

Data, data, data

SUZIE MACLACHLAN

Data issues

1. Providing online datasets
2. Combining logger data and images
3. Checking data quality

BOSCORG Curatorial Policy

Mission Statement

The British Ocean Sediment Core Research Facility (BOSCORG) will:

1. Provide advanced state-of-the-art core logging and analysis facilities for community use.
2. Serve as the UK national deep-sea core repository and national archive for marine, lacustrine and terrestrial palaeoenvironmental records.
3. Provide long-term storage of sediment cores collected by NERC ships and NERC-funded researchers, under controlled conditions to ensure optimum preservation.
4. Maintain a database of sediment core holdings and promote the secondary usage of the core material in its care amongst the scientific community.
5. Develop new innovative methods of automated non-destructive core analysis.
6. Provide training in state-of-the-art core analysis, advanced core logging techniques and core data visualisation.
7. Contribute to global digital archives of training images and online curatorial resources to provide high quality training aids.
8. Be responsible for long-term data stewardship of core-based data relating to cores in its care and from core-based national marine programmes.
9. Represent the Natural Environment Research Council at meetings of seafloor and lakebed sample curatorial facilities at an international level.

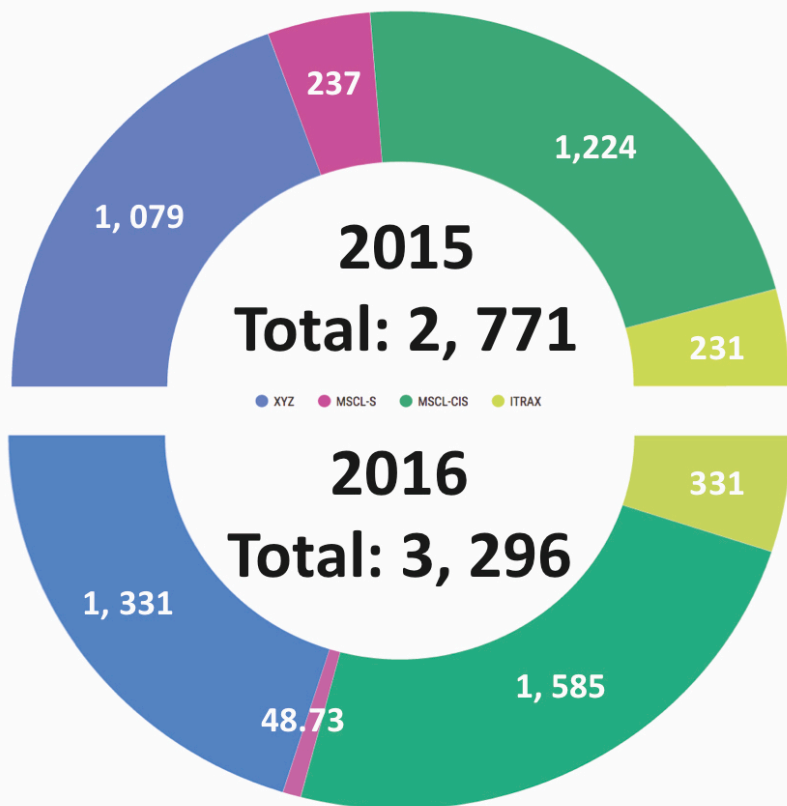
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Length of cores logged by BOSCORF Instruments (m)



2012 – 564 m

2013 – 433 m

2014 – 1301 m

1

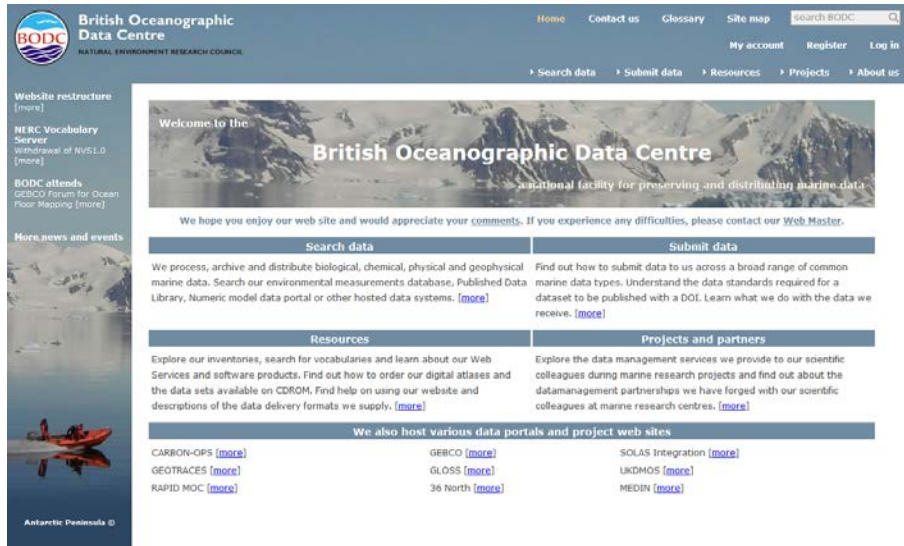
Archive scan data

Total:

MSCL-CIS 2456.28m

MSCL-XYZ 2185.99m

Collaboration with BODC



To make available MSCL-XYZ data and MSCL-CIS images

Linking BOSCORG data with other oceanographic data and cruise reports

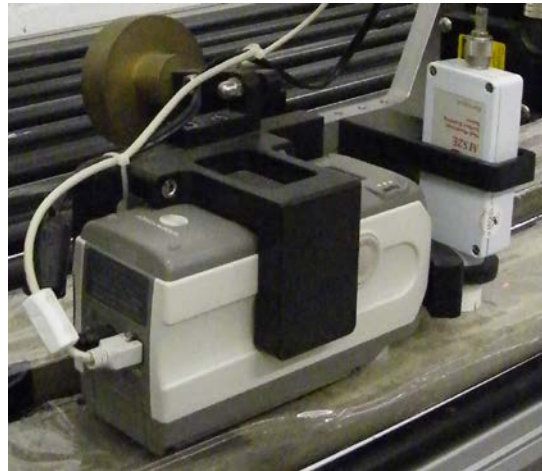
To increase our discoverability

Template for MSCL-XYZ data

	A	B	C	D	E	F	G	H	I	J	K	L
1												
2	PARAMETERS			SENSORS								
3												
4	Depth	m	Sub-bottom core depth		Magnetic susceptibility sensor:	Bartington MS2E 'point' sensor						
5	Core Depth	m	Sub-bottom core depth		Colour spectrophotometry sensor:	Minolta colour spectrophotometer; 360-740nm in 10-nm spectral bands						
6	Section	number	Section number									
7	Section Depth	cm	Section depth									
8	Laser Profiler	mm	Topography of the core section by laser profiler									
9	Magnetic Susceptibility	SI	Magnetic susceptibility	CALIBRATION								
10	Greyscale Reflectance	%	Greyscale reflectance	The colour spectrophotometry sensor is calibrated with a white standard disc supplied by the manufacturer. The magnetic susceptibility sensor automatically re-zero's after every measurement								
11	Munsell Colour	Code	Munsell Colour chart code									
12	CIE XYZ Colour Space X	dimensionless	CIE X colour space									
13	CIE XYZ Colour Space Y	dimensionless	CIE Y colour space									
14	CIE XYZ Colour Space Z	dimensionless	CIE Z colour space									
15	CIE L*a*b* Colour Space L*	dimensionless	CIE L* colour space									
16	CIE L*a*b* Colour Space a*	dimensionless	CIE a* colour space									
17	CIE L*a*b* Colour Space b*	dimensionless	CIE b* colour space									
18	Reflectance (360-740 nm)	nm	Reflectance at 10 nm increments									
19				DATA PROCESSING								
20												
21												
22					None by BOSCORF							

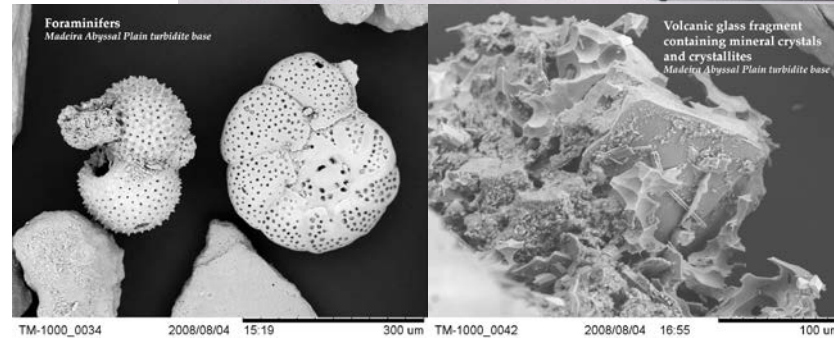
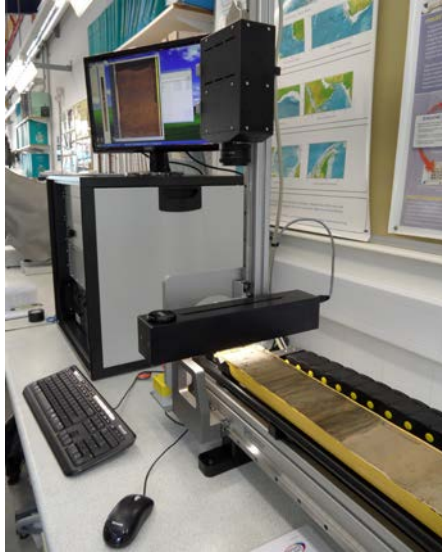
Combining data from loggers

2



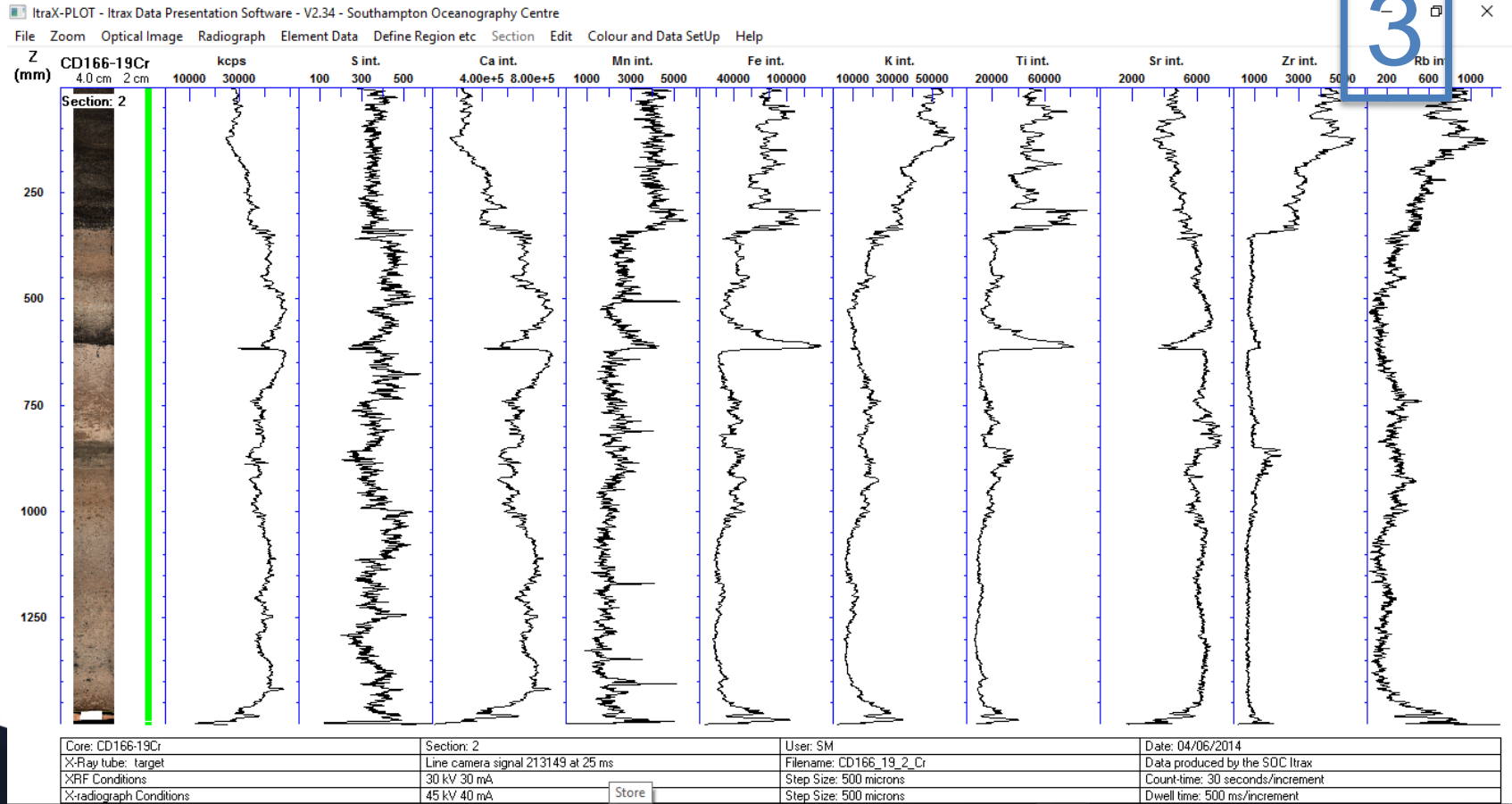
Combining data logger with images

2

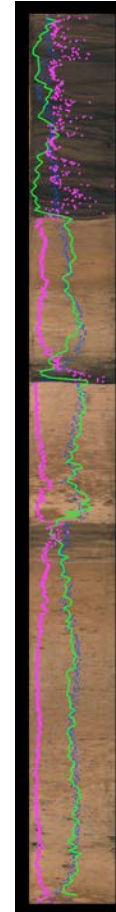
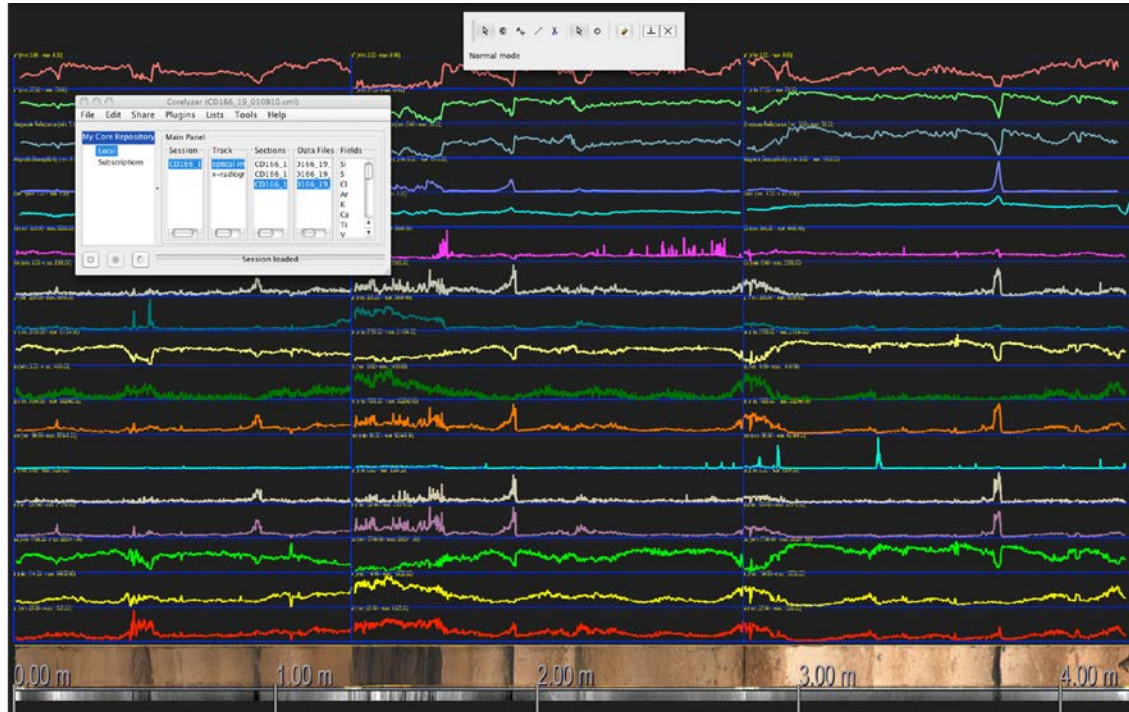


ItraxPlot – data quality checks

3



Corewall - Corelyzer



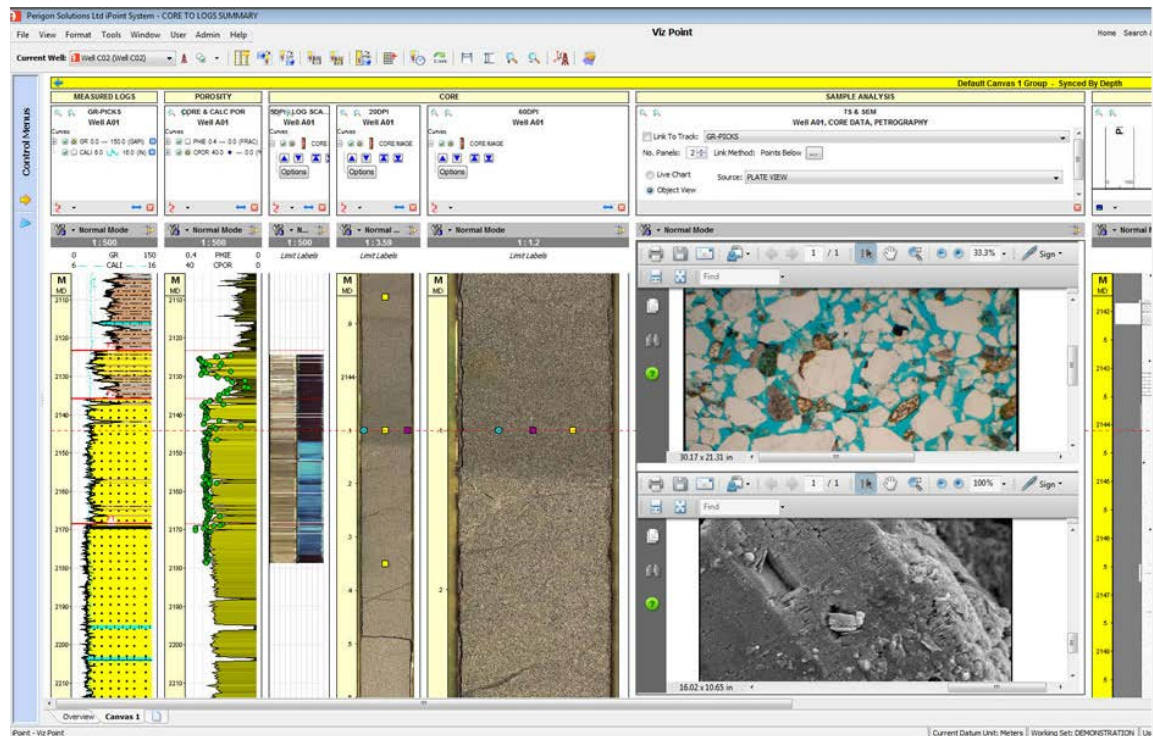


Software needs

BOSCORG Requirements:

- Handling of MSCL, ITRAX and all our other digital data formats
- Core Sediment splicing and cropping
- Core Sediment depth referencing using millimetre scale
- Core Sediment storage
- Core Sediment visualisation
- Depth referencing of all data and images in one common display
- Advanced loading for setting up all the above data types

iPoint software



iPoint : Data & Image Storage Platform (Specific to BOSCORG)

Included :

An add-on so we can quickly load the ITRAX and MSCL-XYZ data
Millimetre scale for data and image viewing to suit our requirements

Module that allows you to export the data in a 'viewer' version of the software for our specific training and offsite requirements

Charting package to view data as a chart or crossplot using binning and regressions

Calculated Statistics

Handling of Sample images like CT scans or SEMs

Specific Data Management module for searching, viewing and finding data

Advanced Core Sediment loading tools

Automated data loading for MSCL and ITRAX data

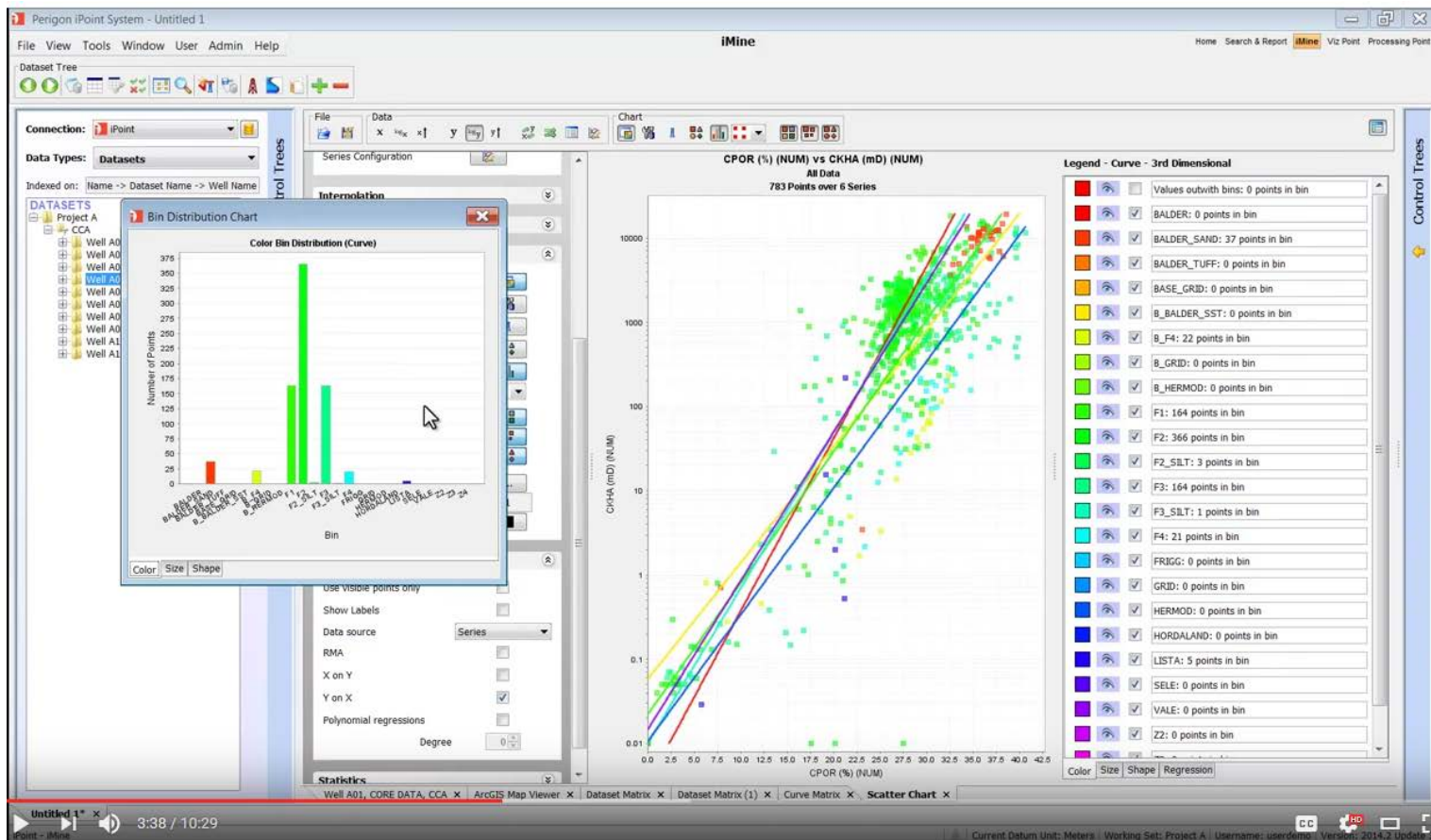
Raw document library to link all your original data and reports

QC and Standardization Tools

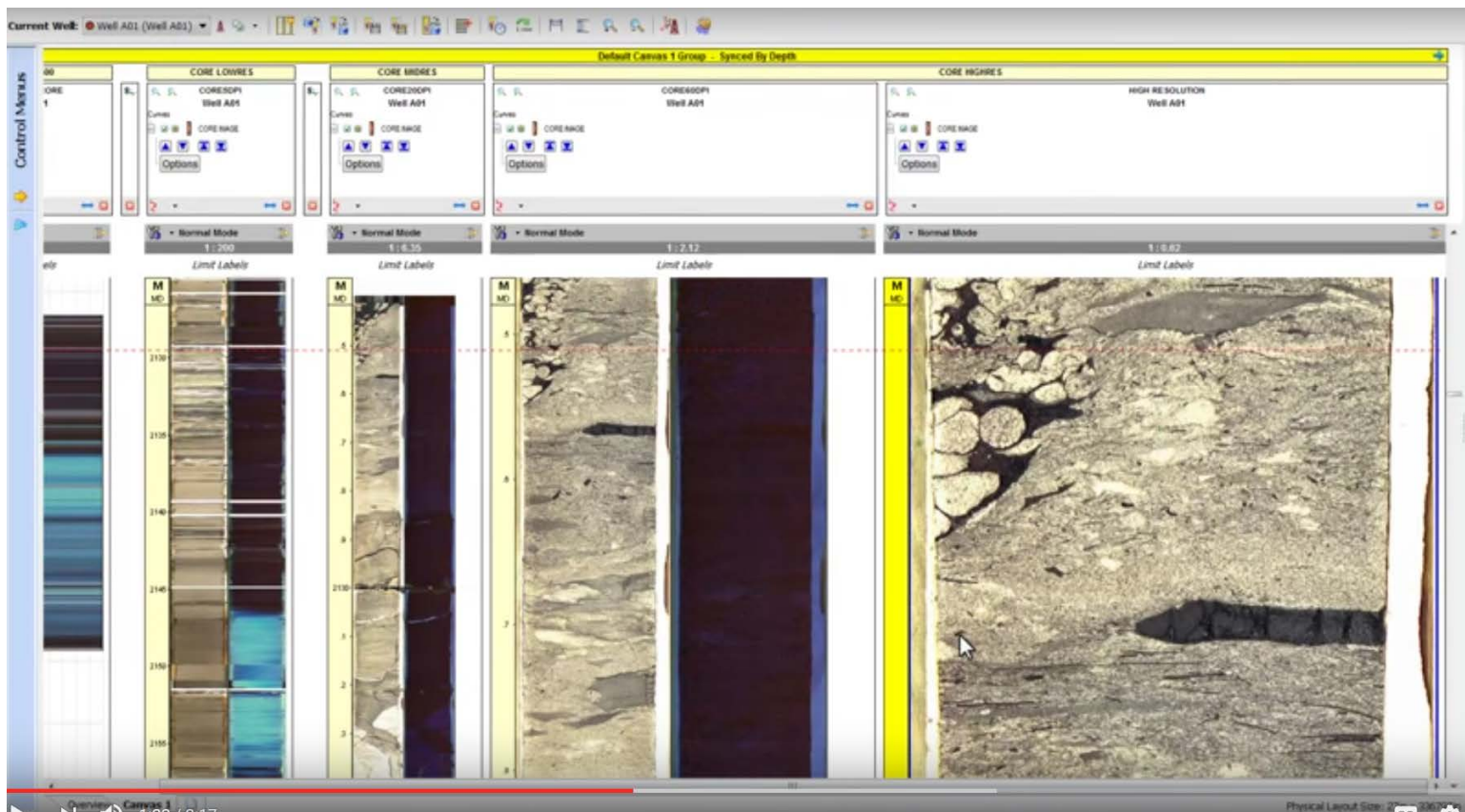
Other features (BOSCORF are currently not buying):

- ArcGIS for map viewing
- iPointWeb for online data viewing
- Cross section and correlation tools
- Thin bed analysis
- Annotations tools
- Integration adapters









<http://www.perigonsolutions.com/>

https://www.youtube.com/watch?v=065w_Jvc0Hc

- Introducing iPoint's Visualization Suite