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The IVOA in 2008: Technical Assessment and Roadmap

Version 1.0

IVOA Note 2008-08-07

This version:

Version 1.0- 7th of August 2008

Latest versions:

http://www.ivoa.net/internal/IVOA/TechnicalMilestones/IVOARoadMap-2007-final.pdf
http://www.ivoa.net/Documents/Notes/RoadMap/IVOARoadMap-2006.pdf
http://www.ivoa.net/Documents/Notes/RoadMap/IVOARoadMap-20050808.pdf

Previous version(s):

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Abstract

This note describes the main technical achievements of the IVOA for the last year as well as the updated roadmaps for each Working Group and Interest Group for the upcoming year, detailing plans and associated milestones. Furthermore, it identifies specific issues that may require more focus coordination between some working groups and interest groups.

This notes focuses on the technical aspects of the IVOA work and does not cover the more general executive, organization and overall strategy areas of the IVOA.

Status of This Document

This is an IVOA Working Draft for review by IVOA members and other interested parties. It is a draft document and may be updated, replaced, or obsolete by other documents at any time. It is inappropriate to use IVOA Working Drafts as reference materials or to cite them as other than "work in progress".

Contents

1 IVOA Main Achievements since Spring 2007

1.1 General

Since the last IVOA Spring Interoperability meeting in Beijing, some extra focus has been given to the role of the TCG.
Its name “Technical Coordination Group” has been consolidated (removing some instances where TCC was used). A new TCG vice-chair was appointed by the IVOA exec as well a more systematic nomination of vice-chair for all WGs/IGs. TCG mailing list and TCG web pages were updated to reflect this name and in order to better communicate and make the necessary information easier to found.

The TCG released in June 2007 the “IVOA Assessment and Roadmap for 2007” than can be found at:
http://www.ivoa.net/internal/IVOA/TechnicalMilestones/IVOARoadMap-2007-final.pdf

The TCG met through a teleconference in September 2007 to finalize the Recommendation process of eight important IVOA standards. Extensive review and comment of these standards took place within the TCG. These were reflected in the TCG web pages ([Ref.2]) and served as inputs to the IVOA exec to take the final decision about the recommendation.

As a feedback on this process, the TCG gave inputs to the Standards and Process Committee to update the IVOA Document Standards Process ([Ref.3]) and reflect better the new role of the TCG in that process.

The TCG met through a teleconference in February 2008 to review the status of work and to start preparing for the IVOA Spring Interoperability meeting in Trieste in May 2008.

1.2 List of IVOA Standards produced in the last year

The last year was very productive as there are 8 standards which have successfully gone through the Recommendations process as detailed in the TCG web pages. This occurred after significant discussions that took place within the TCG.

Here is the list in chronological order of the IVOA standards that have been released during the last year:

Standards	WG	Date	Comments
STC v1.33 Space-Time Coordinate Metadata for the VO	DM	Oct. 2007	
SpectraDM v1.01 Spectral Data Model	DM	Oct. 2007	
SSO v1.03 Single-Sign-On Profile: Authentication Mechanisms	GWS	Jan. 2008	
VOSpace v1.02 VOSpace service specification	GWS	Jan. 2008	
VOResource v1.03 VOResource: an XML Encoding Schema for Resource Metadata	Registry	Feb. 2008	
SCS v1.03 Simple Cone Search	DAL	Feb. 2008	
SSAP v1.04 Simple Spectra Access Protocol	DAL	Feb. 2008	
CharDM v1.13 Data Model for Astronomical DataSet Characterization	DM	March 2008	

2 IVOA Roadmap for the Upcoming Year

2.1 TCG core

Discussions are on-going to define more formally the Charter of the TCG. This will be produced as an IVOA note to be approved by the IVOA exec.

Various changes are going to take place in the composition of the TCG.
The term of the current TCG chair, Roy Williams is coming to its end. The current TCG vice-chair, Christophe Arviset will become TCG chair and a new TCG vice-chair has been appointed by the IVOA exec.
Additionally, several WGs/IGs chairs and vice-chairs are coming to the end of their term, so new people will be appointed by the IVOA exec.

In that context, some discussion took place to determine if we should create a "Starter Guide" for the WG/IG new chairs and vice-chairs, but its exact content is still be to determined.

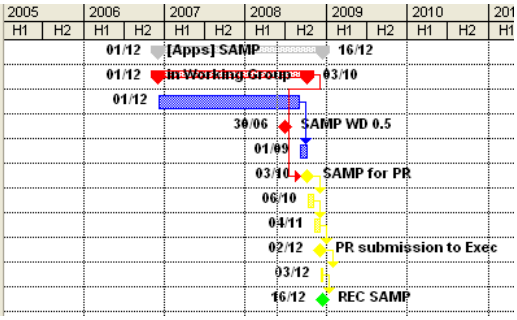
At the last TCG teleconference in February 2008, some actions were set to try to propose a "Template" for WG and IG web pages. This will make the relevant information available in a more uniform way so that people can find it more easily.

2.2 Application WG

The activities of the Applications WG in the coming year include the promotion of SAMP through the IVOA standards procedure, encouraging uptake of SAMP, and monitoring the transition from PLASTIC to SAMP.

The schedule for the SAMP Recommendation process is the following:

WBS	Task Name	Duration	Start	End
1	**[Apps] SAMP**	**24.86 mons**	**Fri 01/12/06**	**Tue 16/12/08**
1.1	**in Working Group**	**22.38 mons**	**Fri 01/12/06**	**Fri 03/10/08**
1.1.1	Work within WG	445 days	Fri 01/12/06	Fri 29/08/08
1.1.2	SAMP WD 0.5	0 days	Mon 30/06/08	Mon 30/06/08
1.1.3	Final review within WG	25 days	Mon 01/09/08	Fri 03/10/08
1.2	SAMP for PR	0 days	Fri 03/10/08	Fri 03/10/08
1.3	RFC period within interop	1 mon	Mon 06/10/08	Mon 03/11/08
1.4	TCG review	1 mon	Tue 04/11/08	Tue 02/12/08
1.5	PR submission to Exec	0 days	Tue 02/12/08	Tue 02/12/08
1.6	IVOA Exec review	2 wks	Wed 03/12/08	Tue 16/12/08
1.7	REC SAMP	0 days	Tue 16/12/08	Tue 16/12/08



The Apps WG will continue to track development of VO Applications. In particular Apps tries to identify use of VO standards from across all IVOA WG areas, and how they come together in applications for science use. This is done via mailing list discussion and presentations at interop meetings. There is a list of Applications on the Apps WG wiki pages:

http://www.ivoa.net/cgi-bin/twiki/bin/view/IVOA/IvoaApplications#Links

We intend to improve the way this list is maintained, and to make it more visible on the IVOA pages.

Apps WG is also concerned with promoting a greater level of 'scientific interoperability' in applications, in particular the use of physical units and other scientific characterisations. Astronomy data, models and services and are now becoming well connected via the VO, but more effort is required to combine data in a more scientifically meaningful and robust manner.

Apps WG has also identified a need to communicate short news items about advances in VO tools to astronomers. A newsletter has been proposed from within Apps WG, and this is being drafted as an IVOA newsletter with a focus on applications. The first issue expected before the end of the year.

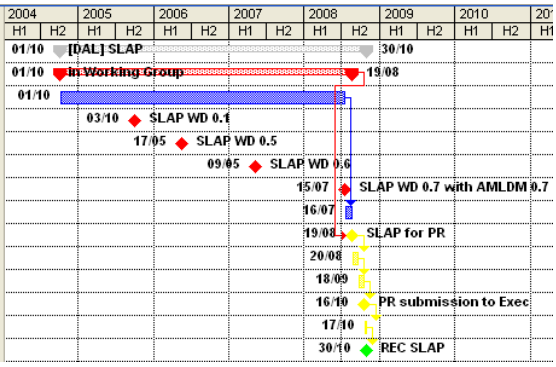
Future issues for Apps WG may involve consideration of how VO applications relate to the software environments being proposed for more general astronomy analysis software development.

2.3 Data Access Layer WG

Many standards are being worked out in the DAL WG, and here are the main activities to be dealt with in the coming years.

The Simple Line Access Protocol is soon ready to enter the REC process. Various services implementations are already working and are being used by some applications. The final work needs to be coordinated with the work done on the AMLDM (Atomic and Molecular Line Data Model), although SLAP does not need the full AMLDM to be ready before progressing to REC. The schedule is then as follows:

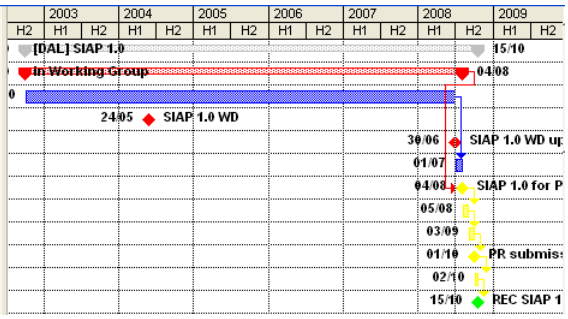
WBS	Task Name	Duration	Start	End	P
2	[DAL] SLAP	48.05 mons	Fri 01/10/04	Thu 30/10/08	
2.1	in Working Group	45.57 mons	Fri 01/10/04	Tue 19/08/08	
2.1.1	Work within WG	932 days	Fri 01/10/04	Tue 15/07/08	
2.1.2	SLAP WD 0.1	0 days	Mon 03/10/05	Mon 03/10/05	
2.1.3	SLAP WD 0.5	0 days	Wed 17/05/06	Wed 17/05/06	
2.1.4	SLAP WD 0.6	0 days	Wed 09/05/07	Wed 09/05/07	
2.1.5	SLAP WD 0.7 with AMLDM 0.7	0 days	Tue 15/07/08	Tue 15/07/08	
2.1.6	Final review within WG	25 days	Wed 16/07/08	Tue 19/08/08	1
2.2	SLAP for PR	0 days	Tue 19/08/08	Tue 19/08/08	1
2.3	RFC period within interop	1 mon	Wed 20/08/08	Wed 17/09/08	2
2.4	TCG review	1 mon	Thu 18/09/08	Thu 16/10/08	2
2.5	PR submission to Exec	0 days	Thu 16/10/08	Thu 16/10/08	2
2.6	IVOA Exec review	2 wks	Fri 17/10/08	Thu 30/10/08	2
2.7	REC SLAP	0 days	Thu 30/10/08	Thu 30/10/08	2



Although SIAP 1.0 has been one of the most implemented DAL services by many data providers and consumed by many VO applications, we recently discovered that it has never formally gone through the REC process. At the last interop meeting at Trieste, it was decided to update the current WD to what has been implemented by most of the services so we can send SIAP 1.0 through the REC

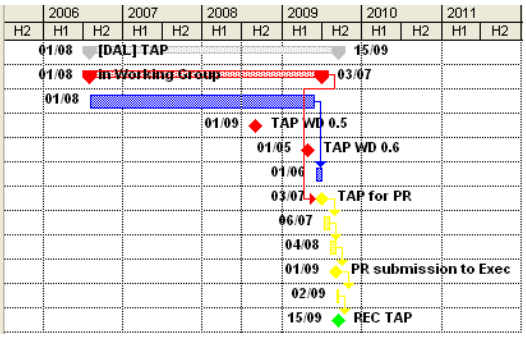
process while keeping most of the SIAP services compliant. The schedule is then as follows:

WBS	Task Name	Duration	Start	End
3	[DAL] SIAP 1.0	71.24 mons	Tue 01/10/02	Wed 15/10/08
3.1	in Working Group	68.76 mons	Tue 01/10/02	Mon 04/08/08
3.1.1	Work within WG	1419 days	Tue 01/10/02	Mon 30/06/08
3.1.2	SIAP 1.0 WD	0 days	Mon 24/05/04	Mon 24/05/04
3.1.3	SIAP 1.0 WD update	0 days	Mon 30/06/08	Mon 30/06/08
3.1.4	Final review within WG	25 days	Tue 01/07/08	Mon 04/08/08
3.2	SIAP 1.0 for PR	0 days	Mon 04/08/08	Mon 04/08/08
3.3	RFC period within interop	1 mon	Tue 05/08/08	Tue 02/09/08
3.4	TCG review	1 mon	Wed 03/09/08	Wed 01/10/08
3.5	PR submission to Exec	0 days	Wed 01/10/08	Wed 01/10/08
3.6	IVOA Exec review	2 wks	Thu 02/10/08	Wed 15/10/08
3.7	REC SIAP 1.0	0 days	Wed 15/10/08	Wed 15/10/08



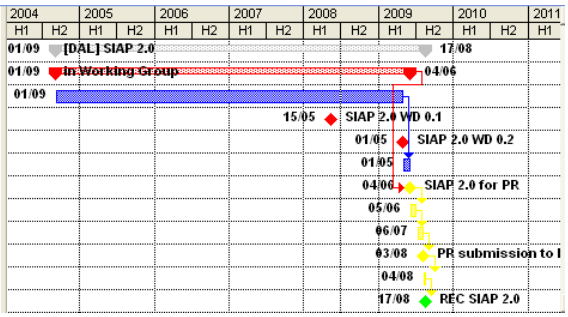
After extensive discussion about the Table Access Protocol at the last interop meeting in Trieste, a common agreement has been found on the way this standard should progress as a single document specifying that a TAP service must implement querying through ADQL and may optionally implement a simple parameterized querying interface. The schedule is as follow:

WBS	Task Name	Duration	Start	End
4	[DAL] TAP	37.9 mons	Tue 01/08/06	Tue 15/09/09
4.1	in Working Group	35.43 mons	Tue 01/08/06	Fri 03/07/09
4.1.1	Work within WG	719 days	Tue 01/08/06	Fri 29/05/09
4.1.2	TAP WD 0.5	0 days	Mon 01/09/08	Mon 01/09/08
4.1.3	TAP WD 0.6	0 days	Fri 01/05/09	Fri 01/05/09
4.1.4	Final review within WG	25 days	Mon 01/06/09	Fri 03/07/09
4.2	TAP for PR	0 days	Fri 03/07/09	Fri 03/07/09
4.3	RFC period within interop	1 mon	Mon 06/07/09	Mon 03/08/09
4.4	TCG review	1 mon	Tue 04/08/09	Tue 01/09/09
4.5	PR submission to Exec	0 days	Tue 01/09/09	Tue 01/09/09
4.6	IVOA Exec review	2 wks	Wed 02/09/09	Tue 15/09/09
4.7	REC TAP	0 days	Tue 15/09/09	Tue 15/09/09



Evolution of the SIAP protocol to a SIAP v2.0 is being worked out. Many questions are still to be discussed, resolved and agreed upon, but the tentative schedule is the following:

WBS	Task Name	Duration	Start	End
5	[DAL] SIAP 2.0	58.95 mons	Wed 01/09/04	Mon 17/08/09
5.1	in Working Group	56.48 mons	Wed 01/09/04	Thu 04/06/09
5.1.1	Work within WG	1161 days	Wed 01/09/04	Thu 30/04/09
5.1.2	SIAP 2.0 WD 0.1	0 days	Thu 15/05/08	Thu 15/05/08
5.1.3	SIAP 2.0 WD 0.2	0 days	Fri 01/05/09	Fri 01/05/09
5.1.4	Final review within WG	25 days	Fri 01/05/09	Thu 04/06/09
5.2	SIAP 2.0 for PR	0 days	Thu 04/06/09	Thu 04/06/09
5.3	RFC period within interop	1 mon	Fri 05/06/09	Fri 03/07/09
5.4	TCG review	1 mon	Mon 06/07/09	Mon 03/08/09
5.5	PR submission to Exec	0 days	Mon 03/08/09	Mon 03/08/09
5.6	IVOA Exec review	2 wks	Tue 04/08/09	Mon 17/08/09
5.7	REC SIAP 2.0	0 days	Mon 17/08/09	Mon 17/08/09



Work has also started on the definition on Footprint services with some notes coming from various VO projects early in 2008. More detailed planning will be defined throughout the year.

2.4 Data Model WG

The Data Model WG activities, for coming year will consist of various tasks:

1) Improve and facilitate the uptake of the existing IVOA specifications: STC, Characterisation and Spectrum data models.

- Examine and implement specific use cases to model polarized data in the Characterisation DM framework
- Develop a library for STC classes
- Create interactive tools to help to publish Characterization compliant data sets (CAMEA, SAADA)

2) Extend the scope of the modeling effort:

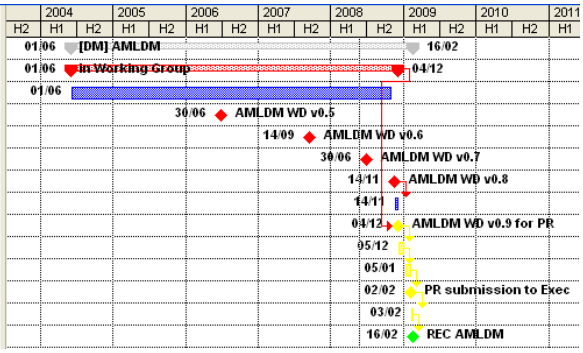
- Allow for a wider model to encompass the existing Characterisation effort and describe the whole concept of « Observation », including the acquisition chain and calibration as well as data management and formats. For the moment we decided to name it ObservationProvenance DM, as these two concepts are connected. This model will re-use the Characterisation 4-level structure to attach calibration and statistical quality measurements to an Observation.
- Develop a Photometry Data Model to describe photometric calibrated data, with photometric references and calibration information. The question of aperture matching for SED will be addressed in conjunction with ObservationProvenance DM
- At the data interpretation level, the Atomic and Molecular DM is being built to capture the important physical phenomena and quantities relevant for lines (emission or absorption). Deeper levels are set up for the description of atomic physics, but coherence with the SLAP protocol will be guaranteed.
- The Simulation DM for numerical simulations, developed by the Theory IG, will be discussed and promoted for REC with the DM group.

3) Rationalize the data models re-use with ad hoc description mechanisms:

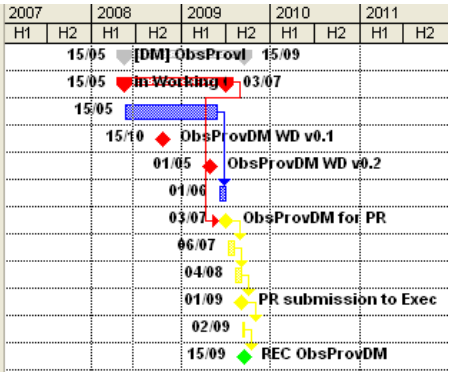
- Simplify the syntax of Utypes
- Propose good practice rules for the representation of Units across the various data models.
- Rationalize XML schema generation, with consistency with the Theory IG methods suggested for the simulation DM.
- Provide a production framework to derive the whole bunch of model products directly from the UML model: documentation, XML schema, Utypes lists, and examples of XML instance documents.

The schedules for the DM standards being worked on within the WG are the following:

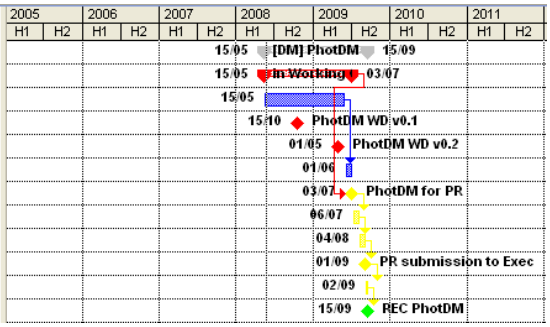
WBS	Task Name	Duration	Start	End
4	[DM] AMLDM	55.86 mons	Tue 01/06/04	Mon 16/02/09
4.1	in Working Group	53.38 mons	Tue 01/06/04	Thu 04/12/08
4.1.1	Work within WG	1097 days	Tue 01/06/04	Fri 31/10/08
4.1.2	AMLDM WD v0.5	0 days	Fri 30/06/06	Fri 30/06/06
4.1.3	AMLDM WD v0.6	0 days	Fri 14/09/07	Fri 14/09/07
4.1.4	AMLDM WD v0.7	0 days	Mon 30/06/08	Mon 30/06/08
4.1.5	AMLDM WD v0.8	0 days	Fri 14/11/08	Fri 14/11/08
4.1.6	Final review within WG	15 days	Fri 14/11/08	Thu 04/12/08
4.2	AMLDM WD v0.9 for PR	0 days	Thu 04/12/08	Thu 04/12/08
4.3	RFC period within interop	1 mon	Fri 05/12/08	Fri 02/01/09
4.4	TCG review	1 mon	Mon 05/01/09	Mon 02/02/09
4.5	PR submission to Exec	0 days	Mon 02/02/09	Mon 02/02/09
4.6	IVOA Exec review	2 wks	Tue 03/02/09	Mon 16/02/09
4.7	REC AMLDM	0 days	Mon 16/02/09	Mon 16/02/09



WBS	Task Name	Duration	Start	End
9	[DM] ObsProvDM	16.62 mons	Thu 15/05/08	Tue 15/09/09
9.1	in Working Group	14.14 mons	Thu 15/05/08	Fri 03/07/09
9.1.1	Work within WG	272 days	Thu 15/05/08	Fri 29/05/09
9.1.2	ObsProvDM WD v0.1	0 days	Wed 15/10/08	Wed 15/10/08
9.1.3	ObsProvDM WD v0.2	0 days	Fri 01/05/09	Fri 01/05/09
9.1.4	Final review within WG	25 days	Mon 01/06/09	Fri 03/07/09
9.2	ObsProvDM for PR	0 days	Fri 03/07/09	Fri 03/07/09
9.3	RFC period within interop	1 mon	Mon 06/07/09	Mon 03/08/09
9.4	TCG review	1 mon	Tue 04/08/09	Tue 01/09/09
9.5	PR submission to Exec	0 days	Tue 01/09/09	Tue 01/09/09
9.6	IVOA Exec review	2 wks	Wed 02/09/09	Tue 15/09/09
9.7	REC ObsProvDM	0 days	Tue 15/09/09	Tue 15/09/09



WBS	Task Name	Duration	Start	End
7	[DM] PhotDM	16.62 mons	Thu 15/05/08	Tue 15/09/09
7.1	in Working Group	14.14 mons	Thu 15/05/08	Fri 03/07/09
7.1.1	Work within WG	272 days	Thu 15/05/08	Fri 29/05/09
7.1.2	PhotDM WD v0.1	0 days	Wed 15/10/08	Wed 15/10/08
7.1.3	PhotDM WD v0.2	0 days	Fri 01/05/09	Fri 01/05/09
7.1.4	Final review within WG	25 days	Mon 01/06/09	Fri 03/07/09
7.2	PhotDM for PR	0 days	Fri 03/07/09	Fri 03/07/09
7.3	RFC period within interop	1 mon	Mon 06/07/09	Mon 03/08/09
7.4	TCG review	1 mon	Tue 04/08/09	Tue 01/09/09
7.5	PR submission to Exec	0 days	Tue 01/09/09	Tue 01/09/09
7.6	IVOA Exec review	2 wks	Wed 02/09/09	Tue 15/09/09
7.7	REC PhotDM	0 days	Tue 15/09/09	Tue 15/09/09



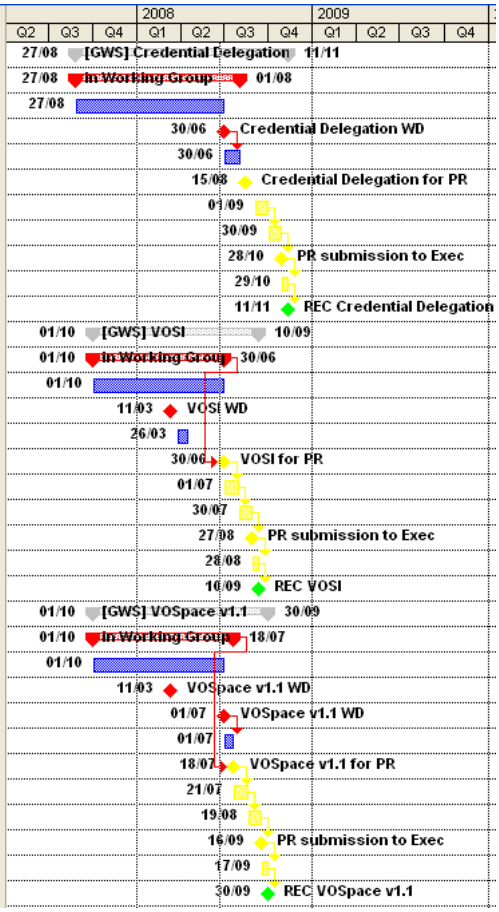
2.5 Grid and Web Services WG

In the next few months, we hope to bring a number of specifications to recommendation status. Many of these are timely, being required by other IVOA WGs. VOSpace 1.1 will add containers, links and third party interfaces to the existing VOSpace 1.0 recommendation. The Universal Worker Service (UWS) specification for asynchronous services is now sufficiently robust as is the VO Support Interface (VOSI) specification. The latter is also a dependency for the DAL WG's TAP standard. The Credential Delegation Protocol provides a way to delegate security credentials and forms the next component in the IVOA security infrastructure. Finally the Web Services Basic Profile describes the rules to take into account when implementing a SOAP-based web service.

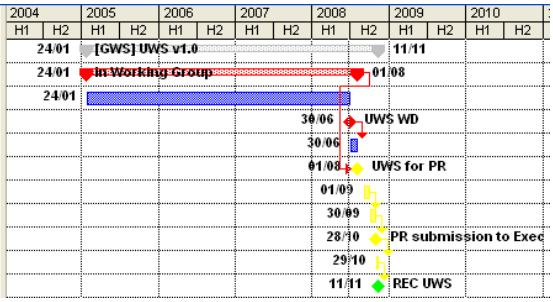
On the longer timescale, we will be working on a RESTful version of VOSpace, a set of guidelines for RESTful services, and how to manage access control.

The schedules for the GWS standards being worked on within the WG are the following:

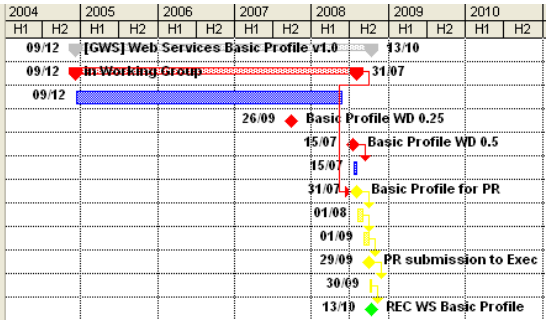
WBS	Task Name	Duration	Start	End
13	**[GWS] Credential Delegation Protocol**	**15.05 mons**	**Mon 27/08/07**	**Tue 11/11/08**
13.1	**in Working Group**	**11.62 mons**	**Mon 27/08/07**	**Fri 01/08/08**
13.1.1	Work within WG	220 days	Mon 27/08/07	Mon 30/06/08
13.1.2	Credential Delegation WD	0 days	Mon 30/06/08	Mon 30/06/08
13.1.3	Final review within WG	25 days	Mon 30/06/08	Fri 01/08/08
13.2	Credential Delegation for PR	0 days	Fri 15/08/08	Fri 15/08/08
13.3	RFC period within interop	1 mon	Mon 01/09/08	Mon 29/09/08
13.4	TCG review	1 mon	Tue 30/09/08	Tue 28/10/08
13.5	PR submission to Exec	0 days	Tue 28/10/08	Tue 28/10/08
13.6	IVOA Exec review	2 wks	Wed 29/10/08	Tue 11/11/08
13.7	REC Credential Delegation	0 days	Tue 11/11/08	Tue 11/11/08
14	**[GWS] VOSI**	**11.76 mons**	**Mon 01/10/07**	**Wed 10/09/08**
14.1	**in Working Group**	**9.29 mons**	**Mon 01/10/07**	**Mon 30/06/08**
14.1.1	Work within WG	195 days	Mon 01/10/07	Mon 30/06/08
14.1.2	VOSI WD	0 days	Tue 11/03/08	Tue 11/03/08
14.1.3	Final review within WG	14 days	Wed 26/03/08	Mon 14/04/08
14.2	VOSI for PR	0 days	Mon 30/06/08	Mon 30/06/08
14.3	RFC period within interop	1 mon	Tue 01/07/08	Tue 29/07/08
14.4	TCG review	1 mon	Wed 30/07/08	Wed 27/08/08
14.5	PR submission to Exec	0 days	Wed 27/08/08	Wed 27/08/08
14.6	IVOA Exec review	2 wks	Thu 28/08/08	Wed 10/09/08
14.7	REC VOSI	0 days	Wed 10/09/08	Wed 10/09/08
15	**[GWS] VOSpace v1.1**	**12.43 mons**	**Mon 01/10/07**	**Tue 30/09/08**
15.1	**in Working Group**	**9.95 mons**	**Mon 01/10/07**	**Fri 18/07/08**
15.1.1	Work within WG	195 days	Mon 01/10/07	Mon 30/06/08
15.1.2	VOSpace v1.1 WD	0 days	Tue 11/03/08	Tue 11/03/08
15.1.3	VOSpace v1.1 WD	0 days	Tue 01/07/08	Tue 01/07/08
15.1.4	Final review within WG	14 days	Tue 01/07/08	Fri 18/07/08
15.2	VOSpace v1.1 for PR	0 days	Fri 18/07/08	Fri 18/07/08
15.3	RFC period within interop	1 mon	Mon 21/07/08	Mon 18/08/08
15.4	TCG review	1 mon	Tue 19/08/08	Tue 16/09/08
15.5	PR submission to Exec	0 days	Tue 16/09/08	Tue 16/09/08
15.6	IVOA Exec review	2 wks	Wed 17/09/08	Tue 30/09/08
15.7	REC VOSpace v1.1	0 days	Tue 30/09/08	Tue 30/09/08



WBS	Task Name	Duration	Start	End
12	**[GWS] UWS v1.0**	**45.24 mons**	**Mon 24/01/05**	**Tue 11/11/08**
12.1	**in Working Group**	**41.81 mons**	**Mon 24/01/05**	**Fri 01/08/08**
12.1.1	Work within WG	854 days	Mon 24/01/05	Mon 30/06/08
12.1.2	UWS WD	0 days	Mon 30/06/08	Mon 30/06/08
12.1.3	Final review within WG	25 days	Mon 30/06/08	Fri 01/08/08
12.2	UWS for PR	0 days	Fri 01/08/08	Fri 01/08/08
12.3	RFC period within interop	1 mon	Mon 01/09/08	Mon 29/09/08
12.4	TCG review	1 mon	Tue 30/09/08	Tue 28/10/08
12.5	PR submission to Exec	0 days	Tue 28/10/08	Tue 28/10/08
12.6	IVOA Exec review	2 wks	Wed 29/10/08	Tue 11/11/08
12.7	REC UWS	0 days	Tue 11/11/08	Tue 11/11/08



WBS	Task Name	Duration	Start	End
12	[GWS] Web Services Basic Profile v1.0	45.43 mons	Thu 09/12/04	Mon 13/10/08
12.1	in Working Group	42.95 mons	Thu 09/12/04	Thu 31/07/08
12.1.1	Work within WG	854 days	Thu 09/12/04	Mon 26/05/08
12.1.2	Basic Profile WD 0.25	0 days	Wed 26/09/07	Wed 26/09/07
12.1.3	Basic Profile WD 0.5	0 days	Tue 15/07/08	Tue 15/07/08
12.1.4	Final review within WG	13 days	Tue 15/07/08	Thu 31/07/08
12.2	Basic Profile for PR	0 days	Thu 31/07/08	Thu 31/07/08
12.3	RFC period within interop	1 mon	Fri 01/08/08	Fri 29/08/08
12.4	TCG review	1 mon	Mon 01/09/08	Mon 29/09/08
12.5	PR submission to Exec	0 days	Mon 29/09/08	Mon 29/09/08
12.6	IVOA Exec review	2 wks	Tue 30/09/08	Mon 13/10/08
12.7	REC WS Basic Profile	0 days	Mon 13/10/08	Mon 13/10/08



2.6 Registry WG

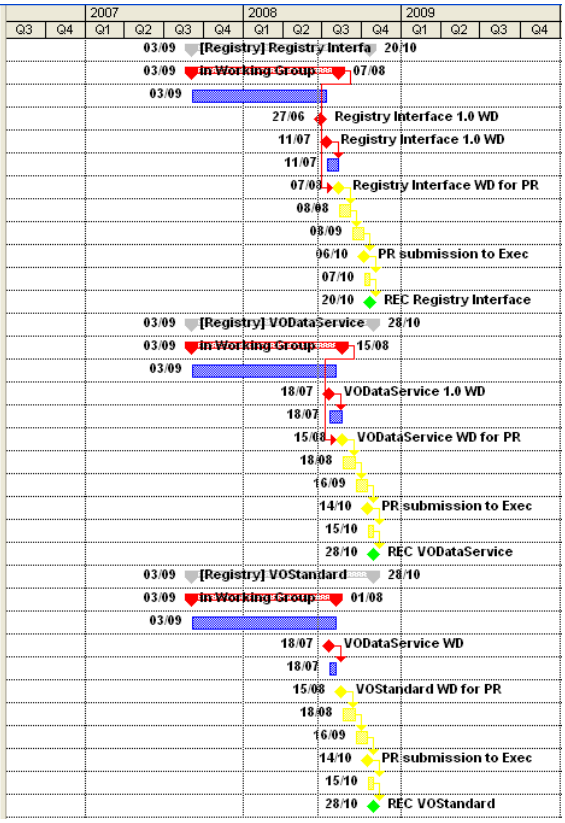
In the spring of 2008, The Registry Working Group coordinated the deployment of publishing registries that conform to the WD Registry Interfaces v1.00 along with the commencement of harvesting from those registries. Minor feedback from that experience is being fed back into the Registry Interfaces document for a version 1.01 that will be put to PR status in July 2008. Related to this, we will also review compliance of searchable registries with this standard.

There is important pressure to complete the standardization process for two VOResource schema extensions, VOStandard and VODataService, as these are pivotal in pending standards from other working groups. The VOStandard extension provides a way to register information about VO standards (particularly IVOA standards) and provide a way to refer to various named definitions. This will be used in particular by the VOSpace and VOStandardInterface standards. The VODataService extension is being revised for better descriptions of tables and table services in anticipation of the Table Access Protocol (TAP); these revisions will be needed for the VOStandardInterface standard.

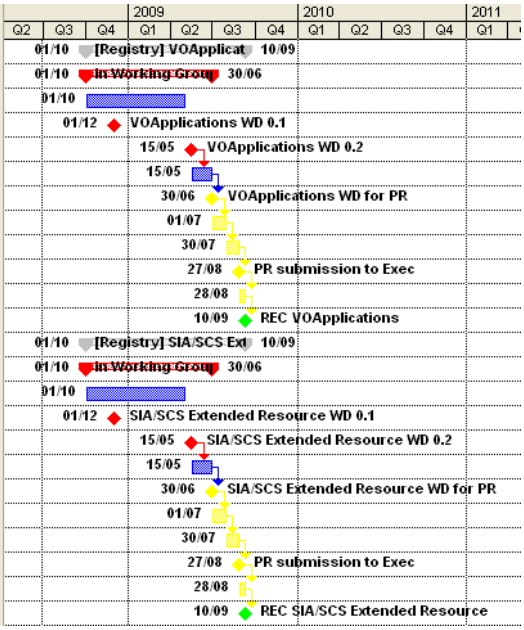
After VOStandard and VODataService, we will proceed with the standardization of our remaining pending extensions which includes VOApplication and an omnibus standard covering extensions for legacy DAL protocols (SCS, SIA, and SSA). Extensions for newer protocols will become the responsibility primarily of the working groups developing the protocols, although the Registry WG will be happy to assist.

A need has arisen to define a standard for Outreach Imagery Metadata and some groups have already written some note outside the context of the IVOA. It has appeared more relevant though to try to define a standard on these in the IVOA context (and hence in the Registry WG) to be able to define these standard through a formal and recognized process. More detailed schedule for this standard is not clear yet but should be defined throughout the year.

WBS	Task Name	Duration	Start	End
14	[Registry] Registry Interface	14.05 mons	Mon 03/09/07	Mon 20/10/08
14.1	in Working Group	11.57 mons	Mon 03/09/07	Thu 07/08/08
14.1.1	Work within WG	224 days	Mon 03/09/07	Fri 11/07/08
14.1.2	Registry Interface 1.0 WD	0 days	Fri 27/06/08	Fri 27/06/08
14.1.3	Registry Interface 1.0 WD	0 days	Fri 11/07/08	Fri 11/07/08
14.1.4	Final review within WG	20 days	Fri 11/07/08	Thu 07/08/08
14.2	Registry Interface WD for PR	0 days	Thu 07/08/08	Thu 07/08/08
14.3	RFC period within interop	1 mon	Fri 08/08/08	Fri 05/09/08
14.4	TCG review	1 mon	Mon 08/09/08	Mon 06/10/08
14.5	PR submission to Exec	0 days	Mon 06/10/08	Mon 06/10/08
14.6	IVOA Exec review	2 wks	Tue 07/10/08	Mon 20/10/08
14.7	REC Registry Interface	0 days	Mon 20/10/08	Mon 20/10/08
15	[Registry] VODataService	14.33 mons	Mon 03/09/07	Tue 28/10/08
15.1	in Working Group	11.86 mons	Mon 03/09/07	Fri 15/08/08
15.1.1	Work within WG	239 days	Mon 03/09/07	Fri 01/08/08
15.1.2	VODataService 1.0 WD	0 days	Fri 18/07/08	Fri 18/07/08
15.1.3	Final review within WG	21 days	Fri 18/07/08	Fri 15/08/08
15.2	VODataService WD for PR	0 days	Fri 15/08/08	Fri 15/08/08
15.3	RFC period within interop	1 mon	Mon 18/08/08	Mon 15/09/08
15.4	TCG review	1 mon	Tue 16/09/08	Tue 14/10/08
15.5	PR submission to Exec	0 days	Tue 14/10/08	Tue 14/10/08
15.6	IVOA Exec review	2 wks	Wed 15/10/08	Tue 28/10/08
15.7	REC VODataService	0 days	Tue 28/10/08	Tue 28/10/08
16	[Registry] VOStandard	14.33 mons	Mon 03/09/07	Tue 28/10/08
16.1	in Working Group	11.38 mons	Mon 03/09/07	Fri 01/08/08
16.1.1	Work within WG	239 days	Mon 03/09/07	Fri 01/08/08
16.1.2	VODataService WD	0 days	Fri 18/07/08	Fri 18/07/08
16.1.3	Final review within WG	11 days	Fri 18/07/08	Fri 01/08/08
16.2	VOStandard WD for PR	0 days	Fri 15/08/08	Fri 15/08/08
16.3	RFC period within interop	1 mon	Mon 18/08/08	Mon 15/09/08
16.4	TCG review	1 mon	Tue 16/09/0	Tue 14/10/08
16.5	PR submission to Exec	0 days	Tue 14/10/08	Tue 14/10/08
16.6	IVOA Exec review	2 wks	Wed 15/10/08	Tue 28/10/08
16.7	REC VOStandard	0 days	Tue 28/10/08	Tue 28/10/08



WBS	Task Name	Duration	Start	End
20	[Registry] VOApplications	11.76 mons	Wed 01/10/08	Thu 10/09/09
20.1	in Working Group	9.29 mons	Wed 01/10/08	Tue 30/06/09
20.1.1	Work within WG	152 days	Wed 01/10/08	Thu 30/04/09
20.1.2	VOApplications WD 0.1	0 days	Mon 01/12/08	Mon 01/12/08
20.1.3	VOApplications WD 0.2	0 days	Fri 15/05/09	Fri 15/05/09
20.1.4	Final review within WG	33 days	Fri 15/05/09	Tue 30/06/09
20.2	VOApplications WD for PR	0 days	Tue 30/06/09	Tue 30/06/09
20.3	RFC period within interop	1 mon	Wed 01/07/09	Wed 29/07/09
20.4	TCG review	1 mon	Thu 30/07/09	Thu 27/08/09
20.5	PR submission to Exec	0 days	Thu 27/08/09	Thu 27/08/09
20.6	IVOA Exec review	2 wks	Fri 28/08/09	Thu 10/09/09
20.7	REC VOApplications	0 days	Thu 10/09/09	Thu 10/09/09
21	[Registry] SIA/SCS Extended Resourc	11.76 mons	Wed 01/10/08	Thu 10/09/09
21.1	in Working Group	9.29 mons	Wed 01/10/08	Tue 30/06/09
21.1.1	Work within WG	152 days	Wed 01/10/08	Thu 30/04/09
21.1.2	SIA/SCS Extended Resource WD 0	0 days	Mon 01/12/08	Mon 01/12/08
21.1.3	SIA/SCS Extended Resource WD 0	0 days	Fri 15/05/09	Fri 15/05/09
21.1.4	Final review within WG	33 days	Fri 15/05/09	Tue 30/06/09
21.2	SIA/SCS Extended Resource WD for PI	0 days	Tue 30/06/09	Tue 30/06/09
21.3	RFC period within interop	1 mon	Wed 01/07/09	Wed 29/07/09
21.4	TCG review	1 mon	Thu 30/07/09	Thu 27/08/09
21.5	PR submission to Exec	0 days	Thu 27/08/09	Thu 27/08/09
21.6	IVOA Exec review	2 wks	Fri 28/08/09	Thu 10/09/09
21.7	REC SIA/SCS Extended Resource	0 days	Thu 10/09/09	Thu 10/09/09



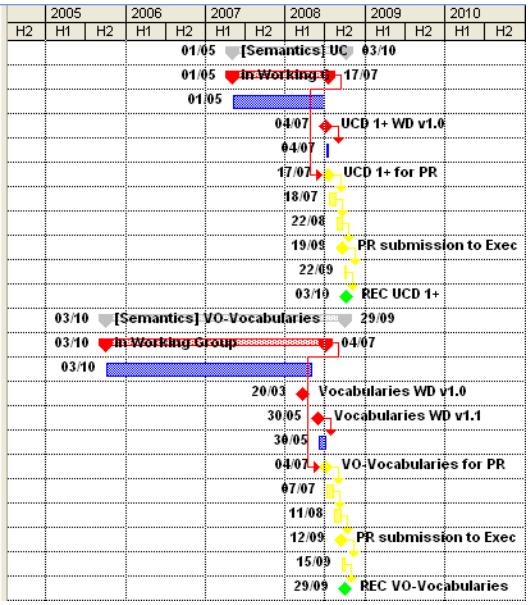
2.7 Semantics WG

As the astronomical information processed within the VO becomes more complex, there is an increasing need for a more formal means of identifying quantities, concepts, and processes. The Semantics WG has proposed that the

IVOA adopt a standard format for vocabularies based on the W3C's Resource Description Framework (RDF) and Simple Knowledge Organization System (SKOS). By adopting a standard and simple format, different groups will be able to create and maintain their own specialized vocabularies while letting the rest of the astronomical community access, use, and combine them. The use of current, open standards ensures that VO applications will be able to tap into resources of the growing semantic web.

The schedules for the Semantics Recommendation process are the following:

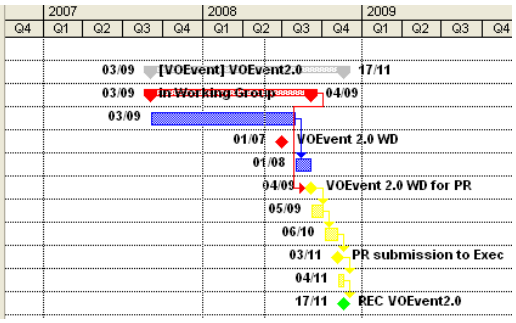
WBS	Task Name	Duration	Start	End
20	[Semantics] UCD 1+	17.29 mons	Tue 01/05/07	Fri 03/10/08
20.1	in Working Group	14.62 mons	Tue 01/05/07	Thu 17/07/08
20.1.1	Work within WG	294 days	Tue 01/05/07	Mon 30/06/08
20.1.2	UCD 1+ WD v1.0	0 days	Fri 04/07/08	Fri 04/07/08
20.1.3	Final review within WG	10 days	Fri 04/07/08	Thu 17/07/08
20.2	UCD 1+ for PR	0 days	Thu 17/07/08	Thu 17/07/08
20.3	RFC period within interop	5 wks	Fri 18/07/08	Thu 21/08/08
20.4	TCG review	1 mon	Fri 22/08/08	Fri 19/09/08
20.5	PR submission to Exec	0 days	Fri 19/09/08	Fri 19/09/08
20.6	IVOA Exec review	2 wks	Mon 22/09/08	Fri 03/10/08
20.7	REC UCD 1+	0 days	Fri 03/10/08	Fri 03/10/08
21	[Semantics] VO-Vocabularies	35.43 mons	Mon 03/10/05	Mon 29/09/08
21.1	in Working Group	32.52 mons	Mon 03/10/05	Fri 04/07/08
21.1.1	Work within WG	636 days	Mon 03/10/05	Wed 30/04/08
21.1.2	Vocabularies WD v1.0	0 days	Thu 20/03/08	Thu 20/03/08
21.1.3	Vocabularies WD v1.1	0 days	Fri 30/05/08	Fri 30/05/08
21.1.4	Final review within WG	26 days	Fri 30/05/08	Fri 04/07/08
21.2	VO-Vocabularies for PR	0 days	Fri 04/07/08	Fri 04/07/08
21.3	RFC period within interop	25 days	Mon 07/07/08	Fri 08/08/08
21.4	TCG review	25 days	Mon 11/08/08	Fri 12/09/08
21.5	PR submission to Exec	0 days	Fri 12/09/08	Fri 12/09/08
21.6	IVOA Exec review	11 days	Mon 15/09/08	Mon 29/09/08
21.7	REC VO-Vocabularies	0 days	Mon 29/09/08	Mon 29/09/08



2.8 VOEvent WG

The schedule for VOEvent 2.0 is the following:

WBS	Task Name	Duration	Start	End
11	[VOEvent] VOEvent2.0	15 mons	Mon 03/09/07	Mon 17/11/08
11.1	in Working Group	12.52 mons	Mon 03/09/07	Thu 04/09/08
11.1.1	Work within WG	238 days	Mon 03/09/07	Thu 31/07/08
11.1.2	VOEvent 2.0 WD	0 days	Tue 01/07/08	Tue 01/07/08
11.1.3	Final review within VOEvent WG	25 days	Fri 01/08/08	Thu 04/09/08
11.2	VOEvent 2.0 WD for PR	0 days	Thu 04/09/08	Thu 04/09/08
11.3	RFC period within interop	1 mon	Fri 05/09/08	Fri 03/10/08
11.4	TCG review	1 mon	Mon 06/10/08	Mon 03/11/08
11.5	PR submission to Exec	0 days	Mon 03/11/08	Mon 03/11/08
11.6	IVOA Exec review	2 wks	Tue 04/11/08	Mon 17/11/08
11.7	REC VOEvent2.0	0 days	Mon 17/11/08	Mon 17/11/08



The time domain in astronomy is guaranteed to grow larger in importance with the commissioning of several observatory scale projects now in development. Part of the VO's response to this is the logistical management of celestial transient response observing modes using VOEvent. The VOEvent protocol cuts across many IVOA derived technologies.

Over the near to mid-term, the VOEvent working group anticipates focusing on these areas:

- controlled vocabularies (in coordination with the Semantics WG)
- external schemata to support various community partnerships
- the expression of time series data (likely using the Spectral Data Model)
- orbital element support via STC
- development and deployment of VOEvent registry entries (VOEventStream / VOEventService)
- authentication via digital signature/certificate technologies
- in addition, VOEvent has been at the forefront of VO efforts to utilize KML technologies, and we intend to enhance these capabilities within the protocol

The v2.0 update to the VOEvent standard will include features aligned with several of these initiatives. Others will be piloted for future development. We will also continue our partnership with the Heterogeneous Telescope Networks consortium, and the next few years should see the deployment of various joint VOEvent/HTN technologies and facilities.

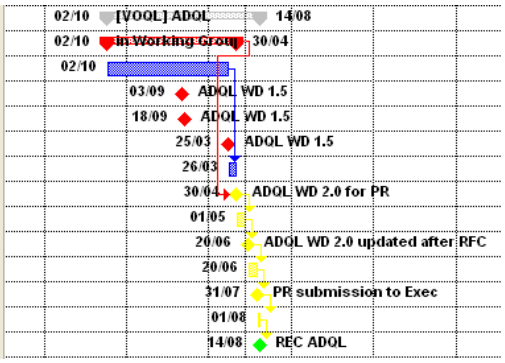
VOEvent has benefited from a packed schedule of workshops and conferences over the past three years, and it appears that this will continue for a few years yet. The next such will be the HTN IV workshop in Santa Barbara in July/August 2008, with VOEvent IV to follow in 2009.

Semantically enabled technologies for classification, correlation, and autonomous decision-making should drive working group activities as the mid-term shades into long-term planning.

2.9 VOQL WG

The schedule for the ADQL Recommendation process is the following:

21	[VOQL] ADQL	22.76 mons	Mon 02/10/06	Thu 14/08/08
21.1	in Working Group	19.14 mons	Mon 02/10/06	Wed 30/04/08
21.1.1	Work within VOQL-TEG	376 days	Mon 02/10/06	Mon 24/03/08
21.1.2	ADQL WD 1.5	0 days	Mon 03/09/07	Mon 03/09/07
21.1.3	ADQL WD 1.5	0 days	Tue 18/09/07	Tue 18/09/07
21.1.4	ADQL WD 1.5	0 days	Tue 25/03/08	Tue 25/03/08
21.1.5	Final review within VOQL WG	25 days	Wed 26/03/08	Wed 30/04/08
21.2	ADQL WD 2.0 for PR	0 days	Wed 30/04/08	Wed 30/04/08
21.3	RFC period within interop	28 days	Thu 01/05/08	Mon 09/06/08
21.4	ADQL WD 2.0 updated after RFC	0 days	Fri 20/06/08	Fri 20/06/08
21.5	TCG review	6 wks	Fri 20/06/08	Thu 31/07/08
21.6	PR submission to Exec	0 days	Thu 31/07/08	Thu 31/07/08
21.7	IVOA Exec review	2 wks	Fri 01/08/08	Thu 14/08/08
21.8	REC ADQL	0 days	Thu 14/08/08	Thu 14/08/08



The ADQL document has finished the RFC period. The revision with agreed changes will be released around 20 June. Around end of June the document will

be sent to the TCG for comments. If everything goes well, the doc will be ready for approval by the Exec at the beginning of August

For the coming year, further evolutions of the ADQL document are planned:

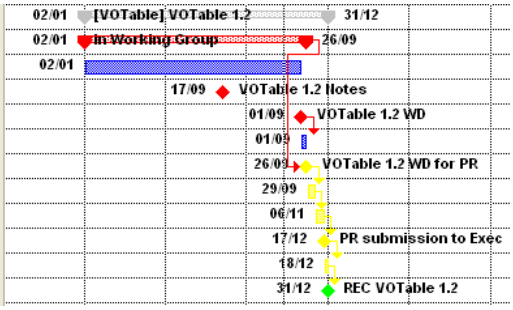
- inclusion -as an auxiliary document- of explanatory examples where usage of the ADQL is clarified
- possible inclusion of 3D Geometry handling (this will become important for projects like GAIA with 3D data)
- proper inclusion of ELLIPSE within the language
- possible inclusion of references to VOSpace usage within the document
- UType (or UFI or whatever is finally agreed) usage within the language, with accompanying examples of Data Model specific Use Cases

2.10 VOTable

The version 1.2 of VOTable should establish the missing link between the data models developed by the IVOA and the serialization of the data in the form or VOTables. Once VOTable1.2 is accepted as an IVOA standard, we would consider that the VOTable WG could switch its status into a maintenance mode, i.e. its activities would essentially consist in a follow-up of IVOA activities to ensure that no conflict between the VOTable standard and the other IVOA standards would emerge.

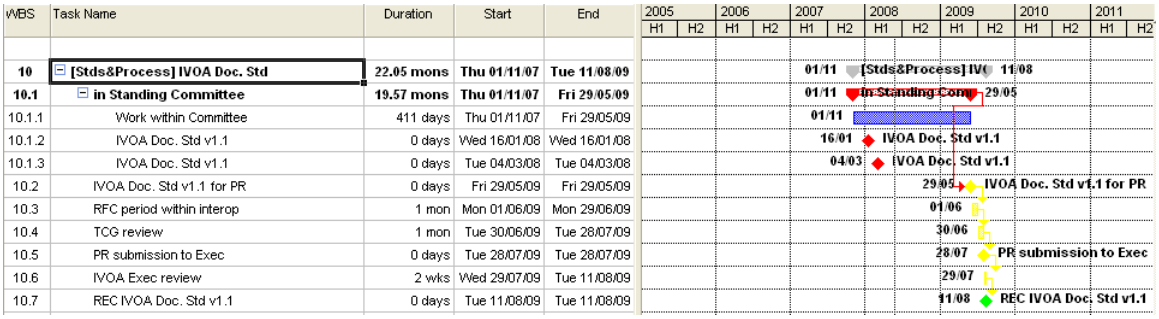
The schedule for the upcoming VOTable 1.2 is the following:

22	[VOTable] VOTable 1.2	36.33 mons	Mon 02/01/06	Wed 31/12/08
22.1	in Working Group	33.1 mons	Mon 02/01/06	Fri 26/09/08
22.1.1	Work within WG	675 days	Mon 02/01/06	Fri 29/08/08
22.1.2	VOTable 1.2 Notes	0 days	Mon 17/09/07	Mon 17/09/07
22.1.3	VOTable 1.2 WD	0 days	Mon 01/09/08	Mon 01/09/08
22.1.4	Final review within WG	20 days	Mon 01/09/08	Fri 26/09/08
22.2	VOTable 1.2 WD for PR	0 days	Fri 26/09/08	Fri 26/09/08
22.3	RFC period within interop	28 days	Mon 29/09/08	Wed 05/11/08
22.4	TCG review	6 wks	Thu 06/11/08	Wed 17/12/08
22.5	PR submission to Exec	0 days	Wed 17/12/08	Wed 17/12/08
22.6	IVOA Exec review	2 wks	Thu 18/12/08	Wed 31/12/08
22.7	REC VOTable 1.2	0 days	Wed 31/12/08	Wed 31/12/08



2.11 Standards and Processes Committee

The schedule for the IVOA Document Standards v1.1 Recommendation process is the following:



WBS	Task Name	Duration	Start	End
10	[Stds&Process] IVOA Doc. Std	22.05 mons	Thu 01/11/07	Tue 11/08/09
10.1	in Standing Committee	19.57 mons	Thu 01/11/07	Fri 29/05/09
10.1.1	Work within Committee	411 days	Thu 01/11/07	Fri 29/05/09
10.1.2	IVOA Doc. Std v1.1	0 days	Wed 16/01/08	Wed 16/01/08
10.1.3	IVOA Doc. Std v1.1	0 days	Tue 04/03/08	Tue 04/03/08
10.2	IVOA Doc. Std v1.1 for PR	0 days	Fri 29/05/09	Fri 29/05/09
10.3	RFC period within interop	1 mon	Mon 01/06/09	Mon 29/06/09
10.4	TCG review	1 mon	Tue 30/06/09	Tue 28/07/09
10.5	PR submission to Exec	0 days	Tue 28/07/09	Tue 28/07/09
10.6	IVOA Exec review	2 wks	Wed 29/07/09	Tue 11/08/09
10.7	REC IVOA Doc. Std v1.1	0 days	Tue 11/08/09	Tue 11/08/09

2.12 Astro-RG IG

The charter for the Astro-RG IG has been approved at the 2008 spring interop meeting in Trieste, and is found at the AstroRG wiki page:

http://www.ivoa.net/cgi-bin/twiki/bin/view/IVOA/AstroRG

Because the AstroRG IG is a liaison between the Open Grid Forum and IVOA, AstroRG plans to hold sessions not only in the IVOA interoperability meeting in Baltimore (jointly with the Grid/Web services WG) but in the OFG meetings in Barcelona (OGF23; finished) and Singapore (OGF24).

2.13 Data Curation and Preservation IG

The Data Curation and Preservation Interest Group intends to prepare a white paper describing the possible roles of the IVOA and its member projects in data curation and preservation initiatives. We intend to discuss the contents of the white paper in more detail at the May 2008 Interop in Trieste. We will also discuss DC&P efforts that are in progress in astronomy and related fields and how national and international standards efforts such as TRAC impact VO data providers.

2.14 Theory IG

From SNAP to SimDB/SimDAP

We have split up the former SNAP effort of the Theory Interest Group in two separate ones: SimDB(=Simulation Database) and SimDAP(=Simulation Data Access Protocol). SimDB is a specification for a Simulation (meta-)Database (could be called Simulation Registry, -Portal).

SimDB is an online service offering query capabilities to a database containing meta-data describing results of simulations and their post-processing as well as about the codes used in these algorithms.
Currently the simulations are still supposed to be those that produce a representation of 3+1D space, (possibly reduced spatial dimension through assumptions of symmetry). This is open for discussion.

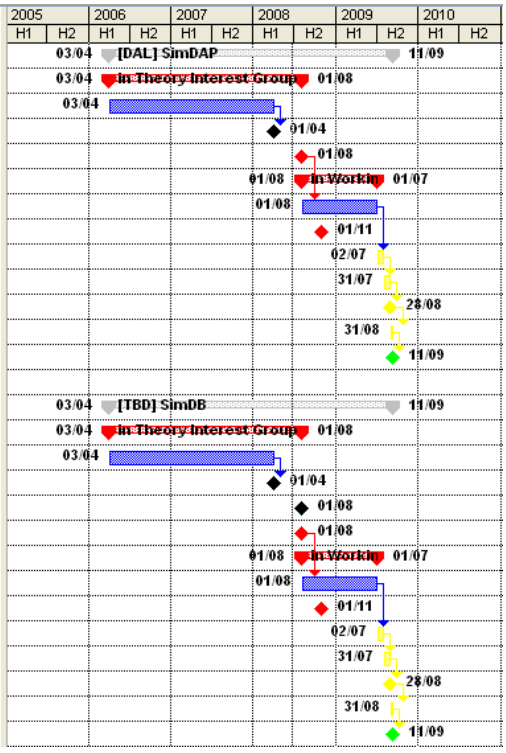
A SimDB also contains information about web services giving access to the simulation results themselves. The more detailed specification of such services is the goal of the SimDAP-specification.

We plan forming a focus group to tackle SimDB and other issues. This group should contain members from several relevant WGs (DM, Registry, Semantics, DAL for TAP and VOQL), together with the current developers of SimDB, members from the TIG. Indeed, some issues have to be solved that require input from a number of working groups. A full discussion is available at:
http://www.ivoa.net/cgi-bin/twiki/bin/view/IVOA/IVOATheorySimDB

However, it is unclear what the formal organization should be, as there is not a single WG that could most obviously be given responsibility for the further development of this standard and the theory INTEREST group can not move a working draft through the recommendation track.

The schedules for the SimDAP and SimDB are the following:

WBS	Task Name	Duration	Start	End
6	**[DAL] SimDAP**	**41.9 mons**	**Mon 03/04/06**	**Fri 11/09/09**
6.1	**in Theory Interest Group**	**28.05 mons**	**Mon 03/04/06**	**Fri 01/08/08**
6.1.1	Discussion about SNAP	503 days	Mon 03/04/06	Tue 01/04/08
6.1.2	Split SNAP into SimDB, SimDAP	0 mons	Tue 01/04/08	Tue 01/04/08
6.1.3	SimDAP v0.1 Technical Note	0 days	Fri 01/08/08	Fri 01/08/08
6.2	**in Working Group**	**11.38 mons**	**Fri 01/08/08**	**Wed 01/07/09**
6.2.1	Work within WG	239 days	Fri 01/08/08	Wed 01/07/09
6.2.2	SimDAP v0.5 WD	0 days	Sat 01/11/08	Sat 01/11/08
6.3	RFC period within interop	1 mon	Thu 02/07/09	Thu 30/07/09
6.4	TCG review	1 mon	Fri 31/07/09	Fri 28/08/09
6.5	PR submission to Exec	0 days	Fri 28/08/09	Fri 28/08/09
6.6	IVOA Exec review	2 wks	Mon 31/08/09	Fri 11/09/09
6.7	REC SimDAP	0 days	Fri 11/09/09	Fri 11/09/09
7	**[TBD] SimDB**	**41.9 mons**	**Mon 03/04/06**	**Fri 11/09/09**
7.1	**in Theory Interest Group**	**28.05 mons**	**Mon 03/04/06**	**Fri 01/08/08**
7.1.1	Discussion about SNAP	503 days	Mon 03/04/06	Tue 01/04/08
7.1.2	Split SNAP into SimDB, SimDAP	0 mons	Tue 01/04/08	Tue 01/04/08
7.1.3	Define PR track and tiger team fo	0 days	Fri 01/08/08	Fri 01/08/08
7.1.4	SimDB v0.1 Technical Note	0 days	Fri 01/08/08	Fri 01/08/08
7.2	**in Working Group**	**11.38 mons**	**Fri 01/08/08**	**Wed 01/07/09**
7.2.1	Work within WG	239 days	Fri 01/08/08	Wed 01/07/09
7.2.2	SimDB v0.5 WD	0 days	Sat 01/11/08	Sat 01/11/08
7.3	RFC period within interop	1 mon	Thu 02/07/09	Thu 30/07/09
7.4	TCG review	1 mon	Fri 31/07/09	Fri 28/08/09
7.5	PR submission to Exec	0 days	Fri 28/08/09	Fri 28/08/09
7.6	IVOA Exec review	2 wks	Mon 31/08/09	Fri 11/09/09
7.7	REC SimDB	0 days	Fri 11/09/09	Fri 11/09/09



New activity about micro-physics simulations
The exact definition of this kind of simulations has still to be refined but should include at least physical simulations of photoionisation and/or photodissociation processes, stellar evolution/synthesis/atmospheres, etc.

We envision the following roadmap (the details will be available at :

http://www.ivoa.net/cgi-bin/twiki/bin/view/IVOA/IvoaTheory)

Before fall 2008 INTEROP (Baltimore):
One conclusions of the April 2008 Euro-VO DCA workshop "Theory in the VO" in Garching was that one needs to organize a focused meeting with a few motivated specialists of the so-called micro-physics simulations domain. The model here is the Cambridge meeting in Feb 2006 where SNAP discussions started. The main goal is to extract use cases and requirements of data extracted from micro-simulations.

Fall 2008 INTEROP:
We plan to have 1 session on microsimulations:

- Setup of a task-force to work on DM and DAP for micro-simulations. Our 'model' here is what has been done for SNAP.
- list of use cases (to be on the twiki)
- determine who is able to implement a reference implementation in the future

Between Fall (Baltimore) 2008 and Spring 2009:

- We will start analyzing the microsim domain in particular whether there are requirements beyond discovery.

Spring 2009 INTEROP:

- We will discuss DM/DAP for micro-sims (fully new DM, SimDB evolution, no DM at all. Note that SimDB/SimDAP should be in RFC at that time)

After Spring 2009 INTEROP:
The rest of the roadmap depends a lot on the options taken for micro-sims. Conservatively, we envision to move these efforts to a WG (as for SimDB/DAP) in 2010 at last.

3 Potential discussions required across WGs/IGs

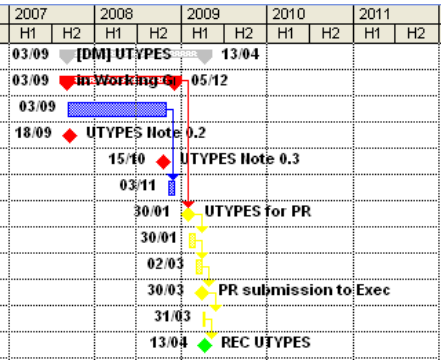
This section introduces specific topics that will require particular attention from the TCG in the coming year. They will be regularly reviewed in the context of the TCG meetings / teleconferences and should be reported upon in the technical assessment and roadmap next year.

3.1 Process for UTYPES definition

Every year the discussion about UTYPES/UFI comes up in various Interop sessions, so it has become necessary to formalize a process to make sure we arrive to an IVOA conclusion about this:

- as a starting point, take the note from Jonathan sent in September 2007 (http://hea-www.harvard.edu/~jcm/vo/docs/utype/ut2.pdf)
- Within the TCG, we should define the list of editor and authors for this document. There should be some people from the WG/IG involved in the usage of UTYPES/UFI
- The editor/authors should then take into account all the comments that were sent to the list following Jonathan issuing the document and the discussions that took place afterwards in various Interop dedicated sessions. Note the existence of existing material on Utypes at http://www.ivoa.net/cgi-bin/twiki/bin/view/IVOA/Utypes
- the TCG should decide with the Standing Committee on Standards and Processes if this document should be an IVOA note endorsed by the TCG or a formal IVOA standard
- the editor/authors should define a roadmap for issuing the document
- the TCG should make sure that the relevant future IVOA standards making use of UTYPES make proper reference to the that document

WBS	Task Name	Duration	Start	End
11	**[DM] UTYPES**	**20 mons**	**Mon 03/09/07**	**Mon 13/04/09**
11.1	**in Working Group**	**15.67 mons**	**Mon 03/09/07**	**Fri 05/12/08**
11.1.1	Work within WG	304 days	Mon 03/09/07	Fri 31/10/08
11.1.2	UTYPES Note 0.2	0 days	Tue 18/09/07	Tue 18/09/07
11.1.3	UTYPES Note 0.3	0 days	Wed 15/10/08	Wed 15/10/08
11.1.4	Final review within WG	25 days	Mon 03/11/08	Fri 05/12/08
11.2	UTYPES for PR	0 days	Fri 30/01/09	Fri 30/01/09
11.3	RFC period within interop	1 mon	Fri 30/01/09	Fri 27/02/09
11.4	TCG review	1 mon	Mon 02/03/09	Mon 30/03/09
11.5	PR submission to Exec	0 days	Mon 30/03/09	Mon 30/03/09
11.6	IVOA Exec review	2 wks	Tue 31/03/09	Mon 13/04/09
11.7	REC UTYPES	0 days	Mon 13/04/09	Mon 13/04/09



3.2 Process for UNITS definition

Regularly within the IVOA, there are discussions about units. It has become necessary to formalize a process to make sure that we arrive to an IVOA conclusion about this:

- Within the TCG, we should decide to write an IVOA note that indicates how units should be handled within the IVOA. Note the various discussions that already have taken place about this (http://www.ivoa.net/cgi-bin/twiki/bin/view/IVOA/UnitsDesc)
- Within the TCG, we should define the list of editor and authors for this document. There should be some people from the WG/IG involved in the usage of UNITS
- the editor and co-authors should write such document on UNITS and issue it after proper discussion within relevant WGs and after final review of the TCG
- the TCG should evaluate if existing IVOA standards might need a small update to take into account this new document
- the TCG should make sure that the relevant IVOA standards making use of UNITS make proper reference to the that document

3.3 Process for standards across WG

There have been several examples of the need to define an IVOA standard that spans over more than one WG (e.g. UTYPES, UNITS mentioned in other topics, but also SimDB, SimDAP).

Within the TCG and with the Standing Committee on Standards and Processes, we should discuss and try to define a standard process to deal with these cases.

3.4 Indicate interdependencies amongst IVOA standards

Quite often an IVOA standard may depend on more other standards (e.g. a specific DM and STC); it would be useful to formally indicate this at least on the RFC page during the RFC period and in the document itself.

That discussion should be coordinated with the Standing Committee on Standards and Processes.

This point is particularly valid for the use of STC.

The STC system for astronomical coordinates and regions is an IVOA recommendation, and therefore we will all gain through interoperability. This interoperability is not just for technical systems, but also because concepts learned in one area of VO can be applied in other areas. STC is applicable in

many areas: ADQL, footprints, TAP, VOEvent, SIAP, source VOTables, etc. If a WG is intending to make a different representation of coordinate or region, they should explain why they are diverging from a standard already agreed. Further, the new representation should be simply and transparently convertible to STC to promote interoperability.
Identifying and using a single VO standard for space/time coordinates seems a foregone conclusion. The alternative would be chaotic, non-interoperating systems and software, which would confuse our users and annoy our sponsoring organizations. STC has been adopted as that standard - more to the point, no other option has been suggested. The sooner we begin to understand, use, and evolve STC (as appropriate), the better. This also ties in closely to the recent adoption of new IAU coordinate systems, see for example: http://www.adass.org:8080/Conferences/2007/Venue/people/participants/abstract?abstract_id=234. When the notion of sidereal time is no longer valid, clearly some new software framework is needed for coordinates.

3.5 Standards numbering nomenclature

The numbering nomenclature of the working drafts of IVOA standards in preparation is not homogeneous across WGs and makes it quite confusing for people not used to it.

Although there are already some numbering schemes envisaged (http://www.ivoa.net/Documents/Notes/DocStd/Procedures-20040425.html#WorkingDrafts), it would be useful to have a numbering nomenclature which clearly and immediately shows that a certain IVOA standard is a REC or in a WD. Of course, that would take place only for the new standards to be produced.

Various options can be envisaged, so some discussion should take place within the TCG in coordination with the Standing Committee on Standards and Processes to determine a possible better scheme.

3.6 Updated Wiki system

The current IVOA wiki is running quite an old version: "This site is running Twiki version 04 Sep 2004 $Rev: 1742 $, Plugin API version 1.025".

It would be useful to upgrade the wiki version to some newer version which also offers more user-friendly editing facilities such as WYSIWYG and other more elaborated text formatting options.

References

[1] C.Arviset, R.Williams, S.Gaudet *Charter for the IVOA TCG*
http://www.ivoa.net/internal/IVOA/IvoaTCG/TCG-Charter-v1.0.pdf

[2] IVOA TCG web pages
http://www.ivoa.net/cgi-bin/twiki/bin/view/IVOA/IvoaTCG

[3] R. Hanisch, *IVOA Document Standards Process*,
http://www.ivoa.net/Documents/REC/DocStandard/DocumentStandards-20080304.html

Annex A: List of already existing IVOA standards

For global reference, here is the list in chronological order of all existing RECOMMENDED IVOA standards.

More details can be found on the IVOA Document pages at:
http://www.ivoa.net/Documents/

Standards	WG	Date	Comments
IVOA Document Standards v1.0	Standards & Process Committee	Oct. 2003	Being updated in 2008
VOTable v1.10 VOTable Format Definition	VOTable	August 2004	
UCD v1.10 An IVOA Standard for Unified Content Descriptors	Semantics	August 2005	
Maintenance of the list of UCD words v1.20	Semantics	May 2006	
VOEvent v1.11 Sky Event Reporting Metadata	VOEvent	Nov. 2006	
IVOA Identifiers v1.12	Registry	March 2007	
Resource Metadata for the Virtual Observatory v1.12	Registry	March 2007	
UCD 1+ v1.23 The UCD1+ controlled vocabulary	Semantics	April 2007	