

JDF Prerequisites for submitting a PAS application

About the PAS process and its owners

The JTC1/IEC/ISO PAS process is a fast-track process for the development, approval, and publication of International Standards for information technology, and is used when there is a need for a standard that cannot wait for the normal ISO/IEC standards development process. PAS is an acronym for "Publicly Available Specification". This process is quicker and less formal than the standard ISO/IEC process, and is typically used for standards that are of a more experimental or rapidly-evolving nature, or for standards that are needed in a relatively short time frame.

JTC 1 (Joint Technical Committee 1) is a technical committee of the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC). The committee is responsible for developing and maintaining international standards for information technology, including standards for computer systems, software engineering, and data management. JTC 1 is composed of national standardization bodies from countries around the world, and the committee meets regularly to discuss and vote on proposed standards. The standards developed by JTC 1 are used globally by governments, businesses, and individuals to promote interoperability, compatibility, and security in the field of information technology.

A PAS submission is a proposal for a new international standard that is submitted to the JTC1. If the proposal is accepted, it will be developed into a draft standard and then published for public review and comment. After that, the standard will be finalized and published by ISO/IEC. The JTC1 accepts new PAS submitters by application by the Standard Development Organization (SDO). The Joint Development Foundation (JDF) an affiliate of the Linux Foundation (LF) is an accepted PAS submitter of the JTC1, along with about 15 other SDOs.

The benefit of having a JDF specification accepted as an ISO specification is that the specification enjoys the gravitas of an ISO International specification while allowing the submitting organization (in this case JDF) to maintain control of the specification. It also relieves the Project from some of the ponderously long and involved process of creating a specification within the ISO itself.

The advantage of this relationship is that an LF project or a JDF project can develop a Specification under the rules of the JDF Traditional Mode or the JDF Community Specification mode that may, if found suitable, be sent to JTC1 for PAS approval. The specification must be developed under the JDF rules using the Traditional Mode or Community Specification mode to ensure that the specification complies with the minimum requirements for a well-formed specification. These rules ensure that no single company may dominate the specification, there

is proper process when drafting the specification, the licensing rules are well established, and there is proper notification for decision making. JTC1 accepted the JDF as a PAS submitter based on our adherence to these principles.

The JDF places great value on its PAS submitter status. Therefore we play a gatekeeper role to ensure that JDF presents only worthwhile specifications to JTC1. This guide is to help your project understand the prerequisites the JDF imposes on a project that aspires to a PAS application.

Getting ready to submit

The single most important piece of pre-work before committing to the submission process is to ask your project why they want to apply for ISO registration. Sending a specification to ISO creates a long term responsibility for your project. Once the specification is accepted, you have to curate the specification, you have to make sure it remains current, and you have to maintain it with ISO. So it is a really good idea to know why you need to turn your Specification into an ISO specification and what you are going to do with it once it is accepted.

PAS submissions have to be re-balloted every five years, and you want to keep your local version in step with the ISO version in the interim. ISO registration does imply high quality and international recognition, but it does not automatically bring adoption. You should ask the project if your time is better spent building a user community to drive innovation and adoption. ISO registration does not do much to help those features. Also, the JDF gatekeepers are going to ask you the same questions so it makes sense to be prepared.

Let's start by discussing **the physical documents** that comprise the Submission:

1. Explanatory report (link to template)
2. Text of the Specification
3. File of the Exhibits

The **Explanatory Report** is a questionnaire from JTC1 with a series of questions that help the reviewers understand what we are sending them. This is an important document as it tells the reviewers a lot of information about who the specification is for, how it can be used, dependencies on other specifications, levels of adoption of the specification at the time of submission. The reviewers of the Explanatory report are experienced and skeptical. Often they are drawn from subcommittees that have subject matter expertise on your technology. In some cases, your submission may collide with or contradict a similar specification being developed in their SC (more about how we deal with that later in this treatise). It is important to be fact-based, accurate and circumspect about the claims you make about the importance of your specification.

This is important. The hardest questions in the Explanatory Report are about **adoption**. Most specifications are fairly new and adoption is low. **Our recommendation to all the projects is to avoid taking a freshly baked specification to JTC1.** Adoption statistics contain a lot of information for the reviewers. If you cannot point to users, you have a good idea, but you do not necessarily have a real specification. It is likely that the JDF gatekeeping process will press

your project to not send an unproven specification to JTC1. We recommend you do the hard work of bringing field-proof of the specification before you ask to start the submission process. Remember that at least a few of the ISO reviewers are likely working on a similar specification, so they probably know as much about the subject area as you do.

The **Text of the Specification** is exactly what it sounds like, but ISO has some very specific editorial standards that need to be incorporated. ISO has a roughly 200 page, continuously evolving set of language and editorial standards that we try to follow. JDF contracts with a PAS editor to help us prepare your specification for ISO consumption. This service will cost between \$3,000 and \$12,000 depending on the length and complexity of your specification. JDF does not recommend you try to skip this step, unless your project has someone who is an experienced PAS editor on the team. Even with our best efforts, we inevitably get editorial comments from the reviewers. Incorporating those comments into the final draft is a fine art and it takes some skill to push back on the comments without alienating the reviewers. Also we need to be cautious about what comments we incorporate into the final draft. We can incorporate some informative comments without restarting the balloting process (3-6 months) but if we make a normative change (change the meaning of the specification) we have to restart. JDF can support your project through this process, but you should be prepared to help us ensure we make the edits accurately.

JDF also recommends that you assign a lead POC to work with us during our editing process. If you intend to keep your ISO specification consistent with your local version, you may want to modify your local editorial standards to align with the ISO standards in order to streamline the updates.

The **File of the Exhibits** is simply a separate folder containing all of the graphical exhibits in the Specification. Once the specification is accepted at ISO, their editors are going to transcribe it into their template (2-3 months). They need a file of individual .pdfs of your exhibits in order to faithfully transcribe your exhibits. You will need to dedicate someone from your project to do a final acceptance of their transposition.

How the process steps work.

Some of these steps may be done in parallel.

Pre-work

Typically, a project comes to JDF leadership with an inquiry about what it means to attempt a PAS application. This is a pretty informative process where the project and JDF are trying to understand the primitives of what the project wants and what JDF needs from the project. As the process progresses, the JDF questions may become more probing, especially around the points of adoption. JDF will not send a piece of work to JTC1 that we think will be rejected. This pre-work process is good for everyone involved even if it is a little contentious. We have described a lot of what we are looking for in the sections above.

Socialization with JTC1 Subcommittees (3-4 weeks)

JDF submits its specifications through ANSI, where we are a member. ANSI is a member of JTC1 where the PAS work happens. ISO provides each of the PAS submitters with a PAS Mentor who is our POC with the process. ANSI and the PAS Mentor interact with the JDF PAS POC to manage the process. Think of it as a concierge service for the process.

A major responsibility of the PAS Mentor is to understand the submission and socialize it with the various JTC1 Sub Committees (SC). In cases where there is overlap with your submission and a JTC1 SC, you should expect to have a few meetings with the leadership of the relevant JTC1 SC. This can be a bit like a physical exam. The SCs can be somewhat territorial and they may ask you to change your approach to align with relevant work they are doing. You do not have to accept the advice, but it is wise not to antagonize the people who may ultimately vote on your specification.

Preparation of the Explanatory Report (3-4 weeks)

We have described the Explanatory report in the section above.

Preparation of the Text of the Specification and the Exhibit file (4-10 weeks)

We have described this content in the section above.

Revision control

We try to keep revision controlled versions of the documents we send to JTC1 at JDF. JDF looks to the project to provide JDF the best-and-final version of the package. We will work with you and with the PAS Editor contractor, but the project is responsible for what we send to JTC1. Once the package is in our possession, we will take it from there.

Sending the documents to ANSI / ISO

The JDF POC will send the documents to ANSI and ISO with an introductory note and a summary of the specification along with a reminder of the socialization we have done so far. This usually results in a few back and forth emails that tie up any loose ends.

JTC1 preparation for balloting (3-6 weeks)

JTC1 prepares a package for the ISO members to ballot the submission. The ISO is made up of national standardization bodies, called national members, and each country has one national member. The number of voting members in ISO is equal to the number of national members, which is currently 162. Typically we will see about 15-20 members actually participating in balloting.

The JDF POC will see the balloting package appear in the ISO document portal. The ballot will receive a DIS number (eg DIS 5430 or DIS 5430:2023). The JDF POC will alert the project that the package is in the system.

We typically see the following delegations active in voting:

Australia Austria Belgium Canada China Côte d'Ivoire Denmark Ecuador
Finland France Germany India Indonesia Ireland Italy Japan Kazakhstan Korea
Republic of Lebanon Lithuania Luxembourg Malaysia Malta Netherlands Nigeria
Norway Panama Russian Federation Singapore South Africa Spain Sweden

Switzerland Uganda Ukraine United Arab Emirates United Kingdom United States

Balloting

Balloting typically takes 3-4 months.

Receive the ballot report

At the end of balloting, the JDF POC receives a ballot report showing the results of the balloting. We typically receive a few “No” votes, usually on some kind of editorial matters, and we usually receive comments about the specification, again, often about format and terminology (replace “shall” with “must”).

JDF evaluation of the Ballot Report (2-4 weeks)

Usually JDF is required to respond to the comments. We try to be respectful of the reviewers and will either respond to technical comments with technical responses, which we solicit from the project, or we incorporate the formatting comments into our final response. As stated above, this is an art form and we are careful not to create a situation where the specification is re-balloted.

JDF response to the Ballot Report

Once JDF has evaluated the comments and crafted the response, we send our final version to ANSI / ISO.

ISO Transposition of the specification (2-3 months)

ISO editors will transpose the specification into their format for publication.

Final acceptance of the ISO Transposition

JDF and the Project will review the transposition to ensure it is accurate. Typically the PAS editor can diff the files to seek any errors. We look to the Project to confirm the accuracy of the Specification. The JDF POC responds to ANSI / ISO with formal acceptance of the transposition.

Receipt of the ISO number (3-6 weeks)

ISO publishes the specification to its library and provides us with the ISO Specification number. We receive a copy of the final specification.

Applying for a free status of the specification (optional)

ISO specifications are behind a paywall and are sold for 65 CHF. The submitter may apply to have the specification made available at no charge. This act however is nearly as involved as submitting the Specification itself and also requires the ISO members to ballot and approve the fee waiver.

Maintenance.

The maintenance process is similar to the submission process if changes are to be made to the Specification. It is mandatory to re-ballot the specification every 5 years. It is good practice to maintain consistency between the project specification updates and the ISO version.

Resources:

The PAS process is documented in the ISO document Standing Document (SD) number 9 (SD-9). [Link to SD-9](#)