# Physical Description of Rectangular Data Including Data in CSV Form

The following properties seem to be possible additions to disco:Datafile respectively disco:Variable.

* File properties could be added to disco:Datafile
* Variable properties could be added to disco:Variable

## Properties for Rectangular Data Including Data in CSV Form

### File Properties (not reusable)

* filename (URI) [1..1], DDI 3.2: DataFileURI
  + already existing property dcterms:identifier
* File with program commands for reading the data (URI), [0..1]. DDI 3.2: - (CommandFile/URI is not available in physicalinstance, workaround: PhysicalInstance/r:OtherMaterial/r:ExternalURLReference)
  + Program language (string or external controlled vocabulary), [1..1]. DDI 3.2: ProgramLanguage
* case quantity, [1..1]. non-negative integer. DDI 3.2: CaseQuantity
* records per case (positive integer, default 1), [1..1], DDI 3.2: GrossRecordStructureType/@numberOfPhysicalSegments
* overall record count, [0..1]. non-negative integer. DDI 3.2: OverallRecordCount

### File Properties (reusable)

* record type (delimited |fixed), [1..1]. DDI 3.2: FileFormat
* character set (string, external controlled vocabulary as alternative, i.e. IANA character sets, <http://www.iana.org/assignments/character-sets/character-sets.xhtml>). [1..1], DDI 3.2: CharacterSet
  + already existing property dcterms:format.
* decimal separator (comma|period), [0..1]. DDI 3.2: DecimalSeparator
* digit group separator (comma|period), [0..1]. DDI 3.2: DigitGroupSeparator
* default language of data (string, three characters, alpha-3 of ISO 639-2 code, list at <http://www.loc.gov/standards/iso639-2/php/code_list.php>), [0..1]. This is only important if the data contains text. DDI 3.2: LanguageOfData
* default locale (string, background in BCP 47), [0..1]. This is only important if the data contains text. DDI 3.2: LocaleOfData
* decimal positions (positive integer), [0..1]. This is only important for real values if used without decimal separator. DDI 3.2: DecimalPositions
* newline (CR | LF | CRLF | NEL | VT | FF | LS | PS, default CRLF, external controlled vocabulary as alternative, see: <http://en.wikipedia.org/wiki/Newline>, Unicode Standard, chapter 5 Implementation Guidelines section, 5.8 Newline Guidelines, <http://www.unicode.org/versions/Unicode6.2.0/ch05.pdf>), [1..1]. DDI 3.2: will be added

### Variable Properties

* recommended data type (string, default XML Schema data types, external controlled vocabulary as alternative ), [1..1]. DDI 3.2: RecommendedDataType
* recommended display data format (string, i.e. Java format, external controlled vocabulary as alternative), [0..1]. DDI 3.2: GenericOutputFormat
* storage format (string, i.e. Java format, external controlled vocabulary as alternative), [0..1]. DDI 3.2: StorageFormat

## Properties for Data in CSV Form Only

### File Properties

* Line with column names/header (positive integer, default 1), [1..1]. DDI 3.2: -, workaround is RecordLayout/@namesOnFirstRow
  + The variable names in a possible header can be assigned to skos:prefLabel in disco:VariableDefinition
* Line where the data start (positive integer, default 2), [1..1]. DDI 3.2: -
* *Too limited:* header (Boolean, default true). DDI 3.2: RecordLayout/@namesOnFirstRow
* delimiter (tab|semicolon|comma|space|other), [1..1]. DDI 3.2: Delimiter
  + other value for delimiter (one character) if delimiter == other, [0..1] DDI 3.2: Delimiter
* text qualifier (single quote|double quote|none), [0..1]. DDI 3.2: will be added
* treat consecutive delimiters as one (Boolean, default: false), [0..1]. DDI 3.2: @treatConsecutiveDelimitersAsOne (will be added)

### Variable Properties

* column position, position of variable in record (positive integer), [1..1]. DDI 3.2: ArrayPosition

## Properties for Rectangular Data with Fixed Record Length Only

### Variable Properties

* A combination of start position and either width or end position is allowed.
  + column start position (positive integer), [1..1]. DDI 3.2: StartPosition
  + column end position (positive integer), [0..1]. DDI 3.2: EndPosition
  + width (positive integer), [0..1]. DDI 3.2: Width
* record number (positive integer, default 1), [1..1]. DDI 3.2: ?