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OOI Cyberinfrastructure Strategic Initiatives

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Agenda

- CI Dashboard
- How best to present .zarr files
- Intern Projects
- How to engage with CI
- Questions

CI Dashboard – What makes a good dashboard?

"A visual display of the most important information needed to achieve one or more objectives; consolidated and arranged on a single screen so the information can be monitored at a glance".

Stephen Few 2023

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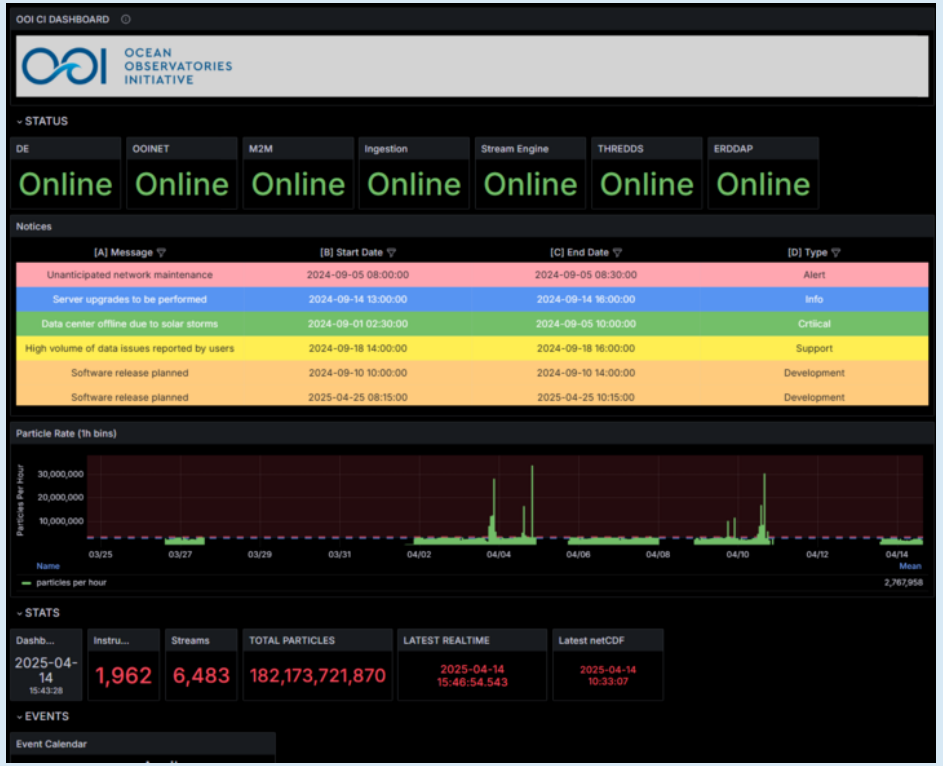
CI Dashboard – Potential content

- Process Status
  - M2M
  - Edex
  - Stream Engine
  - Data Explorer
- System Notes
  - Detail of a particular status
- CI Calendar
  - System maintenance
  - Software migration
- Data Explorer
  - Last refresh date
  - Data load queue
- M2M Queue
- Interactive data bus
- System Status and Metrics
  - Nagios
  - Zabbix
  - Grafana
- System Notes
  - Detail to a particular status
- Ingestion Queue
- Data ingestion rate
- Data Quality Information



- Some of these data elements will only be visible internally to OOI
- What would the DSC like to see as data elements?
- While this is a dashboard, does it make sense to add a links section?

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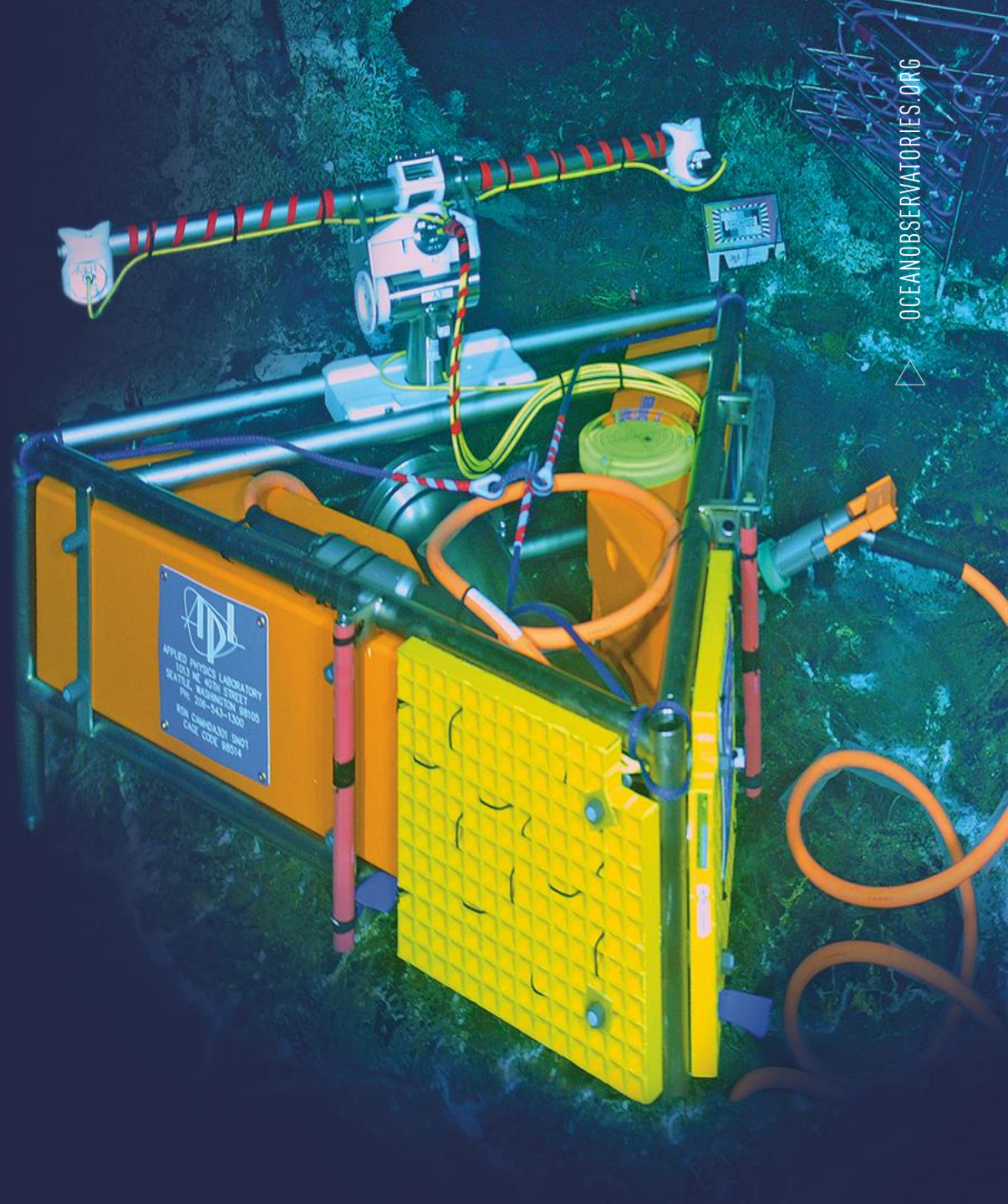
Questions?



Creation of Filetype .zarr

- OOI now has the ability to create .zarr files post Stream Engine processing.
- Feedback from the Fall OOIFB/DSC meeting set chunking method to time and file size (100Mb).
- How should OOI offer this data format?
  - As as a new collection?
  - A choice of filetype via M2M?

NSF CI Compass Fellows 'Intern' Projects

- Project 1: Combine external scientific data with OOI scientific data utilizing each systems' API.
  - Goal is to build a group of JupyterHub Python notebooks that connect OOI API data with other programs' methods of accessing data programmatically.
  - Normalize, to the extent possible, the two sources of data
  - Relate the data to a common quest (e.g. El Nino/La Nina effect on parameter X)
- Project 2: Build on prior machine learning project to better categorize Digital photos for underwater vs above water.
  - Prior iteration analyzed both video and stills. The issue not resolved is taking into account discoloration that makes detection of camera location difficult.
  - An alternative to the above is to analyze CGSN Irminger video for Iceberg detection.
- What would the DSC recommend as additions or finer points to the above Projects?
- Are there recommendations for future CI Compass Fellows projects?

How to engage with CI

- What would be a good forum (e.g. Town Hall, Office Hours, Newsletter)
- Currently hold Town Hall meetings to demonstrate new features or functionality. We've not had to do this recently.

- E.g. - How to communicate availability of Jupyter Hub or facilitate the sharing of notebooks?