

Electronic Component Information eXchange

QuickData Application:

Electronic Components Domain Specification

Version 2.0-050100

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Introduction

This specification defines the models, constraints, and other semantics necessary for unambiguous exchange of QuickData information in the domain of electronic components.

Requirements

This specification solves specific business and technical problems and supports particular use models and other requirements, which are documented in “ECIX II Requirements”.

Terminology

standard dictionary The common ECTD instance, maintained by a standards organization, that is intended to contain the entries that define for all messages the semantics of all characteristics used in those messages.

Compliance

An implementation that fails to satisfy any constraint identified herein, or in the relevant normative references, with the keywords “required”, “shall”, or “shall not”, is not compliant to the specification. These keywords.

2. Characters in times are not to be used literally but instead describe how values shall be constructed when used in code or messages.

3. Information contained in the following notation shall be considered non-normative:

(NOTE: This text is informative only and is not considered part of this specification.)

(EXAMPLE: This text is informative only and is not considered part of this specification.)

4. Characters bounded by double quotes have a special significance referenced as a whole in the sentence, such as a title, value, name, or other identifier.

5. An identifier bounded by angular brackets refers to a DTD element object. For example, <value> refers to the particular DTD element named “value”. If the letter “s” immediately follows the trailing right angle bracket it indicates one or more such elements.

6. An identifier bounded on the left by the percent character and on the right by the semicolon character refers to a DTD entity object. For example, %xml.att; refers to the DTD entity named “xml.att”.

7. An identifier bounded by single quotes refers to a DTD attribute object. For example, ‘NoValueReason’ refers to the DTD attribute named “NoValueReason”.

References

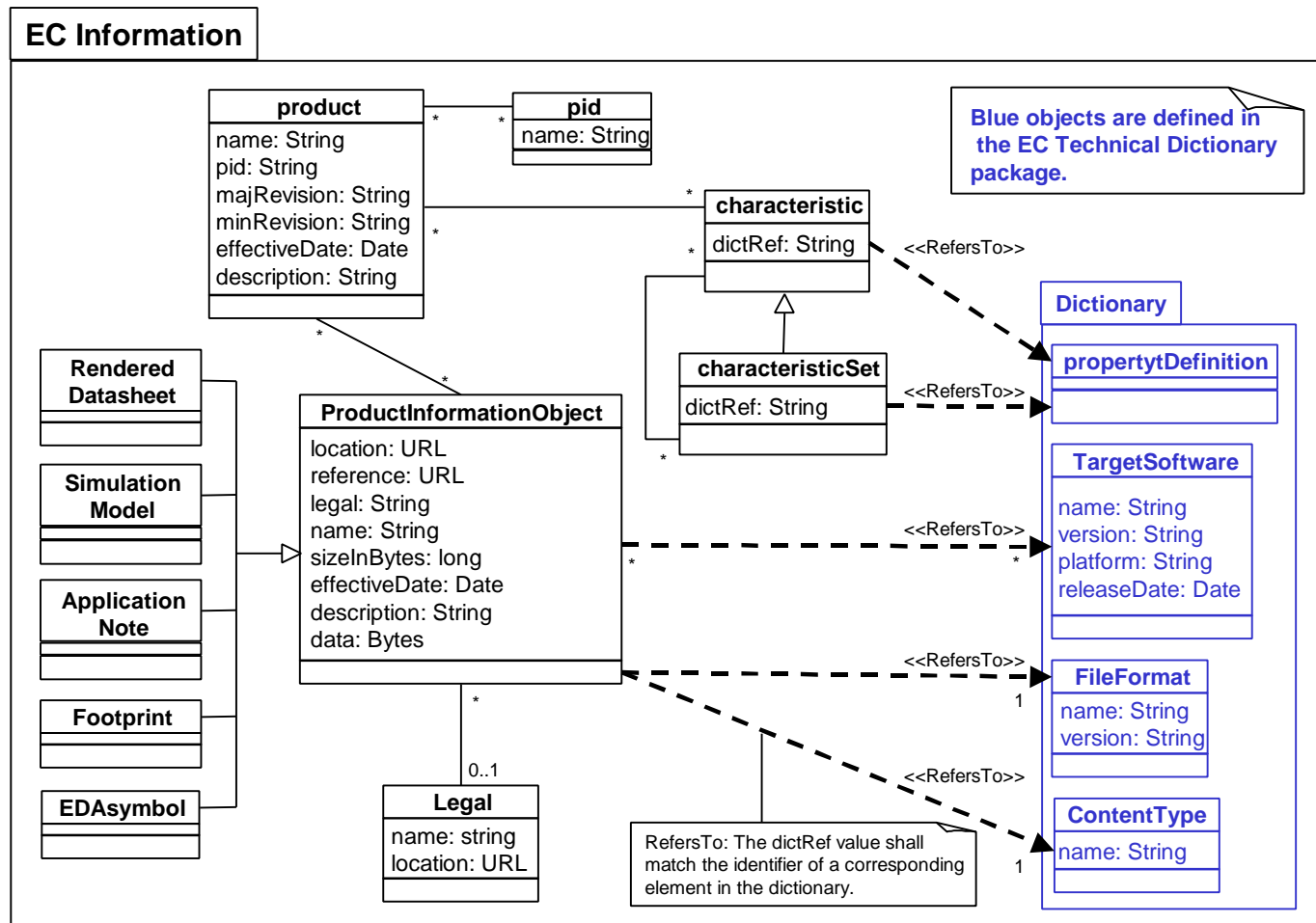
Normative

Documents identified as "Normative References" are referenced in part or in their entirety in the current document and the parts referenced shall have normative impact on compliant implementations. For each reference the edition indicated is the authority. All normative documents are subject to revision at different times and by different agencies. Consequently, application of more recent editions of such documents may affect interoperability of implementations and may have additional implications.

Informative

Documents identified as "Informative References" are relevant to the current document, and may assist in comprehension of it, but do not have normative impact on compliant implementations.

Figure 1: Electronic Components Information Model



Registry Constraints

A provider of information listed as a supplier in the Si2 Registry shall be obligated to return a QuickData compliant response to a query if and only if that query originates from a participant listed as a customer of information in the Si2 Registry.

A provider of information shall list at least one URL that does not require SSL to service clients that do not support SSL.

messages and implementation software. These rules apply in addition to and shall not contradict those in the “QuickData Message Specification”:

- Table 1: DTD Element Constraints and Semantics
- Table 2: DTD Attribute Constraints and Semantics

Table 1: DTD Element Constraints and Semantics

Element Name	Domain-specific Constraints
dict.identifier	This content shall match the formal public identifier (FPI) of the instance of the Electronic Components Technical Dictionary (ECTD).
name	<p>The name of a characteristic related to a product.</p> <ol style="list-style-type: none"> 1. If the ‘dicRef’ attribute is specified in the containing <element> then the <name> content shall match the <preferred.name> of the dictionary entry identified by the ‘dicRef’. 2. In a query the content may be any string. (Refer to Table 5 in the “QuickData Message Specification”.) 3. In a response the content shall match the <preferred.name> of a dictionary entry in the instance named by the <dict.identifier> content or in the <ec.dictionary.add>.
part.info	<p>A container grouping information related to a product.</p> <ol style="list-style-type: none"> 1. The content shall relate to a single product. 2. There shall not be two instances of a <part.info> for the same product in the same <response>. 4. If the criteria specified in the corresponding <query> match any supplier products, the supplier shall return at least one <part.info> instance. 5. The <response> shall not include more <part.info> instances than the number specified in the ‘max.records’ attribute of that <query>. The supplier shall determine what constitutes a suitable match.
response	<ol style="list-style-type: none"> 1. The supplier shall decide what constitutes a match. 2. If the ‘matched’ attribute is specified, it shall indicate the total number of products matching the search criteria of the corresponding query. 3. If the ‘starting.at’ attribute is specified, it shall indicate that the set of <part.info> elements returned corresponds to an ordered set of products matching the search criteria, and shall define the ordinal position of the first <part.info> in that set (numbered from 1).

dicRef	<ol style="list-style-type: none"> 1. Use of a “dicRef” shall constitute assurance that the element conforms to all semantics of the <definition.short> and <definition.ext> of the dictionary entry referenced, in addition to other entry semantics defined elsewhere in this specification. 2. A dicRef shall be mandatory if the <element> is defined in the <ec.dictionary.add> of the current instance.
starting.at	<p>If specified in a <query>, then one of the following shall be true of the corresponding <response>:</p> <ol style="list-style-type: none"> 1. The <status> content shall be <s.not.available> with the content "starting.at.not.supported", in the case that product data would have been returned had ‘starting.at’ not been included in the query. 2. The value of the ‘starting.at’ attribute shall match the value of the ‘starting.at’ attribute in the <query>, and shall indicate that the global set of all products matching the search criteria is an ordered set invariant across all queries (to the extent possible for a given supplier), and that the <part.info> elements returned is an ordered subset of that global set, and that the ‘starting.at’ value defines the ordinal position of the first <part.info> in the global set (numbered from 1). 3. The <status> content shall not be <s.success> if neither 1 nor 2 applies.

Property Constraints

1. An <element> present in a query for a <data.object> shall not be counted as a request specification, and therefore shall not be covered by section 2b2 of “Status Constraints”, if the <name> content is either of:
 - 1.1. DUNS.Customer
 - 1.2. DUNS.Supplier
2. An information provider may include any <element> in a <response> regardless of whether it was included as a request specification in a <query>.
3. In the case where an <element> in a <query> does not have a 'dicRef' attribute:
 - 3.1. If there exists an entry in the standard dictionary version (referenced by the <dict.identifier> content in the <response>) whose <preferred.name> content matches the <name> content, if then the corresponding <element> in the <response> shall conform to the semantics of that dictionary entry.

'NoValueReason' attribute with a value of "not.in.dictionary".

4. In the case where an <element> in a <query> has a 'dicRef' attribute, and the corresponding <element> in the response also has a 'dicRef' attribute, then:
 - 4.1. If there exists a <CharacteristicDefinition> in the dictionary (referenced by the <dict.identifier> content in the <response>) with a <code> element whose content matches the "code" part of the 'dicRef' value, and a <majRev> element whose content matches the "majRev" part of that value, then that same 'dicRef' value shall be used in the <element> in the <response>.
 - 4.2. If exists a <CharacteristicDefinition> in that dictionary with a matching <code> but different <majRev>, then a 'dicRef' value with the matching <code> but different <majRev> shall be used in the <element> in the <response>.

Status Constraints

If the content of <status> is anything but <s.success> then no <part.info> elements shall be returned.

A supplier may return a response with status:

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<s.not.available>Request.objects.individually</s.not.available>
```

when:

- a. The query includes a <data.object> request specification and the match criteria specification is not limited to a single part number;
- b. The request specification:
 1. identifies more than one <data.object>;
 2. requests both <element> data and one or more <data.object>s.

A supplier shall have the option to return a status of <s.not.available> in the case where a query does not contain a value for a DUNS.Customer element.

Normative References

Requirements

DTDs

Message DTD: [DTD\QD\qd.dtd](#).

Other Specifications

Electronic Components Technical Dictionary Specification: [ectd.doc](#).

Value Format syntax: ISO 6093, ISO 9735.

Informative References

OMG Unified Modeling Language Specification, Version 1.3, June 1999: <http://www.omg.org/cgi-bin/doc?ad/99-06-08>