CasingSeat 5000.1
Release Notes

Landmark

Contents

HALLIBURTON

Introduction

This document contains important information and last minute changes related to CasingSeat™ 5000.1 that is not documented elsewhere. CasingSeat is an application in the Engineer's Desktop™ 5000.1 release, which provides major new functionality in support of the Drilling & Well Services applications on the shared Engineer's Data Model™.

System Requirements

For details, refer to the "System Requirements" section of the *Engineer's Desktop 5000.1 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:

[Installdir]\Documentation\Third_Party.pdf.

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 ECCNs provided in Release Notes represent Landmark Graphics' 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 website 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 EAR Website at http://www.access.gpo.gov/bis/ear/ear_data.html#ccl
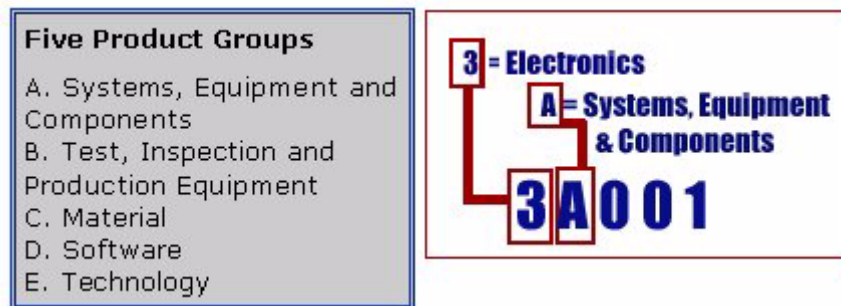
Installation

Refer to the "Installation" section of the *Engineer's Desktop 5000.1 Drilling Summary Level Release Notes*.

IMPORTANT:

- EDT 5000.1 is a new product. If you are currently using an EDM database version that is 2003.14 - 5000.0.0, you must install 5000.1, then upgrade your database using the new Multi-Version Database Upgrade Utility (EDMPatchDB.exe).

- EDT 5000.1 can co-exist with previous versions of EDT on the same machine. However, LAM 5000 will not co-exist with previous versions of LAM (FLEXlm license server) on the same machine. Previous versions of LAM must be uninstalled before you install the 5000.1 release. To run EDT 5000.1 and a previous version of the EDT applications on the same machine, you must point one or both versions of EDT to a LAM server located on a remote machine, since only one version of LAM can run locally.

Refer to the *EDT Drilling Installation Guide* for complete details.

Licensing

There have been significant changes to licensing for the 5000.1 release. For details, refer to the Licensing section of the *Engineer's Desktop 5000.1 Drilling Summary Level Release Notes.*

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

Refer to the "Upgrading the Database" section of the *Engineer's Desktop 5000.1 Drilling Summary Level Release Notes* for information on upgrading your EDM database to the 5000.1 version.

> **You must upgrade your existing EDM database(s) BEFORE using 5000.1**
>
> You must upgrade versions of your database(s) created with earlier versions of the software before running the 5000.1 software.

Enhancements and New Functionality

The 5000.1 release of Engineer's Desktop supports the Microsoft Vista operating system, has new LAM (FLEXnet Publisher) licensing—including the Mobile Checkout utility which gives you the ability to "borrow" a license for offsite work—and contains some critical bug fixes.

There were no new features added to the CasingSeat 5000.1 release.

EDT 5000.1 Common Well Explorer Enhancements

Major changes for this release include:

Real-Time View

Well Explorer added to Real-Time View with the following special features:

- New icons added for log (   ) and log curves (   ). Logs can now be opened by double-clicking on the Log icon in the Well Explorer.

- Drag and Drop individual log curves onto the log viewing area.

- ASCII, LAS (Time), and LAS (Depth) log import from the Wellbore level right-click menu. The functions are now accessed via context menu commands from the Well

Explorer. For more information, see the "Well Explorer Right-Click Menus" topic in *Real-Time View Help*.

Import commands from Wellbore level. Types of log available to import include ASCII (Time), LAS (Time), and LAS (Depth).
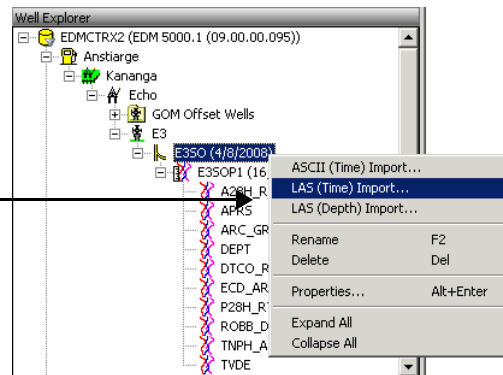
Open command from Log level.

Also, the log import menu commands are shown. The type of log determines which import command is enabled. In this example, the log is LAS depth.
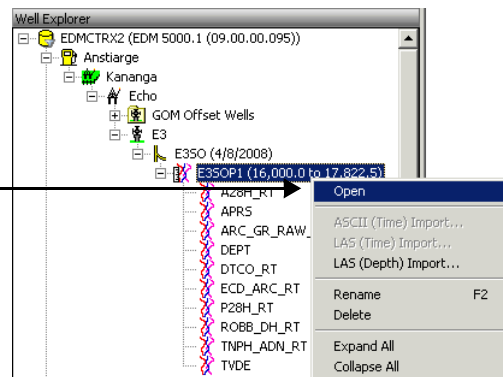
Figure 1: Open and Import Commands Available from Well Explorer

- Logs can be opened, imported, renamed, and deleted from the Well Explorer

Location Information

Location Tab added to Well Properties dialog, with additional information added to the Location Tab on the Site Properties dialog.

Location tab added to Well Properties Dialog (read only in all applications *except* WELLPLAN)

Location Uncertainty and Azimuth Reference added to Site Properties Dialog

Figure 2: Location Information Changes

Tubular Properties Changes

The following changes were made to Tubular Properties:

* Temperature Deration, Anistropic Radial Yield, and Anistropic Hoop Yield moved from Material Properties to Grade Properties

* XML import/exports enhanced to not carryover unnecessary tubular properties that are not used by corresponding assemblies

Licensing Expiration

License Expiry option now available, configured through the LAM Environment variable.

License expiration information shown in the **Help > About** dialog.
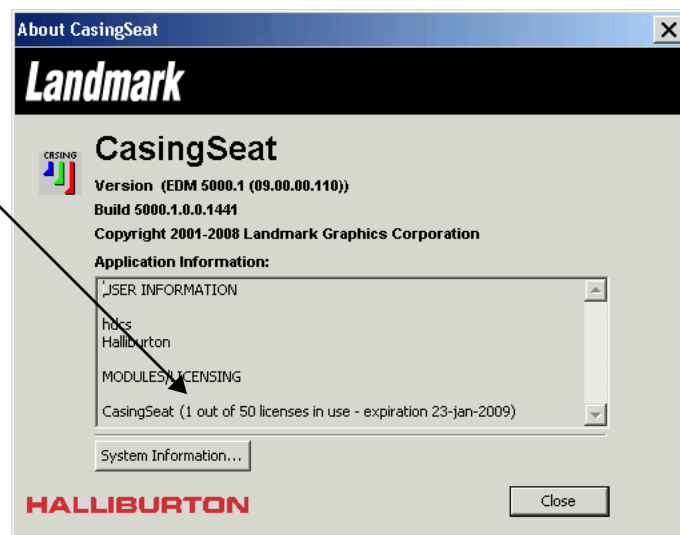
Figure 3: License Expiry

Password Expiration

Password Expiry option now available for EDM users, configured through the EDM Administration Utility. EDM Administrators have the option to set an expiration on user passwords. This option is configured in the EDM Administration utility.

Starting 14 days prior to the password expiry, the user receives the following message each time they log in, and can change the password or defer the notification an additional day.
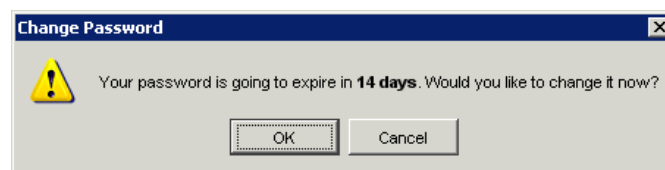
Figure 4: Password Expiry Notice

WITSML Import and Export

Ability to import/export WITSML 1.2.0 and 1.3.1 files via COMPASS and OpenWells. For more information, see OpenWells and COMPASS Help.

Formation Data Available from Associated Data Viewer in WELLPLAN

Formation icon now displays in WELLPLAN's Associated Data Viewer when a Design is selected on the Well Explorer. If you double-click on the icon, the Formation Properties table (Surge module > Case > Formation Properties) opens.

Catalogs

Catalogs were added for Well Completion components, and support for these catalogs was added to OpenWells, PROFILE, WELLPLAN, and Catalog Editor.

EDM Administration Utility Enhanced User Management

Added EDM Security > Users node > Sort Users right-click menu command to the EDM Administration Utility. EDM Administrators can now sort users by User Name or Full Name. For more information, see EDM Administration Utility Help.

5000.0.0 Release

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 previous CasingSeat 2003.21.0 release.

* Default Tabs added (tabs are saved at the Design level)

* Support for Regional Settings

Default Tabs (Tab Saved at Design Level)

In the past, tab layout was saved by individual users. With this release, when a Design is saved the tab layout and content is saved as the default view setting for the Design. The new tab settings become the view for all other users who open the Design.

The figure below shows CasingSeat's tab logic and how the last saved configuration overrides the current view.
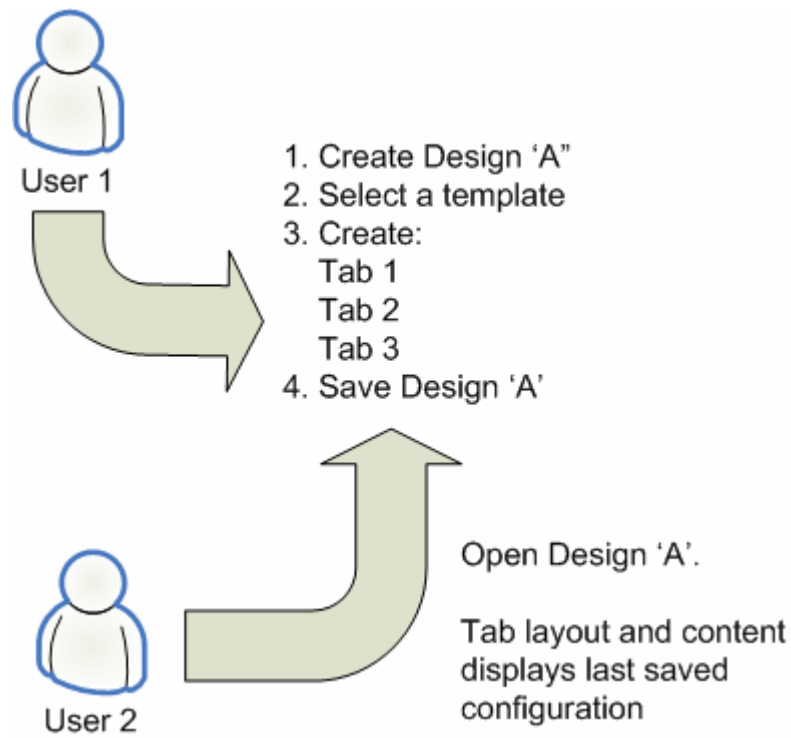
Support for Regional Settings

CasingSeat is designed to support languages in all regions of the world. A number of EDM and CasingSeat features enable customers to use and configure CasingSeat to meet their regional requirements. Configuration of the EDM Administration Utility to support internationalization and usage of other languages in CasingSeat does not impact other applications such as COMPASS or WELLPLAN.

CasingSeat is designed to work with the current Windows Regional Options locale. This enables number fields to be displayed in a manner consistent with usage in the local region. CasingSeat provides comprehensive multi-language support in order to enable use in other languages. All Latin fonts are supported as well as non-Latin fonts such as Cyrillic and Chinese.

The environment variable, EnableMultiLanguage must be set to 'true', to allow a multi-language input system, such as Chinese, to work correctly with CasingSeat.

Common Well Explorer Enhancements

For the EDT 2003.21 release, the Common Well Explorer includes the following enhancements:

- Added Well Explorer Virtual Folders to the Well Explorer tree. These folders allow users to organize data items (such as Projects, Wells, Designs, etc.) in a customizable hierarchy. Virtual Folders can be up to three levels deep.

- Integrated WITSML v. 1.2 support to allow the creation of OpenWire 2003.0.8 pipelines from the Well Explorer tree to load data into the EDM database directly from a remote WITSML server.

- OpenWire 2003.0.8 can be launched directly from the Well Explorer with a right-click menu command at the Database level.

- Formations added to the Associated Data Viewer to allow formations to be copied between Designs.

- New assemblies added to the Associated Data Viewer with copy/paste functionality: Casing, Tubing, and Drillstrings. Not valid for Actual Designs.

General Integration Enhancements

- Catalogs added for Well Completion components, and support for these catalogs was added to OpenWells, PROFILE, WELLPLAN, and Catalog Editor

Problems Fixed

5000.1 Release

The following problems were either fixed or have workarounds for the 5000.1 release.

Defect/Enhancement No.	Description
753088	Differences in Layer Type of Lithology causes application crash.
768242	Datum Shifts - Slant Well Behavior - Design incorrectly opens at a new datum although a warning correctly tells the user that the Design can be opened at the original datum only.
770521	Licensing - EDT Licensing does not take advantage of the functionality that will warn users that their license is set to expire in x days
770907	CasingSeat does not remember custom changes to spreadsheet column widths unless the Defaults checkbox is deactivated. Workaround: To preserve custom column width configurations, deactivate the Column Widths "Defaults" checkbox on spreadsheet Properties.
779007	Save As - Crash when performing a Save As operation with some Designs.
782288	File Import (PDI file) does NOT respect EDM security tokens

5000.0 Release

The following problems were either fixed or have workarounds for the 5000.0 release.

Defect/Enhancement No.	Description
732438	Update Help topics to reflect new changes to how Datums are handled by EDM.
734543	Size nodes should not overlap each other to cause the node to move to one side or the other in the Casing and Hole Size Selector.
738923	Add Favorites Tab to Help system to allow users to bookmark specified topics.
748483	Do not allow nodes in the Casing and Hole Size Selector to be dragged into the first column.
748490	Undo context menu item does not become active in the Casing and Hole Size Selector.
748497	Mouse button 3 can be used to perform multiple selections, but mouse button 1 + Ctrl cannot be used for multiple selections in the Casing and Hole Size Selector.
748499	Add Hole Size and Add Casing context menu items in Casing and Hole Size Selector should not be active when a multiple selection is made.

Known Problems

The following are known problems for the Engineer's Desktop 5000.1 release.

Defect/Enhancement No.	Description
83739	Design Constraints Upper curve is not drawn correctly.
105286	Switching to metric with manual x-scale settings yields a blank Design Plot.
105652	Need validation for X Grid Steps on Scaling Tab of Properties for Design Plot.
105659	Need more validation for True Vertical Depth in Design Parameters.
139659	Some casing schemes are being generated w/ 2 strings the exact same length.
153225	F1 brings up wrong Help topic on the Print Preview window.
155298	CasingSeat does not allow users to delete cells in the Drilling Parameters table.
155753	CasingSeat should not display the Datum Adj. Warning Message if the New Datum = Old Datum.
161353	Unnecessary error message appears when tabbing from cleared field in Pore Pressure spreadsheet.
161354	Unnecessary error message appears when tabbing from cleared field in Fracture Gradient spreadsheet.
161626	The Design Plot pore pressure curve still plots although a blank record is inserted in the Pore Pressure spreadsheet.
161630	Design Constraints Lower Curve displays in Design Plot displays when is should not.
621698	Changing unit systems changes casing names in the Well Schematic but not in the solutions drop down list (prior unit system displays).
625032	Help dialogs no longer dismiss with the Escape key.
625041	Inconsistent 'Always on Top' behavior for HTML Help dialogs.
625067	The Print dialog now has a non-working Help button where there had been no Help button before.
625069	The Print Setup dialog now has a non-working Help button where there had been no Help button before.
625805	CasingSeat fails to release about 5 MB memory after closing a Design.
630745	Well Schematic leaves a PROFILE.log file in the current working directory.
700006	CasingSeat grabs an additional 5 to 20 MB memory for each Save As operation performed.
700110	Section View - Vertical scaling does not work correctly when the view is split vertically.
721022	Missing item in dialog list.
724265	Cannot successfully save Audit Info under Well or Wellbore when a Design is open.

Defect/Enhancement No.	Description
728689	Missing data dictionary button and menu item in CasingSeat.
728867	CasingSeat uses 6 to 8MB more memory at any given state than it did in version 2003.14.1.0.
729354	Find toolbar button stays depressed and the Find menu item appears checked for a long time after the Find dialog is closed.
729360	Non-results dependent report items should print only once instead of repeated for each solution.
729857	Unwanted Well Explorer movement - loss of focus with Unit System changes.
730379	Casing and Hole Size Selector - Context menu lacks Maximize and Restore functions.
730900	Adding a new casing to the highest (48") hole causes CasingSeat to crash.
730984	Casing and Hole Size Selector - There is no report item for this new view.
731048	Accessing the Unit System Editor dialog can later cause the Open Template dialog to hang or prevent Designs from opening.
731054	Crash applying a newly imported template to a particular newly imported Design in a new, empty database.
741673	Well Schematic overlaps into any neighboring pane in Print Preview of Current Tab.
744925	Hole Sizes entered in PROFILE are not displayed in CasingSeat.
744945	Changes in the Hole Size made in PROFILE are not displayed in CasingSeat or COMPASS.
745832	First hole section MD Top depth displayed in PROFILE is incorrect and should start at the depth where the earth begins.
745843	All MD Top and MD Base depths displayed in PROFILE are greater than they should be by the value of the Datum.
746660	Updating the Active Casing Configuration in CasingSeat can cause old Hole Section records to be left behind.
746696	In the Well Schematic, casings appear to violate the boundaries of surrounding casing strings when the Non-Deviated option is unchecked.
747254	Missing menu command: Virtual Folders.
747733	Correct delimiter is not immediately displayed in the plot views. Possible refresh issue.
747737	Date format in reports header does not change based upon selected Regional Settings.
748555	Odd Registry entry appears in HKCU when using Norwegian (Nynorsk).
753078	Refresh is required in Well Schematic to display it correctly.
753388	Applying a template to a Design does not set the state of the Design as one that contains unsaved changes.

Defect/Enhancement No.	Description
753399	In the Casing and Hole Size Selector, nodes can be drug into invalid locations when a template is applied to a Design.
757396	Undo button active just after a Design is opened.
760391	CasingSeat does not set CD_ASSEMBLY.plan_depth_type.
762310	CasingSeat crashes when attempting to add additional temperature data.
768882	No exclamation sound is heard as expected when the application prompts the user to save.
769218	Well Schematic does not generate until the user deliberately re-selects it from the menu when running CasingSeat on Microsoft Vista.
769740	Border Thickness in Well Schematic in CasingSeat application is different from the 2003.16.1.0 release.
771513	CasingSeat crashes when performing a DEX export from some Designs.
773629	The symbol size of Casing Shoe shows twice the size of the 2003.21.0 release in CasingSeat and StressCheck.
776574	Allowable Hole Size and Allowable Casing OD's spreadsheets are not validated after a Template import unless the user knows to press the Calculate button.
776700	Print Range is no honored when printing reports.
778773	CasingSeat does not load a wellpath trajectory created in PROFILE.
779367	Differences in Well Schematic and Casing and Tubing Schemes.
783812	Intermittent "Memory could not be read" error while running CasingSeat on Citrix.

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

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

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
ssasupport@lgc.com (Southern Africa)

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
FSU_support@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
Philippines   1800-1611-0207
South Korea   00308-61-0046
Taiwan   0080-161-1350
Thailand   001-800-611-2784

Toll Free from local area:
Vietnam: 84-8-9191901

District Support Offices

Algeria (Algiers)
8:30 am - 4:30 pm Local Time
Saturday - Wednesday excluding holidays

213 21 37 72 39
Email: eame_helpdesk@lgc.com

Angola (Luanda)
8:00 am - 5:00 pm Local Time
Monday - Friday, excluding holidays

1-817-493-5900
Fax: 1-817-493-560
Email: eame_helpdesk@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

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

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

Brunei (Bandar Seri Bagawan)
8:30 am - 5:30 pm Local Time
Monday - Friday, excluding holidays

67-3-233-5319
Email: 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

Chile (TAO TAC, Houston, Texas)
Local normal business hours

Toll Free 800-201-898
Fax: 1-713-839-3646
Email: 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

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

Egypt (Cairo)
8:00 am - 4:00 pm Local Time
Saturday - Wednesday, excluding holidays

20-2-759-1717
(ask for Landmark Technical Support)
Email: eame_helpdesk@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

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

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

Toll Free 00531-61-0021
Email: 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

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
Support Fax: 1-713-839-3646
Email: 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

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: eame_helpdesk@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
or apsupport@lgc.com

Peru (Lima)
Local normal business hours

Toll Free 0800-51634
Fax: 001-713-839-9646
Email: soporte@lgc.com

Russia (Moscow)
7:00 am - 5:00 pm Local Time
Local Business Days, excluding holidays

7-095-960-2926
7-095-960-2927
(ask for Landmark Technical Support)
Fax: 7-095-755-8301
Email: eame_helpdesk@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

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

Toll Free 00801-61-1350
Email: 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

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

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
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: eame_helpdesk@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

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

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)
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Microsoft SQL Server home page	http://www.microsoft.com/sql/default.asp
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