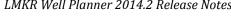


Title

## LMKR 2014.2 Well Planner Release Notes and Install Guide

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# LMKR Well Planner 2014.2 Release Notes and Install Guide

| Introduction                   | . 3 |
|--------------------------------|-----|
| System Requirements            | 4   |
| Main Features                  | . 5 |
| New Features                   | . 6 |
| Installing Well Planner        | . 7 |
| International Trade Compliance | . 9 |
| Contacting Technical Support   | 11  |





### Introduction

LMKR is pleased to announce the release of Well Planner 2014.2.

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 2014.2 release.

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.

Page | 3 www.lmkr.com



### **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.

Page | 4



### **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 Geoprognosis 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.

Page | 5 www.lmkr.com



### **New Features**

The following new features have been added to the 2014.2 release of Well Planner:

#### **Reset View button**

In Calculate tab, Vertical Section and Plan View, you can reset your view to your default view.

### **Digitizing Existing Cross-Section**

smartSECTION rewrites points on an existing cross section once you go back to digitize your already exiting well. Points can be added to already digitize well.

### **Guide Points**

The Guide Points are the intermediate points that you can put between the landing point and the bottom hole location to follow the curve of the surface.

Page | 6 www.imkr.com



### **Installing Well Planner**

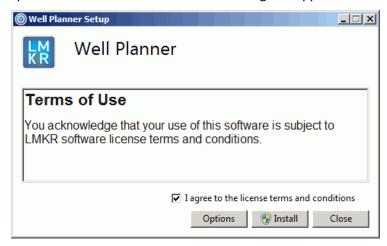
The Well Planner version 2014.2 can be downloaded from the LMKR Support Portal – Downloads page.

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

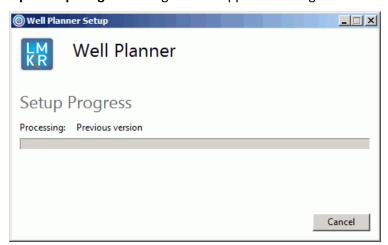
When the installation process is started the **Terms of Use** dialog box appears.



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.

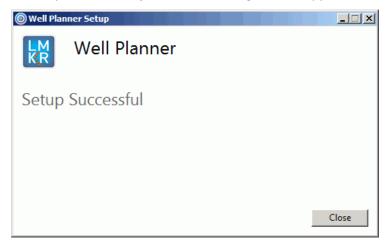






### 3. Setup Successful

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



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

Page | 8



### **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

Page | 9 www.lmkr.com



#### **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.

#### **Five Product Groups**

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



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<br>Number | License | CCATS<br>Number | Last Date<br>Updated |
|-------------------------|--------------------|---------|-----------------|----------------------|
| Discovery               | 5D002              | ENC     | G063964         | 11/5/2009            |
| LMKR License Manager    | EAR99              |         |                 | 10/1/2012            |
| LMKR Well Planner       | EAR99              |         |                 | 3/11/2014            |

Page | 10 www.lmkr.com



### **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: <a href="mailto:support@lmkr.com">support@lmkr.com</a> 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  | Pakistan (Islamabad GMT+5): 9am - 6pm [Monday – Friday] *Excluding bank holidays  |
| +60 32 300 8777  | + 92 51 209 7400  |
|  |   |

### **Helpful Internet Links**

| Name                | Website Address         |
|---------------------|-------------------------|
| LMKR Homepage       | http://www.lmkr.com     |
| LMKR Support Portal | http://support.lmkr.com |

Page | 11 www.lmkr.com