



International

Virtual

Observatory

Alliance

The IVOA in 2008: Assessment and Future Roadmap

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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>

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Abstract

This note describes the main achievements of the IVOA for the last year as well as the updated roadmaps for each Working Groups and Interest Groups 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”.

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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 were up to 8 standards which have successfully gone through the Recommendations process as detailed in the TCG web pages. That went through 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 Characterisation	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 will have to be 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 to be determined.

At the last TCG teleconference in February 2008, some action were set to try to propose a “Template” for WG and IG web pages so the relevant information is presented in some more uniform way to people can find it more easily.

2.2 Application WG

The standards being worked at are the following:

Oct-08	Apps	Application Messaging (SAMP)	PR	Boch, Fitzpatrick, Taylor
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The schedule for the SAMP Recommendation process is the following:

ID	Task	Duration	Start Date	End Date
2	[Apps] SAMP	18.76 mons	Tue 01/05/07	17/11
2.1	in Working Group	16.29 mons	Tue 01/05/07	04/09
2.1.1	Work within WG	317 days	Tue 01/05/07	01/05
2.1.2	SAMP WD ??	0 days	Mon 03/09/07	03/09
2.1.3	Final review within WG	25 days	Fri 01/08/08	01/08
2.2	SAMP for PR	0 days	Thu 04/09/08	04/09
2.3	RFC period within interop	1 mon	Fri 05/09/08	05/09
2.4	TCG review	1 mon	Mon 06/10/08	06/10
2.5	PR submission to Exec	0 days	Mon 03/11/08	03/11
2.6	IVOA Exec review	2 wks	Tue 04/11/08	04/11
2.7	REC SAMP	0 days	Mon 17/11/08	17/11

[More inputs required from MA]

2.3 Data Access Layer WG

The standards being worked at are the following:

Aug-07	DAL	Simple Image Access V1.0	WD	Tody, Plante
Sep-07	DAL	Spectral Line Access V1.0	PR	Salgado, Osuna
Apr-08	DAL	Simple Image Access V2.0	WD	Tody, Bonnarel
Dec-08	DAL	Table Access Protocol	inWG	Noddle, Osuna, Tody
Dec-08	DAL	SIA-Level2 (cubes etc)	inWG	Tody, Bonnarel
?????	DAL	Simple Spectral Access V1.1	PR	Tody, Dolensky

[More inputs required from KN]

2.4 Data Model WG

The standards being worked at are the following:

Oct-07	DM	Spectral Energy Density-V1.0	WD	McDowell, Tody
Sep-08	DM	Simple Spectral Line DM	PR	Salgado, Osuna
Sep-08	DM	Simulation model for numerical model	PR	Lemson
Sep-08	DM	Provenance of Observation	inWG	Bonnarel
Sep-08	DM	Utypes syntax	WD	Louys
Sep-08	DM	Photometry description for SED	inWG	McDowell
Sep-08	DM	Atomic & Molecular Line DM	PR	Dubernet, Moreau, Roueff

[More inputs required from ML]

2.5 Grid and Web Services WG

The standards being worked at are the following:

Jun-08	GWS	VO Basic Profile V1.0	PR	Schaaf
Jun-08	GWS	VOSpace V1.1	WD	Graham, Morris, Rixon
Jun-08	GWS	Single Signon Delegation V1.0	WD	Plante, Rixon, Taffioni
Jun-08	GWS	Single Signon Community V1.0	WD	Plante, Rixon, Taffioni
Jun-08	GWS	Harvesting logging data	WD	Thakar
Jun-08	GWS	VO Support Interfaces	WD	Rixon

[More inputs required from MG]

2.6 Registry WG

The standards being worked at are the following:

Jun-08	Registry	Registry Interfaces v1.01	PR	Benson, Plante
Jun-08	Registry	VODataService Extension Schema v1.00	WD	Plante, Stebe
Jun-08	Registry	Outreach Imagery Metadata v1.0	WD	Hurt, Hanisch, Plante
Jun-08	Registry	VOApplications Extension Schema v1.0	WD	Harrison
Jun-08	Registry	VOStandard Extension Schema	WD	Plante
Jul-08	Registry	SIA/SCS Extended Resource Metadata	WD	Plante
Oct-08	Registry	Outreach Imagery Metadata v1.0	PR	Hurt, Hanisch, Plante

[More inputs required from RP]

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 Organisation System (SKOS). By adopting a standard and simple format, different groups will be able to create and maintain their own specialised 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 standards being worked at are the following:

May-08	Semantics	VO-Vocabularies	PR	A. Gray, N. Gray, Hessman, Preite Martinez
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The schedule for the VO-Vocabularies Recommendation process is the following:

3	[Semantics] VO-Vocabularies	46.19 mons	Mon 03/10/05	03/10 [Semantics] VO-Vocabularies 11/08
3.1	in Working Group	31.48 mons	Mon 03/10/05	03/10 in Working Group 04/06
3.1.1	Work within WG	636 days	Mon 03/10/05	03/10
3.1.2	Vocabularies v0.5	0 days	Tue 20/12/05	20/12 Vocabularies v0.5
3.1.3	Vocabularies v0.8	0 days	Fri 05/05/06	05/05 Vocabularies v0.8
3.1.4	Vocabularies v0.11	0 days	Mon 03/09/07	03/09 Vocabularies v0.11
3.1.5	Vocabularies v0.9	0 days	Thu 14/02/08	14/02 Vocabularies v0.9
3.1.6	Final review within WG	25 days	Thu 01/05/08	01/05
3.2	VO-Vocabularies for PR	0 days	Wed 04/06/08	04/06 VO-Vocabularies for PR
3.3	RFC period within interop	1 mon	Thu 05/06/08	05/06
3.4	TCG review	1 mon	Fri 04/07/08	04/07
3.5	PR submission to Exec	0 days	Fri 01/08/08	01/08 PR submission to Exec
3.6	IVOA Exec review	2 wks	Mon 04/08/08	04/08
3.7	REC VO-Vocabularies	0 days	Fri 15/08/08	15/08 REC VO-Vocabularies

2.8 VOEvent WG

The standards being worked at are the following:

Jun-08	Event	VOEvent Registry Ext. Schema	WD	Seaman, Williams
Dec-08	Event	VOEvent 2.0	inWG	Seaman, Williams

[More inputs required from RW]

2.9 VOQL WG

The standards being worked at are the following:

Mar-08	VOQL	Astronomical Data Query Language V1.5	PR	Osuna, VOQL-TEG
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The schedule for the ADQL Recommendation process is the following:

1	[VOQL] ADQL	21.62 mons	Mon 02/10/06	02/10	[VOQL] ADQL	11/07
1.1	in Working Group	19.14 mons	Mon 02/10/06	02/10	in Working Group	30/04
1.1.1	Work within VOQL-TEG	376 days	Mon 02/10/06	02/10		
1.1.2	ADQL WD 1.5	0 days	Mon 03/09/07	03/09	ADQL WD 1.5	
1.1.3	ADQL WD 1.5	0 days	Tue 18/09/07	18/09	ADQL WD 1.5	
1.1.4	ADQL WD 1.5	0 days	Tue 25/03/08	25/03	ADQL WD 1.5	
1.1.5	Final review within VOQL WG	25 days	Wed 26/03/08	26/03		
1.2	ADQL WD 2.0 for PR	0 days	Wed 30/04/08	30/04	ADQL WD 2.0 for PR	
1.3	RFC period within interop	1 mon	Thu 01/05/08	01/05		
1.4	TCG review	1 mon	Fri 30/05/08	30/05		
1.5	PR submission to Exec	0 days	Fri 27/06/08	27/06	PR submission to Exec	
1.6	IVOA Exec review	2 wks	Mon 30/06/08	30/06		
1.7	REC ADQL	0 days	Fri 11/07/08	11/07	REC ADQL	

[More inputs required from PO]

2.10 VOTable

The standards being worked at are the following:

Oct-08	Table	VOTable V1.2	REC	Ochsenbein
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[More inputs required from FO]

2.11 Standards and Processes Committee

The standards being worked at are the following:

SD	IVOA Document Standards V2.0	inWG	Hanisch, Genova, Arviset
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The schedule for the IVOA Document Standards v1.1 Recommendation process is the following:

3.8	<input type="checkbox"/> [Stds&Process] IVOA Doc. Std	22.05 mons	Thu 01/11/07	01/11	<input type="checkbox"/> [Stds&Process] IVOA Doc. Std v1.1	11/08
3.8.1	<input type="checkbox"/> in Standing Committee	19.57 mons	Thu 01/11/07	01/11	<input type="checkbox"/> in Standing Committee	29/05
3.8.1.1	Work within Committee	411 days	Thu 01/11/07	01/11		
3.8.1.2	IVOA Doc. Std v1.1	0 days	Wed 16/01/08	16/01	<input type="checkbox"/> IVOA Doc. Std v1.1	
3.8.1.3	IVOA Doc. Std v1.1	0 days	Tue 04/03/08	04/03	<input type="checkbox"/> IVOA Doc. Std v1.1	
3.8.2	IVOA Doc. Std v1.1 for PR	0 days	Fri 29/05/09	29/05	<input type="checkbox"/> IVOA Doc. Std v1.1 for PR	
3.8.3	RFC period within interop	1 mon	Mon 01/06/09	01/06		
3.8.4	TCG review	1 mon	Tue 30/06/09	30/06		
3.8.5	PR submission to Exec	0 days	Tue 28/07/09	28/07	<input type="checkbox"/> PR submission to Exec	
3.8.6	IVOA Exec review	2 wks	Wed 29/07/09	29/07		
3.8.7	REC IVOA Doc. Std v1.1	0 days	Tue 11/08/09	11/08	<input type="checkbox"/> REC IVOA Doc. Std v1.1	

2.12 Astro-RG IG

The charter for the Astro-RG IG has been recently drafted and should be finalized soon in 2008.

[More inputs required from MO]

2.13 Data Curation and Preservation IG

[More inputs required from BH]

2.14 Theory IG

[More inputs required from GL, in particular on list on standards worked on and their interface with the relevant WG (eg DM, DAL, Registry)]

3 Potential discussions required across WGs/IGs

VOQL and DAL WG to clarify how TAP and ADQL relate to each other?

DM, DAL and VOQL WG to clarify how to handle UTYPES standard amongst various WG ?

GWS, DAL and VOQL WG to clarify how will the Upload-Match pattern be handled in VOspace/TAP/VOQL? Is an account needed?

DAL and Registry to clarify getCapabilities, what is it and what progress? Can it be done schema free – dict of key-value pairs? Why not nail it down later after users lead the way?

VOTable WG to clarify the Table built from multiple XML instances: regions (Ochsenbein) and resources (NVO portal).

References

[1] C.Arviset, R.Williams, *Charter for the IVOA TCG*
[to be released]

[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	