| Media | DM/GB in Juke Box | Number of Media/Terabyte |
|---|---|---|
| CD-R | 70.3 | 1625.4 |
| DVD-R (3.95 GB) | 16.0 | 276.8 |
| DVD-R(4.7 GB) | 11.6 | 227.6 |
| DVD-RAM (2 × 4.7 GB) | 10.8 | 113.8 |
| MO | 36.8 | 204.8 |
| SCSI disk farm | 8.8 | 5.7 |
| Sony 12″ Optical Disk | 215.7 | 160.0 |
| RAIDZone NAS | 17.7 | 14.2 |
| NGAS | 8.7 | 14.3 |

*Table 1: Comparison between different media in terms of price/GB of storage and number of media/Terabyte. The SCSI price is remarkably low, because of one of the new 180 GB disks we bought recently under exceptionally good conditions. This kind of comparison is one of the planning tools for the medium term planning of archive media.*

Compared to other on-line or quasi on-line random-access data-storage solutions it is the cheapest solution, providing at the same time very low operational costs and very few storage media. Moreover, it is the only solution providing enough computing power to process all archived data with no additional costs. Especially the operational overhead in terms of manual operation drops quite dramatically in the case of the ESO WFI, from about 2 hours/day with the currently used tape procedure to 20 minutes/week. The time-to-archive is also substantially lower (of the order of seconds), because even compared with the DVD system used for the VLT, the data are only on-line when they arrive at ESO HQ about 10 days after the observations; with the tapes the delay is much longer. For very high data volume instruments the number of media/Terabyte becomes a critical parameter, for the production, management and handling.

### 7. Future of NGAS

NGAS has proven to be a reliable and fast system. Since NGAS is an operational model on top of a hardware/software system, quite different from the one currently used, an implementation for other ESO telescopes/instruments will still take some time. While the prototype system on La Silla will go operational end of this year, other installations on La Silla and Paranal are not required, because the DVD system is able to deal with the data rate of the currently installed instruments. We are planning to use NGAS first for very high data rate instruments like Omegacam which will be operated on the VLT Survey Telescope beginning in 2003. MIDI (VLTI) is another candidate for a NGAS installation. NGAS will certainly be evaluated as one of the building blocks of the Astrophysical Virtual Observatory in the area of scalable archive technologies and it also is already evaluated in the framework of the ALMA archive.

### *References and Acknowledgements*

Most up-to-date information can be found under http://archive.eso.org/NGAST

ESO Wide Field Imager: http://www.ls.eso.org/lasilla/Telescope/2p2T/E2p2M/WFI

AVO: http://www.eso.org/projects/avo

ALMA: http://www.eso.org/projects/alma

We would like to thank especially the 2.2-m telescope team, the La Silla Archive team and Flavio Gutierrez for their on-going support.

# News from the 2p2 Team

### Personnel Movements

In September we welcomed new team member Linda Schmidtobreick from Germany. Linda is a new ESO Fellow and will be working primarily with the 2.2-m. Before joining ESO, Linda held a two-year postdoctoral position at Padova, Italy. Her research interests include stellar populations, cataclysmic variables and the structure of our Galaxy.

September also saw us farewell Heath Jones from his La Silla duties. Heath will complete the 3rd year of his ESO fellowship at Cerro Calan.

### WFI Images

As a Christmas present from the 2p2 team, we have included here colour images of the Dumbbell and Triffid planetary nebulae. These were created from only one of the chips of the Wide Field mosaic by team member Emmanuel Galliano. The separate B, V and R images used to make the pictures were taken under average seeing conditions on June 11/12, 2001.

*Figure 1: The Dumbbell nebula from 10 minutes B, V and R images.*

*Figure 2: The Triffid nebula from 1-minute B, V and R images.*