



# LFM Server Dataset Generation Guide

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# 1 Preface

This chapter gives basic information about this guide, training and support.

## 1.1 About this Guide

This guide describes how to generate an AVEVA LFM Server dataset (.lfd) in the Gateway mode.

## 1.2 Audience

This set of documentation is aimed at new AVEVA LFM Server - Gateway Mode users and covers the use of AVEVA LFM Server: Gateway Mode. The contents cover operations for both Engineering Users and Project Administrators. It is assumed that the user already has *AVEVA LFM Server* installed and has the appropriate license features available.

## 1.3 Related Documents

Other documents relating to *AVEVA LFM Gateway Mode* include:

### **AVEVA LFM Gateway Mode – Data Preparation and Registration Guide**

The Data Preparation and Registration guide takes the user from having raw unregistered scans to having a project containing processed registered scans using a full, partial or no survey. Topics covered include: project creation, adding of source scans, scan registration and quality assurance checks.

### **AVEVA LFM Gateway Mode – Home Guide**

The AVEVA LFM Gateway Home Guide covers how to use *AVEVA LFM Server* in the Gateway mode.

**Note:** The other help guides can be accessed by opening the file browser and browsing to the location where *AVEVA LFM Server* is installed. By default, the documents are available at the following location:

**C:\Program Files\LFM Software\LFM\helpfiles**

## 1.4 Technical Support

### Online Support

Online support and more information about *AVEVA LFM* should be requested through [support@lfm-software.com](mailto:support@lfm-software.com).

To aid fault diagnosis, please include the following information when contacting AVEVA LFM Support:

- Urgency
- Full version number of *AVEVA LFM*
- AVEVA LFM log files. To obtain these, go to the **File > Home** tab and click the **Copy Log Files** button. This will copy a series of 5 text files to the location of your choice. These will be called `lfm_RunA.log` - `lfm_RunE.log`. Please send all 5 files.

### AVEVA LFM Upgrades

Upgrades can be downloaded from the AVEVA LFM Software website from <https://www.aveva.com/en/Services and Support/AVEVA Product Support/#LFM-Support>.

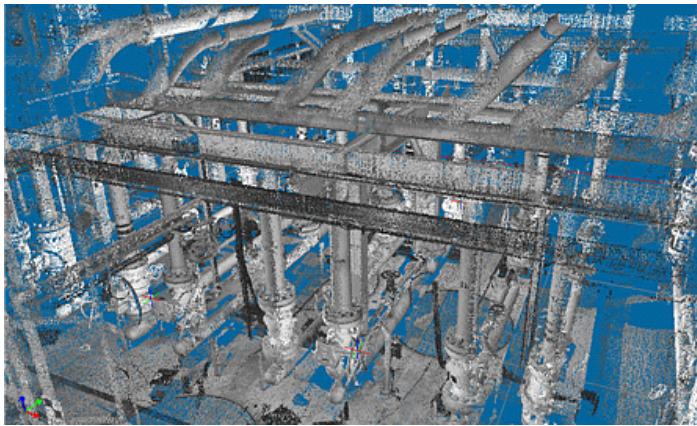
## 1.5 Product and Training Information

For information about product training courses, see the Product Training section of AVEVA's website (<http://www.aveva.com/training>), or contact the nearest AVEVA Regional Support Centre (<http://support.aveva.com/support>).

## 2 Overview

Dataset construction is a one-off operation which is performed by AVEVA LFM Generator. AVEVA LFM Generator is not a standalone product, but is an additional option to AVEVA LFM Gateway Mode. Dataset construction is a completely lossless process in which none of the points from the original scans are lost. Each Dataset can hold any number of individual scans.

All scans which are to be put into the Dataset must be present at the start of the compilation. Images cannot be added at a later date without a complete recompilation. Dataset compilation is fully automatic, but it can take a considerable period of time. Large Datasets can take several days to compile. The time taken is largely a function of the machine specification.



## 3 Licensing/Machine Specification

AVEVA LFM Software Ltd. does not routinely recommend a PC specification due to the fast moving nature of equipment release, where components are often rendered obsolete after a short period of time in the marketplace. However, a minimum machine specification is listed in the guideline to give equipment buyers an outline specification of the type of components that are known to offer basic performance with AVEVA LFM Software products.

For details on machine specifications, please refer to the [AVEVA LFM Server Machine Specification for Hardware Recommendations](#)

(<https://lfmproducts.blob.core.windows.net/lfm-technical-portal/technical-resources/AVEVA%20LFM%20Machine%20Specification%20v1.pdf>).

### Graphics:

AVEVA LFM NetView / AVEVA NET project creation requires a reasonably powerful graphics card with the very latest drivers. It has been developed using NVidia graphics cards and tested on one AMD card.

Do not rely on Windows graphics driver properties to update to the latest version, use the NVidia tools instead. Visit <http://www.nvidia.com/download/scan.aspx?lang=en-us> to automatically get the latest version.

AVEVA LFM tests your setup for the correct graphics support and AVEVA LFM NetView / AVEVA NET project creation will be disabled if it does not find what it needs.

**Note:** Please remember this is a machine guideline only. You may be able to source a better specification machine. However, it is impractical for AVEVA LFM to test every possible specification.

### 3.1 Licensing

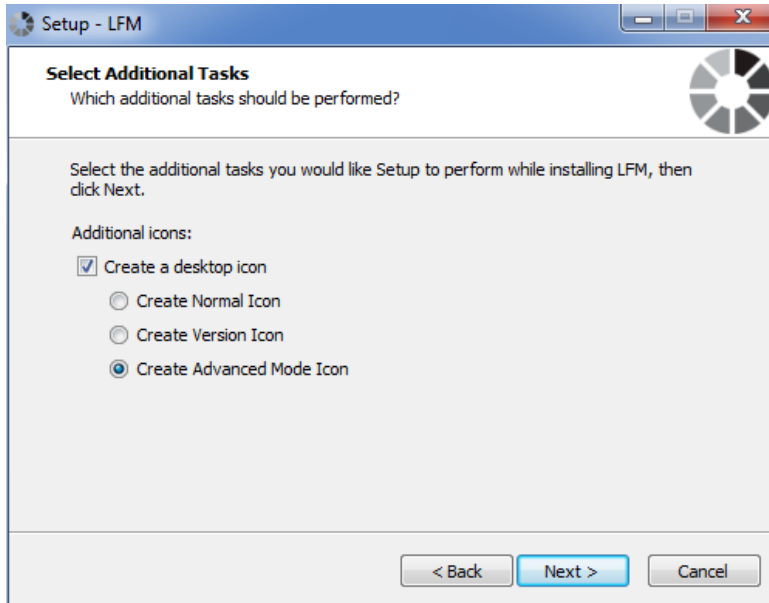
For AVEVA LFM Server dataset generation, an AVEVA LFM Generator license is required.

For more information regarding AVEVA LFM licenses, please contact your AVEVA LFM Value Added Reseller or [license.request@lfm-software.com](mailto:license.request@lfm-software.com).



### 3.2 Advanced Mode Installation

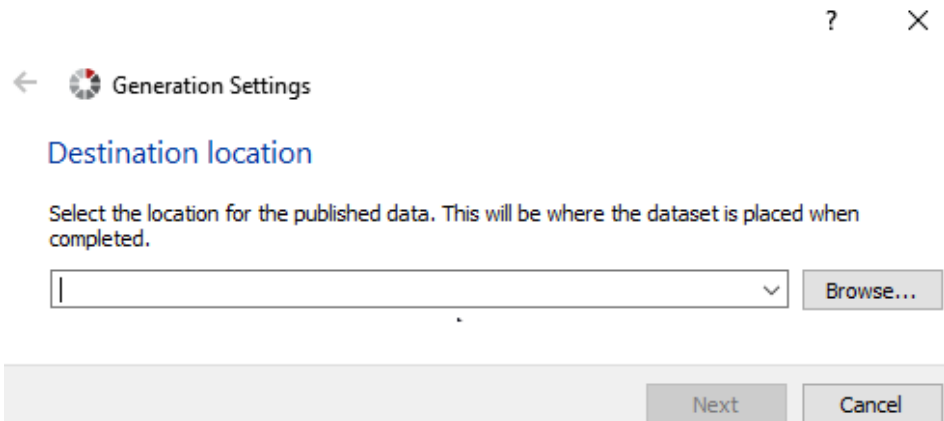
AVEVA LFM no longer requires a dongle for Dataset Generation. To avoid unauthorised users from taking the Dataset Generation license there is now an option to install an advanced version of AVEVA LFM which gives access to this feature. This is illustrated in the screenshot below. AVEVA LFM should be run from the Advanced Mode shortcut to be able to create a new Dataset.



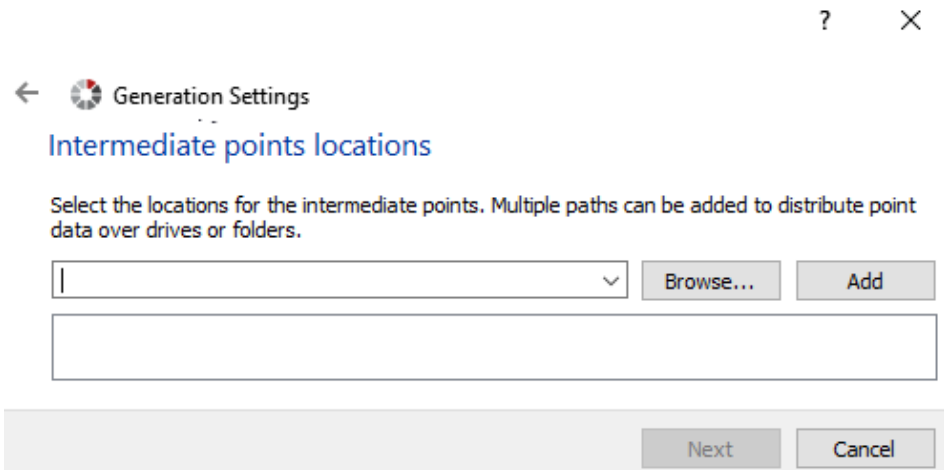
## 4 AVEVA LFM Server Deliverable (.lfd) Creation

After the scans in the project have been registered, an AVEVA LFM Server deliverable (.lfd) can be created. To do this, the user must populate the relevant options.

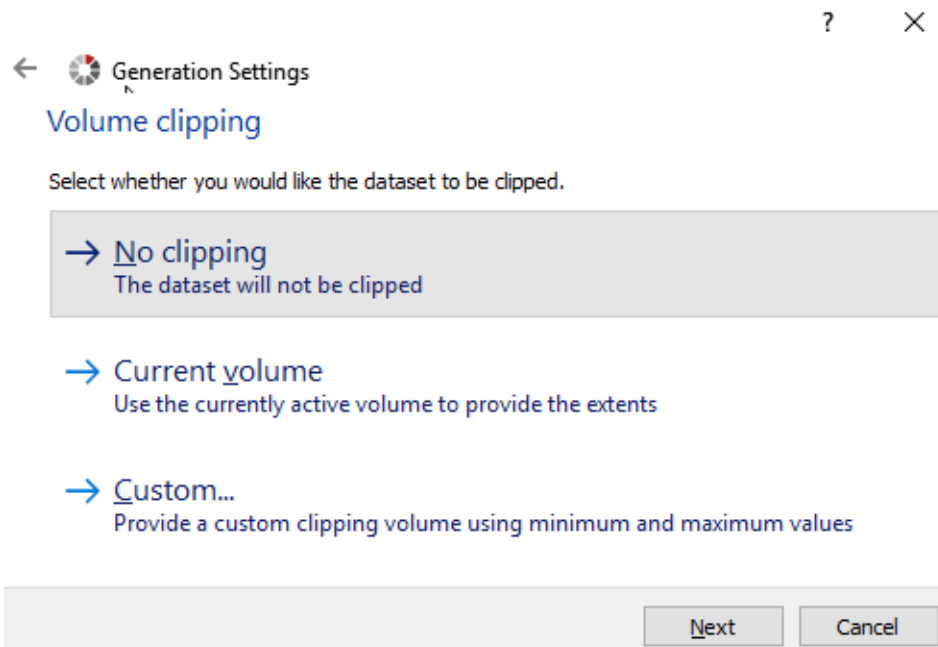
1. Right-click on the registration group you wish to generate the AVEVA LFM Server dataset for and select **Generate Dataset**. This brings up the Generation Settings dialog as shown below.



2. Browse for the desired folder where you wish the AVEVA LFM Server dataset to be created and then click **Next**. This brings up the Intermediate points locations dialog.

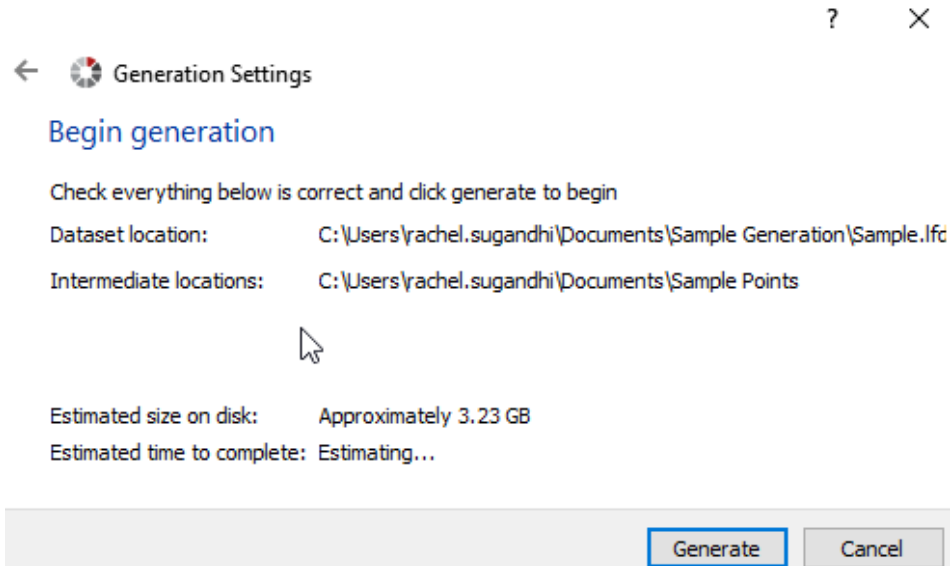


3. Browse for the desired folder where you wish the intermediate files to be created and click **Add**. Then, click **OK**. The available space will be automatically populated to 90% of the available space on the selected disk.



4. Select from the available options:
  - No clipping - Generates all points from all registered scans in the group.
  - Current volume - Generates only points within the currently selected volume.
  - Custom - Generates only points within the specified minimum and maximum corners of a volume.
5. In the **Point density** dialog, select the point resolution data from **Full**, **Half** or **Quarter** options. Then click **Next**.
6. In the **Point settings** dialog, select either **Incorporate colour information** or **Ignore colour information**. Then click **Next**.

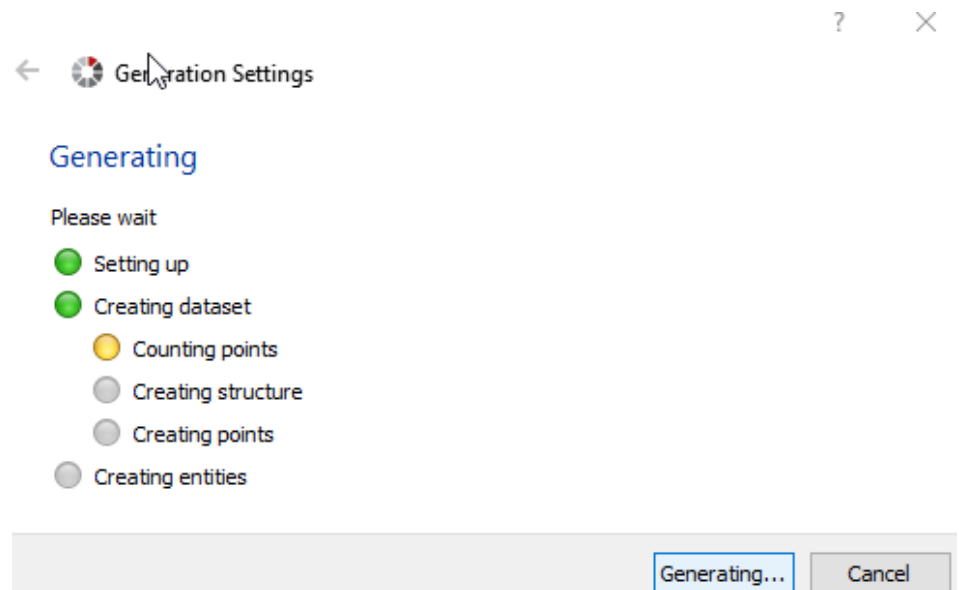
- In the **Solid Pointcloud** dialog, select **Generate Solid Point Cloud** data to enable the generation of Solid Point Cloud data. Then, select the size of the solid points that you want to generate. This brings up the **Begin generation** window.



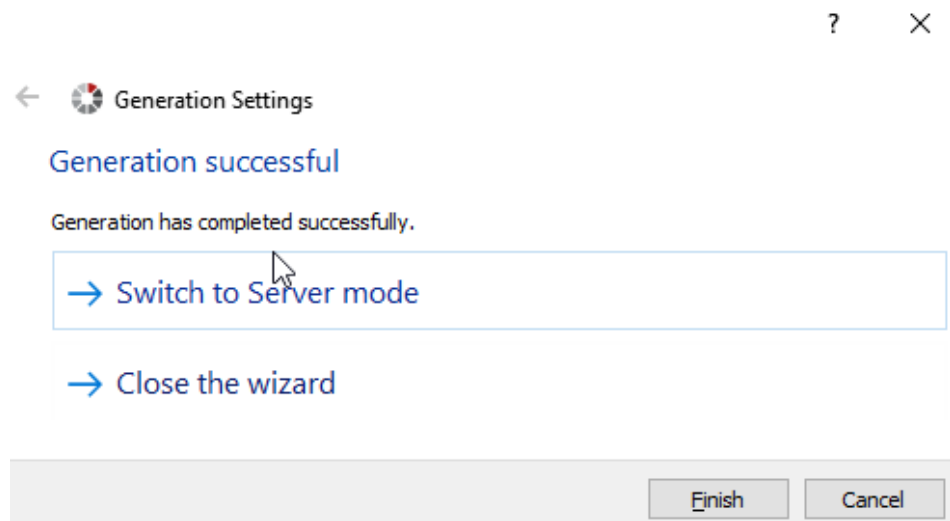
This gives you information on the estimated size on disk and the estimated time to complete the generation process.

For more information, please refer to the [HyperBubble and Solid Point Cloud Creation and Use Help Guide](#).

- Clicking **Generate** brings up the Generating window as shown below. During the generation, a progress bar at the bottom of the AVEVA LFM interface updates to show what percentage of the generation is complete.



- When generation is successful, the following message is displayed. Select the relevant option and click **Finish**.



**Note:**

- Datasets generated with a Generator Lite 25 license cannot be loaded with other datasets.
- If you are delivering only the AVEVA LFM Server dataset folder then the BubbleView (.int) files will need to be copied into the png folder where the .lfd file is created.



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