

# listp

*List protocol.*

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version:

1.7

date:

2011/5/14

compilation:

static, context\_switching\_calls

*(no dependencies on other files)*

## Public interface

### append/2

*Appends all lists in a list of lists.*

compilation:

static

template:

append(Lists,Concatenation)

mode - number of solutions:

append(+list(list),?list) - zero\_or\_one

### append/3

*Appends two lists.*

compilation:

static

template:

append(List1,List2,List)

mode - number of solutions:

append(?list,?list,?list) - zero\_or\_more

### delete/3

*Deletes from a list all occurrences of an element returning the list of remaining elements.*

compilation:

static

template:

delete(List,Element,Remaining)

mode - number of solutions:

delete(@list,@term,?list) - one

### delete\_matches/3

*Deletes all matching elements from a list, returning the list of remaining elements.*

compilation:

static

template:  
    delete\_matches(List,Element,Remaining)  
mode - number of solutions:  
    delete\_matches(@list,@term,?list) - one

## empty/1

*True if the argument is an empty list.*

compilation:  
    static  
template:  
    empty(List)  
mode - number of solutions:  
    empty(@list) - zero\_or\_one

## flatten/2

*Flattens a list of lists into a list.*

compilation:  
    static  
template:  
    flatten(List,Flatted)  
mode - number of solutions:  
    flatten(+list,-list) - one

## keysort/2

*Sorts a list of key-value pairs in ascending order.*

compilation:  
    static  
template:  
    keysort(List,Sorted)  
mode - number of solutions:  
    keysort(+list,-list) - one

## last/2

*List last element (if it exists).*

compilation:  
    static  
template:  
    last(List,Last)  
mode - number of solutions:  
    last(?list,?term) - zero\_or\_more

## length/2

*List length.*

compilation:  
    static  
template:  
    length(List,Length)

mode - number of solutions:  
length(?list,?integer) - zero\_or\_more

## max/2

*Determines the list maximum value using standard order. Fails if the list is empty.*

compilation:  
static

template:  
max(List,Maximum)

mode - number of solutions:  
max(+list,-term) - zero\_or\_one

## member/2

*Element is a list member.*

compilation:  
static

template:  
member(Element,List)

mode - number of solutions:  
member(?term,?list) - zero\_or\_more

## memberchk/2

*Checks if a term is a member of a list.*

compilation:  
static

template:  
memberchk(Element,List)

mode - number of solutions:  
memberchk(?term,?list) - zero\_or\_one

## min/2

*Determines the minimum value in a list using standard order. Fails if the list is empty.*

compilation:  
static

template:  
min(List,Minimum)

mode - number of solutions:  
min(+list,-term) - zero\_or\_one

## msort/2

*Sorts a list in ascending order (duplicated elements are not removed).*

compilation:  
static

template:  
msort(List,Sorted)

mode - number of solutions:  
msort(+list,-list) - one

### **msort/3**

*Sorts a list using a user-specified comparison predicate modeled on the standard compare/3 predicate (duplicated elements are not removed).*

compilation:

static

template:

msort(Closure,List,Sorted)

meta-predicate template:

msort(3,\*,\*)

mode - number of solutions:

msort(+callable,+list,-list) - one

### **nextto/3**

*X and Y are consecutive elements in List.*

compilation:

static

template:

nextto(X,Y,List)

mode - number of solutions:

nextto(?term,?term,?list) - zero\_or\_more

### **nth0/3**

*Nth element of a list (counting from zero).*

compilation:

static

template:

nth0(Nth,List,Element)

mode - number of solutions:

nth0(?integer,?list,?term) - zero\_or\_more

### **nth0/4**

*Nth element of a list (counting from zero).*

compilation:

static

template:

nth0(Nth,List,Element,Residue)

mode - number of solutions:

nth0(?integer,?list,?term,?list) - zero\_or\_more

### **nth1/3**

*Nth element of a list (counting from one).*

compilation:

static

template:

nth1(Nth,List,Element)

mode - number of solutions:

nth1(?integer,?list,?term) - zero\_or\_more

## **nth1/4**

*Nth element of a list (counting from zero).*

compilation:

static

template:

nth1(Nth,List,Element,Residue)

mode - number of solutions:

nth1(?integer,?list,?term,?list) - zero\_or\_more

## **partition/5**

*Partitions a list in lists with values less, equal, and greater than a given value (using standard order).*

compilation:

static

template:

partition(List,Value,Less,Equal,Greater)

mode - number of solutions:

partition(+list,+number,-list,-list,-list) - one

## **permutation/2**

*The two lists are a permutation of the same list.*

compilation:

static

template:

permutation(List,Permutation)

mode - number of solutions:

permutation(?list,?list) - zero\_or\_more

## **prefix/2**

*Prefix is a prefix of List.*

compilation:

static

template:

prefix(Prefix,List)

mode - number of solutions:

prefix(?list,+list) - zero\_or\_more

## **proper\_prefix/2**

*Prefix is a proper prefix of List.*

compilation:

static

template:

proper\_prefix(Prefix,List)

mode - number of solutions:

proper\_prefix(?list,+list) - zero\_or\_more

## **reverse/2**

*Reverses a list.*

compilation:

static

template:

reverse(List,Reversed)

mode - number of solutions:

reverse(+list,?list) - zero\_or\_one

reverse(?list,+list) - zero\_or\_one

reverse(-list,-list) - one\_or\_more

## same\_length/2

*The two lists have the same length.*

compilation:

static

template:

same\_length(List1,List2)

mode - number of solutions:

same\_length(+list,?list) - zero\_or\_one

same\_length(?list,+list) - zero\_or\_one

same\_length(-list,-list) - one\_or\_more

## same\_length/3

*The two lists have the same length.*

compilation:

static

template:

same\_length(List1,List2,Length)

mode - number of solutions:

same\_length(+list,?list,?integer) - zero\_or\_one

same\_length(?list,+list,?integer) - zero\_or\_one

same\_length(-list,-list,-integer) - one\_or\_more

## select/3

*Selects an element from a list, returning the list of remaining elements.*

compilation:

static

template:

select(Element,List,Remaining)

mode - number of solutions:

select(?term,?list,?list) - zero\_or\_more

## selectchk/3

*Checks that an element can be selected from a list, returning the list of remaining elements.*

compilation:

static

template:

selectchk(Element,List,Remaining)

mode - number of solutions:

selectchk(?term,?list,?list) - zero\_or\_one

## **select/4**

*Selects an element from a list, replacing it by a new element and returning the resulting list.*

compilation:

`static`

template:

`select(Old,OldList,New,NewList)`

mode - number of solutions:

`select(?term,?list,?term,?list) - zero_or_more`

## **selectchk/4**

*Checks that an element from a list can be replaced by a new element, returning the resulting list.*

compilation:

`static`

template:

`selectchk(Old,OldList,New,NewList)`

mode - number of solutions:

`selectchk(?term,?list,?term,?list) - zero_or_one`

## **sort/2**

*Sorts a list in ascending order (duplicated elements are removed).*

compilation:

`static`

template:

`sort(List,Sorted)`

mode - number of solutions:

`sort(+list,-list) - one`

## **sort/3**

*Sorts a list using a user-specified comparison predicate modeled on the standard compare/3 predicate (duplicated elements are removed).*

compilation:

`static`

template:

`sort(Closure,List,Sorted)`

meta-predicate template:

`sort(3,*,*)`

mode - number of solutions:

`sort(+callable,+list,-list) - one`

## **sublist/2**

*The first list is a sublist of the second.*

compilation:

`static`

template:

`sublist(Sublist,List)`

mode - number of solutions:

`sublist(?list,+list) - zero_or_more`

### subsequence/3

*List is an interleaving of Subsequence and Remaining. Element order is preserved.*

compilation:

static

template:

subsequence(List,Subsequence,Remaining)

mode - number of solutions:

subsequence(?list,?list,?list) - zero\_or\_more

### subtract/3

*Removes all elements in the second list from the first list, returning the list of remaining elements.*

compilation:

static

template:

subtract(List,Elements,Remaining)

mode - number of solutions:

subtract(+list,+list,-list) - one

### suffix/2

*Suffix is a suffix of List.*

compilation:

static

template:

suffix(Suffix,List)

mode - number of solutions:

suffix(?list,+list) - zero\_or\_more

### proper\_suffix/2

*Suffix is a proper suffix of List.*

compilation:

static

template:

proper\_suffix(Suffix,List)

mode - number of solutions:

proper\_suffix(?list,+list) - zero\_or\_more

## Protected interface

(none)

## Private predicates

(none)