Challenges of Data Transfer

Dr Roger Chandler





My Story

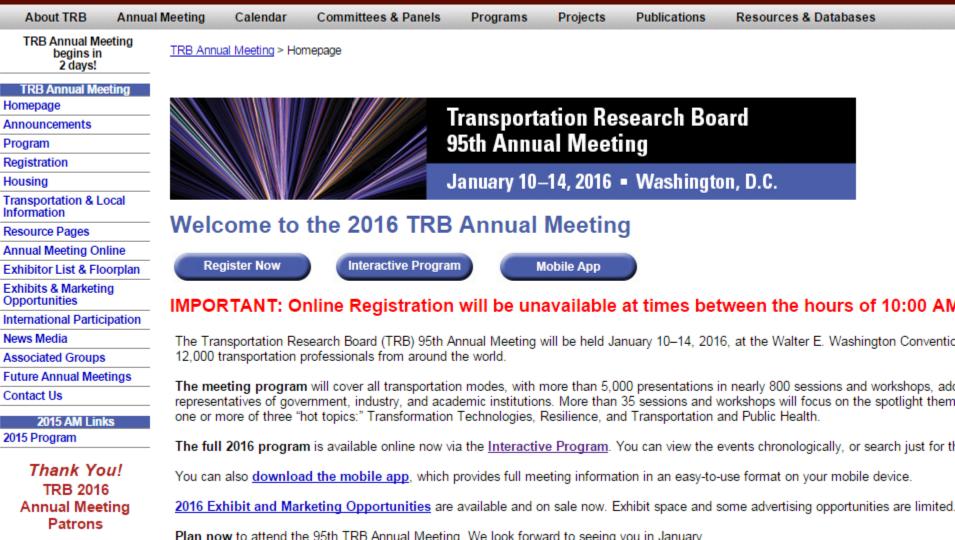
- 1996 Offshore Engineer tasked with rapid reporting
- 1997 Drafted onto AGS committee in UK
- 1998 Co-founded Keynetix
- 2005 Representing AGS on DIGGS committee
- 2016 Working with Hong Kong, Australia, New Zealand, UK and USA with data transfer formats



Challenge 1

Do you currently use a Data Transfer Format?





HTML







HTML











Geotechnical Data Software Transformed

Challenge 2 What is Geotechnical Data?



Geotechnical Data

"facts or figures obtained from all phases of a geotechnical project, including derivations from other data

NOTE Facts and figures might include text, numbers and formulae."

Source: BS 8574:2014 Code of practice for the management of geotechnical data for ground engineering projects



Data or Information

If you can process it into one or more formats

without re-entering it

or

without using multiple cut and paste operations

You have data

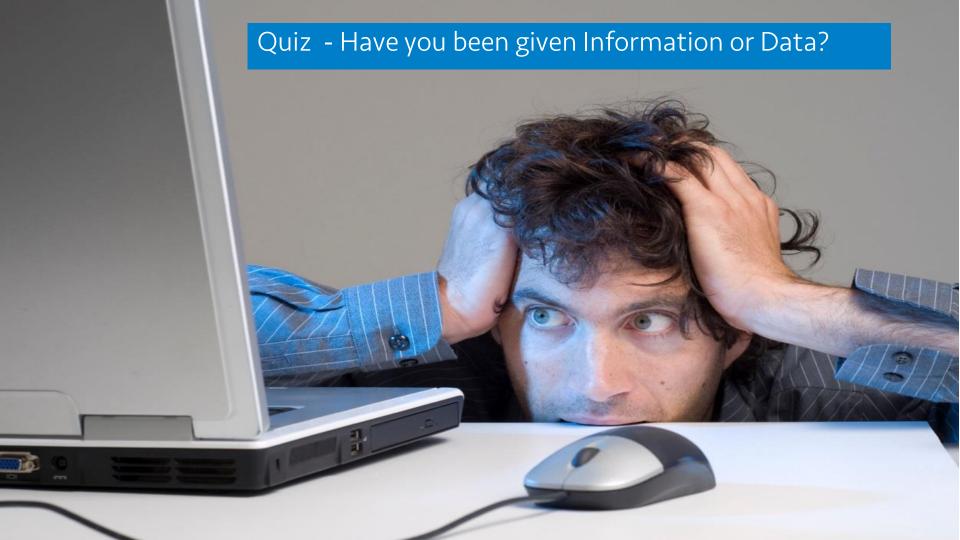


Data or Information

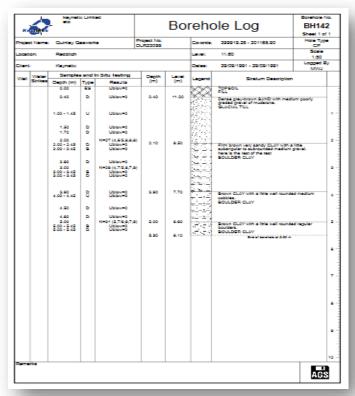
If not ...

You have information





Data or Information?







Data or Information?

	Α	В	С
1	Date	Location ID	Water Depth
2	02/05/2012	BH 1	24.185
3	03/05/2012	BH 1	23.82
4	04/05/2012	BH 1	23.455
5	08/05/2012	BH 1	22.37
6	09/05/2012	BH 1	21.84
7	10/05/2012	BH 1	21.885
8	11/05/2012	BH 1	21.805
9	14/05/2012	BH 1	21.5
10	15/05/2012	BH 1	21.26
11	16/05/2012	BH 1	20.5
12	17/05/2012	BH 1	20.805
13	18/05/2012	BH 1	20
14	21/05/2012	BH 1	20.115
15	22/05/2012	BH 1	20.555
16	23/05/2012	BH 1	20.465
17	24/05/2012	BH 1	20.375
18	25/05/2012	BH 1	20.21
19	28/05/2012	BH 1	20.295
20	29/05/2012	BH 1	20.42
21	30/05/2012	BH 1	20.4
22	31/05/2012	BH 1	19.9
23	01/06/2012	BH 1	19.795

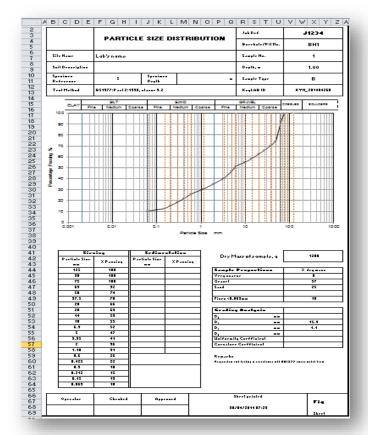




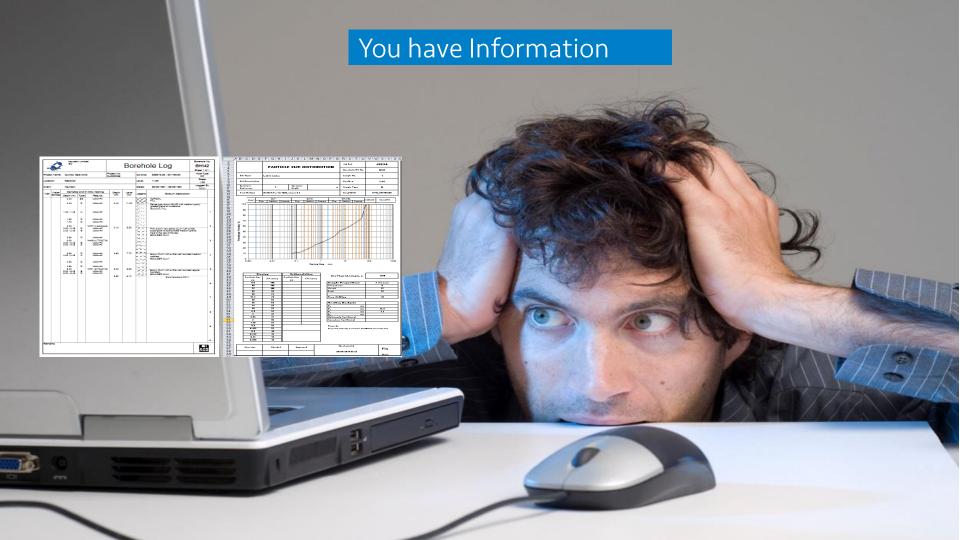
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23	01/06/2012	BH 1	19.795

You have Data!

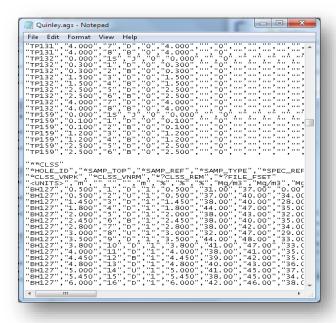
Data or Information?







Data or Information?



An AGS data file

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A DIGGS data file



You have Data!

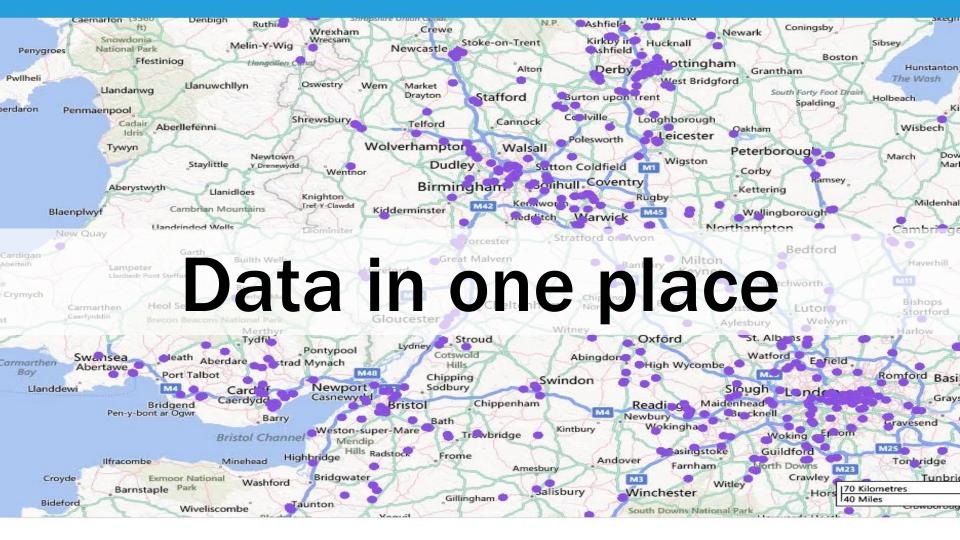


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16	23/05/2012	BH 1	20.465

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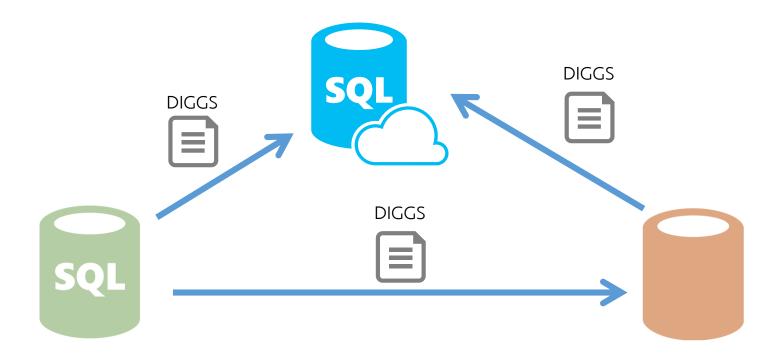




Challenge 3 Data Transfer is not a Database



Data Transfer

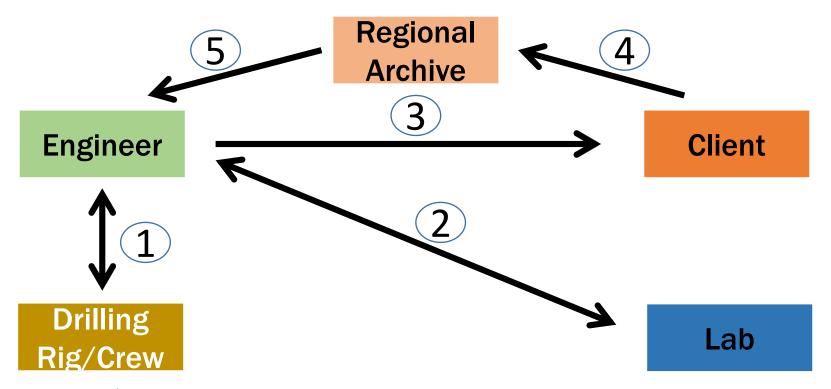




Challenge 4 Importance of Standardization



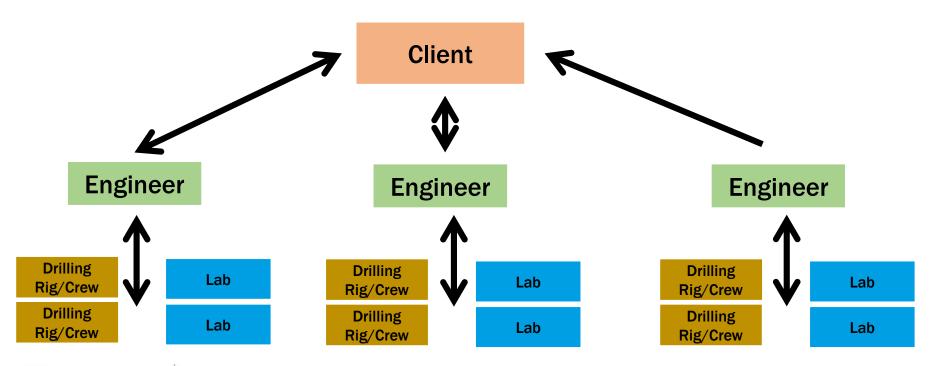
5 Stages of Data Transfer





Software Transformed

15 Stages of Data Transfer





Geotechnical Data Software Transformed

Two Golden Rules for Data Entry





Two Golden Rules for Data Entry



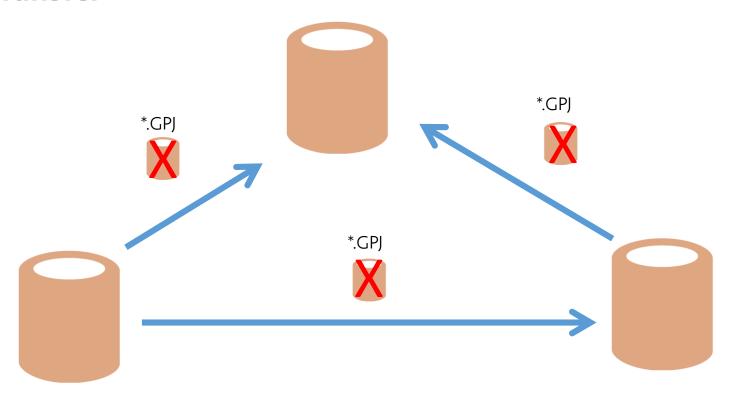


Two Golden Rules for Data Entry

Record data as close to source as possible and transfer it in a standardized electronic format



Data Transfer





Challenge 5 Understanding Your Data Journey



Swim Lanes



Swimlane diagrams (also known as a cross-functional diagram) can be very useful to document the steps, activities or processes in a workflow, especially where there are numerous organizations or systems involved. Recording the method and format of data transfer between the steps is helpful.



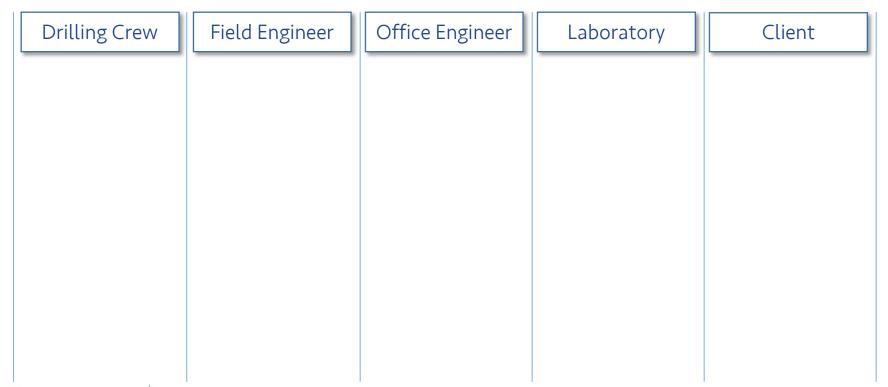


Workflow



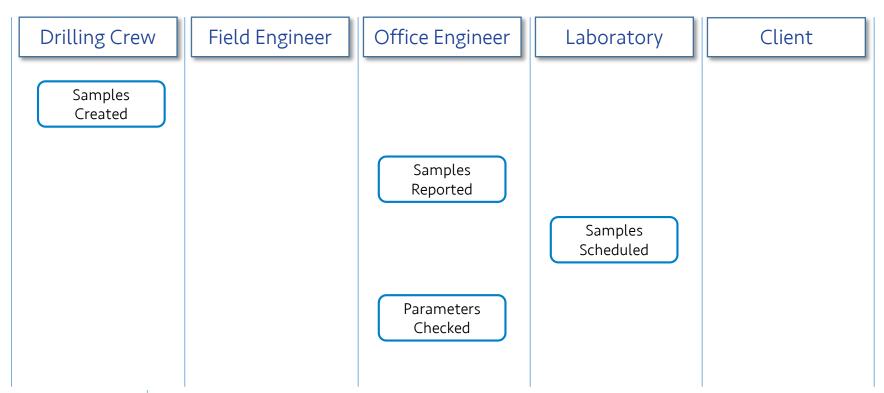


Sample Details





Sample Details



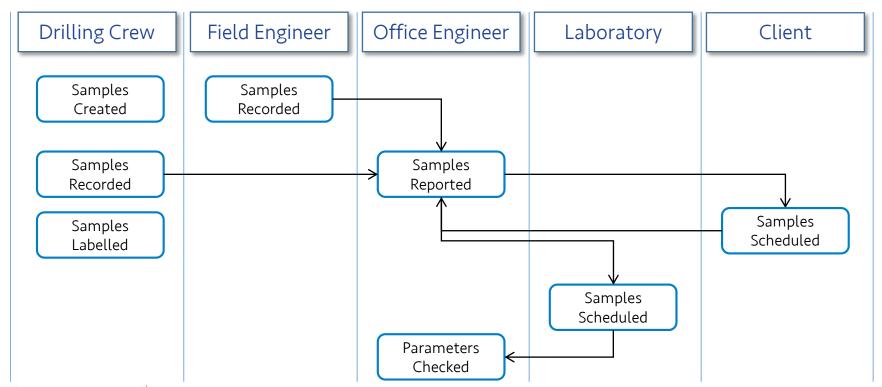


Sample Events

- Created
- Reported
- Scheduled
- Tested
- Reviewed



Sample Details





Challenge 6 Where do you start?



Driven by Client

Client Drives Adoption

United Kingdom - Highways England
New Zealand - Canterbury Earthquake Recovery Authority
Hong Kong - Civil Engineering Design Department
Singapore - BCA
Australia - RTA (New South Wales DOT)



Remaining Challenge





Conclusions

- Standardised Data Transfer Formats are often hidden from the user and are not new.
- DIGGS offers the opportunity to address all the challenges outlined in this presentation.
- DIGGS could be the worldwide standard for geotechnical data transfer





