OpenWorks® Software Version 5000.8.3.0

Release Notes — Revised

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What's In This Release

The 5000.8.3.0 release of the OpenWorks® software provides new features and defect fixes. The highlights of this release are:

OpenWorks® Software

- OpenWorks® Launcher in Windows for OpenWorks® and Landmark applications.
- No data model extensions.

GeoDataLoad[™] Software

- Data Import and Data Export Tools
 - Data Import and Data Export Wizards are refashioned to make them easier to use, and renamed Data Import and Data Export. The wizard actions have been removed.
 - Added to the Basic installation of the OpenWorks® and GeoDataLoad[™] software.
 - Improved tab interface, format editor, and other interface improvements.
 - New import data types: horizon data, log curves, and well data.
 - Data Import supports loader formats from ASCII Loader and GeoGraphix® Wellbase ASCII 3.
 - For IHS 297 and IHS 298, Data Import supports both fixed-length and comma delimited fields in the data file, where ASCII Loader only supports fixed-length. The formats for IHS data have been consolidated into four types: 297all, 297comma, 298all, and 298comma. This allows a more simplified workflow for loading IHS 297 and IHS 298 data.
- SEG Y Loader is refashioned, has a new format editor, and supports more data types.
- Stimulation Data Loader supports multiple monitor wells.

To go directly to more information on the new features and changes, other enhancements, fixed issues, and known issues for the OpenWorks® software, click on the links below:

Enhancements and New Functionality

Fixed Issues

Known Issues



Welcome to the OpenWorks® Software

The OpenWorks® software version 5000.8.3.0 is a full release of the OpenWorks® software and its Import/Export utilities (the GeoDataLoadTM software). Newer utilities are documented in the online help, and older utilities are documented in the manuals (in PDF format). The online help has links to the manuals.

NOTICE: Changes to Oracle Licensing — Oracle Embedded Software License (ESL)

Due to new licensing requirements for the software of the Oracle database, the OpenWorks® software is moving to an embedded-use Oracle license (Embedded Software License, or ESL). Version 5000.8.1.0 of the OpenWorks® software is the first release to provide this functionality.

The Oracle ESL applies to any customer who licenses **OpenWorks with Oracle** (the OpenWorks software with the Oracle database software embedded), has an Oracle 11g installation, and does not have a separate contract with Oracle. Landmark will not provide an ESL solution with Oracle 10g.

As part of Oracle ESL compliance, customers who fit the above profile are no longer licensed to use Oracle tools directly, including SQL*Plus. The OpenWorks software provides the following tools to enable Oracle ESL compliance:

- The Oracle 11g database software is embedded in the installation program for the OpenWorks database instance. Installation no longer requires separate Oracle media.
- The OpenWorks database installer supports configuring your database to run in either ArchiveLog mode or NoArchiveLog mode. Archivelog mode supports hot backups, incremental backups, and point in time recovery. Nightly backups can be scheduled and users can configure backup retention policies.
- Database Query Tool provides a graphical user interface to perform simple database queries and to run pre-defined SQL scripts in order to troubleshoot data in a project.
- The new Database Administration tool provides a graphical user interface to run SQL scripts for troubleshooting purposes. With this tool, the Oracle user (database administrator) can:
 - Run Landmark-supplied SQL scripts in order to perform system level functions.
 - Configure and execute incremental backups and archive logs using Oracle Recovery Manager (RMAN).
 - Repair a damaged database instance.



- Recover a full database instance.
- Clone a database instance.
- Upgrade an OpenWorks database instance from Oracle 10.2.0.x to Oracle 11.2.0.2.

NOTICE: Future Support for Operating Systems

Landmark regularly reviews our industry-leading software suite to verify that our product lines meet marketplace demands for implementation on the most appropriate and widely accepted technologies. Our goal is to focus our efforts where they will bring you the most value.

After careful consideration, and beginning with version 5000.10.*x*.*x* of the OpenWorks® software, Landmark will no longer release the OpenWorks® software on the following operating systems:

- Microsoft Windows® XP 32-bit, 64-bit
- Microsoft Windows® 2003 Server 32-bit, 64-bit
- Red Hat Enterprise Linux® 4.*x* 32-bit, 64-bit
- Red Hat Enterprise Linux® 5.x 32-bit only

The last versions of the OpenWorks® software tested on the above operating systems will be with the 5000.8.*x.x* product cycle. Landmark Customer Support will continue to provide support for the versions of the OpenWorks® software on the above operating systems.

We based this decision on limited customer demand for the OpenWorks® software on these operating systems as well as market trends indicating that most applications for the oil and gas industry will standardize on fewer operating systems. The costs to support multiple operating systems and platforms are large and reduce the velocity with which we can serve our customers by producing new releases and delivering functionality.

Going forward, the OpenWorks® software is committed to Red Hat Enterprise Linux® and Microsoft Windows® as the operating systems for our products. These operating systems not only offer excellent functionality, but also deliver major gains in price-performance.

Please be advised that this statement is formal notification as set forth in the terms and conditions of Landmark's standard maintenance and support contract. We regret any inconvenience that this decision might cause, and we are prepared to work with you to minimize any potential disruptions within your operations.

Please contact your Account Executive with any concerns or if you desire any further information.



System Requirements

Complete system requirements for each platform are contained in the *OpenWorks*® *Software Installation Procedures*.

Installation Instructions

Refer to the $OpenWorks_{\circledast}$ Software Installation Procedures for detailed installation information. The document is available in the Landmark Software Manager (LSM) from the Install Info button (\square) for the installation program.

The Installation Procedures manual has information about:

- Creating an installation of the OpenWorks® software and its database instance.
- Upgrading a previous version of the OpenWorks® software, possibly upgrading the Oracle software (depending on whether a new version of the Oracle software is supported by the new version of the OpenWorks software), and possibly upgrading (or extending) existing projects.

If the OpenWorks® Data Model has changed in the new version of the OpenWorks® software, the projects in an existing database instance must be upgraded (or extended) before the projects can be managed or used in the new version of the OpenWorks software, or before they can be used by other applications that support the new version of the OpenWorks software. The information about upgrading projects is in the "Upgrade the OpenWorks® Software" chapter of the *Installation Procedures* manual.

Oracle Advanced Queuing and Post-installation Instructions in the *Installation Procedures* Manual

The Oracle database for the OpenWorks® database instance uses Oracle Advanced Queuing for communicating messages between applications. Overtime with Oracle 10g or 11g databases, millions of expired Oracle Advanced Queuing (AQ) messages could build up in the database and cause severe performance issues.

The Knowledge Base Solution S10092, "Oracle Advanced Queuing Issues in the OpenWorks R5000 Database," contains information which helps you recognize whether the AQ messages are building up in the database, and it provides a method for removing the messages.

Landmark strongly recommends that you follow the procedure in Solution S10092 after the installation of the OpenWorks database instance to prevent database performance issues.

Third Party Applications

Halliburton uses various third party applications in the development of its software.

Halliburton acknowledges that certain third party code has been bundled with, or embedded in, its software. The licensors of this third party code, and the terms and conditions of their respective licenses, may be found at the following location:

\$OWHOME/docs/third_party.pdf Linux
%OWHOME%\docs\third_party.pdf Windows

International Trade Compliance

This application is manufactured or designed using U.S. origin technology and is therefore subject to the export control laws of the United States. Any use or further disposition of such items is subject to U.S. law. Exports from the United States and any re-export thereafter may require a formal export license authorization from the government. If there are doubts about the requirements of the applicable law, it is recommended that the buyer obtain qualified legal advice. These items cannot be used in the design, production, use, or storage of chemical, biological, or nuclear weapons, or missiles of any kind.

The ECCN's provided in Release Notes represent Halliburton's opinion of the correct classification for the product today (based on the original software and/or original hardware). Classifications are subject to change. If you have any questions or need assistance, please contact us at:

FHOUEXP@halliburton.com

Under the U.S. Export Administration Regulations (EAR), the U.S. Government assigns your organization or client, as exporter/importer of record, responsibility for determining the correct authorization for the item at the time of export/import. Restrictions may apply to shipments based on the products, the customer, or the country of destination, and an export license may be required by the Department of Commerce prior to shipment. The U.S. Bureau of Industry and Security provides a web site to assist you with determining the need for a license and with information regarding where to obtain help. The URL is:

http://www.bis.doc.gov

Definitions

CCATS (Commodity Classification Automated Tracking System) — the tracking number assigned by the U.S. Bureau of Industry and Security (BIS) to products formally reviewed and classified by the government. The CCATS provides information concerning export/re-export authorizations, available exceptions, and conditions.

ECCN (Export Control Classification Number) — The ECCN is an alpha-numeric code, e.g., 3A001, that describes a particular item or type of item, and shows the controls placed on that item. The CCL (Commerce Control List) is divided into ten broad categories, and each category is

further subdivided into five product groups. The CCL is available on the <u>EAR web site</u> (http://www.access.gpo.gov/bis/ear/ear_data.html#ccl).

Five Product Groups A. Systems, Equipment and Components B. Test, Inspection and Production Equipment C. Material D. Software E. Technology

The ECCN Number, License Type, and the CCATS Numbers for this product are included in the table below.

Product/Component/ Version 5000	ECCN Number	License	CCATS Number
OpenWorks® Software	5D002C.1	ENC	G054746
GeoDataLoad TM Software	5D002	ENC	G049393



Enhancements and New Functionality

This section describes the changes in the OpenWorks® software.

OpenWorks® Software

- OpenWorks® Launcher in Windows for OpenWorks® and Landmark applications.
- No data model extensions. Any application that works with version 5000.8.1.0 of the OpenWorks® software will work with version 5000.8.3.0.
- Defect fixes.
- Changes were made in the following components of the OpenWorks® software:

Change Color Scheme	General Units Converter	Project Administration
Change Oracle User Password	Interpretation Data Manager	Project Status
Checkshot Data Manager (Linux Only)	Interpretation ID Manager	Project Upgrade
Curve Dictionary	Launcher Script for OpenWorks® Java Applications	Seismic Data Manager
Data Domain Manager	Lease List Manager	Seismic List Manager
Database Administration Tool — New	Lithologic Symbol Editor	SeisWorks® Development Kit (for seismic data access)
Database Query Tool	Map Projection Editor	Special Units Editor
DecisionSpace Infrastructure	Mapping Overlay Manager (Linux Only)	Surface/Fault Data Manager
Deviation Data Manager (Linux Only)	Measurement System Manager	Well Curve Viewer
Error Logger	Modify Database Users	Well Data Manager
Extend2Dline Utility	OpenWorks® Development Kit TM	Well List Manager
Field List Manager	OWSW (OpenWorks® and SeisWorks®) Data Access	Well Symbol Editor

GeodataLoad™ Software

- Data Import and Data Export Tools
 - Data Import and Data Export Wizards are refashioned to make them easier to use, and renamed Data Import and Data Export. The wizard actions have been removed.
 - Added to the Basic installation of the OpenWorks® and GeoDataLoad[™] software.
 - Improved tab interface, format editor, and other interface improvements.
 - New import data types
 - Horizon Data: Replaces the Mltexp utility, except for the binary formats, from the SeisWorks® software.
 - Log Curves: Replaces Curve Loader for DLIS, LAS, and LIS formats, but not userdefined ASCII formats. For this release, Curve Loader is still included with the GeoDataLoadTM software.
 - Well Data: Imports well data and some data types which loaders in previous versions might have loaded, such as position logs, directional surveys, time-depth tables, and synthetics. Replaces ASCII Loader, but ASCII Loader will remain in the GeoDataLoadTM software in order to load non-well data, such as lease information, and to load data in formats not yet supported in the Data Import tool.
 - Loader formats, such as IHS 297 and IHS 298 for ASCII Loader, and GeoGraphix® Wellbase ASCII 3, are supported in the Data Import tool.
- SEG Y Loader is refashioned and supports more data types. It is now called SEG Y Data Import.
 - *New* supported data types:
 - SEG Y 2D stacked
 - SEG Y 3D stacked
 - Multiple SEG Y 2D stacked
 - SEG Y Prestack 3D data sets
 - Promax Prestack 3D data sets
 - JavaSeis Prestack 3D data sets

- Batch stacked data sets
- *New* Format editor
- *New* SEG Y Data Export.
- Stimulation Data Loader supports multiple monitor wells.
- Defect fixes.
- Changes were made in the following components of the GeoDataLoadTM software:

ASCII Loader (Well Import)	Raster Log Import
Curve Loader	SEG Y Data Export
Data Export Wizard	SEG Y Data Loader
Data Import Wizard	Stimulation Data Loader
Project Data Transfer	Well Data Export

• Supported and tested formats for Data Import, and SEG Y Data Import:

Data Type	Format Type	Version
Log Curves	DLIS	
	LAS	1.2, 2.0
	LIS	
Wells	GeoGraphix® Wellbase ASCII	3
	IHS 297	fixed-length fields, comma-delimited fields
	IHS 298	fixed-length fields, comma-delimited fields
SEG Y	2D stacked	Revision 1
	3D stacked	SEG-P1, Revision 1



Fixed Issues

This section lists the most important issues and enhancements in the OpenWorks® and the GeoDataLoadTM software.

OpenWorks® Software

Configuration, Installation, and Generally

Defect ID Summary

- **895338** Installation: Add the new java loaders to the Basic installer in Windows.
- **899107** Installation: Add check for the StratWorks® executable links in \$OWHOME/bin to fmover and SegMenter.

Data Management

Defect ID Summary

- **886147** Seismic Data Manager: 2D line navigation is incorrect in ALL_DATA when loaded to an interpretation project (10 shotpoints with similar x,y coordinates).
- **894247** Seismic Data Manager: Loading 2D SEG Y data produces a blank window in the 2D survey list.
- **894960** Seismic Data Manager: Pack&Go 3D horizon import fails if Update 3D Survey is not selected.
- 902744 Seismic Data Manager: Conversion of the coordinate reference system (CRS) for 2D navigation data between a UTM and Lambert projection types produces incorrect results.

Database

Defect ID Summary

- **866665 Database**: When installing a fresh embedded Oracle database, the Oracle links should be included in the installation.
- **873972 Database**: While interpreting 2D lines and with eight sections tabs open displaying different lines, the DecisionSpace® DesktopTM software crashes.
- **900243 Database**: Oracle 10g to 11g upgrade. Spurious warning or error message about resource limits.

Project Management

Defect ID Summary

• **893459 Project Administration**: loggingIPRefresh.properties security hole. When modified for log output, it contained the name and password for the project database.

GeoDataLoad[™] Software

ASCII Loader

Defect ID Summary

- **852703 ASCII Loader**: On upgrade, Well Location Alternate and Well Surface Alternate Location, drop requirement to have Well Location ID.
- 857127 ASCII Loader: Well Header data lists Well Location ID as a Required Foreign Key.
- 860856 ASCII Loader: Allow easy or automatic loading of IHS production data.
- **881565 ASCII Loader**: Second update messes up Well Location and Well Header associations.
- **890192 ASCII Loader**: IHS297 formats (OCS, NE, CONG) do not load Well Location information.

- 892695 ASCII Loader: Need the ability to load IHS298 comma delimited files.
- **894246 ASCII Loader**: String replacement: By default Display All is selected when File > Open loads file to memory.

Curve Loader

Defect ID Summary

- 873857 Curve Loader: Utilize the service names.
- **884630 Curve Loader**: Update fields will update coordinate reference system (CRS) and change x,y coordinates, when the CRS of the well is different from the CRS of the project.
- **889787 Curve Loader**: Public interpretation ID loading a directional survey on top of a directional survey owned by a private interpretation ID generates orphan position log vectors.
- **890314 Curve Loader**: CrvldrBatch does not send out notification, Well Data Manager has to be refreshed to see new or updated data.
- **898896 Curve Loader**: Need a warning when adding new curve name to the Curve Dictionary.

Data Export

- Defect ID Summary
- 884014 Data Export: Fails on large project.
- **884094 Data Export**: Restoring a project updates the Fault_Plane table.
- **886028 Data Export**: Unable to find export centerlines option.
- **886554 Data Export**: Export shotpoint/trace ratio for 2D lines as per legacy Seismic Data Loader.
- **898380 Data Export**: Default Hungarian EOV fails to export grid and point set data. Produces a java.lang.NullPointerException (Mapping Translator to Writer).

Data Import

Defect ID Summary

- **851813 Data Import**: Review terminology used in Data Import and improve documentation.
- 870131 Data Import: Point Set To Grid data type: Imports evenly spaced rotated x,y,z data file without errors, but grid is inverted.
- 871312 Data Import: Cannot import or export horizons on Windows 7.
- 872765 Data Import: Crash and NullPointerException on import of fault data in Z-MAPTM format.
- **881389 Data Import**: Format to match legacy file format of version 2003 of the fie (fault import and export) application.
- **884269 Data Import**: GeoShape data type: Issues with file saved as comma delimited.
- 884280 Data Import: GeoShape data type: Imports data with header info as part of data set.
- **886425 Data Import**: ZMAP format VERT file (polygons) crashes Data Import.
- **886575 Data Import**: Raster Log Import data type: SIF/TIF pair fail to import.
- **886594 Data Import**: Custom format for ZMAP Mapping Polygon (VERT) file crashes Data Import.
- 887202 Data Import: Loading 2D navigation data from two separate files.
- **888370 Data Import**: Fault data type: Does not handle comma delimited data file correctly.
- **888772 Data Import**: Fault segment failed to import if format file without x,y coordinates defined.
- **889114 Data Import**: Enable Data Import to load LAS files.
- **890995 Data Import**: Log Curves data type: Load curves containing all NULL values, which the old loader would not load, thus causing problems in Well Data Manager.
- 891257 Data Import: Microseismic job fails to load if firstEventTime is not specified.
- **891349 Data Import**: Unchecking Hide Comments and creating a format causes some data to not load.

- **892064 Data Import**: Cntr Min and Cntr Max values stored incorrectly with the setting of the Positive SSTVD Values In The Input File Are options.
- **892912** Data Import: Setting OW_GDL_WIZARD_MEMORY_LIMIT in lgcenv.cf is not working.
- **894237** Data Import: Importing text grid gives SEVERE error, but expecting a float error.
- **894905** Data Import: Data on the either side of the international dateline gets flipped or mirrored.
- **896628** Data Import: Importing multiplexed point sets fails to record ZNon in all Point Set Field rows.
- **897150 Data Import**: With auto-detect format option, not correctly importing fault polygons in the Z-MAP PlusTM format.
- 908180 Data Import: Wells data type: For IHS data files with fixed-length fields, the well location UWI mapping in the format is not honored. The well location UWI can be manually mapped on the Format tab. However, when the well location UWI is mapped to a truncated well UWI from the data file, the truncated UWI for well location UWI is not honored, and the full UWI is imported for the well location UWI.

GGX ASCII 4 Exporter

Defect ID Summary

• 864219 GGX ASCII 4 Exporter: Well Header is exported multiple times when export log curve.

Raster Log Import

Defect ID Summary

- 872570 Raster Log Import: Raster Log importer is truncating well UWI's, when one of the import wells has less than 12 characters.
- **882001 Raster Log Import**: Case sensitivity when loading depth registered raster logs in SIF format.

SEG Y Data Export

Defect ID Summary

• 887005 SEG Y Data Export: SEG Y exported from Windows 7 only environment.

SEG Y Data Import

- Defect ID Summary
- **864411 SEG Y Data Import**: Default color map should be gray-scale, not spectrum.
- 865549 SEG Y Data Import: Trace header table display minimum and maximum bytes.
- **865551 SEG Y Data Import**: Load details should be filled out.
- **865552 SEG Y Data Import**: Extend export to other formats than 32-bit BRI (brick format).
- 865553 SEG Y Data Import: Set multiple values at a time.
- **865556 SEG Y Data Import**: Location of action buttons in bottom right of window is really annoying.
- **865557 SEG Y Data Import**: Simplify SEG Y data loading workflow.
- 871556 SEG Y Data Import: SEG Y export in SEG Y Data Import.
- **880423 SEG Y Data Import**: Ability to output to CMP format.
- 880537 SEG Y Data Import: Better error handling when dir.dat has no seismic directory.
- 901021 SEG Y Data Import: Selection of the 3D survey should be under the Navigation tab rather than under the Import tab.

Stimulation Data Loader

Defect ID Summary

• **890722** Stimulation Data Loader: User with Interpret role cannot create new wells if Interpretation ID PINN pre-exists.

Well Data Export

Defect ID Summary

• **898745** Well Data Export: GES_WBA2.wlx and GES_WBA2.wdl do not include any Original X/Lon or Y/Lat fields from Well Header, only Latitude/Longitude fields.

Known Issues

This section lists the important issues that exist in the OpenWorks® and GeoDataLoad™ software.

OpenWorks® Software

Configuration, Installation, and Generally

Defect ID Summary

Oracle Advanced Queuing and Post-installation Instructions in the *Installation Procedures* Manual

The Oracle database for the OpenWorks® database instance uses Oracle Advanced Queuing for communicating messages between applications. Overtime with Oracle 10g or 11g databases, millions of expired Oracle Advanced Queuing (AQ) messages could build up in the database and cause severe performance issues.

The Knowledge Base Solution S10092, "Oracle Advanced Queuing Issues in the OpenWorks R5000 Database," contains information which helps you recognize whether the AQ messages are building up in the database, and it provides a method for removing the messages.

Landmark strongly recommends that you follow the procedure in Solution S10092 after the installation of the OpenWorks database instance to prevent database performance issues.

• **896165** Windows Launcher: Issue with the drag and drop arrangement of icons.

Project Administration

Defect ID Summary

• **901646 Project Administration**: Cannot create interpretation project using Windows command line due to missing AOI coordinates.

GeoDataLoad™ Software

Data Import

D	efect ID	Summary
•	892804	Data Import : Contour Set data type: Definition of Remark as a prompted value is ignored in format for data type.
•	895087	Data Import : Log Curves data type: Needs a command line batch mode loading option.
•	895178	Data Import : Log Curves data type: On the Load Options tab, if curves already exist for the well, need an option for Append.
•	895323	Data Import : Log Curve data type: On the Format tab, a user has the ability to save over the delivered formats.
•	895446	Data Import : Log Curve data type: On the Format tab, a revert and refresh button is needed for the mnemonics table.
•	895983	Data Import : Log Curve data type: When new mnemonic rows are added in the Format tab, the rows only appear at the bottom of the table.
•	900992	Data Import: Job Date is not picked correctly from data file.
•	901560	Data Import : Log Curve data type: When selecting the data type, a delay of several seconds before the Log Curve Data Type panel is displayed. No delay in display time for the other data types.
•	901957	Data Import : Microseismic data type: Need a data scan to identify what date format the file is in.
•	902167	Data Import : Job running tool bar doesn't match actions. Reaches 100% before the process is completed.
•	902299	Data Import : Log Curve data type: For DLIS and LIS formats, the depth curve is imported and displayed in OpenWorks. The depth curve is not imported for the LAS format.
•	902379	Data Import : Wells data type: On the Format tab, the Add New File Section button is active when there is no parent section selected.

- 902742 Data Import: Log Curve data type: On the Data Type tab, the Date Format settings informs users that date containing / or a time stamp are not imported.
- **902824 Data Import**: Wells data type: When validating a format from the Format tab, no way to tell the validation is running.
- **902916 Data Import**: Horizon data type: Should provide a pick list if 3D survey is defined as a Prompt For item.
- **903113 Data Import**: Wells data type: Data Import crashes when load summary exported to an invalid location.
- **903267 Data Import**: Needs to be able to import lat/lon values in decimal form for seismic 2D lines.
- 903320 Data Import: Contours data type: When a contour file does not contain the expected flag, the new flag can be mapped, but the import causes Data Import to crash.
- **903727 Data Import**: Log Curve data type: Format File Editor displays a blank mnemonic for some log files.
- **903741 Data Import**: Log Curve data type: In Format File Editor, if an input mnemonic not found in a format file is added, but renamed, the input indicator is not correct.
- **903742 Data Import**: Log Curve data type: In Format File Editor, multiple mnemonics are listed in mnemonics not found table when multiple data files are selected.
- 903823 Data Import: When the Data Import tool is resized, the buttons at the bottom get cut off.
- **903834 Data Import**: A new well location UWI is created for each well header, even if the data file has the same Well Location UWI for all well headers.
- **903946 Data Import**: Horizon data type: Do not enable Import tab if a 3D Survey is not available for mapping of horizon.
- 904450 Data Import: Log Curve data type: In Format File Editor, in the DefaultCurveImport.bcl file, the Attribute Well Operator is not on the Attribute select list, but it is displayed as the default attribute value for CN, COMP, and COMPANY.
- **904808 Data Import**: Wells data type: Issue with the string replacement tool where the active window gets stuck behind the Data Import window and cannot be selected.
- **904818** Data Import: The IHS298prep.nawk script causes issues when loading data from IHS 298 data files with Data Import, where the file contains fixed-length fields.

If an IHS 298 data file had been copied from or to the Windows environment prior to executing the Nawk script, the script might have left unnecessary Return characters in the data file. The unnecessary Return characters may cause Data Import to load the data incorrectly.

Workaround: Data Import does not require changes to the data which the Nawk script makes.

If possible, use the original version of the file, and not the one changed by the Nawk script.

However, if the Nawk script has already been run on a data file, the following command replaces the unnecessary Return characters with Space characters, allowing you to load the data with Data Import and its IHS 298 format file, included in version 5000.8.3.0. The following command will replace the Return characters in a data file with Space characters:

cat -v SourceDataFile.98f | tr "^M" " " > ProcessedDataFile.98f

For example, if the source file is IHS_TestData_WinNawkIssue.98f and the processed file is IHS_TestData_Nawk.98f, the command would be the following:

cat -v IHS_TestData_WinNawkIssue.98f | tr "^M" " " > IHS_TestData_Nawk.98f

- **906055 Data Import**: Log Curve data type: Petrophysical values cannot be added in log curve format editor.
- **906083 Data Import**: Wells data type: If the well location already exists in the project database, import into the interpretation project fails.
- **906178 Data Import**: Log Curve data type: Petrophysical parameter values in delivered formats should exist in the default Petrophysical Parameters table.
- **907074 Data Import**: Wells data type: Original BH (Bottom Hole) x,y data is not being calculated on import for directional survey data.
- 907906 Data Import: Wells data type: Well location UWI does not map to a location correctly in IHS297 data files with fixed-length fields for a specific format mapping configuration. For example, if the well location UWI is mapped to part of the API number, while the well UWI is mapped to the UWI value in the data file, the well location UWI does not import correctly. On import, the mapped partial API value is ignored and the full UWI value is used for the well location UWI.

Workaround: Map the UWI data item of the Well Header category and the partial Well Location UWI data item to the same location in the START_US_WELL file section of the data file.

• 907913 Data Import: Log Curve data type: Issues when importing LAS data files with the version number 2.00; however, Data Import can load LAS data files without issues when the version number is 2.0.

Workaround: To change the version number in a number of LAS data files in a directory, a shell script can edit all files in the directory. The commands below will change the version number from 2.00 to 2.0, overwriting the existing LAS data files in the directory.

To use the shell script:

- Open a terminal window in Linux, or open an MKS shell in a Command Prompt window in Windows.
- Change directories to the directory where the files are located.
- Run the following command within the directory where the LAS data files are located.

In Linux (recursive; searches for files in the current directory and in any subdirectories):

find . -type f -name "*.[L,1][A,a][S,s]" -print0 | xargs -0 sed -i 's/2.00\([: \t]\+Ver[: \t]\+)2.00/2.0\12.0/'

In Linux (non-recursive; searches for files only in the current directory, and not in subdirectories):

```
find `pwd` -maxdepth 1 -type f -name "*.[L,1][A,a][S,s]" -
print0 | xargs -0 sed -i 's/2.00\([: \t]\+Ver[: \t]\+\)2.00/
2.0\12.0/'
```

In Windows (non-recursive; searches for files only in the current directory, and not in subdirectories):

for i in \$(find `pwd` -level 0 -name "*.LAS"); do (echo
Processing \$i; mv \$i \$i.orig ;sed 's/2.00\([: \t]\+Ver[:
\t]\+\)2.00/2.0\12.0/' \$i.orig > \$i);done;

The shell solution is available in script form from Knowledge Base Solution S12784 on the Landmark Customer Support Portal.

Alternatively, manually edit each LAS data file by replacing 2.00 with 2.0, or load the LAS data files with the 2.00 version number with Curve Loader.

• 907988 Data Import: Log Curves data type: In the Windows operating system, an import fails for LAS data files from the Petrel software, where a data file contains a date with a time stamp in it.

Workaround: Do one of the following: Edit the LAS data file, and remove the time stamp. Or, edit (or create a new format file from) the format file, DeafaultCurveImport.bcl, and remove the Date mnemonic.

• **908298** Data Import: Log Curves data type: In Windows, scan crashes when more than 159 LAS data files are selected for import.

Workaround: Load less than 150 data files at a time.

SEG Y Data Export

Defect ID Summary

- 902473 SEG Y Data Export: Shotpoints that are not whole numbers are exported as duplicates in SEG Y Export.
- 903045 SEG Y Data Export: Exporting seismic data sets and using them to extract navigation results in loss of precision of x,y values.

SEG Y Data Import

- Defect ID Summary
- **894940 SEG Y Data Import**: Need table sort function in batch import.
- **894941 SEG Y Data Import**: Add SEG Y Analyzer function in 2D import.
- **897584 SEG Y Data Import**: Add a option to calculate the expected memory requirements.
- 899088 SEG Y Data Import: Add the capability to merge to an existing data set.

- 900103 SEG Y Data Import: Prestack import of JavaSeis: The Import tab, Assigned Gather header does not match the Tertiary Header Name after scanning.
- **900881 SEG Y Data Import**: Page forward button gives no indication that the user is at the end of the trace range.
- 900884 SEG Y Data Import: Should respond to session change instead of forcing an exit.
- 900957 SEG Y Data Import: Add some echo statements to the console output of the SEG Y batch command showing progress.
- **901066 SEG Y Data Import**: Does not support extracting navigation from a geographic coordinate reference system (CRS).
- 901382 SEG Y Data Import: Provide information about parameters used in SEG Y Data Import.
- 901765 SEG Y Data Import: Add to the data model the ability to support stack SEG Y data access just like prestack SEG Y data access is supported.
- 902027 SEG Y Data Import: Provide usage for SegYBatchLoader command when no arguments are given.
- 902028 SEG Y Data Import: Provide informational output to the SEG Y Data Import window.
- 902246 SEG Y Data Import: Should get warning if no 2D line navigation is successful.
- 906948 SEG Y Data Import: Error logging for SEG Y Import is not behaving correctly.
- **908230 SEG Y Data Import**: Generating 2D line name from .sgy ASCII header works only if more than one row is selected.

Compatibility with Discovery[™] On OpenWorks[®] Software

The Discovery[™] on OpenWorks[®] (DOW) software directly links a Discovery[™] application to the data in an OpenWorks[®] project, and provides a shared project environment for interpretation applications. Landmark has delivered the OpenWorks and DOW software for Release 5000, and it will continue to provide updates and enhancements to these products. When planning your uptake of Release 5000 and verifying your workflow, you should consider version compatibility between the OpenWorks software and the Discovery on OpenWorks software.

In the **Compatibility Table** section below, the table indicates the level of compatibility of previous releases and of upcoming scheduled and planned releases. This table will be updated as new releases are planned. The objective is to provide closely coupled compatible versions of the software to allow you to more easily take up current releases.

Landmark performs full release testing for those combinations indicated as *Release* in the table, but may not exercise full release testing on other version combinations. For these interactive releases, Landmark performs compatibility testing between the OpenWorks and DOW software (indicated as *Compatibility* in the table). See the table below for the level of testing for each version combination. Although Landmark does not anticipate any integration issue, it is recommended that customers also verify compatibility in their own environment.

Landmark supports the versions listed as *Release* in the table. However, while Landmark has completed compatibility testing, Landmark Support may not be able to fully support the versions listed as *Compatibility* in the table. When requesting support for a *Compatibility* environment, Landmark Support works on a best effort basis to troubleshoot any issues, and if an issue needs additional attention, Landmark Support reports such issues to the Research & Development group of Landmark. Landmark Support cannot guarantee any resolution service levels associated with issues from a *Compatibility* environment.

Combinations which have not been tested, either in the full release or in a compatibility environment, are listed as *Untested*. Combinations of versions not listed are *Not Compatible* and will not operate together, or the version was not released at the time this document was published.

The most current version of this information, and an overview of suggested compatibility test paths, is available as Solution Documents 170465, 176387, 183685, and 185767.

Compatibility Table

	DOW Release Version License Version	OpenWorks Release Version	Verification Testing
July, 2011	2012.0.0 5000.02	5000.8.0.0	Release
March, 2011	2012.0.0 5000.02	5000.0.3.5	Compatibility
December, 2010	2012.0.0 5000.02	5000.0.3.0	Compatibility
November, 2010	2012.0.0 5000.02	5000.0.2.9	Untested
November, 2010	2012.0.0 5000.02	5000.0.2.8	Untested
August, 2010	2012.0.0 5000.02	5000.0.2.7	Untested
March, 2011	5000.0.2.5 5000.02	5000.0.3.5	Release
December, 2010	5000.0.2.5 5000.02	5000.0.3.0	Compatibility
November, 2010	5000.0.2.5 5000.02	5000.0.2.9	Untested
November, 2010	5000.0.2.5 5000.02	5000.0.2.8	Untested
August, 2010	5000.0.2.5 5000.02	5000.0.2.7	Release
December, 2010	5000.0.2.1 5000.02	5000.0.3.0	Release
November, 2010	5000.0.2.1 5000.02	5000.0.2.9	Untested
November, 2010	5000.0.2.1 5000.02	5000.0.2.8	Untested
August, 2010	5000.0.2.1 5000.02	5000.0.2.7	Release

Bold in the Release Version columns indicates a major version change in the software.

	DOW Release Version License Version	OpenWorks Release Version	Verification Testing
November, 2010	5000.0.2.0 5000.01	5000.0.2.9	Untested
November, 2010	5000.0.2.0 5000.01	5000.0.2.8	Untested
August, 2010	5000.0.2.0 5000.01	5000.0.2.7	Release
		·	
March, 2010	5000.0.1.1 5000.01	5000.0.2.2	Release
September, 2008	5000.0.1.1 5000.01	5000.0.0.3	Release
November, 2009	5000.0.1.0 5000.01	5000.0.2.0	Compatibility
November, 2009	5000.0.1.0 5000.01	5000.0.1.7	Release
September, 2009	5000.0.1.0 5000.01	5000.0.1.6	Compatibility
August, 2009	5000.0.1.0 5000.01	5000.0.1.5	Compatibility

Contacting Landmark Customer Support

Landmark software operates Technical Assistance Centers (TACs) in Australia, the United Kingdom, and the United States. Additional support is also provided through regional support offices around the world.

- Support Via Web Portal
- Technical Assistance Centers
- Regional Offices

Support Via Web Portal

Support information is always available on the Landmark Customer Support internet page. You can also submit a support request directly to Landmark Customer Support though the Landmark Customer Support Portal:

http://css.lgc.com/InfoCenter/index?page=home

To request support in the Landmark Customer Support Portal:

- 1. In the **PIN** and **Password** text boxes in the Please Sign In area, enter your registered personal identification number and password.
- 2. Click the **Sign In** button.
- 3. In the Case & Defect Information area, click the **Create A New Case** link.
- 4. In the **Create Case** area, fill in the necessary information. Provide details about your technical concern, including any error messages, the workflow steps where the problem occurred, and attachments of screen shots that display the problem. To help understand the concern, you can also attach other files too, such as example data files.
- 5. Click the **Submit** button. A support analyst in the nearest Technical Assistance Center will respond to your request.

Technical Assistance Centers

Asia, Pacific 8:00 am - 5:00 pm Local Time Monday-Friday, excluding holidays

Europe, Africa, Middle East 8:00 am - 5:30 pm Local Time Monday - Friday, excluding holidays

Latin America (Spanish, Portuguese, English) 7:00 am - 5:00 pm Local Time

North America 7:30 am - 5:30 pm Central Standard Time Monday - Friday, excluding holidays **61-8-9481-4488 (Perth, Australia)** Toll Free 1-800-448-488 Fax: 61-8-9481-1580 Email: <u>apsupport@lgc.com</u>

44-1372-868686 (Leatherhead, UK) Fax: 44-1224-723260 (Aberdeen, UK) Fax: 44-1372-868601 (Leatherhead, UK) Email: <u>support@lgc.com</u>

713-839-3405 (Houston, TX, USA) Fax: 713-839-3646 Email: <u>soporte@lgc.com</u>

713-839-2200 (Houston, TX, USA) Toll Free 1-877-435-7542 (1-877-HELP-LGC) Fax: 713-839-2168 Email: <u>support@lgc.com</u>

Regional Offices

For contact information for regional offices, see the Contact Support page located at:

http://css.lgc.com/InfoCenter/index?page=contact§ion=contact

If problems cannot be resolved at the regional level, an escalation team is called to resolve your incidents quickly.

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Broader Understanding., Depth Team, Depth Team Explorer, Depth Team Express, Depth Team Extreme, Depth Team Interpreter, DepthTeam, DepthTeam Explorer, DepthTeam Express, DepthTeam Extreme, DepthTeam Interpreter, Desktop Navigator, DESKTOP-PVT, DESKTOP-VIP, DEX, DIMS, Discovery, Discovery 3D, Discovery Asset, Discovery Framebuilder, Discovery PowerStation, Discovery Suite, DMS, Drillability Suite, Drilling Desktop, DrillModel, DrillNeT, Drill-to-the-Earth-Model, Drillworks, Drillworks ConnectML, Drillworks Predict, DSS, Dynamic Frameworks to Fill, Dynamic Reservoir Management, Dynamic Surveillance System, EDM, EDM AutoSync, EDT, eLandmark, Engineer's Data Model, Engineer's Desktop, Engineer's Link, ENGINEERING NOTES, eNotes, ESP, Event Similarity Prediction, ezFault, ezModel, ezSurface, ezTracker, ezTracker2D, ezValidator, FastTrack, Field Scenario Planner, FieldPlan, For Production, FrameBuilder, Frameworks to Fill, FZAP!, GeoAtlas, GeoDataLoad, GeoGraphix, GeoGraphix Exploration System, Geologic Interpretation Component, Geometric Kernel, GeoProbe, GeoProbe GF DataServer, GeoSmith, GES, GES97, GesFull, GESXplorer, GMAplus, GMI Imager, Grid3D, GRIDGENR, H. 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