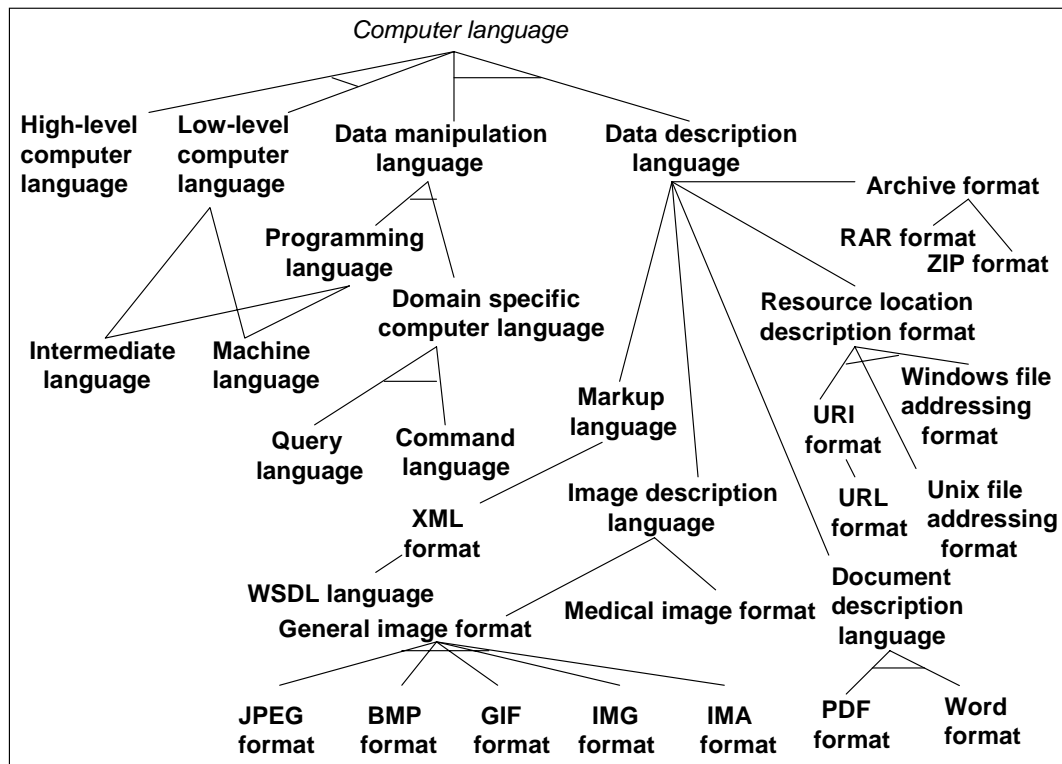


Computer language-OS

// Metadata

| | |
|---------------------------------------|---|
| Name | Computer language-OS |
| Keywords | High-level computer language, Programming language, Query language, Markup language, JPEG format, PDF format, URI format, ZIP format |
| Creation date | September 23 th , 2008 |
| Has contributor | Frédéric Fürst, Gilles Kassel, Pascal Lando, Anne Lapujade |
| Used ontology engineering methodology | OntoSpec |
| Is of type | Core ontology |
| Natural language | English |
| Has ontology language | OntoSpec |
| Has formality level | Semi-informal |
| Ressource locator | http://www.laria.u-picardie.fr/IC/site/IMG/pdf/Computer_language-OS.pdf |
| Version | 1.0 |
| Number of concepts (classes) | 32 |
| Number of relations (properties) | 0 |

// Concepts



High-level computer language

Meta-properties

HIGH-LEVEL COMPUTER LANGUAGE is RIGID (+**R**). HIGH-LEVEL COMPUTER LANGUAGE is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] A HIGH-LEVEL COMPUTER LANGUAGE is a COMPUTER LANGUAGE.

Comment

[DEF] Article “High-level computer language” of Wikipedia: A high-level programming language is a programming language that, in comparison to low-level programming languages, may be more abstract, easier to use, or more portable across platforms. Such languages often abstract away CPU operations such as memory access models and management of scope.

[EX] Examples of high-level computer languages are: Java, C.

Low-level computer language

Meta-properties

LOW-LEVEL COMPUTER LANGUAGE is RIGID (+**R**). LOW-LEVEL COMPUTER LANGUAGE is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] A LOW-LEVEL COMPUTER LANGUAGE is a COMPUTER LANGUAGE.

Comment

[DEF] Article “Low-level computer language” of Wikipedia: In computer science, a low-level programming language is a language that provides little or no abstraction from a computer's microprocessor. The word "low" does not imply that the language is inferior to high-level programming languages but rather refers to the small or nonexistent amount of abstraction between the language and machine language; because of this, low-level languages are sometimes described as being "close to the hardware."

[EX] An example of low-level computer language is: MASM

Data manipulation language

Meta-properties

DATA MANIPULATION LANGUAGE is RIGID (+**R**). DATA MANIPULATION LANGUAGE is EXTERNALLY-DEPENDENT (+**D**). DOMAIN SPECIFIC COMPUTER LANGUAGE and PROGRAMMING LANGUAGE *is a non-trivial partition of* DATA MANIPULATION LANGUAGE.

Properties

[EP/SL] A DATA MANIPULATION LANGUAGE is a COMPUTER LANGUAGE.

Comment

[DEF] DATA MANIPULATION LANGUAGES are opposed to DATA DESCRIPTION LANGUAGES in that the former aim at specifying data processing whereas the latter aim at specifying the data which are processed.

Domain specific computer language

Meta-properties

DOMAIN SPECIFIC COMPUTER LANGUAGE is RIGID (+**R**). DOMAIN SPECIFIC COMPUTER LANGUAGE is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] A DOMAIN SPECIFIC COMPUTER LANGUAGE is a DATA MANIPULATION LANGUAGE.

Comment

[DEF] [Lando *et al.*, 2008]: “Domain-Specific Computer Languages are non-Turing-complete languages restricted to the writing of particular types of expressions (database queries, operating system commands, etc.).”

Query language

Meta-properties

QUERY LANGUAGE is RIGID (+**R**). QUERY LANGUAGE is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] A QUERY LANGUAGE is a DOMAIN SPECIFIC COMPUTER LANGUAGE. [EP/ICL] No QUERY LANGUAGE is a COMMAND LANGUAGE.

Comment

[DEF] Article “Query language” of Wikipedia: “Query languages are computer languages used to make queries into databases and information systems”.

[EX] Examples of query languages are: SQL, SPARQL.

Command language

Meta-properties

COMMAND LANGUAGE is RIGID (+**R**). COMMAND LANGUAGE is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] A COMMAND LANGUAGE is a DOMAIN SPECIFIC COMPUTER LANGUAGE.

Comment

[DEF] Article “Command language” of Wikipedia: “A command language is a domain-specific interpreted language; common examples of command languages are shell or batch programming languages.”

[EX] An example of command language is: Korn Shell.

Programming language, General-purpose computer language

Meta-properties

PROGRAMMING LANGUAGE is RIGID (+**R**). PROGRAMMING LANGUAGE is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] A PROGRAMMING LANGUAGE, or GENERAL-PURPOSE COMPUTER LANGUAGE, is a DATA MANIPULATION LANGUAGE.

Comment

[DEF] [Lando *et al.*, 2008]: “Programming languages are languages enabling the description of arbitrary Computational Actions [data processing].”

Intermediate language

Meta-properties

INTERMEDIATE LANGUAGE is RIGID (+**R**). INTERMEDIATE LANGUAGE is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] An INTERMEDIATE LANGUAGE is a PROGRAMMING LANGUAGE.

[EP/SL] An INTERMEDIATE LANGUAGE is a LOW-LEVEL COMPUTER LANGUAGE.

Comment

[DEF] An INTERMEDIATE LANGUAGE is used by a HIGH-LEVEL LANGUAGE to generate an intermediate code which is then compiled into an object code or a MACHINE CODE.

[EX] An example of intermediate language is: Java Bytecode.

Machine language

Meta-properties

MACHINE LANGUAGE is RIGID (+**R**). MACHINE LANGUAGE is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] A MACHINE LANGUAGE is a PROGRAMMING LANGUAGE.

[EP/SL] A MACHINE LANGUAGE is a LOW-LEVEL COMPUTER LANGUAGE.

Comment

[DEF] Article “Machine language” of Wikipedia: “Machine language is a system of instructions and data directly executed by a computer's central processing unit.”

Data description language

Meta-properties

DATA DESCRIPTION LANGUAGE is RIGID (+**R**). DATA DESCRIPTION LANGUAGE is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] A DATA DESCRIPTION LANGUAGE is a COMPUTER LANGUAGE.

Comment

[DEF] DATA DESCRIPTION LANGUAGES are opposed to DATA MANIPULATION LANGUAGES in that the former aim at specifying the structure of data whereas the latter aim at specifying ways of processing data.

Markup language

Meta-properties

MARKUP LANGUAGE is RIGID (+**R**). MARKUP LANGUAGE is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] A MARKUP LANGUAGE is a DATA DESCRIPTION LANGUAGE.

Comment

[DEF] Article “Markup Language” of Wikipedia: “A markup language is a set of annotations to text that describe how it is to be structured, laid out, or formatted. Markup languages have been in use for centuries, and in recent years have also been used in computer typesetting and word-processing systems.”

[EX] An example of markup language is: HTML.

XML format

Meta-properties

XML FORMAT is RIGID (+**R**). XML FORMAT is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] XML FORMAT is a MARKUP LANGUAGE.

WSDL Language

Meta-properties

WSDL is RIGID (+**R**). WSDL is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] A WSDL LANGUAGE is an XML FORMAT.

Image format, Image description language

Meta-properties

IMAGE FORMAT is RIGID (+**R**). IMAGE FORMAT is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] An IMAGE FORMAT, or IMAGE DESCRIPTION LANGUAGE, is a DATA DESCRIPTION LANGUAGE.

General image format, General image description language

Meta-properties

GENERAL IMAGE FORMAT is RIGID (+**R**). GENERAL IMAGE FORMAT is EXTERNALLY-DEPENDENT (+**D**). JPEG FORMAT, BMP FORMAT, GIF FORMAT, and IMG FORMAT *is a disjunctive sub-division of* GENERAL IMAGE FORMAT.

Properties

[EP/SL] A GENERAL IMAGE FORMAT, or GENERAL IMAGE DESCRIPTION LANGUAGE, is an IMAGE DESCRIPTION LANGUAGE.

Comment

[EX] Examples of general image description languages are: JPEG, GIF.

JPEG Format

Meta-properties

JPEG FORMAT is RIGID (+**R**). JPEG FORMAT is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] A JPEG FORMAT is a GENERAL IMAGE FORMAT.

BMP Format

Meta-properties

BMP FORMAT is RIGID (+**R**). BMP FORMAT is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] A BMP FORMAT is a GENERAL IMAGE FORMAT.

GIF Format

Meta-properties

GIF FORMAT is RIGID (+**R**). GIF FORMAT is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] AGIF FORMAT is a GENERAL IMAGE FORMAT.

IMG Format

Meta-properties

IMG FORMAT is RIGID (+**R**). IMG FORMAT is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] IMG FORMAT is a GENERAL IMAGE FORMAT.

IMA Format

Meta-properties

IMA FORMAT is RIGID (+**R**). IMA FORMAT is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] IMA FORMAT is a GENERAL IMAGE FORMAT.

Medical image format, Medical image description language

Meta-properties

MEDICAL IMAGE FORMAT is RIGID (+**R**). MEDICAL IMAGE FORMAT is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] A MEDICAL IMAGE FORMAT, or MEDICAL IMAGE DESCRIPTION LANGUAGE, is an IMAGE DESCRIPTION LANGUAGE.

Comment

[EX] Examples of medical image description languages are: DICOM, ANALYZE.

Document description language

Meta-properties

DOCUMENT DESCRIPTION LANGUAGE is RIGID (+**R**). DOCUMENT DESCRIPTION LANGUAGE is EXTERNALLY-DEPENDENT (+**D**). PDF FORMAT and WORD FORMAT *is a disjunctive sub-division of* DOCUMENT DESCRIPTION LANGUAGE.

Properties

[EP/SL] A DOCUMENT DESCRIPTION LANGUAGE is a DATA DESCRIPTION LANGUAGE.

PDF format

Meta-properties

PDF FORMAT is RIGID (+**R**). PDF FORMAT is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] A PDF FORMAT is a DATA DESCRIPTION LANGUAGE.

Word format

Meta-properties

WORD FORMAT is RIGID (+**R**). WORD FORMAT is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] A WORD FORMAT is a DATA DESCRIPTION LANGUAGE.

Resource location description format

Meta-properties

RESOURCE LOCATION DESCRIPTION FORMAT is RIGID (+**R**). RESOURCE LOCATION DESCRIPTION FORMAT is EXTERNALLY-DEPENDENT (+**D**). URL

FORMAT, UNIX FILE ADDRESSING LANGUAGE, and WINDOWS FILE ADDRESSING LANGUAGE *is a disjunctive sub-division of* RESOURCE LOCATION DESCRIPTION FORMAT.

Properties

[EP/SL] A RESOURCE LOCATION DESCRIPTION FORMAT is a DATA DESCRIPTION LANGUAGE.

URI format

Meta-properties

URI FORMAT is RIGID (+**R**). URI FORMAT is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] An URI FORMAT is a RESOURCE LOCATION DESCRIPTION FORMAT.

URL format

Meta-properties

URL FORMAT is RIGID (+**R**). URL FORMAT is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] An URL FORMAT is an URI FORMAT.

Unix file addressing format

Meta-properties

UNIX FILE ADDRESSING FORMAT is RIGID (+**R**). UNIX FILE ADDRESSING FORMAT is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] UNIX FILE ADDRESSING FORMAT is a RESOURCE LOCATION DESCRIPTION FORMAT.

Windows file addressing format

Meta-properties

WINDOWS FILE ADDRESSING FORMAT is RIGID (+**R**). WINDOWS FILE ADDRESSING FORMAT is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] A WINDOWS FILE ADDRESSING FORMAT is a RESOURCE LOCATION DESCRIPTION FORMAT.

Archive format

Meta-properties

ARCHIVE FORMAT is RIGID (+**R**). ARCHIVE FORMAT is EXTERNALLY-DEPENDENT (+**D**). RAR FORMAT, and ZIP FORMAT *is a disjunctive sub-division of* ARCHIVE FORMAT.

Properties

[EP/SL] An ARCHIVE FORMAT is a DATA DESCRIPTION LANGUAGE.

RAR format

Meta-properties

RAR FORMAT is RIGID (+**R**). RAR FORMAT is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] A RAR FORMAT is an ARCHIVE FORMAT.

ZIP format

Meta-properties

ZIP FORMAT is RIGID (+**R**). ZIP FORMAT is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] A ZIP FORMAT is an ARCHIVE FORMAT.