

PID Network Deutschland Online Seminar: PIDs for Instruments

7th May, 2024 – Chat documentation

Relevant questions and answers were documented and anonymized

Q: Is there a possibility to group many instruments and assign them to one measuring site? Do the measuring sites get a PID as well?

Comment: Maybe coupled with ROR identifier?

Reply: As long as the institution would be sufficient, but not the department, one could use ror.org identifier to identify the institution.

Q: B2INST: Can you say anything about the future of the service? Is it worth to enter instruments here at the moment?

Reply: Definitely! The data and PIDs are sustained. In one of the Horizon Europe projects (EOSC-Beyond) we are integrating B2INST into EOSC.

Q: b2inst and industry, is it possible to use it on private way (to not share Instruments with others)? Is it possible to install b2inst locally for community/industry (to stay private)?

Reply: You can “lock” your community in B2INST if you want to do so. A dedicated instance would also be possible (as well as a completely “secured” local instance).

Reply: We can grant you an access to B2INST repository. Please let us know.

Q: In the first presentation it was presented that the field publisher in DataCite schema is not used for PIDINST. How to link the PID(INST) of an instrument to the location of the instrument? Publisher field could actually help. DataCite Schema 4.5 also has publisherIdentifier <https://datacite-metadata-schema.readthedocs.io/en/4.5/properties/publisher/#a-publisheridentifier> , where the ROR identifier of the institution could be added.

Reply: Assuming the instrument is (relatively) static, I would probably capture location indeed elsewhere, e.g. an attribute of some platform/site/facility and then relate the two. The DataCite attribute "publisher" is mandatory and has no clear mapping to the PIDINST schema. (see: <https://github.com/rdawg-pidinst/schema/blob/master/schema-datacite.rst#fn5>). Existing examples, however, indeed use the institution maintaining the instruments as the publisher (e.g. <https://api.datacite.org/doi/10.5442/NI000001>). If the instrument is mobile, things are more complicated and the location should probably be linked to the instrument itself, but there is no clarity how to do this.

Q: (...) I am in fact referring to the electronic lab notebook. Is the PID registry service of B2INST going to be integrated into ELN? or perhaps is it already realised?

Reply: Currently, the PID Service (behind B2INST) is not directly integrated into ELN. There are other integration examples exist, so (technically) it would be possible.

Reply: There have been some discussions with folks at RSpace ELN & Inventory to integrate PIDINST in an ELN.

Q: Is the PIDINST QR code standardised? If I see several QR code stickers on a device, how do I know which QR code contains the instrument's PIDINST PID?

Reply: Good question. I am not aware of any standardization of QR codes. If the QR code is for the PID itself then I guess one would need to have some sort of label on the sticker that captures that this QR code is indeed for the PID itself. However, the QR code could be also for some other identifier (say local inventory), then one could relate this via alternate identifier.

Reply: <https://hdl.handle.net/21.11157/d0f833d2-8377-447a-a05a-70eb3ab2b4ba>

Reply: This is indeed the resolver service (hdl.handle.net) plus the PID (21.xxx/12345678) together. Just for the record. 😊

Q: (...) where can I get or view the controlled vocabs for the SMS instance? Is there a vocab server?

Reply: The system runs at the moment on <https://sms-cv.helmholtz.cloud/sms/cv/> - but it requires an extra access at the moment. However, the measured quantities for example can be queried by the API <https://sms-cv.helmholtz.cloud/sms/cv/api/v1/measuredquantities/>

Q (follow-up): Ok, is it currently available only internally?

Reply: It is currently more an admin interface - without a "nice" public view. But the system can be used also outside of the Sensor Management System. We target also to extend it & register it as a vocabulary in the future.

Comment: The OpenAIRE Guidelines for CRIS Managers is used for exchange information on instruments/equipments. RDA WG PIDInst White paper cover an example: <https://docs.pidinst.org/en/latest/white-paper/linking-datasets.html#openaire-cerif-metadata>

Reply: Thanks for this Information. The latest Information about the data model of the OpenAIRE Research graph I found (<https://graph.openaire.eu/docs/data-model/>) apparently do not directly mention a category "Instruments", yet, among their six categories.

Comment (follow-up): Currently indeed, the OpenAIRE CRIS guidelines offer the possibility to expose the instruments, which I see in some endpoints already - most with local identifiers - and thanks to the new datacite schema 4.5 - the pids for instruments gets a push forward and will become available in the OpenAIRE graph as well.

Question (follow-up): Does OpenAIRE integrate B2inst, too?

Reply: AFAIK, OpenAIRE does not integrate B2INST (nor any other instrument registry).

Reply: There is a narrow path right now: B2FIND (an other generic harvester) integrates B2INST (via OAI-PMH) and OpenAIRE harvest B2FIND already. The (meta)data is just not used by OpenAIRE at the moment.

Q: How difficult do you consider the challenge to come up with a PID for instruments that will include all the ones presented in a joined ID?

Reply: this is a good question for our breakout sessions later.

Q: Is OpenIRIS an open source project?

Reply: Yes, it is the open source version of IRIS.

Q: Maybe a question to DataCite or anyone who has experience: Do you know of any best practices on how to link a research article to an instrument, where data was collected? This will most certainly involve citation of the Instrument PID in the article or good use of the CrossRef schema?

Reply: For data collected by the instrument we have introduced the following:

<https://datacite-metadata-schema.readthedocs.io/en/4.5/appendices/appendix-1/relationType/#collects>

IsCollectedBy

Definition: Indicates A is collected by B

Example and Usage Notes:

May be used to indicate the relationship between a dataset and an instrument that is used to collect, measure, obtain, or observe data (as in, dataset A is IsCollectedBy instrument B).

```
<relatedIdentifier relatedIdentifierType="DOI"
relationType="IsCollectedBy">10.5072/instrument</relatedIdentifier>
```

Collects

Definition: Indicates A collects B

Example and Usage Notes:

May be used to indicate the relationship between an instrument and where it has been used to collect, measure, obtain, or observe data (as in, instrument A collects dataset B).

Q (follow-up): Is there guidance on the way back? If I got it right this is to reference a DOI of an article in the PIDINST metadata. For the way back starting from CrossRef metadata to a dataset would work following CrossRef documentation via relatedItem (CrossRef metadata!) with relationshipType e.g. is SupplementetedBy. See also: <https://www.crossref.org/documentation/reference-linking/data-and-software-citation-deposit-guide/>

Comment (follow-up): My question was more about research articles where most DOIs are probably registered at CrossRef, so my apologies if I might have wrongly addressed you.

Q: (...) a little bit away from the topic but can you tell something about the criteria on data quality? (concerning OpenIRIS)

Reply: We would like to add data quality description via the metadata schema given by the RDA in PIDINST: 'description' allowing measuring instrument to have more information on sensitivity especially.

Q: A question that I think we haven't touched today is how PIDs should be minted for commercially available Instruments. Are there any experiences?

Comment: This is about the issue of PIDs for identical types of Instruments (e.g. microscope model B3000) vs. PIDs for the individual instances of that instrument (e.g. microscope B3000 at university X in laboratory Y managed by working group Z).

Q: What about when an instrument is modified? For example, changing a component.

Reply: The use case of exchanging a component sounds to me like a new version of an instrument. Versioning is possible.