



Title ***LMKR 2014.1 Well Planner Release
Notes and Install Guide***

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LMKR Well Planner 2014.1 Release Notes and Install Guide

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Introduction

LMKR is pleased to announce the release of Well Planner 2014.1.

This guide provides important information regarding system requirements, and valuable resources that will allow you to get the most out of the LMKR Well Planner 2014.1 release. The Well Planner 2014.1 release introduces the Well Planner 2014.5.16.1 version of the Well Planner software.

To go directly to the sections describing the new items listed for the LMKR Well Planner application, click on the links below:

- [System Requirements](#)
- [Main Features](#)
- [New Features](#)
- [Contact Technical Support](#)

The Well Planner application, by LMKR, helps you plan wells within LMKR GeoGraphix, Field Planner, and smartSECTION. Well Planner takes target point information from both Field Planner and smartSECTION to create a well path trajectory based on input restrictions. The application exports target and survey data into an Excel spreadsheet, and displays the planned well in a 3D view. Since Well Planner is integrated with LMKR GeoGraphix, data between two applications is seamlessly transferred.

NOTE: Registered or trademarked products referred to in this document are the property of their respective owners.

System Requirements

LMKR Well Planner is available for Windows® 7 64-bit platforms. Before you run the LMKR Well Planner installer on your system, ensure the following requirements are met. The following system requirements are recommended and are provided as general guidelines. If you have any issues or questions regarding the system requirements contact your technical sales representative or technical support.

Processor	Quad 2.4GHz 64-bit Intel class or better
Operating System	Windows® 7
RAM	4GB RAM or greater
Graphics Card	1024x768 graphics resolution



We recommend using the latest Microsoft service packs and security patches.

Additional Requirements and Recommendations

- Microsoft® .NET 4.5 runtime.

Main Features

With today's hectic schedules in field development, time is of the essence in delivering planned wells, and an integrated approach in software is required for delivering results on schedule. LMKR Well Planner is the offering from LMKR designed with the key needs of efficient well planning in mind. Well Planner unlocks a multiple well planning approach, with the ability to quickly create surveys, visualize well path trajectories, and display the planned wells in both 2D and 3D environments. It provides geologists with the capabilities needed to accurately design proposed wells and make well completion decisions to maximize productivity. LMKR Well Planner software fully integrates with the LMKR GeoGraphix software.

Using Well Planner you can:

- Digitize target points and calculate a well survey.
- Anticipate intersections with geologic beds and markers utilizing the Geoprognois feature.
- Export well trajectory data into an Excel spreadsheet.
- Display the planned well in a 3D view.
- Seamlessly transfer data between LMKR GeoGraphix and LMKR Well Planner.
- Plan wells using Field Planning mode.
- Plan wells using Well Planning mode.

Field Planning Mode

Well Planner in Field Planning mode calculates the well path trajectory of proposed wells. Well Planner automatically imports the active field plan and calculates trajectory on the provided Build Rate (DLS) value. These calculated trajectories are saved in the Proposed Survey table in WellBase. Well Planner creates the well path of the borehole by providing a Field Plan with Surface point, Kick Off point, Heel (Landing point) and Toe (Bottom-hole location) of each well.

Well Planning Mode

Well Planner with Well Planning calculates the well path of the proposed wells. In the Single Well Planning Mode Target points are provided by the user in smartSECTION for each well. Well Planner automatically imports the well with points and shows a proposed well path trajectory of that well. Well Planner creates the wellbore path by user provided target points.

New Features

The following new features have been added to the 2014.1 release of Well Planner:

Dogleg Severity

Two dogleg Severity calculations have been implemented in the Well Planner for the 2014.1 release. The ability to utilize two different build rates has been added. The dogleg severity of the approach (from the kickoff point to the landing point) is usually much steeper and can be accounted for differently than the dogleg severity of the lateral (from the landing point to bottom hole).

Non-Projected Line of Section

A feature has been added to the Well Planner for the 2014.1 Release where you can plan target points away from the projected line of section. With the Projected Section check box selected any target point on the lateral part of the wellbore will show on a straight line in plan view (i.e. projected onto a straight line of section). With the Projected Section check box turned off, target points on the lateral can be planned off the projected line of section to avoid subsurface hazards.

Additional Well Editing Capabilities

You can now edit key information about a proposed well so it can be kept up to date. The permit date and the spud date have been added to the header information and are editable on the Well Planner dialog box.

GeoProg Tab

The GeoProg tab has been added to the Well Planner dialog box for the 2014.1 release. This feature will calculate the intersection points of any horizon displayed on the saved map in GeoAtlas as well as the target points on the lateral portion of the borehole. Information calculated for both lateral targets and anticipated formation tops include the measured depth, elevation, TVD, and offset location.

Installing Well Planner

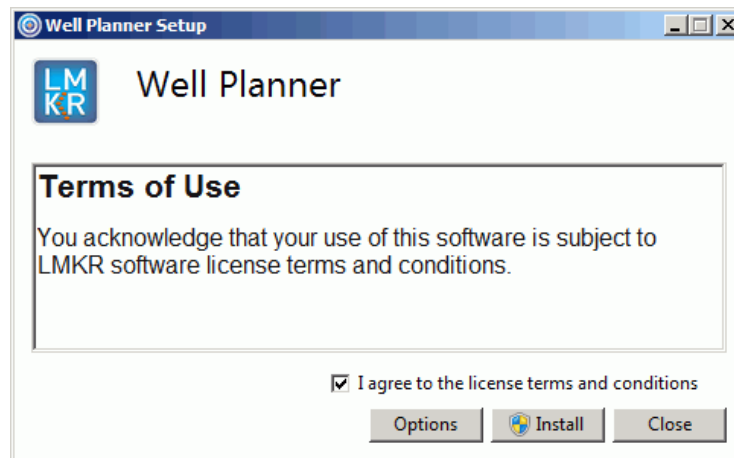
The Well Planner version 2014.3.12.7 can be downloaded from the **LMKR Support Portal – Downloads** page.

You must have administrative rights to the local computer to install the Well Planner software.

When the software is downloaded, a blue bull's eye icon will appear on your desktop. Click on the target icon to begin the install of Well Planner. If Well Planner has previously been installed, remove it (Uninstall it) before proceeding.

1. Terms of Use

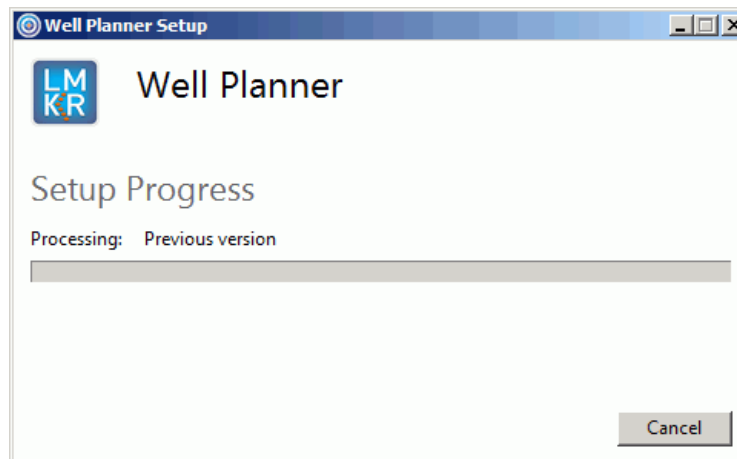
When the installation process is started the **Terms of Use** dialog box appears.



Click the **I agree to the license terms and conditions** check box, then click **Install**.

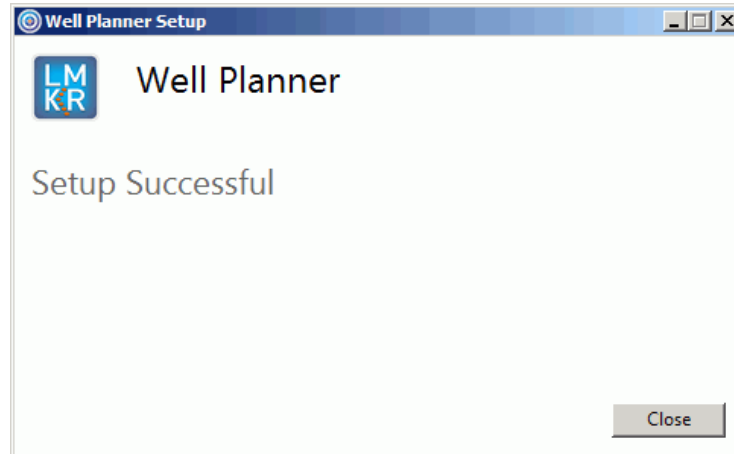
2. Setup Progress

The **Well Planner Setup - Setup Progress** dialog box will appear showing the status of the setup.



3. Setup Successful

When the installation is complete the **Setup Successful** dialog box will appear



Click the **Close** button to finish the install process.



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 LMKR'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

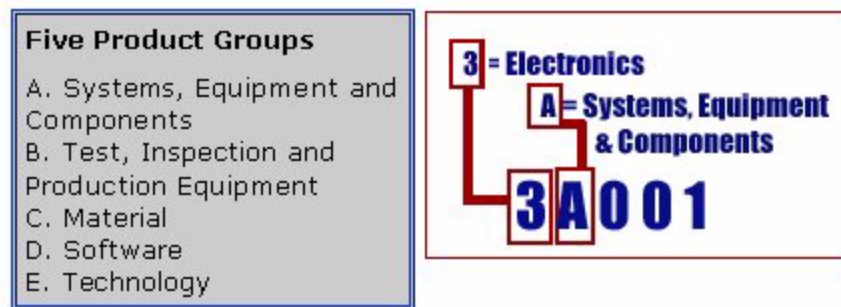
Under the U.S. Export Administration Regulations (EAR), the U.S. Government assigns your organization or client, as exporter/importer of record, responsibility for determining the correct authorization for the item at the time of export/import. Restrictions may apply to shipments based on the products, 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 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](#).



The ECCN/CCL Number, License Type, and the CCATS Numbers for this product are included in the table below. Also included is the date the table was last updated.

Product/Component/R5000	ECCN/CCL Number	License	CCATS Number	Last Date Updated
Discovery	5D002	ENC	G063964	11/5/2009
LMKR License Manager	EAR99			10/1/2012
LMKR Well Planner	EAR99			3/11/2014

Contacting Technical Support

If you have questions or issues that cannot be answered by the LMKR Help Systems, you can contact LMKR Customer Support via web: support.LMKR.com , email: support@lmk.com or telephone at our various worldwide office locations:

The Americas	Europe, Middle East & Africa
8am-6pm CST [Monday – Friday] *Excluding bank holidays Toll Free (US/Canada): + 1 855 GGX LMKR Colombia: + 57 1381 4908 United States: + 1 303 295 0020 Canada: + 1 587 233 4004	UAE (Dubai GMT+4): 8am - 5pm [Sunday – Thursday] *Excluding bank holidays + 971 4 3727 999 UK: 8am - 5pm [Monday - Friday]*Excluding bank holidays + 44 20 3608 8042 Egypt: [Sunday – Thursday]*Excluding bank holidays + 0800 000 0635
Asia Pacific & Australian Continent	Southwest Asian countries
Malaysia (Kuala Lumpur GMT+8): 9am - 6pm [Monday – Friday] *Excluding bank holidays +60 32 300 8777	Pakistan (Islamabad GMT+5): 9am - 6pm [Monday – Friday] *Excluding bank holidays + 92 51 209 7400
E-mail	Website
Issues, Questions or comments support@lmk.com	General Information on products and services www.lmk.com Support Site including latest updates and technical bulletins support.lmk.com

Helpful Internet Links

Name	Website Address
LMKR Homepage	http://www.lmk.com
LMKR Support Portal	http://support.lmk.com