



Data acquisition and management

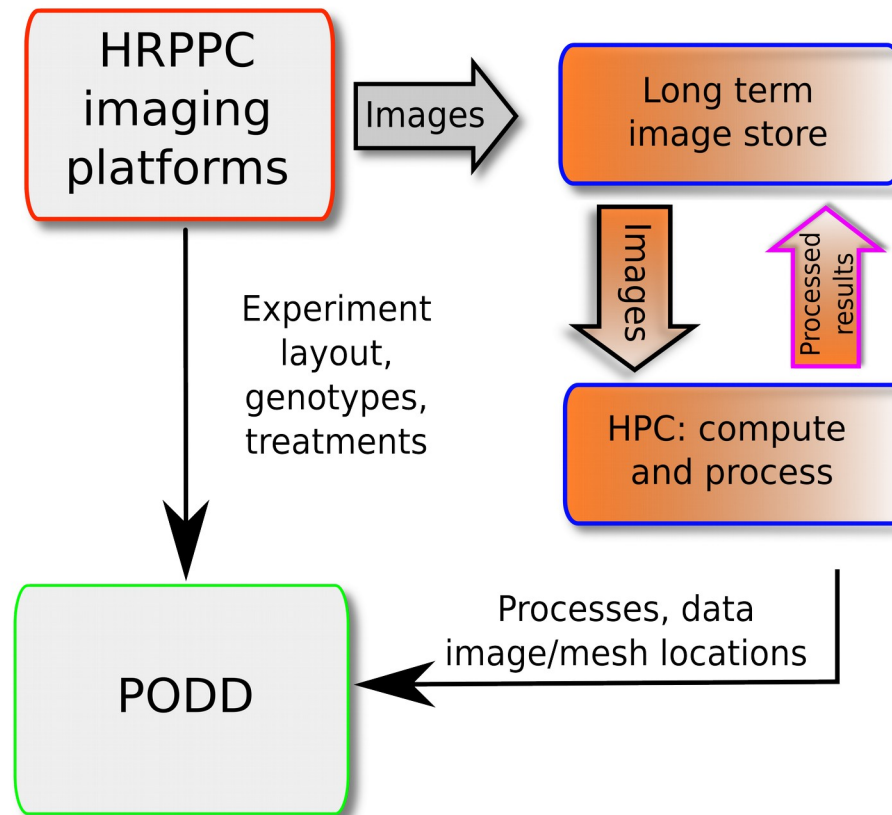
High Resolution Plant Phenomics Centre



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17 June 2015



Overview



Data acquisition

- Experimental layouts determined before experiment begin
- Layout uploaded to machine databases and PODD
- Images and other measurements collected regularly using PlantScan, TrayScan, CabScan, Cropatron, etc.
- Images stored on disks specific to each platform, and metadata stored in SQL databases for each platform



Data management

- Images are batched up and sent to the CSIRO Datastore
- CSIRO Datastore is backed up to a long term tape library
- References to data files will be inserted into PODD



Data processing

- Images are processed on the CSIRO Pearcey cluster and in the near future on the Nectar cloud
- Results are sent to the CSIRO Datastore and backed up on tape
- References to result files will be inserted into PODD



Data visualisation

- Results are aggregated based on the experimental layout that is found in PODD
- Categories include:
 - Genotype
 - Pot
 - Treatment
 - Replicate
- For each category, the average, maximum, minimum, standard deviation and count are computed for each day where data was acquired





THANK YOU

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