



Automating the Process of Document Submission in the IVOA Document Repository

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INTERNATIONAL VIRTUAL OBSERVATORY ALLIANCE

Documents & Standards

DOCUMENTS

XML SCHEMA

VOCABULARIES

DOC SUBMISSION



- *Technical Specifications*
- *Notes*
- *Promotion process*
- *IVOA Technical Assessment and Roadmap Documents*
- *Submission Log*

Technical Specifications

Group	Title	Most stable	In progress	Version history
App	SAMP - Simple Application Messaging Protocol	1.3		1.3 1.3 1.3 1.3 1.3 1.2 1.2 1.2 1.11 1.11 1.10 1.00
	VOTable - VOTable Format Definition	1.5		1.5 1.5 1.5 1.5 1.5 1.5 1.4 1.4 1.4 1.4 1.4 1.4 1.3 1.3 1.3 1.2 1.2 1.2 1.20 1.20 1.10 1.00
	MOC - HEALPix Multi-Order Coverage Map	2.0		2.0 2.0 2.0 2.0 2.0 2.0 2.0 1.1 1.1 1.1 1.1 1.1 1.0 1.0 1.0 1.0 1.0
	HiPS - Hierarchical Progressive Survey	1.0		1.0 1.0 1.0 1.0 1.0 1.0
DAL	DALI - Data Access Layer Interface	1.1	1.2	1.2 1.2 1.2 1.1 1.1 1.1 1.1 1.1 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
	DataLink	1.1		1.1 1.1 1.1 1.1 1.0 1.0 1.0 1.0

The Challenge & The Objective

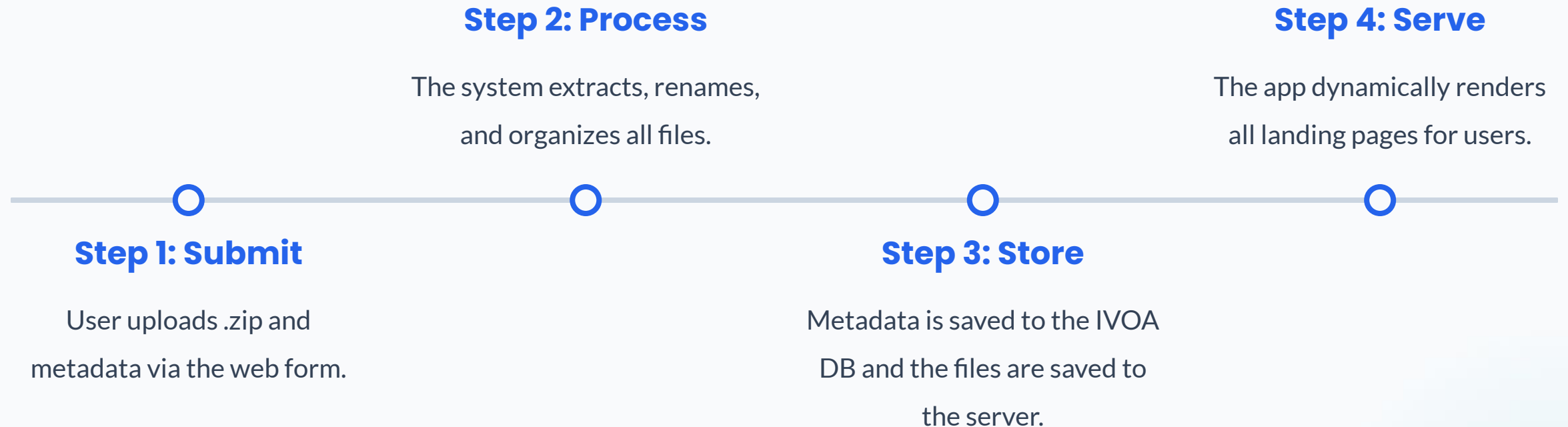
The Manual Process

- Time-consuming and error-prone updates to metadata and landing pages.
- Inconsistent file naming and document organization, leading to confusion and lost information.
- Difficult to scale as the number of documents and updates grows.
- A need to systematically archive older documents and their metadata alongside newer submissions.

The Automated Solution

- Automatically processes submissions, renames files, and updates metadata with consistent standards.
- Generates landing pages dynamically, ensuring accuracy and eliminating manual editing.
- Centralizes document storage and metadata, improving reliability and long-term maintainability.
- Ensures organized storage of both historical and new records.

The Automated Workflow



Step 1: The Submission Form

- The workflow begins with the 'Submit New Document' form.
- Built with Flask forms for robust data validation.
- On submission, it securely saves the metadata in the IVOA Database.
- Ensures metadata follows IVOA naming conventions

Submit New Document

Status of the Document
IVOA Recommendation

Date (YYYY-MM-DD)
mm/dd/yyyy

Title of the Document
Data Access Layer Interface (DALI)

Concise Name
DALI

Responsible I/W Group:
Data Access Layer

Version Major
1

Version Minor
0

Authors (comma separated)

Editors (comma separated)

Abstract

Contact Email

Comments

Submit

Reset

File Upload

*Please upload .zip file formats

Choose Files No file chosen

Upload

Upload the zip file preferably created using
The ivoaTeX document preparation system

Step 2 & 3: Backend File & Metadata Handling

- Processing: The uploaded package is extracted. The folder and its contents are renamed based on IVOA standards.
- Structured Storage: The renamed folder is moved to its permanent, structured path.
- Database Commit: All metadata from the form is saved to the IVOA database.
- Backend verifies metadata and applies IVOA naming standards.
- Guarantees consistent naming and structure, even when uploads use different filenames.

Step 4: Dynamic Page Generation

- The application uses Jinja2 templates to build all web pages.
- All metadata is pulled directly from the database to populate the page.
- This process eliminates all manual HTML page creation and maintenance.
- Any new submission automatically appears on the website without manual editing.

International Virtual Observatory Alliance

IVOA Documents



VOTable Format Definition

Version 1.5

IVOA Recommendation 16 January 2025

Interest/Working Group:

<http://www.ivoa.net/twiki/bin/view/IVOA/IvoaApplications>

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Abstract

This document describes the structures making up the VOTable standard. The main part of this document describes the adopted part of the VOTable standard; it is followed by appendices presenting extensions which have been proposed and/or discussed, but which are not part of the standard.

Status of this document

This document has been produced by the Applications Interest Group.

It has been reviewed by IVOA Members and other interested parties, and has been endorsed by the IVOA Executive Committee as an IVOA Recommendation. It is a stable document and may be used as reference material or cited as a normative reference from another document. IVOA's role in making the Recommendation is to draw attention to the specification and to promote its widespread deployment. This enhances the functionality and interoperability inside the Astronomical Community.

Available formats: [html](#), [pdf](#), [tex](#)

The Main Repository View



Future Enhancements



User Authentication: Implement role-based access control



Advanced Search: Add capabilities to filter documents by author, date, or keywords.



Errata Management: A full UI for submitting and managing errata for published documents.



RFC Phase Integration: Build out the complete "Request for Comments" workflow.

These features extend the system into a complete document lifecycle manager.

<http://testingdocrepo.ivoa.info/>

Thank You