

The "Unknown:"s below indicate that an entry is incomplete.

- either the entry exist in the language, and [please tell](#).
- either the entry doesn't exist in the language, and [please tell so](#). The entry will be marked as such and won't appear as missing anymore.

- [Category](#): Dynamically typed
- [Various](#)

%	commenting (until end of line)
@< / @=< / @> / @>=	comparison
min / max	comparison (min / max (binary or more))
compare	comparison (returns 3 values (i.e. inferior, equal or superior))
== \==	equality / inequality (deep)
=@= \=@= / = \= / := =\=(1)	equality / inequality (deep)
garbage_collect	force garbage collection
(...)	grouping expressions
=..(2)	runtime evaluation
case-sensitive	tokens (case-sensitivity (keywords, variable identifiers...))
[_a-z][_a-zA-Z0-9]*	tokens (function identifier regexp (if different from variable identifier regexp))
[_A-Z][_a-zA-Z0-9]*	tokens (variable identifier regexp)
CamelCase for variables, underscores for predicates	tokens (what is the standard way for scrunching together multiple words)
is	variable assignment or declaration (assignment)
=	variable assignment or declaration (declaration)
:-	variable assignment or declaration (declaration)

- [Functions](#)

f(a,b,...)	function call
.. [f, A, B, ...]	function call
f	function call (with no parameter)
the predicate fail	function called when a function is not defined (in dynamic languages)

<code>f(Para1, Para2,) :-</code>	function definition (predicates)
<code>current_predicate</code>	runtime inspecting the caller information

- [Control Flow](#)

<code>catch</code>	exception (catching)
<code>throw</code>	exception (throwing)
<code>c -> b1 ; c2 -> b2 ; b3</code>	<code>if_then_else</code>
<code>repeat, ..., c</code>	loop (do something until condition)
<code>X = val, (X = v1, ... ; X = v2, ... ; ...)</code>	multiple selection (switch)
<code>,</code>	sequence

- [Package, Module](#)

<code>:- module(p)</code>	declare
<code>:- use_module(name1, name2, ...)</code>	import (selectively)

Unknown:

package scope

- [Strings](#)

<code>char_code</code>	ascii to character
<code>char_code</code>	character to ascii
<code>sub_string / sub_atom</code>	extract a substring
<code>sub_string / sub_atom</code>	locate a substring
<code>write</code>	simple print (on any objects)
<code>format(3)</code>	simple print (printf-like)
<code>append</code>	string concatenation
<code>= \=</code>	string equality & inequality
<code>length</code>	string size
<code>atom_length</code>	string size
<code>'...'</code>	strings (with no interpolation of variables)
<code>"..."</code>	strings (with no interpolation of variables)

<code>char_type(C_, to_upper(C)), char_type(C_, to_lower(C))</code>	upper / lower case character
<code>upcase_atom/downcase_atom</code>	uppercase / lowercase / capitalized string
<code>upcase_atom / downcase_atom</code>	uppercase / lowercase / capitalized string

Unknown:

strings (end-of-line (without writing the real CR or LF character))
 sprintf-like
 accessing n-th character

- [Booleans](#)

No	false value
fail	false value
<code>not(4)</code>	logical not
<code>; / ,</code>	logical or / and (short circuit)
true	true value
Yes	true value

- [Bags and Lists](#)

<code>[e l]</code>	adding an element at the beginning (list cons) (return the new list (no side-effect))
<code>L = [_ ButFirst]</code>	all but the first element
<code>forall</code>	for each element do something
<code>member</code>	is an element in the list
<code>concat_atom</code>	join a list of strings in a string using a glue string
<code>last</code>	last element
<code>append</code>	list concatenation
<code>[a, b, c].(5)</code>	list constructor
<code>flatten</code>	list flattening (one level depth)
<code>length</code>	list size
<code>nth0 / nth1</code>	list/array indexing
<code>get_assoc</code>	lookup an element in a association list
<code>reverse</code>	reverse
<code>min / max</code>	smallest / biggest element

sort(6)	sort
predsort / keysort / mergesort	sort
maplist	transform a list (or bag) in another one
sublist	transform a list (or bag) in another one
maplist2	transform two lists in parallel

Unknown:

first element
 get the first element and remove it
 get the last element and remove it
 remove duplicates

- [Various Data Types](#)

Nothing	computable tuple (these are a kind of immutable lists playing a special role in parameter passing) (empty tuple)
L =.. [F Args], call(L)	computable tuple (these are a kind of immutable lists playing a special role in parameter passing) (using a tuple for a function call)
findall(Key, item(Key, _), Keys)	dictionary (list of keys)
numlist / between	range (inclusive .. inclusive)
(a, b, c)	tuple constructor

Unknown:

computable tuple (these are a kind of immutable lists playing a special role in parameter passing) (1-uple)
 reference (pointer) (creation)
 reference (pointer) (dereference)

- [Mathematics](#)

+ / - / * / /	addition / subtraction / multiplication / division
/\ / \/ / xor	bitwise operators (and / or / xor)
\	bitwise operators (bitwise inversion)
<< / >>	bitwise operators (left shift / right shift / unsigned right shift)
**	exponentiation (power)
log10	logarithm (base 10)
log	logarithm (base e)

mod	modulo (modulo of -3 / 2 is -1)
mod	modulo (modulo of -3 / 2 is 1)
rem	modulo (modulo of -3 / 2 is 1)
-	negation
1000.0, 1E3	numbers syntax (floating point)
1000	numbers syntax (integers)
random	random (random number)
sqrt / exp / abs	square root / e-exponential / absolute value
sin / cos / tan	trigonometry (basic)
asin / acos / atan(Z)	trigonometry (inverse)
truncate / round / floor / ceiling	truncate / round / floor / ceil

Unknown:

operator priorities and associativities

Remarks

- (1) normal / structural / unification / arithmetic
- (2) Univ operator
- (3) but not using the C-like %-syntax
- (4) Smalltalk: postfix operator
- (5) new in PHP 5.4
- (6) in Scheme, not standard, but nearly standard
- (7) Ruby >= 1.7

[Pixel](#)



This work is licensed under a [Creative Commons Attribution-ShareAlike 2.0 Generic License](#).

Generated from [syntax-across-languages.html.pl](#)

\$Id: syntax-across-languages.html.pl 408 2008-08-29 08:32:23Z pixel \$