

SmartTool Single Shot “Database” file guide

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GeoMEM for:

- ⚡ **DEVICO** borehole survey instruments (sales and rental), training and support.
- ⚡ **DAT instruments** Data Loggers and Drill Automation products.
- ⚡ Earth Science software products (industry, research and education)– including borehole log production and geological data management systems.
- ⚡ Training, support and software development.

This guide refers to files generated by the MeasureIT software supplied with the FlexIT SmartTool systems (supplied to market between 1999 and 2008).

It is intended as a free support guide from GeoMEM Ltd. (the company that developed, maintained and support the software for the SmartTool system).

The Single Shot operation using the SmartTool.

Single shots surveys are run using the SensIT instrument and the StoreIT DataPad. The DataPad can store up to 888 individual single shot surveys. When maximum capacity is reached the oldest is deleted and the next survey is added as the latest.

Whilst the single shot results can be displayed on the 2 line StoreIT datapad screen, best use is made by downloading to the MeasureIT software on a PC.

Where the single shot data goes:

The data from the downloaded single shots are stored in “flat-files” in a “central” location. As with most source or original data in GeoMEM software applications these files are “sacrosanct” to maintain integrity of the original data.

The files are stored in two different locations depending on the version of MeasureIT you have:

For the most widely available “2003” release the files are located in the Program Files folder, this is usually: **C:\Program Files\FLEXIT\MeasureIT2**

For those lucky enough to have the more recent “Vista” maintenance release (version 3.8) the files are located in: **C:\FlexIT Program Data\MeasureIT**

Each survey tool that you register and use for Single Shot surveys will have it’s own file named **StoreIT<XXXX>.dat** where <XXXX> is the four digit tool serial number (e.g. 1234).

All **StoreIT<XXXX>.dat** files are also backed up *after every download* in the **\Backup** subfolder in two versions:

StoreIT<XXXX>.dac : This is an exact copy of the **current** data file (same as in the main folder).

StoreIT<XXXX>.dap : This is the **previous** version. That is, it does NOT include the latest survey or surveys that were downloaded.

Controlling the downloads:

Because StoreIT can hold up to 888 surveys MeasureIT recognises what it has downloaded by storing information in its set-up file (MeasureIT.ini) and will only download newer data than it has stored in its set-up information. It recognises the survey record by its Date/Time stamp.

This is important for some of the topics in the **Administration** section below.

If you have a second installation of MeasureIT and try to download from a StoreIT (and haven't done so before) then it will download the entire contents of the single shot memory as it has NO record of that StoreIT in its set-up file. This can be useful if you need to download the entire contents of the StoreIT memory in one go.

What the StoreIT<XXXX>.dat file contains.

The file is a simple text file and can be opened in NotePad – or any other text editor.

It consists of some header data and then each survey record in the order in which they were downloaded. No attempt is made to sort the data.

Example (simple test data example):

```
[FLEXIT StoreIT Data File:v1.1]
[DO NOT DELETE]
Last Record=6
Last Updated=01/09/2010 11:17:05
0001;A1;0;325.8;-52.9;297.6;148.6;49040;69.3;1.0020;22.5;9.0;3;0;13/08/2007 17:17:00
0002;A1;1;330.6;-42.1;289.1;129.0;49400;69.0;1.0020;22.5;9.0;3;0;13/08/2007 17:17:28
0003;A1;2;356.2;-30.8;291.2;113.3;49290;69.3;1.0000;22.5;9.0;3;0;13/08/2007 17:17:50
0004;A2;0;345.6;-72.6;211.5;165.0;49480;66.6;1.0010;19.5;9.0;3;0;14/08/2007 10:46:38
0006;A1;25;150.0;-0.2;131.0;274.1;31000;33.4;1.0270;22.0;8.9;3;0;01/09/2010 10:09:06
```

Last record is the record number in StoreIT of the last one downloaded.

Last Updated is the Date/Time of the last record downloaded.

Both of these items are recorded in the set-up file.

The data line consists of:

Record number; Hole Ref (=Hole ID); Depth; Azimuth;Inclination;Gravity Roll;Magnetic Roll; Mag Field Strength;Mag Field Dip; Gravity;Temperature;Tool;Battery Voltage;Flag;Flag;Date time of survey shot.

The above example shows mixed order hole IDs.

Editing: Yes, you can if you wish. But if you break the file and MeasureIT can't read it GeoMEM can repair it and will charge for the service.

Administration:

There is no built-in administration of these data files in MeasureIT – beyond accessing them to extract the survey end result data.

Any administration needs to be done manually (using the Windows File Explorer system).

Big files! And lots of Data.

If you are making a lot of single shot measurements with the same tool, possibly over multiple projects, your data file for that tool will become large and may contain many

surveys belonging to many different boreholes. This will make borehole selection tedious for extracting data when producing the survey results data files.

You can archive these files (store in a safe place) or delete them if you are sure the raw data is no longer needed. My preference is to archive them (they're not large in modern terms Kilobytes rather than Gigabytes!).

In either case they are removed from the "common" store area.

The effect of this is that MeasureIT will start a new file – but (because it knows what the last survey downloaded was) it'll just download and add the new surveys to the new file. If you have archived previous files you can access them again (certainly in the Vista maintenance release) if required.

Suggested archiving scheme:

Set-up an archive file storage location. Simplest is to add a sub-folder to the folder in which the default StoreIT<XXXX>.dat files are created.

Subfolder could be named: **SS_DB_Files**

Under this you could have Project name subfolders: <Project 1>, <Project 2> etc.

And you can move the StoreIT<XXXX>.dat files to these project folders at the end of each project to leave the "default" area clear for the next project.

This method also allows you to re-use Hole Refs/Hole IDs for each project – because there is no name clash or confusion which would occur in the single large database.

