

FINDAS-IDIS CWG#6 Report

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1. Introduction

This report is produced in response to STC-AI 4-3 from the CWG Steering committee meeting #4. Its purpose is to formally finalize the FINDAS-IDIS CWG#6 mandate by providing an overview of the activities of the group, the main conclusions reached, current status and next planned steps.

2. FINDAS-IDIS CWG#6 Activities

2.1 Group members

The composition of the group was as follows:

- P. Claes (ESA/FSC) Chairman
- P. Estaria (ESA/FIRST-Planck Project)
- G. Pilbratt (ESA/FSC)
- J. Tauber (ESA/SA/Planck)
- K. Bennett (ESA/SA)
- R. Huygen (KUL/PACS)
- A. Hazell (ESA/SA/Planck)
- E. Wiezorrek (MPE/PACS)
- J-J. Mathieu (ESA/TOS-EMS/FIRST and Planck)
- F. Pasian (OAT/LFI)
- W. O'Mullane (ESA/SA/Planck)
- N. Todd (Imperial College/SPIRE)
- A. de Jonghe (SRON/HIFI)
- R. Warren-Smith (Imperial College/SPIRE)
- O. Bauer (MPE/PACS)
- A. Harwood (Imperial College/SPIRE)
- E. Wieprecht (MPE/PACS)
- T. Dimbylow (RAL/SPIRE)
- P. Roelfsema (SRON/HIFI)

J.-F. Sygnet (IAS/HFI)
R. Cispert (IAS/HFI)
B. Vandebussche (KUL/PACS)

In addition J. Riedinger (ESA/FSC) and S. Veillat (ESA/FSC) participated frequently in meetings.

2.2 List of activities and results

The list of activities is given in chronological order :

1. Kick-off meeting (2 February 1999) with the following result:

- The objectives and the task list of the CWG#6 are agreed. In particular, the main goals of the group are exploring commonality between FINDAS and IDIS, assisting to and exchanging information about test-client development for FINDAS as well as coordination and assistance to the FINDAS prototype evaluation. An additional task is collecting and structuring, jointly with Planck, User Requirements for FINDAS.
- ESA-SA (Planck and FSC) made a presentation of the methodology to develop object-oriented clients for FINDAS.
- The status of the FINDAS-prototype external development and contract issues was explained to the members.
- Agreement was reached among the evaluation-groups (FSC, Planck, ICCs) about the subject areas of the clients to be developed for evaluating FINDAS.
- Feasibility of commonality in the Object-Oriented Model between FIRST and Planck was explored and it was concluded that this is not a goal to be pursued.

2. Meeting #2 (Teleconference) (22 March 1999), with the following result:

- The need for training in FINDAS-technologies and specific software licenses was addressed.
- Each group explained its constraints on schedules and manpower for testing FINDAS.

3. VEGA delivers the FINDAS prototype to ESA (20 April 1999).

4. Meeting #3 (18 May 1999), with the following result:

- A splintermeeting produced the first iteration of the Common Object Model for FINDAS testing (FIRST only activity).

- The structure of the FINDAS prototype Test (Evaluation) Plan was discussed and agreed by all parties.
 - The chairman presented the structure of the FINDAS URD.
 - Each test group presented the object-oriented analysis and design of its FINDAS client.
5. Meeting #4 (13 Jul 1999), with the following result:
- The Planck Test Contribution contained test comparisons of performance between various object-oriented databases (O2 and Objectivity/DB) and between clients implemented in different languages (JAVA and C++).
 - The group established a *schedule* for the FINDAS URD and Test Plan.
6. Meeting #5 (21 Sep 1999), with the following result:
- In this meeting concrete preparations for execution of the tests were made.
 - The CWG#6 group reached agreement on the test scenarios and test cases for *system testing* (purpose : the testing of the interoperability of FINDAS clients).
7. Meeting #6 (13 Dec 1999), with the following result:
- Each test-group made a presentation of its Test Results. This included the System Tests and the final Common Object Model realised by the groups.
 - The evaluation report of the FINDAS prototype provided clear conclusions and recommendations for the Operational System. It assessed as well the value and re-usability of the prototype as provided by the external company VEGA.
 - Distribution of draft 0.6 of the FINDAS URD.
 - The group made a list of (commonality) areas where FINDAS can benefit from IDIS and vice versa. The group reached agreement on this list. Summarised :
 - FINDAS benefits from IDIS by :
 - Experience with a professional Document Management System (Livelink).
 - Experience with the Object Data Base Management System : “*Objectivity*”
 - Evaluation of and Possible re-use of the SPR and RID-system originally coming from Integral
 - the Data Management Component Interface (DMCI) as a means of encapsulating the client-application from the database (common usage of a design component).

- IDIS (Planck) benefits from FINDAS by :
 - Storage of Planck data (level 4).
 - Commonality will not be pursued in the following areas :
 - Common networks
 - Common physical database nodes for Operations
 - A common object model
8. The CWG#6 is temporarily suspended (1 March 2000).

3. Conclusion

The CWG#6 has reached its objective to explore commonality for the FINDAS and IDIS Infrastructure systems for Planck and FIRST. As a result of the group activities, the FINDAS User Requirements draft document (FINDAS URD) has jointly be composed by the FIRST and Planck PI teams.

A very important activity of the group was the testing and evaluation of the FINDAS Prototype as delivered by the VEGA-contractor. Very clear conclusions and recommendations for the Operational System could be derived from the Evaluation Report.

CWG#6 also came to agreement about the areas where commonality between FINDAS and IDIS should be further explored and where not.

4. Current status and next steps

FINDAS system engineering issues within the FIRST Ground Segment should be discussed by the FGSSE-group. At the moment of the finalisation of the CWG#6, the current status can be summarized as follows:

- The FINDAS Prototype Evaluation Report has been finalised with clear conclusions and recommendations for the Operational System. It also contains detailed test results of the FINDAS prototype which was delivered by an external contractor company (VEGA).
 - Final conclusions about a list of items where commonality may and may not be desirable, has been listed in the Minutes of the Meeting no. 6
 - Draft 0.6 of the FINDAS URD has been distributed. A plan exists to transfer these requirements to the FSC System URD.
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