Data Processing and Analysis

Inspect, clean, transform and model data to allow the discovery of useful information, decisions, or conclusions.

Keywords: data analysis processing engineering

Providing usable and interpretable data is the ultimate goal of data processing and analysis. If you have data that needs to be organized, cleaned up, transformed, or otherwise modified, we can work closely with you to improve your data.

Data processing may involve various processes, including:

- Validation - ensuring that supplied data is clean, correct and useful
- Sorting - arranging items in some sequence and/or in different sets
- Summarization - reducing detail data to its main points
- Aggregation - combining multiple pieces of data
- Analysis - the collection, organization, analysis, interpretation and presentation of data
- Reporting - list detail or summary data or computed information
- Classification - separates data into various categories

Data analysis will involve more specialized methods and highly specialized algorithms and statistical calculations to create new data and meaning from existing data.

The Data Processing and Analysis Service consists of expert consultation with you to:

1. Understand your data and your expectation of that data,
2. Use the appropriate tools (off-the-shelf or custom-built), develop a workflow for processing and/or analyzing your data,
3. Deliver processed data and/or analyzed data in a format suitable for further use and interpretation.

Examples

**BCBC BioImage Resource Type**

| Use Case | The high-content imaging project (Al Powers, Vanderbilt University) included various types of microscopy images, which needed to be further processed and analyzed as part of a pipeline to prepare large- and high-content images for online viewing. |
| Data | Microscopy images (SVS, LSM, AFI) and metadata (spreadsheet) |
| Results | Inquire for details |
| Technology used | bficonvert, imgcnv, Aperio Imagescope, Zeiss LSM Image Browser, Imagick, PHP, Bash |

**Service Fees**

Hourly rates apply.

Estimates to be provided following consultation.