

# **DgnAudit**

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## 1. What is DgnAudit?

DgnAudit is an MDL program developed by Australian Data Systems to assist MicroStation users in the complex task of documenting and finding design files.

- **Search** produces an audit list of design files that is a detailed report on the details of each file.

An evaluation copy of DgnAudit can be obtained from ADS. The evaluation version is restricted to auditing a maximum of 100 files at one time. The full version has no restriction on the number of files processed.



### **Australian Data Systems**

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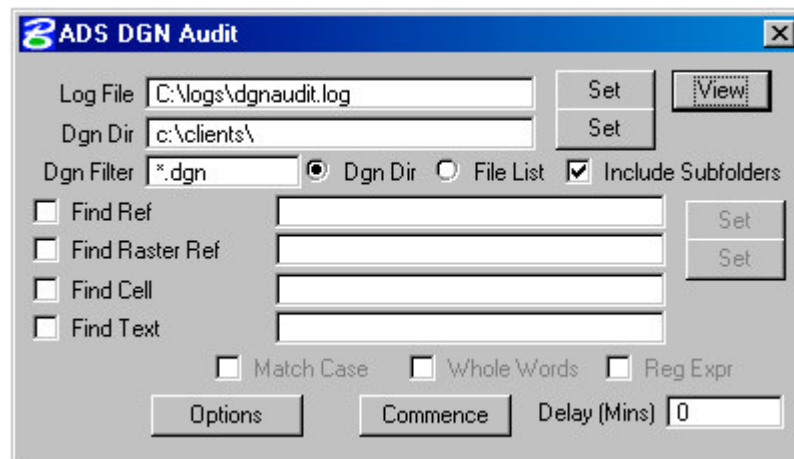
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## 2. Search

Activate the icon.



The ADS DgnAudit dialog box will display:



### Log File

The audit report is written to a log file. The program will prompt for the name and location of a log file to create when the operator hits the Commence button.

Use the Set button to locate a log file that had been created previously, and use the View button to display the contents of the log file in a window on the screen.

### Dgn Dir or File List

Toggle between these options to specify how DgnAudit should identify the design files to analyse and report on.

Use the **File List** option to indicate that the source design files are listed in an ASCII text file with a default file extension of .lst. The list file must contain one design file per line with the full path specified for each file.

A list file can be created with the DOS dir command as follows:

Start > Programs > Command Prompt

Change (using the cd command) to the base directory where the design files are.

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Type the command: `dir /s /b *.dgn > dgnlist.lst`

This will create a list in bare format with no headings or summary information (the 'b' option) of all files with a .dgn file extension in that directory and all subdirectories (the 's' option), capturing the list of names in a file called dgnlist.lst in the base directory.

The list file can contain comments and blank lines that have been added by the user. DgnAudit will ignore blank lines. Comment lines are lines that begin with the “#” character. Comments can also be added to lines that contain filenames by appending a pipe symbol (|) after the filename, followed by a comment. Type the name of the list file in the File List field, or use the Set button to select a file.

Use the **Dgn Dir** option to indicate that the source design files are in a particular directory. Type the name of the directory in the Dgn Dir field, or use the Set button to navigate to and select a directory path. Type a filename filter in Dgn Filter, or leave it blank to include all files. The Dgn Filter can contain the wildcards \* or ?, where \* represents any number of characters and every ? represents one character only.

## **Include Subfolders**

Applies to Dgn Dir and Dgn Filter option only. Tick this option to include subfolders of Dgn Dir in the auditing process.

## **Find Ref**

Tick this option to have DgnAudit report on design files that have the nominated file attached as a reference file.

**NOTE:** You may use this option to find all design files that use the nominated file as a reference file.

Type the name of the list file in the File List field, or use the Set button to select a file.

## **Find Raster Ref**

Tick this option to have DgnAudit report on design files that have the nominated raster file attached as a reference file.

**NOTE:** You may use this option to find all design files that use the nominated file as a raster reference file.

Type the name of the list file in the File List field, or use the Set button to select a file.

## **Find Cell**

Tick this option to have DgnAudit report on design files that use the nominated cell.

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**NOTE:** You may use this option to find all design files that use the nominated cell.

## **Find Text**

Tick this option to have DgnAudit report on design files contain the nominated text.

**NOTE:** You may use this option to find all design files that contain the nominated text string.

## **Match Case**

If on, finds only text with the same capitalisation as the specified text (in other words, a case-sensitive search).

## **Whole Words**

If on, specifies a search for only complete words that match the text element in the Find field. For example, when Whole Words is on, a search for “fill” will not find “filled” or “fillet.”

## **Delay (Mins)**

The auditing process can be delayed to start after a certain period of time. Enter the delay time in minutes. One minute before it is due to start, a warning message will be displayed on the screen. It is best to Minimise MicroStation to the taskbar at that stage, as it may not be possible to do so once DgnAudit starts processing.

Hit the Commence button to start the auditing process (or to queue it for a delayed start).

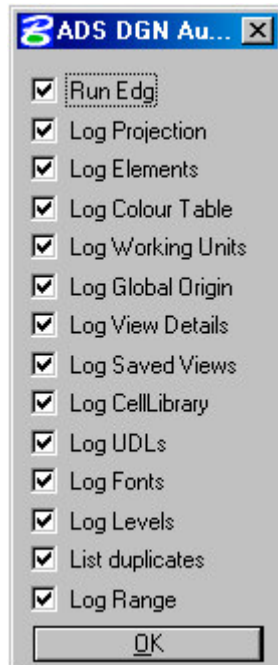
To cancel the delayed start at any time, hit the Search icon and follow the prompts in the message box that is displayed.

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## Options



This option controls what details are to be logged.

**NOTE: Standard details as follows are always logged.**

- The Date and time when the file was last modified.
- File size in bytes.
- A warning is logged if the file is read only.
- Whether the file is 2D or 3D.
- All reference files attached and whether the full path is stored and if any clip masks or clip boundaries exist.
- All raster reference files attached.
- All ImageManager projects attached.
- All embedded images.

**Run Edg NOTE: This option is only available if running SE or MSJ**

Tick this option to verify every design file with EDG and to display a summary of the EDG totals in the log file/audit report.

*Note: EDG does not attempt to fix any errors, it purely reports the results of the Verify command. If the totals refer to "deleted elements", it does not mean that DgnAudit has deleted anything. This total refers to elements deleted with MicroStation without compressing the design file.*

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## **Log Projection**

Tick this option to have DgnAudit log full projection parameter as specified with a CartoMap type 56 element, if present in the design file.

## **Log Elements**

If this is set then DgnAudit will log a summary of the number of each element type used within each design file.

## **Log Colour Table**

If this is set then DgnAudit will log the name of the attached colour table.

## **Log Working Units**

If this is set then DgnAudit will log the Working Units (UORS).

## **Log Global Origin**

If this is set then DgnAudit will log the X Y and Z Global Origin

## **Log View Details**

If this is set then DgnAudit will log the status of each of the 8 views  
For each active view details of the views display attributes and level settings will be logged.

## **Log Saved Views**

If this is set then DgnAudit will log the name of any saved views within the design file.

## **Log Cell Library**

If this is set then DgnAudit will log the name of the attached cell Library

## **Log UDLs**

If this is set then DgnAudit will log the name of any user defined line styles that are used within the design file. A list of all UDLs found over all design files will be included in the report summary

## **Log Fonts**

If this is set then DgnAudit will log the number of fonts that are used within the design file. A list of all fonts found over all design files will be included in the report summary

## **Log Levels**

If this is set then DgnAudit will log the number of any levels that are used and the total number of elements on each level.

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## **Log Range**

If this is set then DgnAudit will log the total number element within the design file and the total number of displayable elements along with the design file range cube.

## **List Duplicates**

If this is set then DgnAudit will look for and log any duplicate design file names regardless of the path to the design file. IE if seed2d.dgn is found in several directories then these will be logged.

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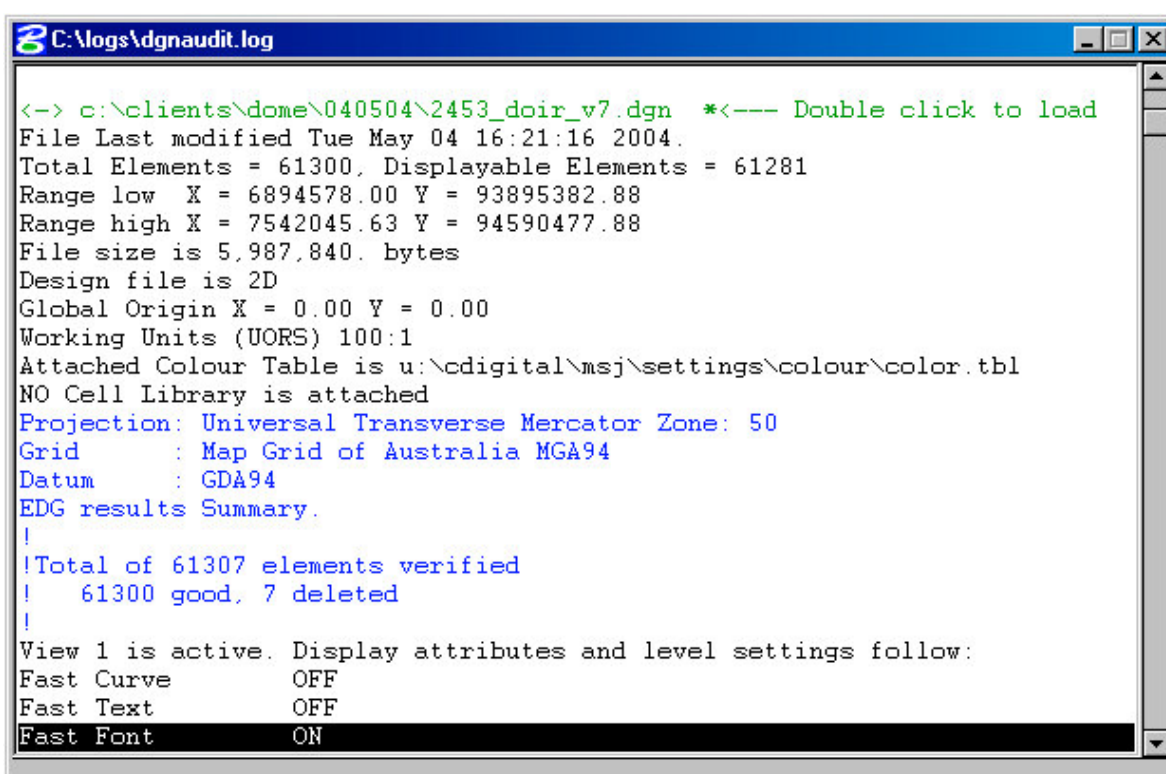
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## 3. The DgnAudit Report

Although the log file (or audit report) is just an ASCII text file that can be viewed with any text editor such as Windows Notepad, the syntax and colour-coding of the records have special significance and can be interpreted by the DgnAudit program when listed on the screen with the View button.

Partial contents of a typical DgnAudit log file:



```
C:\logs\dgnaudit.log
<-> c:\clients\dome\040504\2453_doir_v7.dgn *<--- Double click to load
File Last modified Tue May 04 16:21:16 2004.
Total Elements = 61300, Displayable Elements = 61281
Range low X = 6894578.00 Y = 93895382.88
Range high X = 7542045.63 Y = 94590477.88
File size is 5,987,840. bytes
Design file is 2D
Global Origin X = 0.00 Y = 0.00
Working Units (UORS) 100:1
Attached Colour Table is u:\cdigital\msj\settings\colour\color.tbl
NO Cell Library is attached
Projection: Universal Transverse Mercator Zone: 50
Grid      : Map Grid of Australia MGA94
Datum     : GDA94
EDG results Summary.
!
!Total of 61307 elements verified
! 61300 good, 7 deleted
!
View 1 is active. Display attributes and level settings follow:
Fast Curve      OFF
Fast Text       OFF
Fast Font       ON
```

Double-click on any of the green lines containing the name of a design file to open that file in MicroStation.

The audit report is divided into sections. Firstly, all master design files are analysed, followed by a section for reference files. The next section contains a list of all raster reference files and after that, a list of all ImageManager project files.

DgnAudit will evaluate and analyse every file encountered and only report the status of those that are design files, regardless of the filename extensions.

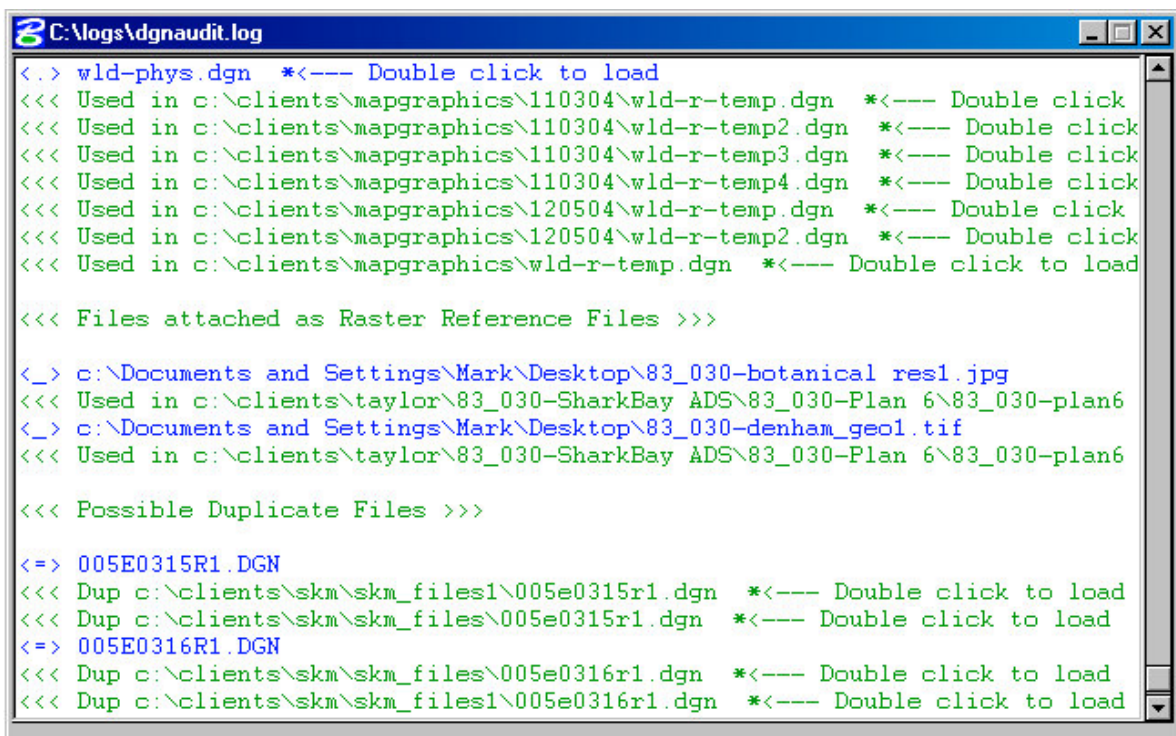
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The audit report contains details for each design file on:

- The transformation status.
- Projection details, including UTM zone.
- The total number of elements in the design file and the number of displayable elements.
- The X and Y range of the displayable elements.
- Whether the design file coordinates are easting/northing or longitude/latitude.
- Whether the file is 2D or 3D.
- The global origin of the file.
- All reference files attached and whether the full path is stored.
- All raster reference files attached.
- All ImageManager projects attached.
- All embedded images.



```
C:\logs\dgnaudit.log
<.> wld-phys.dgn *<--- Double click to load
<<< Used in c:\clients\mapgraphics\110304\wld-r-temp.dgn *<--- Double click
<<< Used in c:\clients\mapgraphics\110304\wld-r-temp2.dgn *<--- Double click
<<< Used in c:\clients\mapgraphics\110304\wld-r-temp3.dgn *<--- Double click
<<< Used in c:\clients\mapgraphics\110304\wld-r-temp4.dgn *<--- Double click
<<< Used in c:\clients\mapgraphics\120504\wld-r-temp.dgn *<--- Double click
<<< Used in c:\clients\mapgraphics\120504\wld-r-temp2.dgn *<--- Double click
<<< Used in c:\clients\mapgraphics\wld-r-temp.dgn *<--- Double click to load

<<< Files attached as Raster Reference Files >>>

<_> c:\Documents and Settings\Mark\Desktop\83_030-botanical res1.jpg
<<< Used in c:\clients\taylor\83_030-SharkBay ADS\83_030-Plan 6\83_030-plan6
<_> c:\Documents and Settings\Mark\Desktop\83_030-denham_geol.tif
<<< Used in c:\clients\taylor\83_030-SharkBay ADS\83_030-Plan 6\83_030-plan6

<<< Possible Duplicate Files >>>

<=> 005E0315R1.DGN
<<< Dup c:\clients\skm\skm_files\005e0315r1.dgn *<--- Double click to load
<<< Dup c:\clients\skm\skm_files\005e0315r1.dgn *<--- Double click to load
<=> 005E0316R1.DGN
<<< Dup c:\clients\skm\skm_files\005e0316r1.dgn *<--- Double click to load
<<< Dup c:\clients\skm\skm_files\005e0316r1.dgn *<--- Double click to load
```

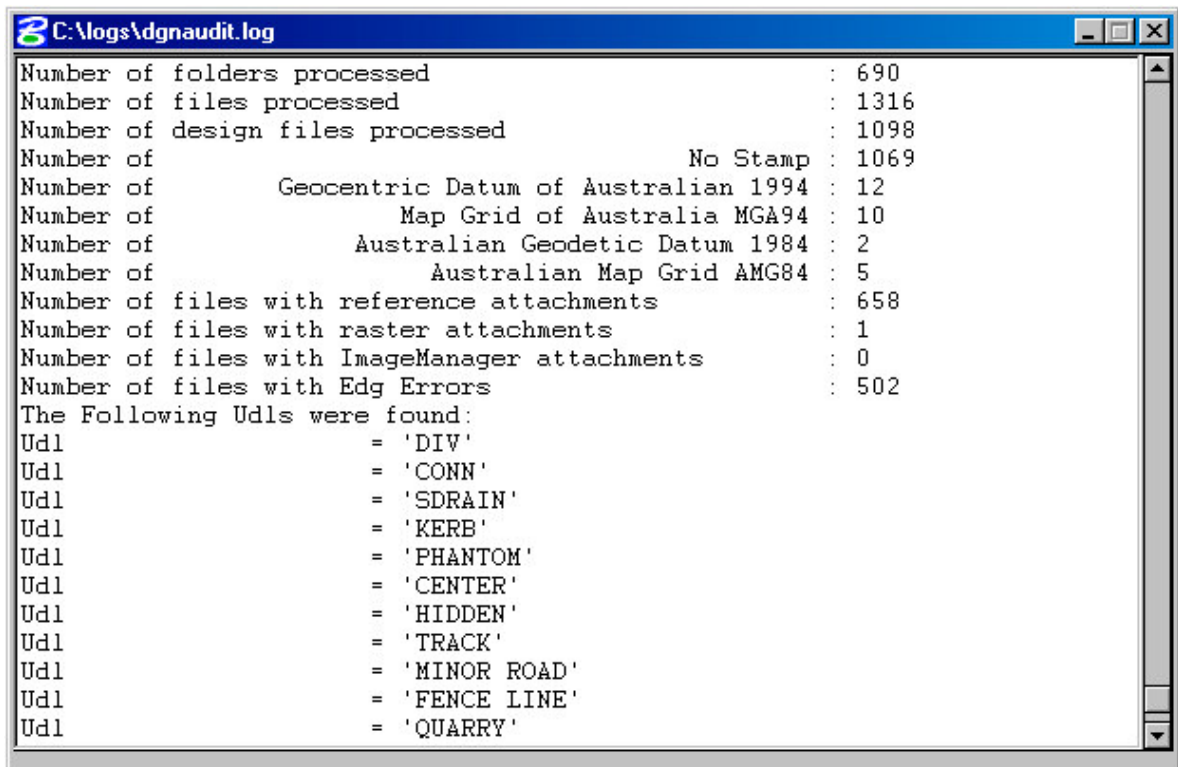
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A summary at the end of the report includes the following totals:

- The number of folders processed.
- The number of files processed.
- The number of design files processed.
- The number of design files per transformation status.
- The number of design files with reference file attachments.
- The number of design files with raster attachments.
- The number of design files with ImageManager attachments.
- A list of all files that are attached as reference files.
- A list of all ImageManager project files.



```
C:\logs\dgnaudit.log
Number of folders processed           : 690
Number of files processed             : 1316
Number of design files processed      : 1098
Number of                            No Stamp : 1069
Number of          Geocentric Datum of Australian 1994 : 12
Number of          Map Grid of Australia MGA94       : 10
Number of          Australian Geodetic Datum 1984   : 2
Number of          Australian Map Grid AMG84        : 5
Number of files with reference attachments          : 658
Number of files with raster attachments            : 1
Number of files with ImageManager attachments      : 0
Number of files with Edg Errors                   : 502
The Following Udl's were found:
Udl          = 'DIV'
Udl          = 'CONN'
Udl          = 'SDRAIN'
Udl          = 'KERB'
Udl          = 'PHANTOM'
Udl          = 'CENTER'
Udl          = 'HIDDEN'
Udl          = 'TRACK'
Udl          = 'MINOR ROAD'
Udl          = 'FENCE LINE'
Udl          = 'QUARRY'
```