

# Data Conversion Feedback Tool

Getting Started Guide

**Convert any Excel Spreadsheet, AGS  
File, HoleBASE SI or gINT project to  
DIGGS ,CSV, gINT or KeyLAB**

**Version 2.0.2  
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## Introduction

The Keynetix Data Converter Feedback tool allows you import CSV, HoleBASE, gINT into Excel and export it to either CSV, gINT or DIGGS. The process of converting from one format to another therefore requires two stages; importing and exporting.

The tool has been produced for several uses.

- 1) Creating DIGGS data from HoleBASE CSV file and gINT Project files
- 2) Cleaning and importing gINT data into HoleBASE SI
- 3) Exporting data from HoleBASE for DOT's that require gINT project files as a deliverable (this feature is coming soon).

## Installation

There is no installation program for this version of the Data Converter Feedback tool. To be able to use the program follow the instructions below

1. Save the downloaded ZIP file to a location on your machine.
2. Extract the contents of this file to a directory on your machine and you will have the following files in your directory
  - a. DataConverterFeedbackTool.xlam
  - b. DataConverterFeedbackTool.PDF
  - c. Templates Folder with import and export mapping
  - d. Demo Data folder with example data in it.

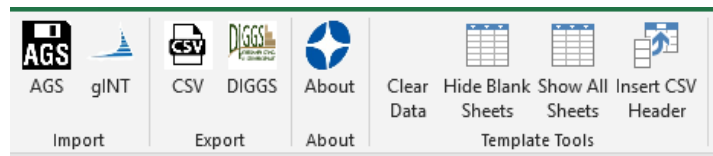
## Opening the Data Converter Feedback Tool

The tool is an Excel Add-in file and can be loaded by double-clicking on the DataConverterFeedbackTool.xlam file in Windows Explorer or opening the file using Excel's normal file open methods.

On opening you may see the following message. It is important to Enable Macros on this form otherwise the tool will not load.



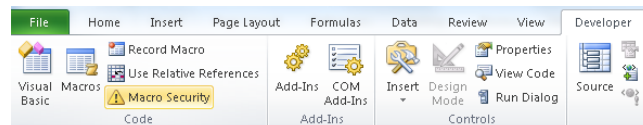
Once loaded the tool will add a Ribbons in Excel 2007, 2010, 2013 and will add a customer menu in Excel 2003.



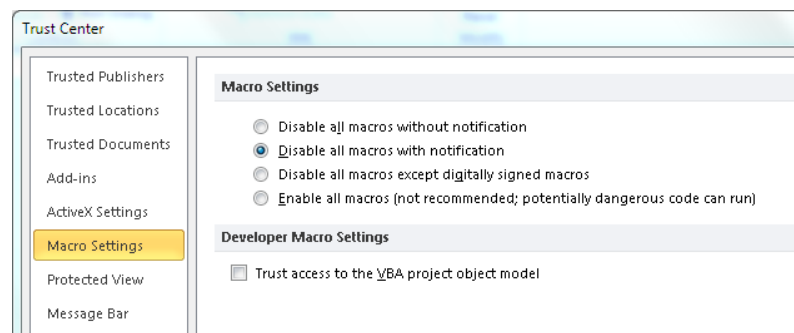
## Troubleshooting

If you are unable to see this ribbon it is likely that the security settings on your copy of Excel are set to not allow macros. If so you need to set your Excel security level to medium by following the steps below.

1. From the **Developer** tab select the **Macro Security** option as shown below



2. Select the second option in the list (as shown below). This option will ensure that you are prompted to enable macros each time you load a spreadsheet with code in it.



If the menu still does not appear then it may be that Excel is blocking the use of add-ins from untrusted locations on your hard drive or network. To check this follow the steps below.

1. Open Excel and go to File>Options>Trust Center>Trust Center Settings>Trusted Locations.
2. If the location you save the 'DataConverterFeedbackTool.xlam' is on a network tick the option for 'Allow Trusted Locations on my network'
3. Use the 'Add New Location' button to then add the path through to the folder that contains the 'DataConverterFeedbackTool.xlam'

- 
4. Following this, save the changes, close Excel and try running the tool again.

## Getting Started

### DIGGS users

If you are working on creating DIGGS files then a few example files have been included in the ZIP package that will help you understand how the system works. The following steps will guide you through importing the example AGS file and exporting a DIGGS file.

1. Select the AGS icon from the Import section on the Data Converter Ribbon.
2. Select the example1.ags file in the dataconverter/demo data/ags folder that was unzipped with the converter application.
3. Select the AGS4Minimal.XLSM file when prompted then click Use Template button
4. The AGS file will now be imported into the Excel Spreadsheet and the Excel file will be saved in the demo data directory with the same name as the AGS file, but with extension XLSM. That is the import process completed!

Next you need to export the spreadsheet data to DIGGS following the steps below:-

1. Select the DIGGS icon on the Export Section of the Data Converter Ribbon.
2. Select the "AGS example Template.xml" file and click Use Template Button.
3. The DIGGS file will now be produced using the instructions in the "AGS example Template.xml" and will be saved in the same directory as the Excel file, with the same name and extension -DIGGS.XML.

You have now successfully created your first DIGGS file using the Data Converter Feedback Tool. To learn more about DIGGS you will have to learn how to modify the export template but before you dive into that it is probably more important to learn about the files that can be imported into the system.

## Importing Data

Currently, data can be imported from gINT GPJ files or AGS files. CSV import will follow in a future release.

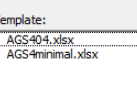
You can import all the data from the selected file or, by using a predefined template, you can define what to import and how any subsequent export will be created.

Importing data into a template is a powerful way to manipulate data before you convert it.

To illustrate how this technique works you can follow the steps below to import the example AGS file shipped with the program.

### Importing without template

1. Select the AGS Icon on the Import section of the Data Importer Ribbon
2. Select the example1.ags file from the demo data\AGS directory



Select Template

Template:

- AGS#404.xlsx
- AGS#minimal.xlsx

Create New Template

Use Template

3. Click the Create New Template button on the "Select Template" form.
4. A new worksheet is created for each new group in the AGS file and all the columns are imported for each group. The file you have after import will look like the image below.

[illegible]

Example AGS File imported using no template.

- Exactly the same process works when you import a gINT project file

## Importing with template

The process is exactly the same as the previous example but in step 3 you will select the AGSminimal template.

1. Select the AGS Icon on the Import section of the Data Importer Ribbon
2. Select the example1.ags file from the demo data\AGS directory

Select Template

Template:

- AGS404.xlsx
- AGS4minimal.xlsx

Create New Template Use Template

3. Select the AGS4Minimal.XLSX file and then Click the Use Template button on the "Select Template" form.
4. A new worksheet is created but only the groups and columns that were included in the template have been imported into the spreadsheet. It is also important to

note that the last column on the LOCA sheet is a calculation column that was predefined in the spreadsheet.

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Questions												
2	Notes												
3	UNIT												
4	TYPE	ID	PA	PA	2DP	2DP	PA	2DP	X	2DP	DT	DT	
5	START	LOCA ID	LOCA TY	LOCA ST	LOCA NA	LOCA NA	LOCA GR	LOCA GL	LOCA RE	LOCA FD	LOCA ST	LOCA EN	LOCA BASE
6	LEADING	LOCA	LOCA	LOCA	LOCA	LOCA	LOCA	LOCA	LOCA	LOCA	LOCA	LOCA	LOCA
7	DATA	BH01	DS+RC	FINAL	418577.30	182151.70	OSGB	112.60	Inspection	15.30			97.3
8	DATA	BH02	DS+RC	FINAL	418556.80	182119.50	OSGB	112.81	Inspection	15.00			97.81
9	DATA	DCP01	DCP	FINAL	418594.90	182137.90	OSGB	112.61		1.20	2018-04-24		111.41
10	DATA	DCP02	DCP	FINAL	418590.40	182131.00	OSGB	112.77		1.20	2018-04-24		111.57
11	DATA	DCP03	DCP	FINAL	418585.40	182124.40	OSGB	112.78		1.20	2018-04-24		111.58
12	DATA	DCP04	DCP	FINAL	418490.50	182118.90	OSGB	113.02		1.20	2018-04-24		111.82
13	DATA	DCP05	DCP	FINAL	418494.80	182125.30	OSGB	112.85		1.20	2018-04-24		111.65
14	DATA	DCP06	DCP	FINAL	418499.10	182131.50	OSGB	112.79		1.20	2018-04-24		111.59
15	DATA	DCP07	DCP	FINAL	418483.20	182123.30	OSGB	112.93		1.20	2018-04-24		111.73
16	DATA	DCP08	DCP	FINAL	418486.80	182129.70	OSGB	112.79		1.20	2018-04-24		111.59
17	DATA	DCP09	DCP	FINAL	418491.00	182136.50	OSGB	112.90		1.20	2018-04-24		111.7
18	DATA	DCP10	DCP	FINAL	418476.80	182128.20	OSGB	112.94		1.20	2018-04-24		111.74
19	DATA	DCP11	DCP	FINAL	418480.60	182134.10	OSGB	112.62		1.20	2018-04-24		111.42
20	DATA	DCP12	DCP	FINAL	418484.80	182140.20	OSGB	112.84		1.20	2018-04-24		111.64
21	DATA	DCP13	DCP	FINAL	418468.70	182133.40	OSGB	112.78		1.20	2018-04-24		111.58
22	DATA	DCP14	DCP	FINAL	418472.30	182139.30	OSGB	112.61		1.20	2018-04-24		111.41
23	DATA	DCP15	DCP	FINAL	418477.30	182145.50	OSGB	112.73		1.20	2018-04-24		111.53
24	DATA	DCP16	DCP	FINAL	418461.20	182138.40	OSGB	112.75		1.20	2018-04-24		111.55
25	DATA	DCP17	DCP	FINAL	418465.20	182144.30	OSGB	112.62		1.20	2018-04-24		111.42
26	DATA	DCP18	DCP	FINAL	418469.50	182150.50	OSGB	112.74		1.20	2018-04-24		111.54
27	DATA	DCP19	DCP	FINAL	418452.30	182143.70	OSGB	112.77		1.20	2018-04-24		111.57
28	DATA	DCP20	DCP	FINAL	418455.50	182150.90	OSGB	112.70		1.20	2018-04-24		111.5
29	DATA	DCP21	DCP	FINAL	418459.80	182156.80	OSGB	112.63		1.20	2018-04-24		111.43
30	DATA	DOWNSTWATER	PRELIM							3.00	2018-05-30		-3
31	DATA	TP01	TP	FINAL	418463.40	182212.50	OSGB	111.93	The Trial P	1.70			110.23

Example AGS Project File imported using a template.

- Exactly the same process works when you import a gINT project file

#### Top Tip:-

When importing gINT project files into a blank template several worksheets will be created without data in them. These are generated from blank tables in the gINT file. You can use the "Hide Blank sheets" option from the template menu to hide these sheets and easily allow you to see which ones have data in them.

### Creating Import Templates

An import template allows you to:-

- Specify which tables and fields to import
- Allows you to manipulate the data ready for export
- Predefine output field and table naming

Import templates can be created from blank templates or existing templates you have used.

To create a template follow the steps below:-

- Open an existing template with data or create a blank template from a gINT or AGS project file.
- Set up any additional calculated columns at the end of each grid. It is recommended that you create the calculation columns to the right of the existing table.
- Click the "Clear Data" icon on the Template section of the Data Converter Ribbon. This removes all the data that is in the spreadsheet (but will not remove the equations).
- Save the file using Excel's Save As option. The file must be saved in the Templates folder for the Data Converter under the directory for the file type the template is designed for. For example AGS templates are stored under Templates\import\AGS and gINT templates are stored under Templates\import\gINT

Your template should now be listed in the drop-down list when running the import command and is ready to use.

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## Exporting Data

### DIGGS

DIGGS data can be created from any data imported by the Data Converter (AGS, HoleBASE CSV or gINT)

#### *Creating DIGGS templates*

A DIGGS template is a DIGGSML file with export commands built into it.

An example of this is shown below where the creationDate and remarkDateTime values have been replaced by Excel equations in double brackets. {{ }}

```
<Diggs xmlns="http://diggsml.org/schemas/2.5.a"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://diggsml.org/schemas/2.5.a https://raw.githubusercontent.com/DIGG
  xmlns:diggs_geo="http://diggsml.org/schemas/2.5.a/geotechnical"
  xmlns:witsml="http://www.witsml.org/schemas/131" xmlns:glr="http://www.opengis.net/gml/3.
  xmlns:xlink="http://www.w3.org/1999/xlink" xmlns:g3.3="http://www.opengis.net/gml/3.3/ce"
  xmlns:gml="http://www.opengis.net/gml/3.2" xmlns:diggs="http://diggsml.org/schemas/2.5.a"
  xmlns:glrov="http://www.opengis.net/gml/3.3/lrov"
  gml:id="NTM1YTEwMzUtYmRmZS00NTIxLTk1OWItZjk4NGEwOWRjZDcx">

  <documentInformation>
    <DocumentInformation gml:id="{{AUTOID}}">
      <creationDate>{{TEXT(NOW(),"yyyy-mm-dd")}}</creationDate>
      <!--<author>-->
      <!-- <BusinessAssociate gml:id="BA_1">-->
      <!-- <gml:name>1</gml:name>-->
      <!--</BusinessAssociate>-->
      <!--</author>-->
      <!--<author>1</author>-->
      <disclaimer>Not specified in AGS file</disclaimer>
      <auditTrail>
        <Remark>
          <content>Generated by Keynetix Diggs Feedback Tool</content>
          <remarkDateTime>{{TEXT(NOW(),"yyyy-mm-dd")}}</remarkDateTime>
        </Remark>
      </auditTrail>
    </DocumentInformation>
  </documentInformation>
```

#### *Inserting Data from spreadsheet*

The example above shows how excel functions can be reference. However the main purpose of the tool is to insert the Excel data into the DIGGS file. To do this you must use a command that loops through all the rows of data on a spreadsheet.

This command is KYNLoop and is shown below. In its simplest form this has 3 properties

**Name** This is for your reference and can be anything

**loopby** Always set this to "table" for Excel spreadsheets

**loopon** This is the column name of the worksheet (as it appears on the tab at the bottom of the worksheet)

```
<project>
  <KYNLoop name="projects" loopby="table" loopon="PROJ">
    <Project gml:id="Project {{PROJ.PROJ_ID}}">
      <gml:identifier codeSpace="ODOT_CS">92740</gml:identifier>
      <gml:name>{{PROJ.PROJ_ID}}</gml:name>
    </Project>
  </KYNLoop>
</project>
```

Data from the spreadsheet can be referenced in the loop by using the following format Sheetname.tablename. In the above example the routine will insert the column headed PROJ\_ID from the PROJ spreadsheet. It is important to note that the column headings are entered into the row above the grid of data (highlighted in yellow below). This row has the row "START" in the first column.

## Nesting Loops

```
<KYNLoop name="GRAT" loopby="tabls" loopon="GRAT" filterfields="loca_id,samp_top" filtervalues="{(GRAT.loca_id),{(GRAT.SAMP_TOP)}}">
  <diggs_geo:gradingData>
    <diggs_geo:Grading gmid="{(AUTOID)}">
      <diggs_geo:particleSize uom="mm">{(GRAT.GRAT_SIZE)}</diggs_geo:particleSize><!--Reading-->
      <!--diggs_geo:weightRetained uom="kg">24.73599977</diggs_geo:weightRetained-->
      <diggs_geo:percentPassing uom="%">{(GRAT.GRAT_PERP)}</diggs_geo:percentPassing><!--Percent Finner-->
      <!--diggs_geo:weightRetained uom="kg">24.73599977</diggs_geo:weightRetained--><!--95.37769318--><!--Soil_Tare-->
    </diggs_geo:Grading>
  </diggs_geo:gradingData>
</KYNLoop>
```

**filterfields** A CSV list of the headers in the data you are filtering in.

### Data Conditions

<KYNCondition command="ISDATAPRESENT" sheet="LOCA" Column="LOCA\_FDEP">

This command has 3 parameters

&lt;KYNCondition command="ISTABLEPRESENT" table="HDPH"&gt;

This command has 2 parameters

```
<KYNCondition command="IF" condition=""{{LOCA.LOCA_TYPE}}'\<TP'">
```



---

### Command = "IF"

This command has 2 parameters

**command** Enter IF in here to check for a condition statement

**condition** The Excel statement that you would normally put at the first parameter in the Excel IF statement. Note when comparing text values both the spreadsheet value and the text value must be enclosed in single quotes as shown above.

This command can only be inserted inside a KYNloop command and will check the current row that is being processed by the loop.

### CSV

The CSV export uses the same logic as the HoleBASE SI Data Entry Feedback Tool. More documentation will be included in the next release.

## Updates

### Version 1.4

XML escaped characters added for the following items:-

> &gt;

< &lt;

& &amp;

"" &quot;

' &apos;

IF statement added to snippets to exclude sections

NULL statement removed as this is now covered with IF statement.

### Version 2.0.1

Complete rewrite of the tool.

## Wish list

If you need more features in this tool then please send us feedback to [support@keynetix.com](mailto:support@keynetix.com)

We are currently working on:-

- UOM parameters from UNITS line in spreadsheet
- ABBR Abbreviation for AGS file conversion