

June 4, 2020

1 Module Docui	mentation	1
1.1 Entities .		1
	1.1.0.1 ogit/Factory/Component	1
	1.1.0.2 ogit/Factory/ProductionLine	2
	1.1.0.3 ogit/Factory/Action	2
	1.1.0.4 ogit/Factory/Plant	3
	1.1.0.5 ogit/Factory/Machine	4
	1.1.0.6 ogit/Product	4
	1.1.0.7 ogit/Attachment	4
	1.1.0.8 ogit/Factory/StorageTank	5
	1.1.0.9 ogit/Factory/StorageInventory	5
	1.1.0.10 ogit/Catalog	6
	1.1.0.11 ogit/Factory/Factory	6
	1.1.0.12 ogit/Location	7
	1.1.0.13 ogit/Factory/Failure	7
1.2 Verbs .		9
	1.2.0.1 ogit/contains	9
	1.2.0.2 ogit/Factory/hasAl	9
	1.2.0.3 ogit/locatedAt	9
	1.2.0.4 ogit/locatedIn	10
	1.2.0.5 ogit/corresponds	10
	1.2.0.6 ogit/affects	10
	1.2.0.7 ogit/requires	11
	1.2.0.8 ogit/responds	11
	1.2.0.9 ogit/causes	11
	1.2.0.10 ogit/produces	11
	1.2.0.11 ogit/belongs	12
	1.2.0.12 ogit/uses	12
1.3 Attributes	<b>5</b>	13
	1.3.0.1 ogit/url	13
	1.3.0.2 ogit/severity	13
	1.3.0.3 ogit/status	13
	1.3.0.4 ogit/createdAt	14
	1.3.0.5 ogit/accessControl	14
	1.3.0.6 ogit/frequency	14
	1.3.0.7 ogit/version	15
	1.3.0.8 ogit/content	15
	1.3.0.9 ogit/name	15
	1.3.0.10 ogit/description	16
	1.3.0.11 ogit/lastUpdatedBy	16
	1.3.0.12 ogit/duration	16
	1.3.0.13 ogit/type	17

1.3.0.14 ogit/Factory/equipmentNumber	17
1.3.0.15 ogit/sourceTable	17
1.3.0.16 ogit/creator	18
1.3.0.17 ogit/subType	18
1.3.0.18 ogit/lastUpdatedAt	18
1.3.0.19 ogit/durationUnit	19
1.3.0.20 ogit/id	19
1.3.0.21 ogit/size	19

# **Chapter 1**

# **Module Documentation**

# 1.1 Entities

1.1.0.1 ogit/Factory/Component

A machinery or equipment component of a factory.

• id: http://www.purl.org/ogit/Factory/Component

• valid-from: Tue Dec 10 00:00:00 UTC 2019

· creator: Marek Meyer

· scope: NTO

· parent: ogit/Node

#### attributes

- · optional:
  - ogit/Factory/equipmentNumber
  - ogit/description
  - ogit/name
  - ogit/status
  - ogit/subType

# incoming edges

- ogit/affects <= ogit/Factory/Action
- ogit/affects <= ogit/Factory/Failure
- ogit/contains <= ogit/Factory/Component
- ogit/contains <= ogit/Factory/Plant
- $\bullet \ \, {\sf ogit/corresponds} <= {\sf ogit/Factory/Component}$

#### outgoing edges

- ogit/contains => ogit/Factory/Component
- ogit/corresponds => ogit/Factory/Component

#### 1.1.0.2 ogit/Factory/ProductionLine

# TODO.

• id: http://www.purl.org/ogit/Factory/ProductionLine

• valid-from: Fri Oct 19 00:00:00 UTC 2018

creator: Kaushikscope: NTO

· parent: ogit/Node

# incoming edges

• ogit/Factory/hasAl <= ogit/Factory/Factory

# outgoing edges

- ogit/contains => ogit/Factory/Machine
- ogit/produces => ogit/Product

# 1.1.0.3 ogit/Factory/Action

An action performed at a machine or component of a manufacturing plant.

- id: http://www.purl.org/ogit/Factory/Action
- valid-from: Tue Dec 10 00:00:00 UTC 2019

· creator: Marek Meyer

· scope: NTO

· parent: ogit/Node

#### attributes

- · optional:
  - ogit/description
  - ogit/duration
  - ogit/durationUnit
  - ogit/frequency
  - ogit/name
  - ogit/subType

## incoming edges

• ogit/requires <= ogit/Factory/Action

# outgoing edges

- ogit/affects => ogit/Factory/Component
- ogit/affects => ogit/Factory/Machine
- ogit/requires => ogit/Factory/Action
- ogit/responds => ogit/Factory/Failure

# 1.1.0.4 ogit/Factory/Plant

A manufacturing plant, which may consist of multiple machinery and equipment components.

```
• id: http://www.purl.org/ogit/Factory/Plant
```

valid-from: Tue Dec 10 00:00:00 UTC 2019

· creator: Marek Meyer

· scope: NTO

· parent: ogit/Node

# attributes

- optional:
  - ogit/description
  - ogit/name
  - ogit/status

# incoming edges

- ogit/belongs <= ogit/Attachment
- ogit/contains <= ogit/Catalog

# outgoing edges

- ogit/belongs => ogit/Factory/Factory
- ogit/contains => ogit/Factory/Component
- ogit/locatedAt => ogit/Location

## 1.1.0.5 ogit/Factory/Machine

#### TODO.

• id: http://www.purl.org/ogit/Factory/Machine

• valid-from: Fri Oct 19 00:00:00 UTC 2018

creator: Kaushikscope: NTO

· parent: ogit/Node

# incoming edges

- ogit/affects <= ogit/Factory/Action
- ogit/contains <= ogit/Factory/ProductionLine

# 1.1.0.6 ogit/Product

A commercially distributed good or service

• id: http://www.purl.org/ogit/Product

valid-from: Thu Feb 08 00:00:00 UTC 2018

· creator: Viktor Voss

• scope: SGO

· parent: ogit/Node

#### attributes

- optional:
  - ogit/name

#### incoming edges

• ogit/produces <= ogit/Factory/ProductionLine

# 1.1.0.7 ogit/Attachment

This entity defines a file attachment that an IT service, issue, task or a ticket might have. The attachment itself is not saved in GraphIT, instead it contains an external url link for it.

• id: http://www.purl.org/ogit/Attachment

• valid-from: Thu May 21 00:00:00 UTC 2015

· creator: Peter Larem

scope: SGO

parent: ogit/Node

#### attributes

- · optional:
  - ogit/accessControl
  - ogit/content
  - ogit/createdAt
  - ogit/creator
  - ogit/id
  - ogit/lastUpdatedAt
  - ogit/lastUpdatedBy
  - ogit/name
  - ogit/size
  - ogit/sourceTable
  - ogit/type
  - ogit/url

# outgoing edges

• ogit/belongs => ogit/Factory/Plant

# 1.1.0.8 ogit/Factory/StorageTank

# TODO.

- id: http://www.purl.org/ogit/Factory/StorageTank
- valid-from: Fri Oct 19 00:00:00 UTC 2018
- · creator: Kaushik
- · scope: NTO
- · parent: ogit/Node

# incoming edges

• ogit/uses <= ogit/Factory/Factory

# 1.1.0.9 ogit/Factory/StorageInventory

# TODO.

- id: http://www.purl.org/ogit/Factory/StorageInventory
- valid-from: Fri Oct 19 00:00:00 UTC 2018
- · creator: Kaushik
- · scope: NTO
- parent: ogit/Node

## incoming edges

• ogit/uses <= ogit/Factory/Factory

# 1.1.0.10 ogit/Catalog

Any kind of catalog which could be offered by an Organization (e.g. corresponding to a vendor). Might contain products, services, books, etc.

• id: http://www.purl.org/ogit/Catalog

· valid-from: Thu May 21 00:00:00 UTC 2015

· creator: Peter Larem

· scope: SGO

· parent: ogit/Node

#### attributes

- · mandatory:
  - ogit/name
- · optional:
  - ogit/description
  - ogit/id
  - ogit/type
  - ogit/version

# outgoing edges

• ogit/contains => ogit/Factory/Plant

# 1.1.0.11 ogit/Factory/Factory

A factory in a producing company.

• id: http://www.purl.org/ogit/Factory/Factory

• valid-from: Fri Oct 19 00:00:00 UTC 2018

creator: Kaushik

• scope: NTO

• parent: ogit/Node

# incoming edges

• ogit/belongs <= ogit/Factory/Plant

#### outgoing edges

- ogit/Factory/hasAl => ogit/Factory/ProductionLine
- ogit/locatedIn => ogit/Location
- ogit/uses => ogit/Factory/StorageInventory
- ogit/uses => ogit/Factory/StorageTank

# 1.1.0.12 ogit/Location

A place where some service is offered or requested. In many cases this will be related to a an address of an Organization. Similar to http://purl.org/goodrelations/v1#Location

• id: http://www.purl.org/ogit/Location

· valid-from: Thu May 21 00:00:00 UTC 2015

· creator: Peter Larem

· scope: SGO

· parent: ogit/Node

## attributes

- · mandatory:
  - ogit/name
- optional:
  - ogit/description

# incoming edges

- ogit/locatedAt <= ogit/Factory/Plant
- ogit/locatedIn <= ogit/Factory/Factory

# 1.1.0.13 ogit/Factory/Failure

A failure of a manufacturing plant, machinery component or equipment.

• id: http://www.purl.org/ogit/Factory/Failure

• valid-from: Tue Dec 10 00:00:00 UTC 2019

· creator: Marek Meyer

· scope: NTO

· parent: ogit/Node

# attributes

- optional:
  - ogit/description
  - ogit/name
  - ogit/severity
  - ogit/status
  - ogit/subType

# incoming edges

- ogit/causes <= ogit/Factory/Failure
- ogit/responds <= ogit/Factory/Action

# outgoing edges

- ogit/affects => ogit/Factory/Component
- ogit/causes => ogit/Factory/Failure

# 1.2 Verbs

# 1.2.0.1 ogit/contains

This relationship indicates that something is part of something else. see also "includes"

```
• id: http://www.purl.org/ogit/contains
```

• valid-from: Thu May 21 00:00:00 UTC 2015

· creator: Peter Larem

# **Allowed Connection**

- ogit/Factory/Component => ogit/Factory/Component
- ogit/Factory/Plant => ogit/Factory/Component
- ogit/Factory/ProductionLine => ogit/Factory/Machine
- ogit/Catalog => ogit/Factory/Plant

## 1.2.0.2 ogit/Factory/hasAl

## TODO.

- id: http://www.purl.org/ogit/Factory/hasAl
- valid-from: Fri Oct 19 00:00:00 UTC 2018
- · creator: arago GmbH

# **Allowed Connection**

• ogit/Factory/Factory => ogit/Factory/ProductionLine

# 1.2.0.3 ogit/locatedAt

Indicates that an entity is located at another entity.

- id: http://www.purl.org/ogit/locatedAt
- · valid-from: Fri Sep 20 00:00:00 UTC 2019
- · creator: Marek Meyer

# **Allowed Connection**

• ogit/Factory/Plant => ogit/Location

#### 1.2.0.4 ogit/locatedIn

indicate that something has its place somewhere

• id: http://www.purl.org/ogit/locatedIn

· valid-from: Thu May 21 00:00:00 UTC 2015

· creator: Peter Larem

## **Allowed Connection**

• ogit/Factory/Factory => ogit/Location

# 1.2.0.5 ogit/corresponds

Indicates wether one entity could correpond to a more general one, e.g. an Incident could correspond to a Ticket

• id: http://www.purl.org/ogit/corresponds

valid-from: Thu May 21 00:00:00 UTC 2015

· creator: Peter Larem

#### **Allowed Connection**

• ogit/Factory/Component => ogit/Factory/Component

# 1.2.0.6 ogit/affects

The relationship indicates that one entity affects some other entity.

• id: http://www.purl.org/ogit/affects

• valid-from: Thu May 21 00:00:00 UTC 2015

· creator: Peter Larem

# **Allowed Connection**

- ogit/Factory/Action => ogit/Factory/Component
- ogit/Factory/Action => ogit/Factory/Machine
- ogit/Factory/Failure => ogit/Factory/Component

#### 1.2.0.7 ogit/requires

Indicates dependencies between entities in the sense of "necessary condition".

```
• id: http://www.purl.org/ogit/requires
```

valid-from: Thu May 21 00:00:00 UTC 2015

· creator: Peter Larem

#### **Allowed Connection**

• ogit/Factory/Action => ogit/Factory/Action

# 1.2.0.8 ogit/responds

This relationship indicates that one entity is a response to another. For example, parts of a conversation/fourm thread.

```
• id: http://www.purl.org/ogit/responds
```

valid-from: Mon Apr 27 00:00:00 UTC 2015

• creator: cwalker@arago.de

#### **Allowed Connection**

• ogit/Factory/Action => ogit/Factory/Failure

#### 1.2.0.9 ogit/causes

Indicates that one entity causes the creation of another one. E.g. an error situation during change execution might lead to a new incident ticket.

```
• id: http://www.purl.org/ogit/causes
```

· valid-from: Thu May 21 00:00:00 UTC 2015

· creator: Peter Larem

# **Allowed Connection**

• ogit/Factory/Failure => ogit/Factory/Failure

# 1.2.0.10 ogit/produces

This relationship indicates that one produces some work for another.

```
• id: http://www.purl.org/ogit/produces
```

• valid-from: Mon Aug 08 00:00:00 UTC 2016

creator: Alexander Ryabtsev

# **Allowed Connection**

• ogit/Factory/ProductionLine => ogit/Product

# 1.2.0.11 ogit/belongs

Verb showing if one entity belongs to another.

```
• id: http://www.purl.org/ogit/belongs
```

• valid-from: Thu May 21 00:00:00 UTC 2015

· creator: Peter Larem

#### **Allowed Connection**

• ogit/Factory/Plant => ogit/Factory/Factory

• ogit/Attachment => ogit/Factory/Plant

# 1.2.0.12 ogit/uses

This relationship indicates that some entity is used by some other.

```
• id: http://www.purl.org/ogit/uses
```

· valid-from: Thu May 21 00:00:00 UTC 2015

· creator: Peter Larem

# **Allowed Connection**

- ogit/Factory/Factory => ogit/Factory/StorageInventory
- ogit/Factory/Factory => ogit/Factory/StorageTank

# 1.3 Attributes

#### 1.3.0.1 ogit/url

Contains an URL (unified resource locator)

```
• id: http://www.purl.org/ogit/url
```

· valid-from: Thu May 21 00:00:00 UTC 2015

· creator: Peter Larem

#### used

- · optional:
  - ogit/Attachment

#### 1.3.0.2 ogit/severity

Stores a severity. E.g. Some event management systems might store a severity field.

```
• id: http://www.purl.org/ogit/severity
```

valid-from: Thu May 21 00:00:00 UTC 2015

· creator: Peter Larem

# used

- · optional:
  - ogit/Factory/Failure

# 1.3.0.3 ogit/status

A status for an entity. At this level of specification no list of values is specified. However, applications using this attribute are expected to allow only a fixed list of values that seems usefual in the application's semantic context.

```
• id: http://www.purl.org/ogit/status
```

valid-from: Thu May 21 00:00:00 UTC 2015

· creator: Peter Larem

- · optional:
  - ogit/Factory/Component
  - ogit/Factory/Failure
  - ogit/Factory/Plant

#### 1.3.0.4 ogit/createdAt

Defines a point in time when a ticket/incident/event etc was created or recorded.

```
• id: http://www.purl.org/ogit/createdAt
```

· valid-from: Thu May 21 00:00:00 UTC 2015

· creator: Peter Larem

used

- · optional:
  - ogit/Attachment

# 1.3.0.5 ogit/accessControl

The access control level of this Node. Value could mean different things to different applications / policies. Initial intent is that policies would treat "public-read" (inspired by Amazon AWS S3 ACLs) to mean anyone would have read-only access to this node.

```
• id: http://www.purl.org/ogit/accessControl
```

valid-from: Thu Mar 26 00:00:00 UTC 2015

· creator: Chris Walker

used

- optional:
  - ogit/Attachment

#### 1.3.0.6 ogit/frequency

This field specifies a frequency at which e.g. events occur.

```
• id: http://www.purl.org/ogit/frequency
```

valid-from: Tue Dec 10 00:00:00 UTC 2019

· creator: Marek Meyer

- · optional:
  - ogit/Factory/Action

#### 1.3.0.7 ogit/version

Any string representation of version information. no restrictions are imposed on that base attribute

```
• id: http://www.purl.org/ogit/version
```

· valid-from: Thu May 21 00:00:00 UTC 2015

· creator: Peter Larem

#### used

- · optional:
  - ogit/Catalog

# 1.3.0.8 ogit/content

A string holding any type of content: plain string, XML fragments, RDF documents, ...

```
• id: http://www.purl.org/ogit/content
```

· valid-from: Thu May 21 00:00:00 UTC 2015

· creator: Peter Larem

#### used

- · optional:
  - ogit/Attachment

# 1.3.0.9 ogit/name

Contains a name.

```
• id: http://www.purl.org/ogit/name
```

· valid-from: Thu May 21 00:00:00 UTC 2015

· creator: Peter Larem

- mandatory:
  - ogit/Catalog
  - ogit/Location
- optional:
  - ogit/Attachment
  - ogit/Factory/Action
  - ogit/Factory/Component
  - ogit/Factory/Failure
  - ogit/Factory/Plant
  - ogit/Product

#### 1.3.0.10 ogit/description

Contains a description.

• id: http://www.purl.org/ogit/description

· valid-from: Thu May 21 00:00:00 UTC 2015

· creator: Peter Larem

#### used

- · optional:
  - ogit/Catalog
  - ogit/Factory/Action
  - ogit/Factory/Component
  - ogit/Factory/Failure
  - ogit/Factory/Plant
  - ogit/Location

#### 1.3.0.11 ogit/lastUpdatedBy

Defines the last person or process who updated an entity.

```
• id: http://www.purl.org/ogit/lastUpdatedBy
```

• valid-from: Mon Jul 20 00:00:00 UTC 2015

· creator: Aymen Ayoub

# used

- · optional:
  - ogit/Attachment

# 1.3.0.12 ogit/duration

This field represents a duration of an event, activity, phase, etc. It is recommended to use this attribute in conjunction with durationUnit.

```
• id: http://www.purl.org/ogit/duration
```

valid-from: Tue Dec 10 00:00:00 UTC 2019

· creator: Marek Meyer

- · optional:
  - ogit/Factory/Action

#### 1.3.0.13 ogit/type

Type of an an entity.

```
• id: http://www.purl.org/ogit/type
```

· valid-from: Thu May 21 00:00:00 UTC 2015

· creator: Peter Larem

used

- · optional:
  - ogit/Attachment
  - ogit/Catalog

# 1.3.0.14 ogit/Factory/equipmentNumber

A unique identifier of a piece of equipment.

```
• id: http://www.purl.org/ogit/Factory/equipmentNumber
```

• valid-from: Tue Dec 10 00:00:00 UTC 2019

· creator: Marek Meyer

used

- optional:
  - ogit/Factory/Component

# 1.3.0.15 ogit/sourceTable

Contains the source table, that stores where the data are coming from.

```
• id: http://www.purl.org/ogit/sourceTable
```

• valid-from: Thu Aug 20 00:00:00 UTC 2015

creator: Aymen Ayoub

- · optional:
  - ogit/Attachment

#### 1.3.0.16 ogit/creator

Creator of an entity.

```
• id: http://www.purl.org/ogit/creator
```

• valid-from: Thu Aug 20 00:00:00 UTC 2015

· creator: Aymen Ayoub

#### used

- · optional:
  - ogit/Attachment

# 1.3.0.17 ogit/subType

A subtype of an an entity.

```
• id: http://www.purl.org/ogit/subType
```

• valid-from: Mon Jul 27 00:00:00 UTC 2015

· creator: Aymen Ayoub

#### used

- · optional:
  - ogit/Factory/Action
  - ogit/Factory/Component
  - ogit/Factory/Failure

# 1.3.0.18 ogit/lastUpdatedAt

Defines latest date and time when a ticket or it's comment was updated. The format of this value could be according to ISO 8601.

```
• id: http://www.purl.org/ogit/lastUpdatedAt
```

· valid-from: Thu May 21 00:00:00 UTC 2015

· creator: Peter Larem

- optional:
  - ogit/Attachment

# 1.3.0.19 ogit/durationUnit

This field specifies the unit of a duration, e.g. seconds, minutes, hours, days, or years.

```
• id: http://www.purl.org/ogit/durationUnit
```

• valid-from: Tue Dec 10 00:00:00 UTC 2019

· creator: Marek Meyer

used

- · optional:
  - ogit/Factory/Action

1.3.0.20 ogit/id

General id.

- id: http://www.purl.org/ogit/id
- · valid-from: Thu May 21 00:00:00 UTC 2015
- · creator: Peter Larem

used

- optional:
  - ogit/Attachment
  - ogit/Catalog

1.3.0.21 ogit/size

The size, e.g. of a file.

- id: http://www.purl.org/ogit/size
- · valid-from: Thu Mar 26 00:00:00 UTC 2015
- · creator: arago Technologies

- · optional:
  - ogit/Attachment