

# **Wide-field Infrared Survey Explorer (WISE)**

## **Archive Test Report**

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## **Report on the wise archive end-to-end test conducted on Dec 17-18, 2009**

**Summary:** Overall the test went well, from beginning to end. The test has tested the following aspect: (1) communications between various groups; (2) tested new functionalities recently implemented in Archive loading script, but not the script as a whole; (3) IRSA loading scripts which have to be able to deal with the new features in the wise archive loading script. (4) new image archive which reads the fits images located on the IRSA local disks. Overall timing is as expected, and the full 30-orbits data can be loaded into the archive within a 2-day time frame. We also encountered several bugs during the loading, and they were fixed. We will make detailed testing plans for next a few weeks.

On Dec 17, 9am, the OPS team initiated the test promptly, the QA responded quickly. In this test, we did not test the new frame indices generated by the QA software, this will need to be done in next around of testing. At 9:15am, Ron started running the newly delivered IMREP and DBPREP. This version included new functionalities such as: (1) generating checksum, (2) table concatenation, and (3) produce counters for xgf files. The current implementation of checksum took some time to run. This will be improved by parallelizing the code. By Dec 17, 3pm, IMPREP and DBPREP were completed, and the data were prepared to be taken over by the IRSA team.

The IRSA team started working on the data transfer and loading around 3:15pm Dec 17<sup>th</sup>. There were a number of inconsistencies between the defined table structures and what was delivered from the wise. This means we need to test the complete archive loading script separately again in next one or two weeks in order to be sure that the new table structures from the wise can be dealt properly by the IRSA software.

By the end of Friday, Dec 18<sup>th</sup>, most of the data are loaded into the database. However, not all tables were visible in GATOR then, and also the image archive is still being updated to reflect the directory structure of this new data, which unlike the previous setting, the current image data is on the IRSA disks. This was planned to be available on Monday Dec 21, 2009.

After fixing a few more problems on Monday Dec 21<sup>th</sup>, GATOR is fully available on Dec. 22<sup>th</sup>. However, the image archive is still being worked on and not yet available. We hope this will become available after the Christmas holiday.

Overall, the IRSA timing is as expected, and is beautifully illustrated below from a figure made by Steve Groom.

In summary, the test served our purpose of testing the data flow, and helped us to narrow down the existing issues and problems which need to be worked out in next a few weeks before we have the nominal operation data.

**The planned activities for next a few weeks:** After the end-to-end load test, the archive group has met with the IRSA group and discussed what we should do in next a few weeks. The agreement is that we will test the archive loading script in its full capacity in the week of Jan 4, likely during Jan 4 – Jan 11 since the IRSA team will be at AAS. The goal of this test run is to achieve smoother loading with shorter running time when generating CHECKSUM. So the next version of GATOR and image archive will be available after Jan 11.

About the archive QA test activities: it is probably the most efficient these activities are carried independent of loading tests. Once the image archive is available, the archive QA should start immediately. After the next new version of archive is available, the archive QA can plan additional tests.

IRSA WISE Ingestion Process  
S Groom 12/18/2009

With 12/18/09 run times (hh:mm)  
for each step

This took a total 6hours. Will  
significantly improve in next  
version of archive script.

