

# Data Analyzer 5000.0.0

## Release Notes

***Landmark***

### Contents

|   |    |
|---|----|
| Introduction .....  | 2  |
| System Requirements .....   | 3  |
| Third Party Applications .....  | 4  |
| Installation .....  | 5  |
| Licensing .....   | 6  |
| Database Upgrade (SQL Server 2005, SQL Server 2005 Express, and Oracle) ..... | 7  |
| Enhancements and New Functionality .....                                      | 8  |
| Problems Fixed .....  | 9  |
| Contacting Support .....  | 13 |

**HALLIBURTON**

## Introduction

This document contains important information and last minute changes related to Data Analyzer 5000.0.0 that is not documented elsewhere. Data Analyzer is an application in the Engineer's Desktop 5000.0.0 release, which provides major new functionality in support of the Drilling and Completions applications on the shared EDM data model.

## System Requirements

For details, refer to the ‘System Requirements’ section of the *Engineer’s Desktop 5000.0.0 Drilling Summary Level Release Notes*.

## Third Party Applications

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

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

[Installldir]\Documentation\Third\_Party.pdf.

Refer to the *Engineer's Desktop 5000.0.0 Drilling Summary Level Release Notes* to view a table describing a complete list of the third-party applications that are in Engineer's Desktop Release 5000.0.0.

# Installation

For details, refer to the “Installation” section of the *Engineer’s Desktop 5000.0.0 Drilling Summary Level Release Notes*.

**IMPORTANT:**

Engineer’s Desktop 5000.0.0 is a new product. If you are currently using a pre-2003.21 EDM database, you must upgrade your EDM database to 2003.21 prior to upgrading to the 5000.0.0 release. Once the database has been upgraded to 5000.0.0, you will no longer be able to access it using the 2003.21 EDT applications.

You cannot run an earlier version of Engineer’s Desktop on the same machine with Engineer’s Desktop 5000.0.0. Consequently, if you want to be able to run both 2003.21 and 5000.0.0 applications, make a copy of your 2003.21 database and upgrade the copy to 5000.0.0 (the databases must be on different machines).

Refer to the ‘Installation’ section of the *Engineer’s Desktop 5000.0.0 Drilling Summary Level Release Notes* for details.

## Licensing

There have been significant changes to licensing for the 5000.0.0 release. For details, refer to the Licensing section of the *Engineer's Desktop 5000.0.0 Drilling Summary Level Release Notes*.

[If there is any specific info on the 'borrow' licensing feature for this app, it will go here, as will anything else specific to your app]

## Database Upgrade (SQL Server 2005, SQL Server 2005 Express, and Oracle)

Refer to the “Upgrading the Database” section of the *Engineer’s Desktop 5000.0.0 Drilling Summary Level Release Notes* for information on upgrading your EDM database to the 5000.0.0 version.

**You must upgrade your existing EDM database(s) BEFORE using 5000.0.0**

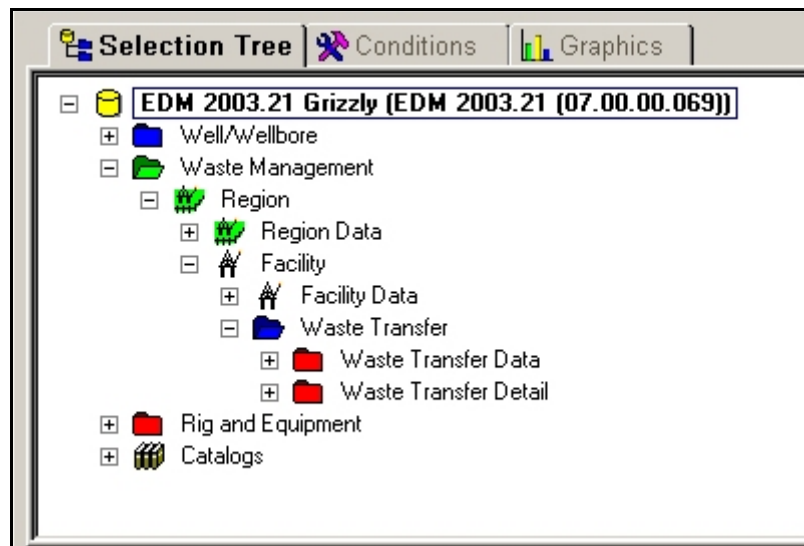
You must upgrade versions of your database(s) created with earlier versions of the software before running the 5000.0.0 software.

## Enhancements and New Functionality

The 5000.0.0 release of Engineer's Desktop supports the Microsoft Vista operating system, has new LAM (FLEXnet Publisher) licensing, and contains some critical bug fixes.

In addition, the following enhancements were added to the Data Analyzer 5000.0.0 release.

The 5000.0.0 release of the Engineer's Desktop does not contain any new enhancements or functionality specific to the Data Analyzer application. Some customer reported issues were resolved and are detailed in the Fixed Problems section of these notes. The Selection Tree metadata used for both Data Analyzer and the Data Validation feature within OpenWells (including EDM Administration Rule Book editor) has been updated to reflect data model changes and additions that are new for the EDT 5000.0.0 release. This includes being able to query data in the new Completions Catalogues, Multi-Wellbore Well Planning, and Oilfield Waste Management extensions to OpenWells.



**Figure 1:** New Waste Management node and supporting data in Data Analyzer Selection Tree.



## Problems Fixed

The following problems were either fixed or have workarounds for the 5000.0.0 release.

| <b>D/E</b> | <b>Subject</b>  | <b>Index Level 1</b> | <b>Index Level 2</b> |
|------------|---|----------------------|----------------------|
| 728645     | Catalogue Editor Tree should be in sort order                                       | Core App             |                      |
| 730022     | Fluids (CD_Fluid) View should not be linked in when reporting on Stimulation Views. | Query                | Key Joins            |
| 735916     | Graph Wizard Step 3 dialog name is wrong.   | Graphics             | Graph Wizard         |

## Known Problems

The following are known problems for the Engineer's Desktop 5000.0.0 release.

| D/E    | Subject  | Index Level 1             | Index Level 2 |
|--------|--|---------------------------|---------------|
| 166581 | Query Tool: Suggested functionality FIND & REPLACE   | Query Results Spreadsheet |               |
| 175543 | There should be an option to stop the query.   | Core App                  |               |
| 178072 | Console Method for launching Data Analyzer?  | Core App                  |               |
| 178704 | Need multi-graph print option to print all graphs  | Graphics                  |               |
| 616192 | Data Analyzer does not keep the percentage (%) values on the pie graph.  | Graphics                  |               |
| 617215 | Require Virtual Field support in the Selection Tree  | Selection Tree            |               |
| 617453 | Numeric Parameters should display Units  | Parameters                |               |
| 630290 | trying to get the ending mud inventory on OpenWells with data analyzer   | Conditions                | Conditions    |
| 700693 | Query Key Joins needs to support 'Omit Join' for all join relationships  | Query                     | Key Joins     |
| 700694 | Selection Tree needs to recognize is_hidden flag in Data Dictionary  | Selection Tree            |               |
| 701244 | User wants to include TOW's table to co-relate Drilling and Production data                                      | Database                  |               |
| 720335 | Data Analyzer should record and display the creation and modification date of a query along with the query name. | Core App                  |               |
| 720609 | Would like one click selection for a report rather than clicking on all fields                                   | Selection Tree            |               |

| <b>D/E</b> | <b>Subject</b>   | <b>Index Level 1</b> | <b>Index Level 2</b> |
|------------|--|----------------------|----------------------|
| 726662     | Need Vertical Section field added to CD_Survey_Station Table.                                  | Database             | Data Model           |
| 726830     | Enhance Data Analyzer to search for attachments by file name                                   | Database             | Other                |
| 727129     | New Change History information for Designs cannot be queried                                   | Selection Tree       | Tree View            |
| 727464     | Need a token to allow user to save DA queries as iWellfile queries.                            | Core App             |                      |
| 727637     | Request change to the links between the rig and the well information.                          | Query                | Key Joins            |
| 727822     | Users need to be able to change Query Time-out value   | Core App             |                      |
| 728728     | When DM_Bit_Op table is included, then can't report on other BHA Components.                   | Query Design         |                      |
| 730152     | Parameter construction should detect conflict between Parameter name and Query Attribute Name  | Parameters           |                      |
| 731179     | Unable to process duplicate column names in the same query                                     | Selection Tree       | Tree View            |
| 732673     | DA shows Chinese characters as ? in spread sheet and graphics results                          | Core App             |                      |
| 733440     | Graphics tab layout needs to be designed for 1024x768 so that 'Data Series' window can be seen | Core App             |                      |
| 734919     | Parameter Picklists require 'Distinct' support particularly for data picklists                 | Query Design         |                      |
| 735865     | Secondary Y Axis does not work for 2D Bar Graphs set to Horizontal                             | Graphics             | Graphics Toolbar     |

| <b>D/E</b> | <b>Subject</b>  | <b>Index Level 1</b> | <b>Index Level 2</b> |
|------------|---|----------------------|----------------------|
| 736669     | Find Function on Data Analyzer Selection Tree   | Selection Tree       |                      |
| 739542     | Request same Filtering Functionality (Ctrl-F) in Data Analyzer that is in OpenWells   | Filter               |                      |
| 739882     | OpenWells, Wellbore Properties, General Tab, Wellbore Type is missing from DA Tree  | Selection Tree       | Tree View            |
| 743285     | Data Analyzer - Cementing Report - No 'Report No.' in the query   | Query                |                      |
| 743400     | File > Open Query dialog very slow to fire up   | Query                |                      |
| 750218     | Not all catalog types from Catalog Editor are shown in the Catalogs section of the Selection tree in Data Analyzer.                                     | Selection Tree       |                      |
| 750650     | Query of Production Equipment Failure data can't join PEF tables (DM_PROD_EQUIP_FAIL)with Event table (DM_EVENT), "no results from query" is the result | Selection Tree       |                      |

## Contacting Support

Landmark operates Technical Assistance Centers (TACs) in Australia, the United Kingdom, and the United States. Additional support is also provided through local support offices around the world. Local support office information is listed below. If problems cannot be resolved at the district level, our escalation team is called to resolve your incidents quickly.

Support information is always available on the Landmark Graphics Support internet page located at: <http://css.lgc.com/CustomerSupport/CustomerSupportHome.jsp>.

### Technical Assistance Centers

**North America**

7:30 am - 5:30 pm Central Standard Time  
Monday - Friday, excluding holidays

**713-839-2200 (Houston, TX, USA)****Toll Free 1-877-435-7542****(1-877-HELP-LGC)**

Fax: 713-839-2168 (Houston, TX)

Fax: 907-275-2655 (Anchorage, AK)

Fax: 303-796-0807 (Denver, CO)

Fax: 403-262-1929 (Calgary, Canada)

Email: [support@lgc.com](mailto:support@lgc.com)**Latin America**

(Spanish, Portuguese, English)

7:00 am - 5:00 pm Central Standard Time

Local normal business hours

**1-713-839-3405 (Houston, TX, USA)**

Fax: 713-839-3646

Email: [soporte@lgc.com](mailto:soporte@lgc.com)

Toll Free from:

Argentina: 0800-800-5263

Brazil: 0800-891-0837

Chile: 800-201-898

Colombia: 01800-915-4743

Mexico: 001-888-438-1296

Peru: 0800-51634

Trinidad: 1-888-438-1296

Venezuela: 0-800-526-3627

Toll Free from local area:

Ecuador (Quito) (02)226-1908

**Europe, Africa, Middle East**

8:00 am - 5:30 pm Local Time

Monday - Friday, excluding holidays

**44-1372-868686 (Leatherhead, UK)**

Fax: 44-1372-868601 (Leatherhead, UK)

Fax: 44-1224-723260 (Aberdeen, UK)

Email:

[eame\\_helpdesk@lgc.com](mailto:eame_helpdesk@lgc.com)

**Asia, Pacific**

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

**61-8-9481-4488 (Perth, Australia)****Toll-free 1-800-448-488**

Fax: 61-8-9481-1580

Email:

[apsupport@lgc.com](mailto:apsupport@lgc.com)

Toll-Free from:

China: 10-800-6100-253

Indonesia: 001-803-61284

Japan: 00531-61-0021

Malaysia 1800-803-687

New Zealand 0800-400-555

South Korea 00308-61-0046

Taiwan 0080-161-1350

Thailand 001-800-611-2784

Toll Free from local area:

Vietnam: 84-8-9191901

India: 91-11-622-1885 (c/o Samit Enterprises)

**District Support Offices****Algeria (Algiers)**

8:30 am - 4:30 pm Local Time  
Saturday - Wednesday excluding holidays

21-337-7239

Email: [support@lgc.com](mailto:support@lgc.com)**Angola (Luanda)**

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

213 2137 7239

Email: [support@lgc.com](mailto:support@lgc.com)**Argentina (Buenos Aires)**

9:00 am - 6:00 pm  
Local time

**54-11-4312-8411****Toll Free 0800-800-5263**

Fax: 54-11-4311-9566

Email: [soporte@lgc.com](mailto:soporte@lgc.com)**Australia (Perth)**

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

**61-8-9481-4488****Toll Free 1800-448-488**

Fax: 61-8-9481-1580

Email: [apsupport@lgc.com](mailto:apsupport@lgc.com)**Brazil (Rio de Janeiro)**

8:00 am - 5:30 pm  
Local Time

**55-21-3974-4000 or****Toll Free 0800-891-0837**

Fax: 55-21-3974-4002

Email: [soporte@lgc.com](mailto:soporte@lgc.com)**Brunei (Bandar Seri Bagawan)**

8:30 am - 5:30 pm Local Time  
Monday - Friday, excluding holidays

**67-3-233-5319**Email: [apsupport@lgc.com](mailto:apsupport@lgc.com)

**Canada (Calgary)**

7:30 am - 5:30 pm Central Standard Time  
Monday-Friday, excluding holidays

**Toll Free 1-877-435-7542  
(1-877-HELP-LGC)**

Fax: 403-262-1929 (Calgary, Canada)  
Fax: 713-830-2168 (Houston, TX)  
Email: [support@lgc.com](mailto:support@lgc.com)

**Chile (TAO TAC, Houston, Texas)**

Local normal business hours

**Toll Free 800-201-898**

Fax: 1-713-839-3646  
Email: [soporte@lgc.com](mailto:soporte@lgc.com)

**Colombia (Bogota)**

8:00 am - 5:00 pm  
Local Time

**57-1-326-4000**

**57-1-326-6710**

**Toll Free 01800-915-4743**

Fax: 57-1-326-6717  
Email: [soporte@lgc.com](mailto:soporte@lgc.com)

**Ecuador (Quito)**

8:00 am - 5:00 pm  
Local Time

**59-32-226-1844**

**Toll Free from Quito (02)226-1908**

Fax: 59-32-226-2590  
Email: [soporte@lgc.com](mailto:soporte@lgc.com)

**Egypt (Cairo)**

8:00 am - 4:00 pm Local Time  
Saturday - Wednesday, excluding holidays

**20-2-759-1717**

**(ask for Landmark Technical Support)**

Email: [support@lgc.com](mailto:support@lgc.com)

**India (New Delhi)**

9:00 am - 5:30 pm Local Time  
Local Business Days, excluding holidays

**91-11-622-1885**

(c/o Samit Enterprises)

Fax: 91-11-647-9246  
Email: [apsupport@lgc.com](mailto:apsupport@lgc.com)

**Indonesia (Jakarta)**

7:30 am - 4:30 pm Local Time  
Monday - Friday, excluding holidays

**62-21-3003-9039 or**

**Toll Free 001-803-61284**

Fax: 62-21-3003-9088  
Email: [apsupport@lgc.com](mailto:apsupport@lgc.com)

**Japan**

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

**Toll Free 00531-61-0021**

Email: [apsupport@lgc.com](mailto:apsupport@lgc.com)

**Malaysia (Kuala Lumpur)**

8:30 am - 5:30 pm Local Time  
Monday - Friday, excluding holidays

**603-2164-1121 or**

**Toll Free 1-800-803-687**

Fax: 603-2164-1135  
Email: [apsupport@lgc.com](mailto:apsupport@lgc.com)

**Mexico (Reynosa)**

8:00 am - 6:00 pm

Local Time

**52-555-208-3533****52-555-208-3868****Toll Free 001-888-438-1296**

Local Office Fax: 52-555-514-7646

Email: [soporte@lgc.com](mailto:soporte@lgc.com)**New Zealand (New Plymouth)**

8:00 am - 5:00 pm Local Time

Monday - Friday, excluding holidays

**61-6-755-2318****Toll Free 0800-400-555**

Fax: 64-6-755-2407

Email: [apsupport@lgc.com](mailto:apsupport@lgc.com)**Nigeria (Lagos)**

8:00 am - 5:00 pm Local Time

Monday - Friday, excluding holidays

**234-1-461-0780****(ask for Landmark Technical Support)**

Fax: 234-1-262-0769

Email: [support@lgc.com](mailto:support@lgc.com)**People's Republic of China (Beijing)**

9:00 am - 5:30 pm Local Time

Monday - Friday, excluding holidays

**86-10-8486-4501****Toll Free 10-800-6100-253 or****10-800-810-0209**

Fax: 86-10-8486-4819

Email [bjsupport@lgc.com](mailto:bjsupport@lgc.com)or [apsupport@lgc.com](mailto:apsupport@lgc.com)**Peru (Lima)**

Local normal business hours

**Toll Free 0800-51634**

Fax: 001-713-839-9646

Email: [soporte@lgc.com](mailto:soporte@lgc.com)**Russia (Moscow)**

7:00 am - 5:00 pm Local Time

Local Business Days, excluding holidays

**7-495-960-2926****7-495-960-2927****(ask for Landmark Technical Support)**

Fax: 7-095-755-8301

Email: [support@lgc.com](mailto:support@lgc.com)**South Korea**

8:00 am - 5:00 pm Local Time

Monday - Friday, excluding holidays

**Toll Free 00308-61-0046**Email: [apsupport@lgc.com](mailto:apsupport@lgc.com)**Taiwan**

8:30 am - 5:30 pm Local Time

Monday-Friday, excluding holidays

**Toll Free 00801-61-1350**Email: [apsupport@lgc.com](mailto:apsupport@lgc.com)**Thailand (Bangkok)**

8:00 am - 5:00pm Local Time

Monday - Friday, excluding holidays

**66-2-278-8100****Toll Free 001-800-611-2784**

Fax: 66-2-278-8199

Email: [apsupport@lgc.com](mailto:apsupport@lgc.com)



**Trinidad & Tobago (TAO TAC, Houston, TX)**

7:00 am - 5:00 pm Central Standard Time  
(Houston, TX)  
Local normal business hours

**Toll Free: 1-888-438-1296**

Fax: 1-713-839-3646  
Email: [soporte@lgc.com](mailto:soporte@lgc.com)

**United Arab Emirates (Dubai)**

7:00 am - 5:00 pm Local Time  
Local Business Days, excluding holidays

**+971-4-3036446**

**(ask for Landmark Technical Support)**

Fax: +971-4-3315837  
Email:  
[gulf\\_support@lgc.com](mailto:gulf_support@lgc.com)  
[eame\\_helpdesk@lgc.com](mailto:eame_helpdesk@lgc.com)

**United Kingdom**

8:00 am - 5:30 pm Local Time  
Monday - Friday, excluding holidays

**44-1372-868686 (Leatherhead)**

Fax: 44-1372-868601 (Leatherhead)  
Fax 44-1224-723260 (Aberdeen)  
Email: [support@lgc.com](mailto:support@lgc.com)

**United States (Anchorage)**

7:30 am - 5:30 pm Central Standard Time  
Monday - Friday, excluding holidays

**Toll Free 1-877-435-7542**

*(1-877-HELP-LGC)*  
Fax: 907-275-2655  
Email: [support@lgc.com](mailto:support@lgc.com)

**United States (Denver)**

7:30 am - 5:30 pm Central Standard Time  
Monday - Friday, excluding holidays

**Toll Free 1-877-435-7542**

*(1-877-HELP-LGC)*  
Fax: 303-796-0807  
Email: [support@lgc.com](mailto:support@lgc.com)

**United States (Houston)**

7:30 am - 5:30 pm Central Standard Time  
Monday - Friday, excluding holidays

**713-839-2200**

**Toll Free 1-877-435-7542**  
*(1-877-HELP-LGC)*  
Fax: 713-839-2168  
Email: [support@lgc.com](mailto:support@lgc.com)

**Venezuela (Caracas)**

8:00 am - 5:00 pm  
Local Time

**58-212-953-0774**

**Toll Free 0-800-526-3627**  
Fax: 58-212-952-3845  
Email: [soporte@lgc.com](mailto:soporte@lgc.com)

**Vietnam (Ho Chi Minh City)**

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

**84-8-910-1901**

Fax: 84-8-910-1902  
Email: [apsupport@lgc.com](mailto:apsupport@lgc.com)

Helpful internet links are shown below.

| Name                        | Website Address   |
|-----------------------------|---|
| Landmark Graphics home page | <a href="http://www.lgc.com">http://www.lgc.com</a>       |
| Landmark Graphics FTP Site  | <a href="ftp://ftp.lgc.com">ftp://ftp.lgc.com</a>         |
| Oracle home page            | <a href="http://www.oracle.com">http://www.oracle.com</a> |

| Name                                | Website Address   |
|-------------------------------------|---|
| FLEXlm license management software  | <a href="http://www.macrovision.com">http://www.macrovision.com</a>   |
| Microsoft SQL Server 2005 home page | <a href="http://www.microsoft.com/sql/default.asp">http://www.microsoft.com/sql/default.asp</a>                                   |
| Adobe Acrobat Reader                | <a href="http://www.adobe.com">http://www.adobe.com</a>   |
| Microsoft SQL Server 2005 Express   | <a href="http://www.microsoft.com/sql/editions/express/default.msp">http://www.microsoft.com/sql/editions/express/default.msp</a> |

## Trademarks

3D Drill View, 3D Drill View KM, 3DFS, 3D Surveillance, 3DView, Active Field Surveillance, Active Reservoir Surveillance, ADC, Advanced Data Transfer, ARIES, ARIES DecisionSuite, AssetConnect, Asset Decision Solution, Asset Development Center, Asset Journal, AssetLink, AssetLink Advisor, AssetLink Director, AssetLink Observer, AssetObserver, AssetObserver Advisor, Asset Performance, AssetPlanner, AssetSolver, AssetSolver Online, AssetView, BLITZPAK, CasingSeat, COMPASS, Corporate Data Archiver, Corporate Data Store, Data Analyzer, DataManager, DataStar, DBPlot, DecisionSpace, DecisionsSpace, 3D Drill View KM, DecisionSpace AssetLink, DecisionSpace AssetPlanner, DecisionSpace AssetSolver, DecisionSpace AssetView 2D, DecisionSpace AssetView 3D, DecisionSpace Atomic Meshing, DecisionSpace Decision Management Systems(DMS), DecisionSpace for Production, DecisionSpace Nexus, DecisionSpace PowerGrid, DecisionSpace PowerModel, DecisionSpace PrecisionTarget, DecisionSpace Reservoir, DecisionSpace TracPlanner, DecisionSpace Well Seismic Fusion, DecisionSpace WellSolver, DecisionSuite, DepthTeam, DepthTeam Explorer, DepthTeam Express, DepthTeam Extreme, DepthTeam Interpreter, Desktop Navigator, DESKTOP-PVT, DESKTOP-VIP, DEX, DIMS, Discovery, Discovery Asset, Discovery PowerStation, DMS, Drillability Suite, Drilling Desktop, DrillModel, Drill-to-the-Earth Model, DSS, Dynamic Reservoir Management, Dynamic Surveillance System, EarthCube, EDM, EDT, eLandmark, Engineer's Data Model, Engineer's Desktop, Engineer's Link, ESP, Event Similarity Prediction, Executive Assistant, ezFault, ezSurface, ezTracker, FastTrack, FG+, FieldPlan, Field Scenario Planner, FZAP!, GeoAtlas, GeoDataLoad, GeoGraphix, GeoGraphix Exploration System, GeoLink, GeoProbe, GeoProbe GF DataServer, GES, GESXplorer, GMaplus, GMI Imager, GRIDGENR, Handheld Field Operator, HHFO, I<sup>2</sup> Enterprise, iDIMS, IsoMap, iWellFile, Landmark, Landmark Decision Center, Landmark & Design, Landmark Logo and Design, Landscape, Lattix, LeaseMap, LMK Resources, LogEdit, LogM, LogPrep, Magic Earth, MagicDesk, Make Great Decisions, MathPack, MIMIC, MIMIC+, Model Builder, MyLandmark, Nexus, Object MP, OpenBooks, Open Explorer, OpenJournal, OpenSGM, OpenVision, OpenWells, OpenWire, OpenWorks, OpenWorks Development Kit, OpenWorks Well File, OpenWorks Production, PAL, Parallel-VIP, PetroBank, PetroBank Master Data Store, PetroWorks, PetroWorks Asset, PetroWorks Pro, PetroWorks ULTRA, PlotView, Point Gridding Plus, Pointing Dispatcher, PostStack, PostStack ESP, PostStack Family, PowerCalculator, PowerExplorer, PowerExplorer Connect, PowerGrid, PowerHub, Power Interpretation, PowerJournal, PowerModel, PowerView, PrecisionTarget, Presgraf, PRIZM, Production Asset Manager, PROFILE, Project Administrator, ProMAGIC, ProMAGIC Connect, ProMAGIC Server, ProMAX, ProMAX 2D, ProMAX 3D, ProMAX 3DPSPDM, ProMax 4D, ProMax Family, ProMAX MVA, ProMAX VSP, pSTax, Query Builder, Quick, Quick+, QUICKDIF, QuickWell, QuickWell+, QUIKDIF, QUIKRAY, QUIKSHOT, QUIKVSP, RAVE, RAYMAP, RAYMAP+, Real Freedom, Real Time Asset Management Center, Real Time Decision Center, Real Time Operations Center, Real Time Production Surveillance, Real Time Surveillance, Real-Time View, Reference Data Manager, RESev, ResMap, RightTime, RTOC, SCAN, SeisCube, SeisMap, SeisModel, SeisSpace, SeisVision, SeisWell, SeisWorks, SeisWorks 2D, SeisWorks 3D, SeisWorks PowerCalculator, SeisWorks PowerJournal, SeisWorks PowerView, SeisXchange, Semblance Computation and Analysis, Sierra Family, SigmaView, SimConnect, SimConvert, SimDataStudio, SimResults, SimResults+, SimResults+3D, SIVA, SIVA+, smartSECTION, Spatializer, SpecDecomp, StrataAmp, StrataMap, StrataModel, StrataSim, StratWorks, StrataWorks 3D, StreamCalc, StressCheck, STRUCT, Structure Cube, Surf & Connect, SynTool, SystemStart, SystemStart for Clients, SystemStart for Servers, SystemStart for Storage, Tanks & Tubes, TDQ, Team Workspace, TERAS, The Engineer's Desktop, Total Drilling Performance, TOW/cs, TOW/cs Revenue Interface, TracPlanner, Trend Form Gridding, Turbo Synthetics, VESPA, VESPA+, VIP, VIP-COMP, VIP-CORE, VIPDataStudio, VIP-DUAL, VIP-ENCORE, VIP-EXECUTIVE, VIP-Local Grid Refinement, VIP-THERM, WavX, Web Editor, Wellbase, Wellbore Planner, Wellbore Planner Connect, WELLCAT, WELLPLAN, Well Seismic Fusion, WellSolver, WellXchange, WOW, Xsection, You're in Control. Experience the difference, ZAP!, and Z-MAP Plus are trademarks, registered trademarks or service marks of Landmark Graphics Corporation.

All other trademarks, service marks and product or service names are the trademarks or names of their respective owners.

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

[InstallDir]\Documentation\Third\_Party.pdf