then loaded into this ***HarnesSys ORACLE*** table. The external data takes precedence in case of conflicts.

2.22.1 DBA Instructions

Create the Oracle Part Specification external table as shown above, if not already existent.

 Create a part specification view in an external file with the following fields:

Name	NULL?	Type	/* Comment */
PARTNO	NOT NULL	VARCHAR2(32)	/* Part Number */
MNFCTRRCD	NOT NULL	VARCHAR2(8)	/* Vendor Code */
BSCPRTDSCRPT		VARCHAR2(50)	/* Part Long description */
TITLE	NOT NULL	VARCHAR2(32)	/* Part Description */
INTCATALOGNO		VARCHAR2(15)	/* Internal Catalog Number */
WEIGHT		FLOAT(126)	/* Weight */
WEIGHT_UOM		VARCHAR2 or NUMBER(38)	/* Weight Unit: E(Inch)/M(mm) or 10000-mm 200001-g/mm */
MNFCTRRNM		VARCHAR2(20)	/* Vendor Name(description) Not Null or value is "From CSM" */

Users having the External Catalog in formats other than ORACLE, must translate their data accordingly.

 Create a ***Data Base Link*** and ***Synonym*** for the ***Part Specification*** external table for this project.

This example is saved in file ~harness/r11a.00/bin/hr_CSM_install

---

#!/bin/csh -f

```
# Update by: ziants hr_CSM_install Mon Nov 25 14:55:43 IST 2002 r11a.00
#
```



```
# @hr_CSM_install - Install CSM environment for project.#
source ~/bin/hr_set_environment
#=============================================================#
Check that user id is `basename ${HRHOME}`
#=============================================================#
if ( `whoami` != `basename ${HRHOME}` ) then
  echo "User must be `basename ${HRHOME} ` to run hr_CSM_install"
  exit (1)
endif
echo -n "  Enter  project code : "
set PROJ_CODE = $<
#=============================================================#
#check/get project USER/PASS#
#=============================================================#
echo "Checking project $PROJ_CODE ..."
if ( -e /tmp/proj_data.lis ) rm -f /tmp/proj_data.lis
cat << EOF > /tmp/proj_data.sql
```

```
        set head off;
        set feed off;
        spool /tmp/proj_data.lis;
        select PROJECT, DBUSER, DBPASS, NETLINK from DBDEF
          where PROJECT = '${PROJ_CODE}';
        spool off
        quit;
EOF
                ${HRHOME}/${HR_VERSION}/${PLATFORM}/hr_license${HR_DBG}.out
/tmp/proj_data.sql >/dev/null
    rm -f /tmp/proj_data.sql
    if ( ! -e /tmp/proj_data.lis) then
      echo "  Error occurred while connecting to ORACLE. Exiting."
      exit (1)
    endif
set FOUND = "`cat /tmp/proj_data.lis`"
rm -f /tmp/proj_data.lis
if ( "${FOUND}" == "" ) then
  echo " Project ${PROJ_CODE} doesn't exist. Exiting."
  exit (1)
endif
set FOUND   = ( $FOUND )
set DB_PROJ = $FOUND[1]
set DB_USER = $FOUND[2]
set DB_PWD  = $FOUND[3]
set DB_NODE = $FOUND[4]
sqlplus  -s   << EOF1 > /dev/null
 ${DB_USER}/${DB_PWD}${DB_NODE}
 spool /tmp/upd_${PROJ_CODE}.lst
  /*
  ** Create DATABASE LINK for CSM view and SYNONYM in current project
  */
  DROP DATABASE LINK CSM_CONNECT;
  DROP SYNONYM PART_SPEC_EXTERNAL_CATALOG;
```

```
          CREATE DATABASE LINK CSM_CONNECT CONNECT TO
EXTERNAL_LIBRARY IDENTIFIED BY HARNESS
  USING 'CONNECT_STRING';
          CREATE SYNONYM PART_SPEC_EXTERNAL_CATALOG FOR
HARNESS_VIEW@CSM_CONNECT;
  /*
  ** Insert new BASE DESCRIPTIONs with PGROUP
  ** For translate description and pgroup
  ** Don't need
  */
  CREATE TABLE PART_DESCRIPTION_BASE_EXT (
        BASE_DESCRIPTION VARCHAR2(20),
        PGROUP       VARCHAR2(2));
  INSERT INTO PART_DESCRIPTION_BASE_EXT (BASE_DESCRIPTION,PGROUP)
        VALUES('Blowers','U');
  INSERT INTO PART_DESCRIPTION_BASE_EXT (BASE_DESCRIPTION,PGROUP)
        VALUES('CONNECTORS','P');
  INSERT INTO PART_DESCRIPTION_BASE_EXT (BASE_DESCRIPTION,PGROUP)
        VALUES('Cables','N');
  ....
  ....
  INSERT INTO PART_DESCRIPTION_BASE_EXT (BASE_DESCRIPTION,PGROUP)
        VALUES('Wires','N');
 COMMIT;
 spool off
 QUIT;
EOF1
if ( ! -e /tmp/upd_${PROJ_CODE}.lst) then
  echo "Error in connect to ORACLE"
  exit (1)
endif
echo "Check file /tmp/upd_${PROJ_CODE}.lst "
echo " CSM environment is created. "
-----------------------------------------------------------------------------------------------------------
----------------------
```

Check the created synonym using the following commands:

sqlplus <prj oracle user/pass>$ORACLE_NODE

desc part_spec_external_catalog

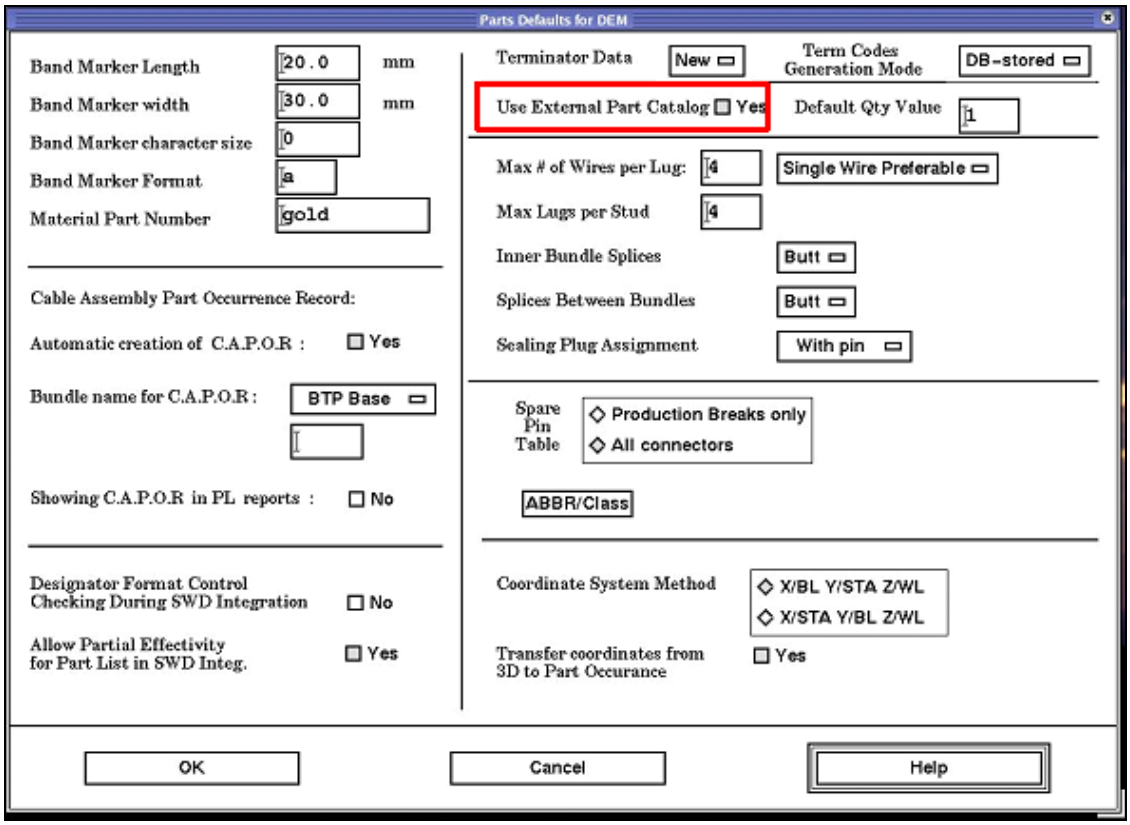
select * from part_spec_external_catalog;

quit;

There is an option to copy all external catalog data by selecting **General** ⇨ **Import External Part Catalog** from the main menu.

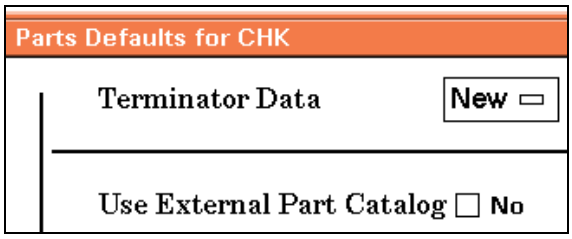
Errors (Unknown weight units or empty TITLE, etc.) are saved in an error log file - PART_EXTERNAL_CAT.err, saved in the user's private file.

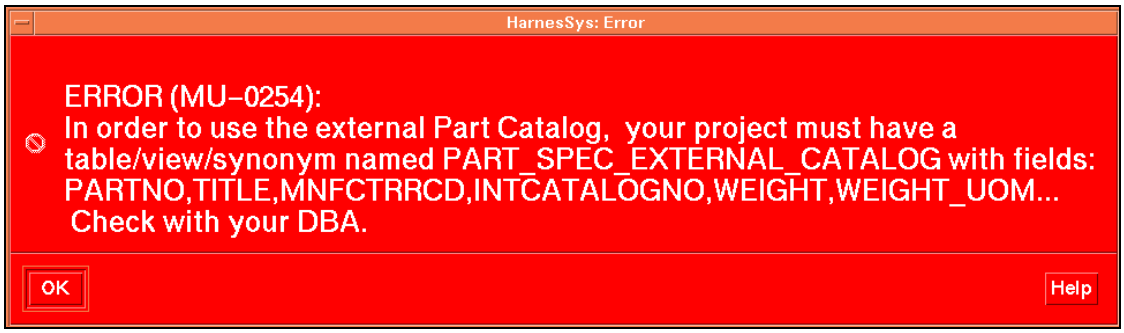
⇨ Select **Maintenance** ⇨ **Project Defaults...** ⇨ **Parts** from the main menu. The following window appears:



Change the **Use External Part Catalog** to **Yes**.

If you will not be able to change it to Yes :





That means that there is no link from the current project to the external database.

Glossary of Terms

A

Abbreviation Class

Defines the class of part (for example P for plug, SW for switch, etc)

Access Door

Access point (flap, door or other entrance) in aircraft used to install or access the part or bundle.

Area Code

The area code indicates the physical location of the part in the production unit.

Authority

Length:

Type: Character.

Description: For future use.

B

Backshell

Protection for connector by providing grounding or mechanical support

Box Interface

Boxes are independent electrical units, often connected to bundles by specific interface.

Braid Stop

The distance between the BRD and the end of the braid (see

Project Defaults, Manufacturing).

Branch segment (branch)

Is a geometric JIG element containing wires. The branch is identified by uniformity of its wires.

BRD

Basic Reference Designator, also referred to simply as a

Designator, the connector’s local name.

BTP (Build-To-Package)

Document describing the information to produce a bundle. Therefore it is a collection of WL/PL and JIG DATA.

Bundle

Each wire must belong to a bundle. A bundle name is composed of a bundle (base) number and dash number. The number of the bundle to which the wire belongs is often entered before the wire name on the SWD.

C

CAD

Computer Aided Design

Contact Key

Code determining number and names of pins, defined in Contact Configuration Library. A part number has a unique contact key.

Contact Type

Type of contact: 4 options – Pin, Stud, Socket, Solder

D

Dash Number

A descriptor of a document or bundle which associates the document with effectivity.

Device Type

Type of device installed in bundle. In ***HarnesSYS*** there are 15 options.

Termination Code

Code indicating possible terminations at that point

Diameter

The diameter of the segment which is calculated using a fixed formula which takes into account the various types of wires that pass through the segment.

Document

Configuration controlled document of a specific type such as SWD/WL/PL/BTP.

E

Effectivity

Length:

Type:

Description: The WL has a uniform effectivity range inherited from the WL Document.

EGN

An attribute assigned to segments to enable separation of wires with different EMI attributes.

EMI

Length: 2

Type: character.

Description: The EMI (Electromagnetic Interference) code appears in the SWD at the left of the wire name.

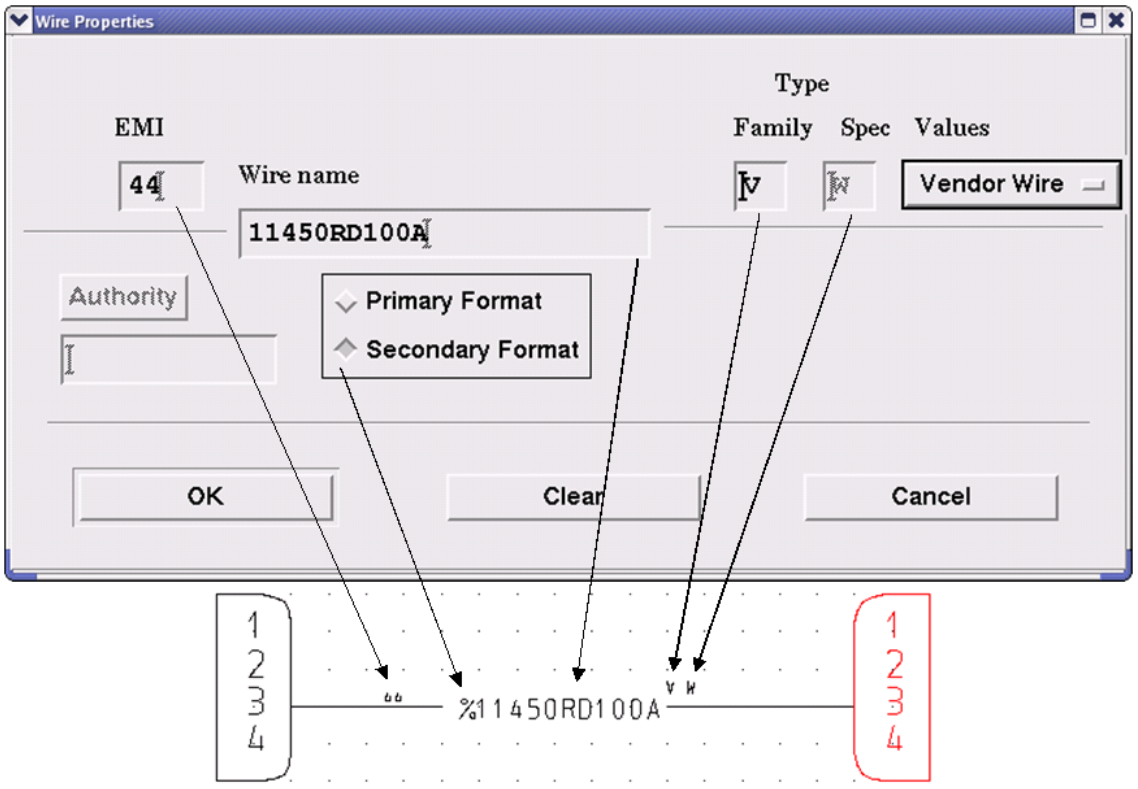


Figure 16: EMI Code Location.

The EMI code appears only on screen and on check print hard copy. NOT in the Integration reports.

F

Family

Family code ferrule connecting several shields, name fields in wire record, Find Base Number Part List W/L Dash flt file FROM_WIRE_INTEGRATE.

I

Integrate BTP

When the project default parameter **Multi Path allowed** is not checked, an error is displayed if the integrated source contains Multi Paths.

Integrating a Wire

Integration of part integration process data flow logic flow intersecting effectivity issue.

J

Jig

Old OPEN revisions of a Jig document may be deleted even when the Jig document is a component of another document.

To delete the OPEN revision follow these steps;

Select a Jig Document from the Working Space, click Revisions and drag to Delete...

The Delete Revision Window appears.

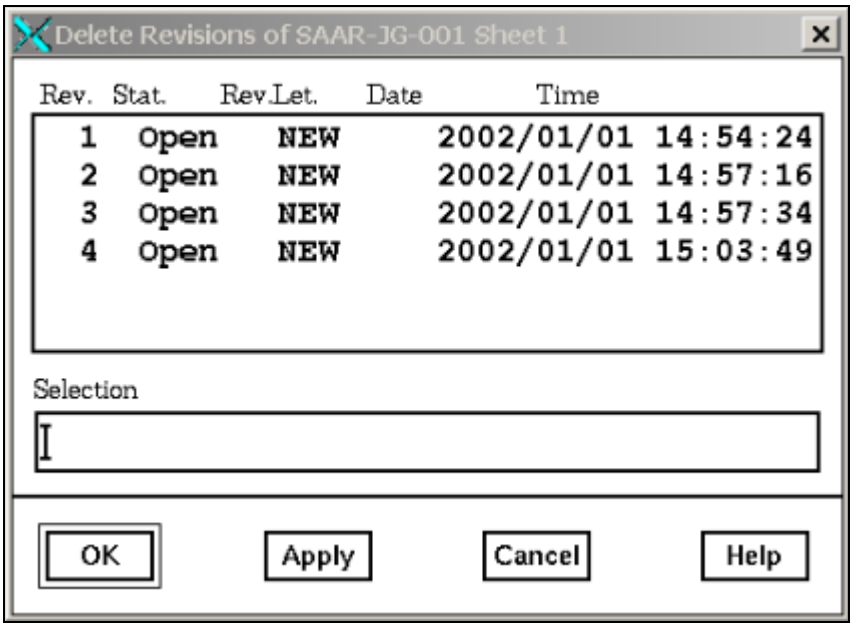
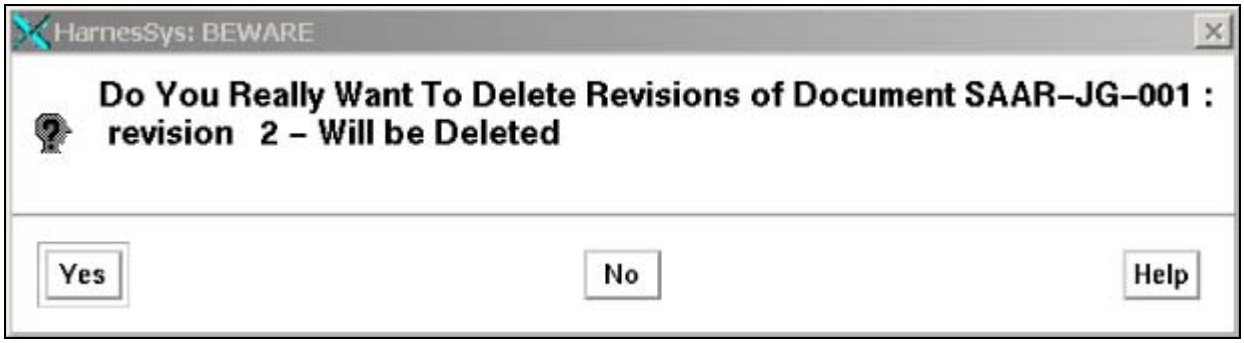


Figure 17: Delete Revision Window

Select a desired Open revision and click OK.

Before the revision is deleted, a warning appears.



To delete click Yes.

The revision is deleted.

Jumper

Name number translation of a short default wire.

L

LCD

Length: 20

Type: character.

Description: This field designates the Last Change Date and Time of the wire. The Integrate Process fills this field with "system time" during integration with the format "YYYY/MM/DDHH:MM".

Thus, each wire in the database has an LCD stamp, which may be used as criteria for performing various queries and reports.

 This field can not be modified by the user.

M

Mating Connector

Connector that is suitable to be connected to a given connector

Multi Path

A path or a part of a path, which includes more then one alternative configuration for routing wires.

N

Null Path

The default path, if there is no correlation between segments and wires. If there are several alternative routing options at a node and there is not enough information to define the path, the null path should be the longest one.

P

Parts List (PL)

Document describing the parts in a particular bundle. A part list has a base number (the bundle number) and dash number.

PATH

This table defines the manufacturing wire data.

FROM_CONNEC	VARCHAR2(30)	NOT NULL	FROM connector.
FROM_PIN	VARCHAR2(4)		FROM pin.

PID	NUMBER	NOT NULL	The path ID.
TO_CONNEC	VARCHAR2(30)	NOT NULL	TO connector
TO_PIN	VARCHAR2(4)		

Plug Program Number (PPN)

The PPN (Plug Program Number) of a part is a key determining the order in which wires should be attached to the pins of the part. The key has 3 fields: **major, sub and degree.**

Private File

A file, generally a report, that is produced by a ***HarnesSYS*** transaction, stored in user's private directory and only available to the user initiating the process.

Production Unit

The unit being designed or manufactured e.g. an aircraft.

Protective Device

A lamination protecting the bundle wires, such as; boot, sleeving, conduit or spiral-wrap.

R

Receptacle

Reference designator release revision letter.

Retrofit Installation Drawings- RID

Drawings showing only the change.

Retrofit Master Document RMD

Folder that contains all the documents required to implement the retrofit

Revision Letter

Letter determining the issue of a document. Every time a document is opened in order to modify it, its revision letter is raised. It can have the values **NEW** or **A**, **B**, **C** etc.

In addition the revision letter may include point release data. Point release is sequential number indicating inner release of the bundle. The document may be released in the following order:

00.01	00.02	NEW	NEW.01	NEW.02	A	A.01	A.02... etc
Point releases		Firm release	Point releases		Firm releases		

Routing

The path taken by a wire from one part to another.

S

Same Wire

In 2 SWDs schematic diagram sequence number shield levels name significant wire name spare pin special designators splice named translation of unnamed spt file starting/ending point status suffix SWD symbol bank system wire diagram.

SEGMENT

This table defines a bundle's segment data (on layout drawings).

DIAMETER	NUMBER		Segment diameter.
EMI	NUMBER		Segment ElectroMagnetic Interference.
LENGTH	NUMBER		Segment length.
NAME	VARCHAR2(32)	NOT NULL	Document name.
NODE1	VARCHAR2(30)		First node.
NODE2	VARCHAR2(30)		Second node
PLEVEL	NUMBER		Production level.
PORDER	NUMBER		Production order.
SID	VARCHAR2(12)	NOT NULL	The segment's ID.
SUBLEVEL	NUMBER		Production sublevel

Segment Length

The length of a segment or branch, stated in millimeters or inches as defined in the Project Defaults. This length can be between two nodes or between a part and a node or between two parts.

Service Code

Type of retrofit change: A (Add), D (Delete), C (Change), B (Before).

Shell Code

Shell codes contain information about connector back shells (or rear side of the connector). The three variables concerning shell codes are the size, whether the connector is a receptacle or a plug, and whether it is straight or angled. Thus each shell size can have four shell codes.

Shrink Ratio

The nominal ratio of expanded diameter to recovered diameter of heat shrinkable tubing

Signal Type

Type of signal at interface box connection – 13 options:

Communication, GND Analog, GND Digital, GND Chassis, GND Power DC, GND Power AC, Lighting, MUX-BUS, Power AC, Power DC, RF, Signal Analog, Signal Digital

Sleeve Size

Diameter of sleeve round wire

Spare Pin

Is a designator pin, left unused (unattached to a wire). The pin requires special treatment such as capping.

Stick Diagram

Initial Jig diagram where all the lines are straight, the lengths of the branches are drawn to scale, and the dimension lines are removed.

System Wire Diagram (SWD) or Schematic Diagram or Wire Diagram

A document which presents the design of a logical system e.g. air conditioning, landing system. A SWD has a base number indicating the logical system which it describes, and a dash number indicating its effectivity.

T

Termination Code

Code indicating possible terminations at that point

U

Update

Update wire process.

V

VENDOR

VENDOR_CODE is a project code list of manufacturers or vendors. This table helps prevent unwanted disclosure of supplies.

E_MAIL	VARCHAR2(50)		E-Mail address
FAX	VARCHAR2(12)		Fax number
NAME	VARCHAR2(20)	NOT NULL	Full vendor name.
PHONE	VARCHAR2(12)		Telephone number.
TELEX	VARCHAR2(8)		Telex number
VENDOR_CODE	VARCHAR2(8)	NOT NULL	Vendor code.

W

W/L

Dash number WARNING DB-7365 DB-7366 WL-0201 WL-0207 WL-0512 WL-0513 WL-4291 WL-4709 Wire Big Splice Busbar Color Default Family Dummy Effectivity Flags Name Normal Shield Name Splice wire wire bundle wire diagram wire effectivity flag wire gauge wire integration features wire key wire list wire name default window wire name format primary window secondary window wire name key wire name on the SWD wire record WIRE table wire types wires defaults window wiring diagram WL/PL base number wupd file.

Wire Accommodation

The Wire Accommodation indicates the range of wires that a terminator can accommodate

Wire Length

The length of a wire connecting one part to another (including the route through a number of segments and branches).

Wire List (WL)

Document describing the wires in a particular bundle. A wire list has a base number (the bundle number) and dash number.

Wire Type

A 3-element code for describing type of wire; consists of family type, specification type and gauge, which are obtained from the bundle wire list data.

Work Package

Includes a group of instructions for maintenance and repair of the wire, or a list of tools needed for the task and a cross reference table for it

Work Package Set

Group of work packages for a system or sub-system

Index