

# How to dri<sup>o</sup>

## DRI how-to: Linking Digital Objects using MARC

A suitable collection organisation, as well as complete, rich metadata records for collections and digital objects is central for searching, browsing and discovering datasets. Additionally, the ability to link digital objects to one another can enhance data visualisation and also provide the end user with richer contextual information and navigation through collections. This is particularly important when exploring a vast number of digital collections.

This type of “linking” information can be catalogued in the metadata records, and as the DRI’s supported metadata standards include different types, and mechanisms, to incorporate such information, a crosswalk from each of these into “DRI relationship terms” has been implemented so as to allow for uniform, generic visualisation through the Repository’s user interface.

### Specifying linking information in MARC Metadata

Information about relationships, for linking digital objects to one another, can be specified in the MARC metadata records via a combination of a set of MARC-XML tags and relevant sub-fields. These tags are terms that relate a “source” digital object to a “target” digital object within a digital collection. For example, a digital object describing an online publication can “reference” a digital object describing a stained glass window design, where the first object is considered the “source” digital object, and the second the “target” object of the relationship. Such information will be displayed in the Repository’s user interface under “Related Materials” in a digital object’s record. The diagram below shows an example of a relationship between two digital objects (source and target), along with the MARC-XML metadata snippets, that are required to describe the relationship.



```
<?xml version="1.0" encoding="UTF-8"?>
<record xmlns="http://www.loc.gov/MARC21/slim">
  <leader>01386nam a2200349La 4500</leader>
  <datafield tag="240" ind1=" " ind2=" ">
    <subfield code="a">The grateful Irish boy [digital]</subfield>
  </datafield>
  <datafield tag="024" ind1="7" ind2=" ">
    <subfield code="a">nccb1</subfield>
    <subfield code="2">local</subfield>
  </datafield>
  <datafield tag="775" ind1=" " ind2=" ">
    <subfield code="a">nccb2</subfield>
  </datafield>
</record>
```

```
<?xml version="1.0" encoding="UTF-8"?>
<record xmlns="http://www.loc.gov/MARC21/slim">
  <leader>01386nam a2200349La 4500</leader>
  <datafield tag="240" ind1=" " ind2=" ">
    <subfield code="a">The grateful Irish boy</subfield>
  </datafield>
  <datafield tag="024" ind1="7" ind2=" ">
    <subfield code="a">nccb2</subfield>
    <subfield code="2">local</subfield>
  </datafield>
</record>
```

## Metadata Terms of Source and Target Objects


- Both source and target objects have a local identifier, that uniquely identifies a record, so other digital objects can link to it. This identifier is specified in the <datafield> term, which has the attribute “tag” and value “024”. The following nested terms are also required:
  - A <subfield> element, with the attribute “code” and value “a”
  - A <subfield> element with the value “local”, and including the attribute “code” and value “2”
- The source object has a <datafield> term with the attribute “tag” specifying the type of relationship (see the table in the next section for more details), and including a <subfield> term with the unique, local identifier of the target, related digital object as its value, and including the attribute “code” and value “o”

**Note:** The local, unique identifiers mentioned here should not be confused with PIDs (persistent identifiers) for digital objects in DRI, which are automatically assigned when adding objects to the Repository.

## MARC Types of Relationships

The following table summarises all the different types of relationships that can be described in the MARC metadata, through the use of a set of MARC tags, with associated sub-fields.

DRI Relationship	MARC Term (tag, sub-field)	Description
Is Related To	Tag 787 - Other Relationship Entry, using the subfield \$o (other item identifier)	Information concerning the work related to the target item when the relationship does not fit any of those defined in fields 760-785.
Is Version Of	Tag 775 - Other Edition Entry, using the subfield \$o (other item identifier)	Entry for another available edition of the target item (horizontal relationship).
Is Format Of	Tag 776 - Additional Physical Form Entry, using the subfield \$o (other item identifier)	Information concerning another available physical form of the target item (horizontal relationship).
Preceding	Tag 780 - Preceding Entry, using the subfield \$o (preceding item identifier)	Information concerning the immediate predecessor of the target item (chronological relationship).
Succeeding	Tag 785 - Succeeding Entry, using the subfield \$o (succeeding item identifier)	Information concerning the immediate successor to the target item (chronological relationship).



This document is part of DRI's operational documentation, as such it may change from time to time as features develop. The most recent version will always be published on our repository website and these documents should be consulted in conjunction with our operational documentation as necessary.

Visit [dri.ie/](http://dri.ie/) for more information about the DRI project and our repository.

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