

**Electronic Transfer of
Geotechnical
and
Geoenvironmental Data
AGS4
(Edition 4.0)
Guidance Document
*Associated Files***

Document History

Revision	Description	Originated	Authorised	Date
			AGS Committee	
0.1	First draft, based on Appendix 6	APW		8 Feb 2011

ACKNOWLEDGEMENTS

This document has been prepared by the Association of Geotechnical and Geoenvironmental Specialists (AGS) with the encouragement and support of the working party members. The AGS acknowledges the generous time and resources given to the project by the individual members and their employers. Without their enthusiastic support this ongoing project would not be possible.

Comment and feedback from the wider geotechnical industry has also been fundamental to the ongoing evolution of the AGS Format, ensuring that the needs of the geotechnical and geoenvironmental industry and its clients continue to be met.

Draft

1 Scope

To provide guidance on associated files included in AGS data submissions.

2 Definitions

None

3 Background

Rule 20 of the AGS Data Format (Section 7) permits:

- Additional computer files to be included within a data submission.
- Any files so transmitted are to be defined in the FILE group.
- Links to individual records in the data groups are made by linking the FILE_FSET data to the file details in the FILE group.

Typically this aspect of the format is used to transfer the common types of files that are related to ground investigations, monitoring and construction activity. These include:

- Digital photographs
- Plans and maps
- Field sketches
- Calibration certificates
- Detailed test results, and
- Specific equipment log files, for example, data logger results files for in situ testing equipment, raw CPT data files.

There is practically no limit to the range of information that can be associated with AGS data submissions.

4 Guidance

4.1 General

Data may be included in an AGS data submission for items that are not covered by the AGS Format by including the data as an associated file and referencing it in the AGS Format.

The associated files may be in any file format that is acceptable to the Provider and Receiver. It is preferable that associated files are not compressed, however, large files may be compressed using the ZIP file format. **Zippered files must indicate the original file format plus the zippered file format.** HOW? I AM NOT SURE I FOLLOW? NEED EXAMPLE. SO ARE YOU SAYING THE FILE NEEDS TO BE BH1-JPG.ZIP TO INDICATE IT WAS A JPG ORIGINALLY? Compressed files should only be used in agreement between the Provider and Receiver.

The file names of associated files needs some consideration. Whilst file names can be of any length and contain a variety of characters on the latest Windows operating systems, the use of symbols and spaces within filenames is not

recommended. To be absolutely assured of transfer and acceptance by receiving data systems it is advisable that associated files have no more than 8 character file names and a 3 character file type extensions.

4.2 Referencing data files

The referencing procedure is in two parts:

a) The associated data files are collected together into data sets. Each data set must have a unique reference and this reference is stored in the FILE_FSET field of the relevant Group as follows:

- General data files that refer to the whole site should be collected together in a file set that is referenced in the FILE_FSET field of the PROJ Group. Such data files may include the report text as a word processor file, the site plan as a CAD file, a set of general site photographs as JPG files or the investigation Bill of Quantities as a spreadsheet file. For example:

```
"<GROUP>","PROJ"  
"<HEADING>","PROJ_ID","PROJ_NAME","PROJ_LOC","FILE_FSET"  
"<UNIT>","","","",""  
"<TYPE>","X","X","D","X"  
"<DATA>","7845","Trumpington Sewerage","Trumpington","FS1"
```

- Data files that refer to specific boreholes or trial pits should be collected together in a file set that is referenced in the FILE_FSET field of the LOCA Group. As above, such data files may include a set of borehole geophysics files in LAS format, trial pit photographs as JPG files, or a detailed location plan as a CAD file.

It is recommended that core photograph files are collected together as part of the FILE_FSET in the LOCA Group, rather than being placed in the CORE Group, as each core box generally contains more than one core run.

```
"<GROUP>","LOCA"  
"<HEADING>","LOCA_ID","LOCA_TYPE","LOCA_NATE","LOCA_NATN","LOCA_GL","FILE_FSET"  
"<UNIT>","","m","m","m",""  
"<TYPE>","PA","2DP","2DP","2DP","X"  
"<DATA>","BH1","CP+RC","532154.00","176163.00","78.40","FS2"  
"<DATA>","TP2","TP","532246.00","176047.00","64.90","FS3"  
"<DATA>","H1","INST","532154.00","176163.00","78.40","FS2M"  
"<DATA>","BH10","CP","532246.00","176047.00","64.90","FS3M"
```

- Data files that refer to specific samples should be collected together in a file set that is referenced in the FILE_FSET field of the SAMP Group. Such data files may include close up fabric photographs of a split piston sample as JPG files, or the text of a separate report on the petrographic analysis of an aggregate bulk sample as a word processor document.

```
"<GROUP>","SAMP"  
"<HEADING>","LOCA_ID","SAMP_TOP","SAMP_REF","SAMP_TYPE","SAMP_ID","FILE_FSET"  
"<UNIT>","m","","",""  
"<TYPE>","2DP","X","PA","ID","X"  
"<DATA>","BH1","2.50","5","P","","1231314","FS205"  
"<DATA>","TP2","3.50","3","B","","1231315","FS314"
```

- Data files that refer to specific tests should be collected together in a file set that is referenced in the FILE_FSET field of the relevant test results Group. Such data may include close up photographs of a shear box sample

after failure as a JPG file referenced in the SHBG Group, or a spreadsheet file of the detailed results and calculations of an in situ permeability test referenced in the IPRG Group.

Note: where Groups occur as linked pairs the file set should be referenced in the general Group of the pair.

- Data files that refer to specific monitoring points should be collected together in a file set that is referenced in the FILE_FSET field of MONG Group. Such data may include calibration files for the instrument or a detailed specification of the instrument type.

```
"<GROUP>","MONG"
"<HEADINGS>","LOCA_ID","MONG_ID","MONG_DIS","MONG_TYPE","FILE_FSET"
"<UNITS>","","m","",""
"<TYPE>","X","","2DP","PA","X"
"<DATA>","H1","","0.00","TS","FS21M"
"<DATA>","BH10","","12.50","SP","FS204M"
```

- b) The contents of each file set are described in the FILE Group. The File Name within each File Set must be unique, so that the combination of the Key Fields of FILE_FSET and FILE_NAME is unique.

```
"<GROUP>","FILE"
"<HEADING>","FILE_FSET","FILE_NAME","FILE_DESC","FILE_TYPE","FILE_PROG","FILE_DOCT","FILE_DATE"
"<UNIT>","","","","","","","yyyy/mm/ddThh:mm:ss"
"<TYPE>","X","X","X","PA","X","PA","DT"
"<DATA>","FS1","trumptxt.docx","Factual report text","DOCX","MS Word 2010 ","REP","2010-05-01T00:00:00"
"<DATA>","FS1","trumpsi.zip","Site plan","DWG+ZIP","AutoCAD v14 + WinZip v12.0","DRAW","2010-02-11T00:00:00"
"<DATA>","FS1","trump011.jpg","Photo of site looking North","JPG","IrfanView v4.10","PH","2010-03-31T00:00:00"
"<DATA>","FS1","trump021.jpg","Photo of site looking South","JPG","IrfanView v4.10","PH","2010-03-31T00:00:00"
"<DATA>","FS1","trumpboq.xlsx","Final BOQ","XLSX","MS Excel 2007","PH","2010-03-10T00:00:00"
"<DATA>","FS2","bh1geoph.zip","BH1 geophysics","LAS+ZIP","GLog v3 + WinZip v12.0","DATA","2010-04-01T00:00:00"
"<DATA>","FS2","bh1p01.jpg","BH1 core photo box 1","JPG","IrfanView v4.10","PH","2010-04-09T00:00:00"
"<DATA>","FS2","bh1p02.jpg","BH1 core photo box 2","JPG","IrfanView v4.10","PH","2010-04-09T00:00:00"
"<DATA>","FS2","bh1plan.dwg","BH1 location plan","DWG","AutoCAD v14","DRAW","2010-04-09T00:00:00"
"<DATA>","FS3","tp2p01.jpg","TP2 photo north face","JPG","IrfanView v4.10","PH","2010-04-09T00:00:00"
"<DATA>","FS2M","h1p01.jpg","H1 location photograph","JPG","IrfanView v4.10","PH","2010-04-09T00:00:00"
"<DATA>","FS3N","bh10plan.dwg","BH10 location plan","DWG","AutoCAD v14","DRAW","2010-04-09T00:00:00"
"<DATA>","FS205","bh1p26.jpg","BH1 sample P5 split piston","JPG","IrfanView v4.10","PH","2010-04-09T00:00:00"
"<DATA>","FS314","tp2pet1.docx","TP2 sample B3 petrographic report text","DOCX","MS Word 2007","REP","2010-04-21T00:00:00"
"<DATA>","FS21M","h1.xlsx","Tiltmeter H1 calibration file","XLSX","Excel 2007","CAL","2010-04-21T00:00:00"
"<DATA>","FS204M","bh10inst.docx","BH10 pneumatic piezometer installation details","DOCX","MS Word 2010","CR","2010-04-21T00:00:00"
```

4.3 Submission File Structure

The associated files must be submitted in a standard file folder structure to enable the data to be linked to the correct files. This structure is defined in Rule 20 AGS Data Format (Section 7).

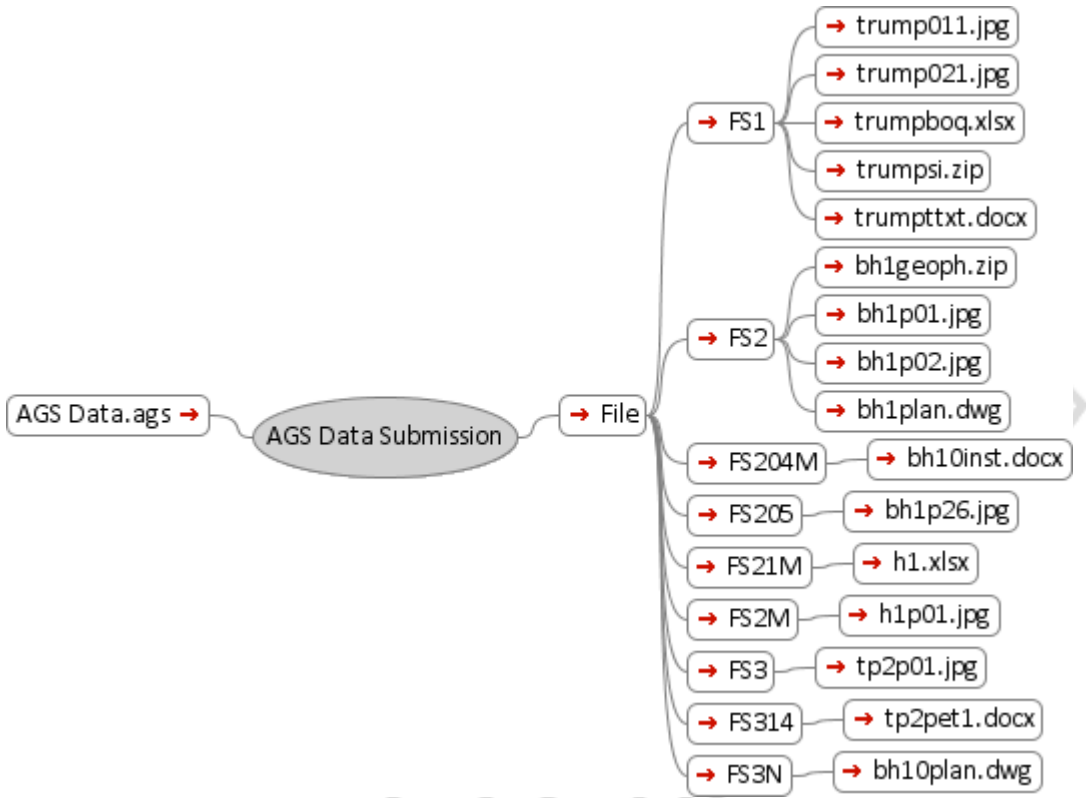
- The additional files shall be transferred in a sub-folder named FILE.

- This FILE sub-folder shall contain additional sub-folders each named by the FILE_FSET reference.
- Each FILE_FSET named folder will contain the files listed in the FILE GROUP.

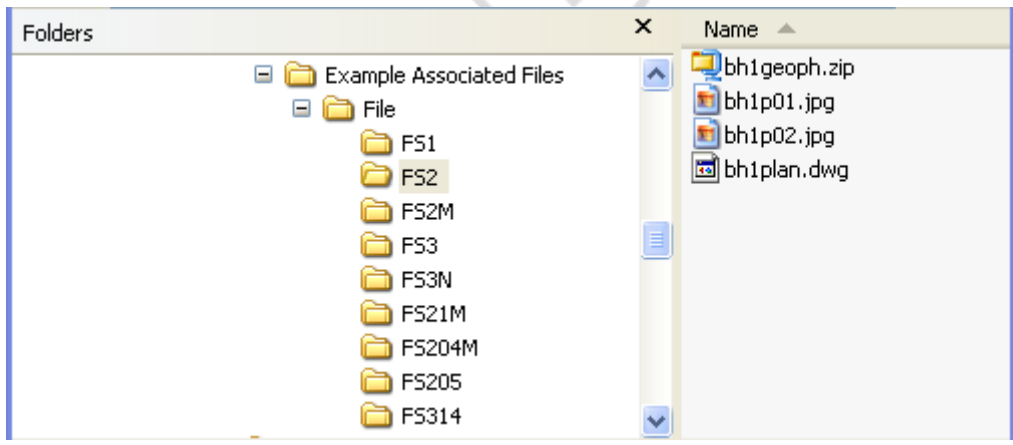
This convention must be followed when submitting data on media or FTP or delivering via a web site.

Where data is transmitted by email or FTP transfer then the files should be Zipped whereby the folder structure is maintained.

For the above example the folder / file structure would be as follows:



Folder '\FILE\FS2' as viewed in Windows Explorer:



This example is available for download from the AGS website. WHY DO WE NEED TO PROVIDE AN EXAMPLE DOWNLOAD? I THINK IT IS MORE THAN CLEAR AND THIS WOULD JUST ADD A FURTHER DEPENDENCY ON THE AGS WEBSITE!

Example Associated Files.zip

Following this strict convention has a number of advantages:

- Data systems making or receiving associated files can process the data to locate the linked information.
- Files can have similar names provided they are unique within each folder. This may not be advisable, but does make naming of the files independent of the AGS Data Format requirements.

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