

# ISO 8211 Reader

## FORMAT NOTES:

This format is not supported by FME Base Edition.

The ISO8211 Reader module provides the Feature Manipulation Engine (FME) with access to data in an ISO/IEC 8211:1994 formatted files. These files are called ISO8211 files.

## Overview

ISO 8211 is a format for the structured and self-described transfer of data. It is the underlying encoding format used for the SDTS and S-57 file formats, as well as being used for some other purposes. While data in an ISO 8211 formatted file may be spatial, that can't be directly deduced from the ISO 8211 formatting information. This reader produces features with attributes, but no geometry.

More information on the ISO 8211 format can be found at:

<http://user.icx.net/~brooks/iso8211.html>

## ISO 8211 Quick Facts

Format Type Identifier	ISO8211
Reader/Writer	Reader
Licensing Level	Professional
Dependencies	None
Dataset Type	File
Feature Type	DDF
Typical File Extensions	.ddf
Automated Translation Support	Yes
User-Defined Attributes	No
Coordinate System Support	No
Generic Color Support	No
Spatial Index	Never
Schema Required	Not applicable
Transaction Support	No
Geometry Type	iso8211_type

Geometry Support			
Geometry	Supported?	Geometry	Supported?
aggregate	no	point	no
circles	no	polygon	no
circular arc	no	raster	no

Geometry Support			
Geometry	Supported?	Geometry	Supported?
donut polygon	no	solid	no
elliptical arc	no	surface	no
ellipses	no	text	no
line	no	z values	n/a
none	yes		

## Reader Overview

The FME considers a single ISO 8211 formatted file, usually with the `.DDF` extension, to be a data set. Each record in the file is read as a feature.

## Reader Directives

The suffixes listed are prefixed by the current `<ReaderKeyword>` in a mapping file. By default, the `<ReaderKeyword>` for the ISO 8211 reader is `ISO8211`.

### DATASET

**Required/Optional:** *Required*

The file name of the ISO 8211 formatted file to be read often has the extension `.DDF` as shown in this example:

```
ISO8211_DATASET PALO_ALTO\SC01LE01.DDF
```

## Feature Representation

Features read from the database consist of a series of attribute values. They have no geometry. The feature type of each feature is `DDF`.

ISO 8211 records, which are translated into FME features, consist of a list of fields. Fields consist of subfields, which can repeat within a field. Fields and subfields have names.

Each subfield value is translated into an FME attribute, and its name is generated by appending the subfield name to the field name separated with an underscore. Repeated subfields are translated into FME array syntax.

### Example:

An ISO8211 record with three fields – `ENID`, `LINE` and `SADR` – might be translated as follows. In this case, the `ENID` field has two subfields, `MODN` and `RCID`.

The `LINE` field has three subfields `MODN`, `OBRP` and `RCID`. The `SADR` field has two subfields `X` and `Y`, but they are repeating so they are presented in array syntax.

```
String Attribute: `ENID_MODN` is `NO01`
String Attribute: `ENID_RCID` is `10`
String Attribute: `LINE_MODN` is `LE01`
String Attribute: `LINE_OBRP` is `LE`
String Attribute: `LINE_RCID` is `10`
```

```
String Attribute: `SADR_X{0}` is `57367669`  
String Attribute: `SADR_X{1}` is `57367659`  
String Attribute: `SADR_Y{0}` is `414608954`  
String Attribute: `SADR_Y{1}` is `414610051`
```

Each record in an ISO 8211 file can potentially have different sets of fields selected from a set of fields defined in the header of the file. When a field appears, it will always have the same set of subfields.

