Data, data, data
Suzie MacLachlan
Data issues

1. Providing online datasets
2. Combining logger data and images
3. Checking data quality
Mission Statement
The British Ocean Sediment Core Research Facility (BOSCORF) 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.
BOSCORF Curatorial Policy

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2012 – 564 m
2013 – 433 m
2014 – 1301 m

2015
Total: 2,771
2016
Total: 3,296

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 BOSCORF data with other oceanographic data and cruise reports

To increase our discoverability
# Template for MSCL-XYZ data

## PARAMETERS

<table>
<thead>
<tr>
<th>Depth</th>
<th>m</th>
<th>Sub-bottom core depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Depth</td>
<td>m</td>
<td>Sub-bottom core depth</td>
</tr>
<tr>
<td>Section</td>
<td>number</td>
<td>Section number</td>
</tr>
<tr>
<td>Section Depth</td>
<td>cm</td>
<td>Section depth</td>
</tr>
<tr>
<td>Magnetic Susceptibility</td>
<td>SI</td>
<td>Magnetic susceptibility</td>
</tr>
<tr>
<td>Laser Profiler</td>
<td>mm</td>
<td>Topography of the core section by laser profiler</td>
</tr>
<tr>
<td>Grey Scale Reflectance</td>
<td>%</td>
<td>Grey scale reflectance</td>
</tr>
<tr>
<td>Munsell Colour</td>
<td>Code</td>
<td>Munsell Colour chart code</td>
</tr>
<tr>
<td>CIE XYZ Colour Space X</td>
<td>dimensionless</td>
<td>CIE X colour space</td>
</tr>
<tr>
<td>CIE XYZ Colour Space Y</td>
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<td>CIE Y colour space</td>
</tr>
<tr>
<td>CIE XYZ Colour Space Z</td>
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<td>CIE Z colour space</td>
</tr>
<tr>
<td>CIE L<em>a</em>b* Colour Space L*</td>
<td>dimensionless</td>
<td>CIE L* colour space</td>
</tr>
<tr>
<td>CIE L<em>a</em>b* Colour Space a*</td>
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<td>CIE a* colour space</td>
</tr>
<tr>
<td>CIE L<em>a</em>b* Colour Space b*</td>
<td>dimensionless</td>
<td>CIE b* colour space</td>
</tr>
<tr>
<td>Reflectance (360-740 nm)</td>
<td>nm</td>
<td>Reflectance at 10 nm increments</td>
</tr>
</tbody>
</table>

## SENSORS

- Magnetic susceptibility sensor: Bartington MS2E ‘point’ sensor
- Colour spectrophotometry sensor: Minolta colour spectrophotometer; 360-740nm in 10-nm spectral bands

## CALIBRATION

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.

## DATA PROCESSING

None by BOSCROF
Combining data from loggers
Combining data logger with images
ItraxPlot – data quality checks
Software needs

BOSCORF 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 BOSCORF)

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