Slots in Translation

This document describes how the *low-level slots* in our model affect its *high-level slots*. Low-level slots describe how an evaluated repository is performing on a narrow aspect, such as its compliance with Creative Commons licenses or the way it allows dataset authors to be associated with ORCID. High-level slots describe wide properties such as "Openness" or "Interoperability". Their value is a summary of values in relevant low-level slots.

How to Read This Document

Below, we list slot names on the left, and their possible values on the right. For each value, we describe what constraints it imposes on the high-level slot that summarizes it. As an example, in the following listing we look at the constraints values in the `Restrictions` slot impose on the values that may be stored in the `Open` slot.

Restrictions

- none ⇒ Open in `partially..fully`
- minimal ⇒ Open is `partially`
- significant ⇒ Open in `not..partially`

Based on the above listing, we see that when an a repository does not restrict the access to its data (i.e. `Restrictions=none`), said repository can be considered *partially open* or *fully open* (`Open=partiallyOpen` or `Open=fullyOpen`, respectively). By way of negation, such repository cannot be considered *closed*.

Conversely, when a repository imposes significant restriction on accessing data it stores, it cannot be considered *fully open*. However, based on other aspects, it may be considered *partially open*.

NOTE

Not all slots defined by our model appear here — this document does not describe "compound slots", which are used to group other slots. E.g. `OpenProps` groups `Restrictions`, `CCLicenseCompliance`, and `OpenFlags`. As such, these slots serve as an organization aid, and do not have a value of their own. Thus, we do not need to discuss them here.

Slots

Result Slots

Used for communicating results outside of the model.

DataRepoCompliance Root slot, grouping all other slots together.

Open	Result slot
FAIR	Result slot
Citable	Result slot
Trustworthy	Result slot
Findable	Result slot
Accessible	Result slot
Interoperable	Result slot
Reusable	Result slot

Open

Slots affecting the `Open` slot value.

IMPORTANT	All conditions pertaining to the `Open` slot are conditioned in that the `CCLicenceCompliance` is above `nonCompliant`.
OpenFlags	• openFormat ⇒ Open in `partially..fully` • platformSupportsDataWork ⇒ Open in `partially..fully` • ccLicenseOK ⇒ Open in `partially..fully` • restrictionsNotJustified ⇒ Result slot
Restrictions	• none ⇒ Open in `partially..fully` • minimal ⇒ Open is `partially` • significant ⇒ Open in `not..partially`
CCLicenseCompliance	• nonCompliant ⇒ Open is `not` • none ⇒ Open in `not..partially` • adequate ⇒ Open in `partially..fully` • good ⇒ Open in `partially..fully` • full ⇒ Open in `partially..fully`

Accessible

MetadataPersistence

- no ⇒ Accessible in `not..partially`
- by evidence ⇒ Accessible in `partially..fully`
- by stated policy ⇒ Accessible in `partially..fully`

AccessibleFlags

- humanAccessible ⇒ Accessible in `partially..fully`
- machineAccessible ⇒ Accessible in `partially..fully`
- persistentMetadata ⇒ Accessible in `partially..fully`
- licenseOK ⇒ Accessible in `partially..fully`
- stdApi ⇒ Accessible in `partially..fully`

Findable

FindableFlags

- internalSearchOK ⇒ Findable in `partially..fully`

PersistentIdentifier

- none ⇒ Findable in `not..partially`
- internalPID ⇒ Findable is `partially`
- externalPID ⇒ Findable in `partially..fully`

MetadataGrade

- minimal ⇒ Findable in `not..partially`
- limited ⇒ Findable is `partially`
- rich ⇒ Findable in `partially..fully`

IdInMetadata

- none ⇒ Findable in `not..partially`
- partial ⇒ Findable is `partially`
- all ⇒ Findable in `partially..fully`

Interoperable

InteroperableFlags

- formalMetadataVocabularyOK ⇒ Interoperable in `partially..fully`
- fairMetadataOK ⇒ Interoperable in `partially..fully`
- qualifiedMetadataReferencesOK ⇒ Interoperable in `partially..fully`
- studyLinkageOK ⇒ Interoperable in `partially..fully`

MetadataFAIRness Finer-grained `fairMetadataOK`.

- minimal ⇒ Interoperable in `not..partially`
- allowed ⇒ Interoperable in `partially..fully`
- enforced ⇒ Interoperable in `partially..fully`

MetadataReferenceQuality Finer-grained `qualifiedMetadataReferencesOK`.

- freeText ⇒ Interoperable in `not..partially`
- informal ⇒ Interoperable in `partially..fully`
- formal ⇒ Interoperable in `partially..fully`

StudyLinkage Finer-grained `studyLinkageOK`

- none ⇒ Interoperable in `not..partially`
- freeText ⇒ Interoperable in `not..partially`
- textualMetadata ⇒ Interoperable in `partially..fully`
- machineReadableMetadata ⇒ Interoperable in `partially..fully`

Reusable

ReusableFlags

- documentationOK ⇒ Reusable in `partially..fully`
- dkNetMetadataOK ⇒ Reusable in `partially..fully`
- communityStandard ⇒ Reusable in `partially..fully`
- generalMetadata ⇒ Reusable in `partially..fully`
- metadataProvenanceOK ⇒ Reusable in `partially..fully`

DocumentationLevel Finer-grained `documentationOK`

- lacking ⇒ Reusable in `not..partially`
- adequate ⇒ Reusable in `partially..fully`
- good ⇒ Reusable in `partially..fully`
- full ⇒ Reusable in `partially..fully`

ReuseLicense Finer-grained `licenseOK`

- none ⇒ Reusable in `not..partially`
- repositoryLevel ⇒ Reusable in `partially..fully`
- datasetLevel ⇒ Reusable in `partially..fully`

MetadataProvenance Finer-grained `metadataProvenanceOK`.

- unclear ⇒ Reusable in `not..partially`
- adequate ⇒ Reusable in `partially..fully`
- full ⇒ Reusable in `partially..fully`

DkNetMetadataLevel Finer-grained `dkNetMetadataOK`

- none ⇒ Reusable in `not..partially`
- dataset ⇒ Reusable in `partially..fully`
- datasetAndSubject ⇒ Reusable in `partially..fully`

Citable

OrcidAssociation

- none ⇒ Citable in `not..partially`
- supported ⇒ Citable in `partially..fully`
- required ⇒ Citable in `partially..fully`

CitationMetadataLevel

- none ⇒ Citable in `not..partially`
- partial ⇒ Citable is `partially`
- full ⇒ Citable in `partially..fully`

MachineReadableLandingPage

- none ⇒ Citable in `not..partially`
- exists ⇒ Citable is `partially`
- supportsDataCitation ⇒ Citable in `partially..fully`

Trustworthiness

GovernanceTransparency

- opaque ⇒ Trustworthy in `significantConcerns..minorConcerns`
- partial ⇒ Trustworthy is `minorConcerns`
- full ⇒ Trustworthy in `minorConcerns..noConcerns`

StakeholderGovernance

- none ⇒ Trustworthy in `significantConcerns..minorConcerns`
- weak ⇒ Trustworthy is `minorConcerns`
- good ⇒ Trustworthy is `minorConcerns`
- full ⇒ Trustworthy in `minorConcerns..noConcerns`

SourceOpen	• no ⇒ Trustworthy in `significantConcerns..minorConcerns` • partially ⇒ Trustworthy is `minorConcerns` • yes ⇒ Trustworthy in `minorConcerns..noConcerns`