DS4 Stage 5 Plan

Theory VO

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TVO DBS and Web Portals – DS4 Stage 5 Plan

- DBs enrichment with other cosmological data for all three levels (also producing data through SNAP and the GRID infrastructure);
- New DB for stellar evolution simulations and possibility of storing the new simulation produced on demand with new input parameters, also using GRID infrastructure (in conjunction with VO-DCA WP5);
- Data upload facility, content management system (users administration and site management);
- Investigate how we can integrate all databases of cosmology simulations containing similar data;
- Investigate the possibility to attach a virtual telescope as a tool.

TVO Web Portals and Tools – DS4 Stage 5 Plan

Web Portals enhancement:

- documentation and online help;
- references and links;
- on line user registration;

VOTable :

- for every level of theory data;
- adding UCD when they are ready;

Processing on demand :

- creation on-the-fly of profiles and maps;
- simulation discovery service (via Web Service like Aladin prototype, in future implemented for VisIVO);
- cut-out of simulated snapshots via SNAP, spherical and rectangular sub-region extraction from the original data (via Web Service and using the GRID infrastructure);
- snapshot 3D navigation.

TVO Tools and IVOA standards – DS4 Stage 5 Plan

- Contribute to draw up the SNAP and theory Data Model documents and ask for new UCD for theoretical data;
- Development of a PLASTIC enabled client application or PLASTIC aware Web Pages in the portal;
- Implementation of a VisIVO client:
  - New PLASTIC messages proposal;
  - VisIVO access to ITVO services;
- Dissemination activity:
  - Interoperability Meeting 14-18 May Beijng (China);
  - ADASS Conference October 2007 London;

TVO – DS4 Stage 5 Plan

- INAF-OATs:
  - Create stellar DB ;
  - Using GRID infrastructure:
    - Generate galaxy cluster profiles and maps on-the-fly;
    - Generate new stellar evolution simulation;
    - Snapshot cutout using SNAP and GRID;
  - Co-operate to write IVOA document (SNAP, DM);
- INAF-OACT
  - VisIVO implementation for ITVO;
  - SNAP implementation;
  - Plastic hub implementation;
  - Using GRID infrastructure for cutout of snapshot;
- INAF-OATe
  - Produce stellar data and create a new web portal under IVOA standard;
- CINECA
  - Write SNAP protocol for finding and accessing theoretical data;
  - Collaborate to implement SNAP on VisIVO tool.