PDS DOI Process

February 2018

Introduction

- A DOI is a long lasting (ideally permanent), location independent, and globally unique identifier for a an immutable PDS Product.

- Applicable to PDS Products that have been or will be ingested into the PDS4 Registry.

- Includes both PDS3 and PDS4 Products of type DataSet, Bundle, Collection, and Document.

Note that registering DOIs for PDS3 DataSets is planned for a future release.

DOI Formation Rule

- DOIs are alphanumeric strings in the following format:
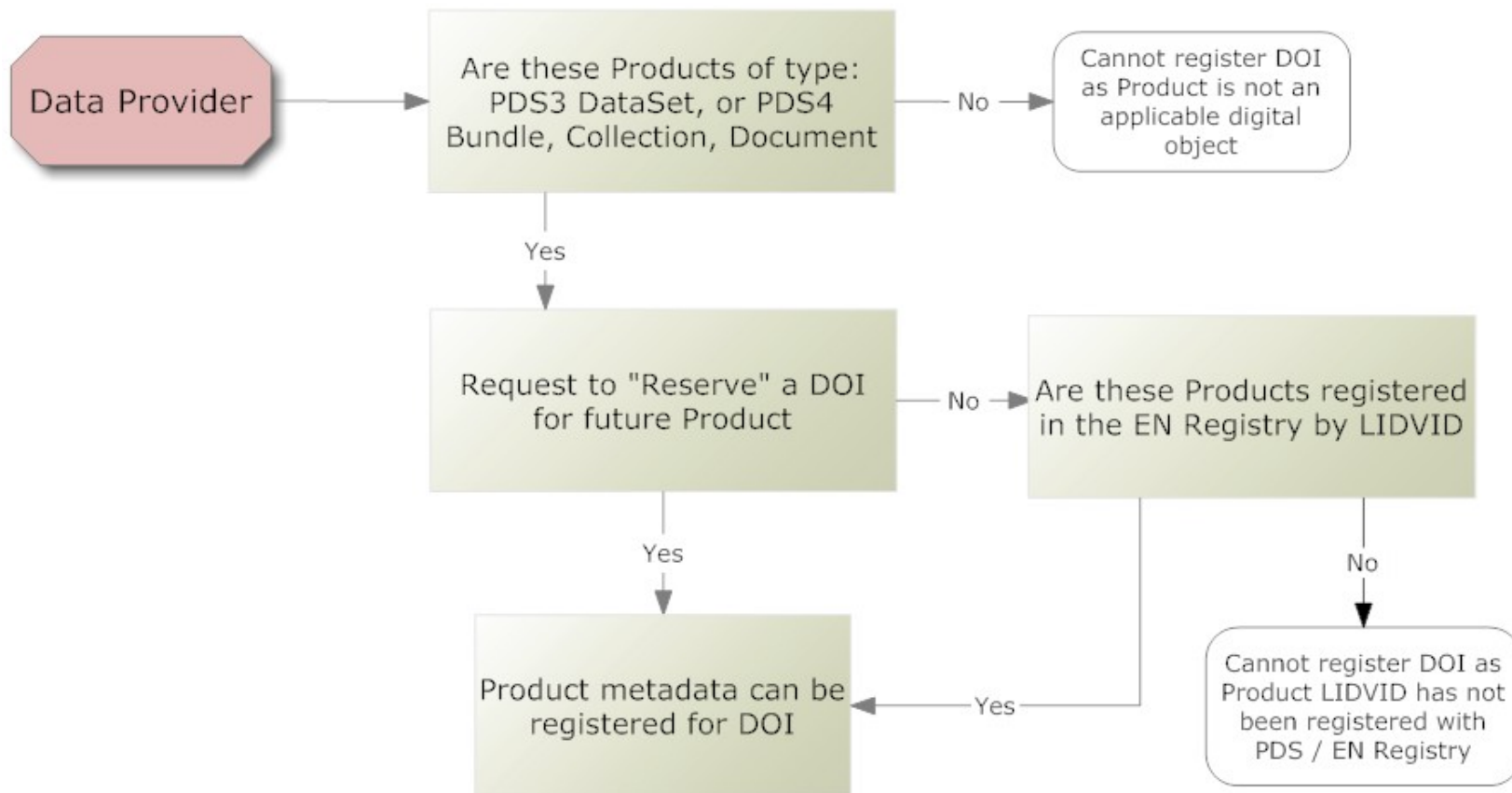
  doi:[prefix]/[suffix]

  - Prefix – [number] that identifies registrant agent.
  - Suffix – [number] that uniquely identifies the data item; assigned and managed by the registrant agent (OSTI).

PDS has been assigned the prefix of: 10.17189

Registration Process

Identification of PDS Products that can 'Get' DOIs

Registration Use Cases

- Create and assign "New" DOI
  - The Data Provider can submit a conformant PDS Product for review and to establish an assignment of a DOI for the immutable PDS Product.
  - Node or Data Provider can submit a DOI request for an existing product (already in Node repository or archive)

- Update metadata in existing DOI
  - The Data Provider can submit metadata for a previously created / assigned DOI to update the DOI metadata.

- Reserve DOI
  - The Data Provider can submit a conformant Product LIDVID to reserve a DOI for use in future PDS Products. [5]

The Landing Page and DOIs

- When a DOI is resolved, it will lead to a webpage, the Landing Page (LP), representing the cited Product and its associated metadata.

- The DOI points to the Landing Page, which in turn, "links" to the Product cited / referenced by the DOI.

A fully resolvable URL that points to a Landing Page is required for every active registered DOI.

Mapping DOI to Product Metadata

R / O	OSTI DOI Request Xpath	R / O	PDS Product Xpath
R	title	R	Identification_Area/title
R	creators	O	Identification_Area/Citation_Information/author_list
R	publisher	O	derived from: title of curating node
R	publication_date	O	Most recent date specified in: (1) Identification_Area/Citation_Information/publication_year + "-01-01" (2) Identification_Area/Modification_History/Modification_Detai /modification_date
R	site_url	O	derived from: LIDVID
R	product_type	R	derived from: <product_class>
R	product_type_specific	R	derived from: <product_class>
O	product_nos	R	Identification_Area/logical_identifier + version_id
O	description	O	derived from: (1) Bundle/description or Collection/description, then (2) Identification_Area/Citation_Information/description
O	keywords	O	derived from: (1) Investigation_Area/name (2) Observing_System_Component/name (3) Target_Identification/name (4) Primary_Result_Summary/Science_Facets/domain (5) Primary_Result_Summary/Science_Facets/discipline (6) Primary_Result_Summary/Science_Facets/facet1 (7) Primary_Result_Summary/Science_Facets/facet2
O	related_resource		If applicable, provided by curating node
O	contributor_organizations	O	derived from: (1) Identification_Area/Citation_Information/author_list (2) Identification_Area/Citation_Information/editor_list
O	sponsor_org	O	Reference to NSSDCA
O	contract_nos		If applicable, reference contract #

Mapping DOI to Product Metadata(2)

O	other_identifying_nos		If applicable, provided by curating node
O	file_extension	O	Relevant to Document; derived from <file_name>
O	availability		If applicable, provided by curating node
R	contact_name	R	Administrative for OSTI
R	contact_org	R	Administrative for OSTI
R	contact_email	R	Administrative for OSTI
R	contact_phone	R	Administrative for OSTI

Additional required and optional DOI metadata "fields" are identified in the IAD Service Documentation – Version 3.0 (Oct 2016):

https://pds-engineering.jpl.nasa.gov/sites/default/files/IADmanualv3-oct2016.pdf

Issued DOIs

- ~200 DOIs have been issued for LADEE and MAVEN collections and some bundles.

Discussion

- Limit assignment of DOI to?
  - Recommend: Collection and Documents only.
- Include DOI in label?
  - Recommend: Yes. SCR submitted.

Backup