DXC.technology

IMDS-a2
CSV File Specification

Content

General

This Document describes the format of the CSV import file that is supported by the version of IMDS-a2described on the title page. While we will try to keep this specification stable, the format and fields described herein may be **subject to change** in future versions of IMDS-a2 Optimizer.

The format of this CSV file was designed to be as compatible as possible with future versions of IMDS-a2 Optimizer. While currently some fields have no purpose and can be omitted, they can be implemented in future versions without requiring a format change for existing programs that might be used to generate these files at customer's locations.

Introduction

The beginning of a MDS/Module is marked by the key word "MDS_BEGIN" in the column A of a separate line. In the same line behind the key word "MDS_BEGIN" can be placed the global MDS/Module attributes. These attributes are described in section **1.2**.

The ending of the MDS is marked by the key word "**MDS_END**" in the column A of a separate line.

The end of the input list is marked by the key word "**END**" in the column A of a separate line .

There are NO empty lines allowed between the brackets *MDS_BEGIN* and *MDS_END* !

Between the **MDS_BEGIN** and **MDS_END** brackets each line represents one single node of this MDS/Module. The attributes of the nodes have to be put in definite columns.

The meaning of the attributes in each column is described in Chapter **2**.

Decimal numbers can use either decimal "commas" or decimal "points" depending on your country locale.

Using point or comma for grouping of thousands is not allowed inside numbers. Only <u>one</u> decimal comma or point is allowed per number.

"Chapter Two" – attributes of MDSs require a special handling. This is described in Chapter **3**.

Global MDS/Module attributes

Col. B - Attribute "MDS" or "Module":

The position of this attribute lies in the line with the beginning bracket (**"MDS_BEGIN"**) in the column **B**.

Possible values are

"**Datasheet**" or
"**Module**".

If nothing is provided, a "**Datasheet**" will be assumed.

Col. C - Attribute "Local Key":

For each MDS/Module a "*Local Key*" can be defined. The position of this attribute is in the line with the beginning bracket ("**MDS_BEGIN**") in the column **C**. Any desired alphanumeric string can be provided for this attribute.

This field is reserved for future use and is only informal.

Col. D - Attribute "Status":

Currently the only possible value is "Edit". The position of this attribute lies in the line with the beginning bracket ("MDS_BEGIN") in the column D. If this value is omitted, "Edit" will be assumed.

Col. E - Attribute "Mode":

Currently the only possible value is "**Insert**". The position of this attribute lies in the line with the beginning bracket ("**MDS_BEGIN**") in the column **E**. If this value is omitted, "**insert**" will be assumed.

Col. F - Attribute "IMDS_ID":

The position of this attribute lies in the line with the beginning bracket ("**MDS_BEGIN**") in the column **F.**

This field is reserved for future use and is ignored.

Col. G - Attribute "DevSampleRep"

The position of this attribute lies in the line with the beginning bracket ("**MDS_BEGIN**") in the column **G.** Possible values are "**yes**" or "**no**". If this value is omitted, "**no**" will be assumed.

Col. H - Attribute "ContactID"

The position of this attribute lies in the line with the beginning bracket ("**MDS_BEGIN**") in the column **H.**

This field is reserved for future use and is ignored.

The attribute "ContactID" can be inserted later using IMDS-a2before transferring the datasheet.

Col. I - Attribute "Org ID"

The position of this attribute is in the line with the beginning bracket ("MDS_BEGIN") in the column I.

This field is reserved for future use and is ignored.

Single node attributes

Columns A and B:

Columns A and B are internally used to describe the MDS' tree structure.
These key values are not used in the IMDS, except building the MDS tree from this CSV file.
The keys may be any alphanumeric strings.

The highest node, the **top node** is defined by a key entry in column B and no entry in column A (a node without a father). There may and must be just **one** top node in an MDS. The top node line is preferably the first entry, but does not have to be.

Column **A** can be read as "**is father of**" column **B**.

All direct child node have the top node's key in column **A** and their own key in column **B**.

All keys in column B must be unique.

If child node "ABC" has child nodes itself, the next line must contain the key "ABC" in column A and the keys for the new child nodes in column B.
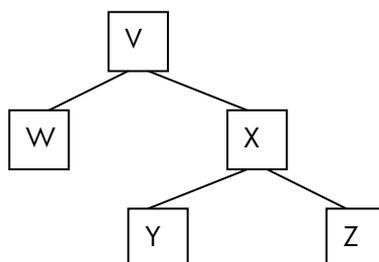
Example:

A	B
MDS_BEGIN	Datasheet
	V
V	W
V	X
X	Y
X	Z
MDS_END	

Means:

Top node is node **V**.
V contains the nodes **W** and **X**.
X contains the nodes **Y** and **Z**.

Column C:

Column **C** contains the "**Description/Name**" – Attribute (for components) , "**Article Name**" (for semi-components) and "**Name_DE**" (for materials). It does not need to be unique in one MDS/Module. It can contain any alphanumeric string.

As "*names*" are already assigned with all *referenced nodes* and *substances*, no entries are necessary for referenced nodes.

Commas are allowed within the text.

Column D:

Column **D** contains the attribute "**Amount (Quantity)**" of components and referenced components (valid only for non-Top-Nodes). An **integer** value is expected in this column.

Column E:

Columns **E**, **F** and **G** contain so called "weight attributes". With any node either "weight attributes" or "percentage attributes" are expected and evaluated – not both at the same time. Depending of the "node kind" (component, semi-component etc.) and the "node kind" of its father there is exactly defined whether "weight" or "percentage" is expected. Percentage attributes are placed in the columns **J-M**.

Column **E** contains the attribute "Measured Weight" (for components) resp. "Weight" (for semi-components, referenced semi-components, materials and referenced materials). A numeric value is expected.

Both, decimal point (1.4 g) and decimal comma (1,4 g) are allowed.

Column F:

Column **F** contains the attribute "unit" of weight. The unit can be:

"**mg**",
"**g**" or
"**kg**". (see also description of Column **E**).

Column G:

Column G contains the attribute "tolerance" which applies only to components. (see also description of Column E.) "Tolerance" means the allowed percentage deviation (less or more) of the "measured weight" to "calculated weight". A numeric value lower or equal to 100.0 is expected in this column.

Column H:

Column **H** contains the "*node kind*" of the node in the sheet line. The nodes of the tree are either ***new created*** or **referenced** ones.

New created nodes can be:

"**C**" (component),
"**S**" (semi-component) or
"M" (material – materials can only be created as top nodes!).

To create Materials you will have to know the IMDS-node-IDs of the substances, which are only visible in the Data Download!

The referenced nodes can be

"**RC**" (referenced component),
"**RS**" (referenced semi-component),
"**RM**" (referenced material) or
"**SU**" (substance).

If you mark a node as one of these, the according "*IMDS_ID"* is expected to this in column **I**.

Column I:

Column **I** contains the "*IMDS_ID*" (=**number**). A value in this column is <u>expected</u> if a "***referenced node***" ("**RC**", "**RS**", "**RM**") was marked in the column **H** of the same line. Otherwise this column stays empty.

Column J:

Columns **J-M** are reserved for the so called "*percentage attributes*". (See also comment about "*weight*" and "*percentage* " in the description of the column **E**).

Column **J** contains the "*type*" of the percentage. With nodes where percentage is expected this column has to contain one of the following values:

"From-To",
"**Fix**",
"**Rest**" or
"Weight"

("**Rest**" does not require any assigned value in columns **K-M. "Weight"** is senseless with *substances.* With *substances* "**Fix**" is assumed as the default value.). Together with "**Fix**" a value in the column **K** is expected. Together with "**From-To**" two further values in the columns **L** and **M** are expected. The *"type"*-value "**Weight**" means: rather *weight* than the *percentage* attributes should be evaluated (*weight* .attributes are positioned in the columns **E-G.**

Column K:

Column **K** contains the percentage amount as a "*fix value*" if "**Fix**" was marked in column **J**. Otherwise it stays empty. A numerical value lower than 100.0 is expected in this column.

Columns L + M:

Columns **L** and **M** contains the minimum and maximum percentage values if "**From-To**" was marked in column **J**. Column **L** contains the attribute "*MinValue*" , column **M** the attribute "*MaxValue*". Numerical values lower than 100.0 are expected in this column. "*MinValue*" should be lower than *"MaxValue".*

Column N:

Column **N** can contain a marker whether the in this line included *substance* shall be treated as confidential or not. This column refer only to *substances.* The possible value is

"**yes**" or
"*no*".

Columns O-AD:

Columns **O-AD** contain special attributes which apply only for the creation of new "*materials*". From these the columns **W-AD** contain a "*norm definition*".

Column O: contains the material name in English

Column P: contains the trade name in German

Column Q: contains the trade name in English

Column R: contains the material symbol

Column S: contains the material category

Column T: contains the material supplier

Column U: contains a remark in German

Column V: contains a remark in English

Columns W - X:

Columns **W – X** contain a material norm (1) for this material.

Column **W** contains the Institute name.

Column **X** contains the NormCode.

Columns Y - Z:

Columns **Y - Z** contain a material norm (2) for this material.

Column **Y** contains the Institute name.

Column **Z** contains the NormCode.

Columns AA - AB:

Columns **AA – AB** contain a material norm (3) for this material.

Column **AA** contains the Institute name.

Column **AB** contains the NormCode.

Columns AC - AD:

Columns **AC – AD** contain a material norm (4) for this material.

Column **AC** contains the Institute name.

Column **AD** contains the NormCode.

Column AE:

Column **AE** contains the answer to 'is your polymeric part marked?'. Possible values are 'Yes', 'No', 'NotApplicable'.

Column AF - AJ:

Columns **AF – AJ** contain Recyclate related data

Column **AF** contains the answer to 'Is there any recyclate contained?'. Possible values are 'Yes', 'No'.

Column **AG** contains the value for 'Post Industrial Reyclate – From' as a percentage number.

Column **AH** contains the value for 'Post Industrial Reyclate – To' as a percentage number.

Column **AI** contains the value for 'Post Consumer Reyclate – From' as a percentage number.

Column **AJ** contains the value for 'Post Consumer Reyclate – To' as a percentage number.

Column AK:

Column **AK** contains the Standard Material Number for Materials.

Column AL - AM:

Columns **AL – AM** contain the Specific Weight for **new** Semicomponents.

Column **AL** contains the Dimension Unit.

Possible values are   '1' for Length,
                        '2' for Area,
                        '3' for Volume.

Column **AM** contains the Dimension Value as any numeric value.

Column AN:

Column **AN** contains the answer for "I have declared all GADSL substances".

Possible values are "yes" or "no" or empty.

"Chapter Three" attributes – Supplier Data

There are two attributes to import the **Chapter 3** (Supplier Data) of MDSs. Chapter 3 data does not apply to modules.

These attributes have to be put into a datasheet starting line, which is marked by the key word **"MDS_BEGIN"** in column **A**.

The chapter 3 data is not mandatory.

Column H:

The first "Chapter 3." attribute is the ID of a **contact person** of the supplier's own company. This value is expected in the **column H**. A numerical value of a existent person has to be put for this attribute. To get a list of your company's Contact Persons together with their IDs use the Contact Person listing using a client manager ID and Administration > Contact Person - the value under ID is the one you use to uniquely identify your company contact.

Column I:

The second "Chap3"-attribute called "**CompanyOrgID**" depicts the possibility to assign your datasheet to an 'organization unit' of your company. This attribute is voluntary. If present, it is expected in the **column I** of the datasheet starting line.

"Chapter Four" attributes – Recipient Data

To import the attributes of **Chapter 4**, a special line type can be inserted.
It is the **RecipientData** type and is a separate line which is marked by the key word **"RecipientData"** in the column **A** within the "**MDS_BEGIN**" -"**MDS_END**" bracket.

The **"RecipientData" -**line has to be the second line in the MDS (behind the line containing "**MDS_BEGIN**").

The **Chapter 4** data is not mandatory itself.

Column A:

contains the identifier "RECIPIENT DATA".

This identifier is **mandatory**.

Column B:

The attribute "Recipient's company ID (**RecipCompanyID)**" is the ID of the **company** to which the MDS should be **sent** or **proposed**.
An **integer** number is expected here.

This attribute is **mandatory**, if a chapter4 import is desired.

Column C:

Some companies expect here a "**RecipPartNo**", a recipient dedicated "part-number" which is coupled with the "supplier code" of the supplier company. The "part-number" is checked against DB in such a case and a declaration of a wrong part-number causes an error.
With other companies any desired **alphanumeric string** can be the value of this attribute.

This attribute is **not** mandatory.

Column D:

The "**RecipPartName**" is the a recipient dedicated part name. Any desired **alphanumeric string** can be the value of this.

This attribute is **mandatory**.

Column E:

The "DrawingNo" may be any desired alphanumeric string.

This attribute is **not** mandatory.

Column F:

The attribute "**DrawingDate**". Any desired **alphanumeric string** can be the value of this attribute.

This attribute is **not** mandatory.

Column G:

The attribute "**DrawingChangeNo**". Any desired **alphanumeric string** can be the value of this attribute.

This attribute is **not** mandatory.

Column H:

The attribute "**RecipSampleNo**". Any desired **alphanumeric string** can be the value of this attribute.

This attribute is **not** mandatory.

Column I:

The attribute "**RecipSampleDate**" is a date. Supported formats are either: **MM/DD/YYYY** or **DD.MM.YYYY**.(TT.MM.JJJJ) – Providing a value in unexpected format causes an error.

This attribute is **not** mandatory.

Column J:

The attribute **"OrderNo".** Any desired **alphanumeric string** can be the value of this attribute.

This attribute is **not** mandatory.

Column K:

The attribute "**DeliverySlipNo**". Any desired **alphanumeric string** can be the value of this attribute.

This attribute is **not** mandatory.

Column L:

The attribute "RecipSupplierCode"
Certain companies expect here a dedicated "**recipient-supplier-code**" of the supplier company. This is checked against the database and a declaration of a wrong recipient-supplier-code causes an error.
The omitting of "**recipient-supplier-code**" causes a release error with those companies.

With other companies this attribute is **not needed** and any desired **alphanumeric string** can be the value of this attribute.

Column M:

The attribute "**ForwardAllowed**"
This attribute indicates whether the recipient is allowed to forward this datasheet.
Possible answers are: "**Yes**" and "**No**".

If the value of this attribute is omitted with a company which expects it, the answer "**Yes**" will be assumed.

Column N:

The attribute "**SupplCode1**"

This attribute **'supplementary code1'** is used only by DaimlerChrysler companies. With other companies this attribute is not needed.

Column O:

The attribute "**SupplCode2**"

This attribute '**supplementary code2**' is used only by DaimlerChrysler companies. With other companies this attribute is not needed.

Column P:

The attribute "**DGTLevel**"

This attribute '**drawing geometry technical level'** is used only by DaimlerChrysler companies. With other companies this attribute is not needed.

"Application" attributes

To import the attributes of **Applications**, a special line type can be inserted.

It is the **Application** type and is a separate line which is marked by the key word **"Application"** in the column **A** within the "**MDS_BEGIN**" -"**MDS_END**" bracket.

The **"Application" -**line has to be the second line in the MDS (behind the line containing "**MDS_BEGIN**").

The **Application** data is not mandatory itself.

Column A:

contains the identifier "**Application**".

This identifier is **mandatory**.

Column B:

The attribute "Father Part/Item No." is the CSV internal ID of the father node from column A of the Tree data

This attribute is **mandatory**, if a Application import is desired.

Column C:

The attribute "Part/Item No." is the CSV internal ID of the father node from column B of the Tree data

Column D:

The attribute "Mat_ID" is the node ID of the material

Column E:

The attribute "Subst_ID" is the node ID of the substance within the material

Column F:

The attribute "ApplCode" is the Application Code

Example

You want to describe a component A, consisting of 2 times component B and 30 g of semi component C.
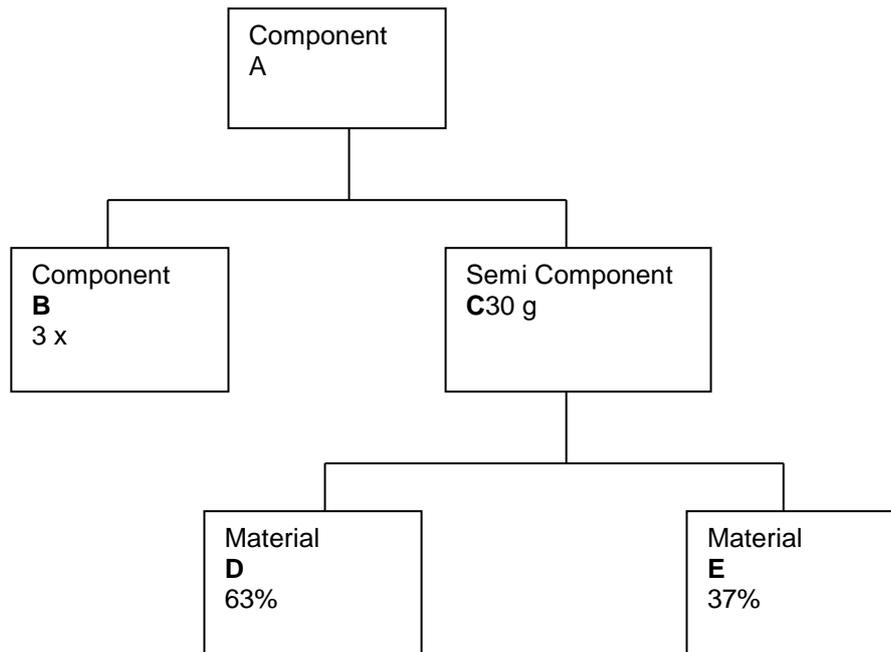
Component A is the top node.

Component B is published in IMDS and will be referenced.

Semi component C consists of 63% of material D and 37% of material E.

Both materials are published and will be referenced.

Tree

These fields would be mandatory in your CSV sheet.

CSV file

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	MDS_BEGIN	Datasheet											
2		A	Component A										
3	A	B	Component B	3				RC	954492				
4	A	C	Semicomp C		30	g		S					
5	C	D	Material D					RM	13004	Fix	63		
6	C	E	Material E					RM	12469	Rest			
7	MDS_END												
8													
9	END												

Explanation

cell	entry	description
A1	MDS_BEGIN	start of the MDS description
B1	Datasheet	kind of MDS: Datasheet or Module
B1		empty father node shows that Component A is the top node
B2	A	internal key of the top node Component A
C2	Component A	name of the top node
A3	A	B (Component B) is child of A (Component A)
B3	B	internal key of the node Component B
C3	Component B	name of B (Component B)
D3	3	amount of nodes B in node A
H3	RC	Component B is referenced component from IMDS
I3	954492	the IMDS node Id needed for reference
A4	A	C (Semi Component C) is child of A (Component A)
B4	C	internal key of the node Semi Component C
C4	Semicomp C	name of C (Semi Component C), not necessary, will be overwritten
E4	30	weight of C (Semi Component C) in node A
F4	g	weight unit of C (Semi Component C) in node A
H4	S	C (Semi Component C) is a Semi Component
A5	C	D (Material D) is child of C (Semi Component C)
B5	D	internal key of the node Material D
C5	Material D	name of D (Material D), not necessary, will be overwritten
H5	RM	Material D is a referenced material from IMDS
I5	8787315	the IMDS node Id needed for reference
J5	Fix	Material D has a fix share (percentage)
K5	63	share of 63 percent
A6	C	E (Material E) is child of C (Semi Component C)
B6	E	internal key of the node Material E
C6	Material E	name of E (Material E), not necessary, will be overwritten
H6	RM	Material E is a referenced material from IMDS
I6	3805101	the IMDS node Id needed for reference
J6	Rest	Material D has a fix share (percentage)
A7	MDS_END	end of the MDS description
A8		empty lines are only allowed outside of an MDS description
A9	END	indicates the end of the CSV file; mandatory !

The crucial information is between the MDS_BEGIN and the MDS_END tag. The END-tag is needed for termination.

All other information is optional and for description purposes only.

And the result after the import into IMDS-a2:
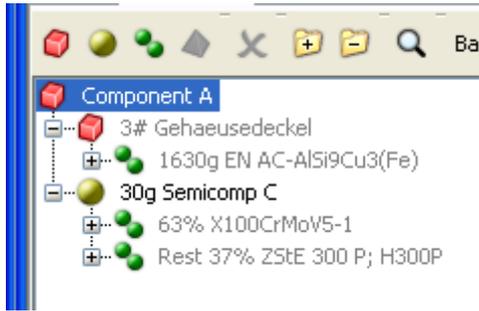
Newly created nodes are shown in black, whereas referenced nodes are shown in grey.

The names of referenced nodes from the CSV file are replaced by their actual name from IMDS.

Further Support

For questions concerning all administrative and technical features we provide an email address:

mds-solutions@dxc.com

The IMDS-a2 support team will post a reply to your questions as soon as possible.

Contact Information

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