

the nodes have finished processing the data it is then copied back to the head node. The head node writes the data files to DDS-3 tape which are made available to the observer.

Due to the large amount of raw data that is produced by the instruments and the limited data storage capacity on Gigawulf, data cannot be left around after processing for a long time. The raw and reduced data is removed from the system while the calibration data files and object catalogues are transferred to the CD/DVD towers for ingestion into the data and engineering archive (see news article by Don Carlos, this issue).

4 Current Status and Future Plans

Currently, the pipeline (quick look and science) is implemented for the reduction of optical imaging data from

the WFC and the WHT Prime Focus Camera (PFC). Operation of the quick look and science pipeline processing on Gigawulf was started in February for both cameras. A sample result of the pipeline reduction process can be seen in Figure 2. The image catalogues will also be used for routine quality control enabling for example monitoring of image quality and throughput in near real time.

The imaging pipeline will be extended to handle data from single CCD cameras (WHT Aux Port and JKT) once these systems have been switched over to use UltraDAS (Rixon et al., 2000) which will be done by summer 2001. A pipeline for near infra-red imaging data produced by INGRID is currently being developed and will be deployed in the very near future. A pipeline will also be introduced for Echelle and multi-fibre spectroscopic data by the end of 2001.

A second Beowulf cluster is currently being acquired. One system will then be exclusively used for the WFC pipeline while the other cluster will run the pipelines of the WHT and JKT instruments. This split is basically determined by the amount of data produced by the different instruments available at the ING.

References:

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The Second Round of Wide Field Survey Observations

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In July of last year a second call for proposals was sent out, prompting the community in the UK and The Netherlands to submit proposals for survey observations with the Wide Field Camera on the INT. This announcement followed a decision by the ING Board to continue the scheme of survey observations and make available approximately 5 weeks per semester for this work. Survey observations are seen as one of the key roles for the INT and this second call for proposals intends to promote this trend.

The assessment of the proposals this time was left largely in the hands of the UK and NL time allocation panels, who were for the occasion strengthened with two independent assessors. This, it was hoped, would answer the criticism heard in the community during the previous round in 1998. Progress on these proposals will be reviewed annually, based

upon which further allocations will be granted.

As for the previous round, the data will be accessible to the wider astronomical community in the UK and the NL though the ING archive based in Cambridge. There will be no proprietary period in order to promote fast and wide exploitation of the survey data.

From the proposals received, the following six were selected and will be granted observing time:

- The *INT Wide Angle Survey*. PI: McMahon (Cambridge).
 - The *Local Group Census*. PI: Walton (ING, La Palma).
 - An *Imaging Programme for the XMM-Newton Serendipitous X-ray Sky Surveys*. PI: Watson (Leicester).
- A brief description of each proposal follows:
- The *Oxford Deep WFC Survey*. PI: Dalton (Oxford).
 - *Multi-Coloured Large Area Survey of the Virgo Cluster*. PI: Davies (Cardiff).
 - The *Faint Sky Variability Survey II*. PI: van den Heuvel (Amsterdam).

The *Oxford Deep WFC Survey* also is a continuation of a previous survey proposal. Its principal scientific aim is to study weak lensing by large-scale structure, the angular clustering of faint galaxies, the clustering of Lyman-break galaxies at high redshift and to measure the luminosity function of faint and distant QSOs.

The project *Multi-Coloured Large Area Survey of the Virgo Cluster* will complete the survey that has already

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been carried out in the B-band with U, Z and H-alpha images of this galaxy-rich region of the nearby Universe. This will allow determination of the luminosity function as a function of colour and position in the cluster down to luminosities equivalent to the local dwarf spheroidals.

The *Faint Sky Variability Survey II*. is an extension of a programme that was also granted time in previous round. Its aim is to survey 40 square degrees of sky for photometrically and astrometrically variable objects down to 25th mag. The variability domain will be gauged on timescales between tens of minutes to years. Prime targets of this survey are cataclysmic variables and AM CVn stars, RR Lyrae stars, GRBs, high proper motion stars and Kuiper Belt objects.

The *INT Wide Angle Survey*, is also a continuation of an existing survey programme and is the first digital survey over a significant section of the sky (~ 100 square degree) going significantly deeper than previous sky surveys. Although focussed on three specific observational goals, it will provide a multi-colour general-purpose sky survey that will serve many future studies on 8-m class telescopes.

The *Local Group Census* project will provide a deep narrow band imaging resource of all Local Group galaxies in the Northern Hemisphere. This will enable both old and new emission line populations (e.g. planetary nebulae and luminous blue variables) to be catalogued. Analysis of the population samples across a wide range of galaxy types in the Local Group will shed

light on evolutionary processes. This survey would provide an important resource for spectroscopic follow-up studies with larger telescopes.

The *Imaging Programme for the XMM-Newton Serendipitous X-ray Sky Surveys* will obtain images of some 200 fields drawn from the XMM-Newton observing programme. This will provide an X-ray/optical catalogue of 10,000 to 20,000 sources over 25 square degrees of the sky, which would serve a wide range of astrophysical problems, such as the obscuration of faint AGN population, the evolution of quasar luminosity with redshift, coronal activity on stars, and space density of accreting binary systems. ☐

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