

Title

LMKR Volume Attributes Release Notes 2014

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LMKR Volume Attributes Release Notes 2014

Release Notes

Introduction	3
System Requirements	4
Main Features	
Known Issues	6
International Trade Compliance	7
Definitions	
Contacting Technical Support	Error! Bookmark not defined.



Introduction

LMKR is pleased to announce the release of LMKR Volume Attributes 2014. The Volume Attributes Release 2014 includes the introduction of version 2014.03.07.2 of the Volume Attributes software

This guide provides important information regarding system requirements, and valuable resources that will allow you to get the most out of the LMKR Volume Attributes 2014 release.

To go directly to the sections describing the new items listed for the LMKR Volume Attributes application, click on the blue links below:

- Main Features
- System Requirements
- Known Issues

LMKR Volume Attributes is standalone software, compatible with SeisVision™, which operates on seismic files to extract attribute volumes. LMKR Volume Attributes gives you the capability of generating the following attributes:

- Time Based Attributes
- Spectral Decomposition using CAPS (Continuous Time Amplitude Phase Spectra)
- Frequency Based Attributes
- Expression Based Attributes

Page | 3 www.lmkr.com



System Requirements

LMKR Volume Attributes is available for Windows® 7 64-bit. Before you run the LMKR Volume Attributes installer on your system, ensure the following requirements are met. The following system requirements are provided as general guidelines. In case of any issue contact your technical sales representative or technical support.

Processor	Pentium 4 class or better Intel ® Core™ i3 or better
Operating System	Windows® 7 Professional x64 Windows® 7 Enterprise x64 Windows® 7 Ultimate x64
RAM	2 GB Minimum 8 GB Recommended
Internet Explorer	You must obtain and install the appropriate language version of Internet Explorer 6.0 or higher prior to installing LMKR Volume Attributes.



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

Additional Requirements and Recommendations

Microsoft .NET 4.0 runtime required.

Page | 4 www.imkr.com



Main Features

This section contains a brief description of the exciting features included in the 2014 release.

LMKR Volume Attributes is standalone software, compatible with SeisVision™, which operates on seismic files to extract attribute volumes. These attributes provide the seismic interpreter with new images that enhance the physical and geometric descriptions of the subsurface. Geometric attributes facilitate the definition of both the structural and stratigraphic framework of the seismic interpretation, while physical attributes are often used as direct hydrocarbon indicators.

LMKR Volume Attributes give the user the capability of generating the following attributes:

- Time Based Attributes: The Time Based Attributes facilitates structural and stratigraphic interpretation by
 offering clues to lithology type and fluid content estimation with a potential benefit of detailed reservoir
 characterization.
- Spectral Decomposition using CAPS (Continuous Time Amplitude Phase Spectra): The Spectral Decomposition method replaces the single input trace with a gather of traces corresponding to the Spectral Decomposition of the input attribute. The input to spectral decomposition is a seismic volume. The output is several volumes, each one representing a different frequency band.
- Frequency Based Attributes: Frequency Based Attributes provide information about the geometry of the survey by incorporating both temporal and spatial information. Discontinuities, channels, fractures and other significant features are best determined by using one or more of these attributes.

Expression Based Attributes: The expression based feature of LMKR Volume Attributes merge the information of multiple seismic attributes.

Page | 5 www.lmkr.com





Known Issues

Following are known issues in this release and are work in progress.

ID	Issue	Workaround
26736	Integer byte formats are not supported for SEGY volumes.	None
26737	ASCII textural header does not display correctly for SEGY volumes.	None
26740	Incremented SeisVision brick volumes displays wrong extents information if were already used in SeisVision (Application may crash).	Use Segy Volume to generate 3dx or 3ds file by using LoadSegy in SeisVision. Then without adding this file to SeisVision interpretation, use it in Volume Attributes.
26481	Generation of timeslice Volumes (3dh) as output requires a lot of memory. Generating timeslice volumes for all attributes may result in low performance due to greater memory requirements.	None
26593	For 3dx/3ds files, application takes some time for processing (in minutes for larger datasets) in the beginning for building of output files during which no progress status is shown.	None

Page | 6 www.lmkr.com



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.

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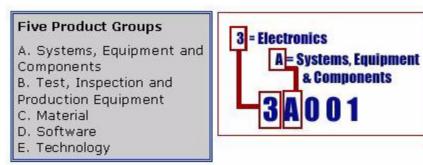
Page | 7 www.lmkr.com



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.



The ECCN 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 Number	License	CCATS Number	Last Date Updated
Discovery	5D002	ENC	G063964	11/5/2009
LMKR License Manager	5D002C.1	ENC	G055172	6/19/2007

Page | 8 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: <u>support@lmkr.com</u> 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	General Information on products and services www.lmkr.com

Helpful Internet Links

Name	Website Address
LMKR home page	http://www.lmkr.com
LMKR Support Portal	http://support.lmkr.com

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