

# queuep

*Queue protocol.*

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version:

1.0

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compilation:

static, context\_switching\_calls

*(no dependencies on other files)*

## Public interface

### empty/1

*True if the queue is empty.*

compilation:

static

template:

empty(Queue)

mode - number of solutions:

empty(@queue) - zero\_or\_one

### head/2

*Unifies Head with the first element of the queue.*

compilation:

static

template:

head(Queue, Head)

mode - number of solutions:

head(+queue, ?term) - zero\_or\_one

### join/3

*Adds the new element at the end of the queue.*

compilation:

static

template:

join(Element, Queue\_in, Queue\_out)

mode - number of solutions:

join(@term, +queue, -queue) - zero\_or\_one

### join\_all/3

*Adds the new elements at the end of the queue. The elements are added in the same order that they appear in the list.*

compilation:

static

template:

```
join_all(List, Queue_in, Queue_out)
```

mode - number of solutions:

```
join_all(+list, +queue, -queue) - zero_or_one
```

### **jump/3**

*Adds the new element at the front of the queue.*

compilation:

```
static
```

template:

```
jump(Element, Queue_in, Queue_out)
```

mode - number of solutions:

```
jump(@term, +queue, -queue) - zero_or_one
```

### **jump\_all/3**

*Adds the new elements at the front of the queue. The elements are added in the same order that they appear in the list.*

compilation:

```
static
```

template:

```
jump_all(Element, Queue_in, Queue_out)
```

mode - number of solutions:

```
jump_all(+list, +queue, -queue) - zero_or_one
```

### **length/2**

*Queue length.*

compilation:

```
static
```

template:

```
length(Queue, Length)
```

mode - number of solutions:

```
length(+queue, ?integer) - zero_or_one
```

### **serve/3**

*Removes the first element of the queue for service.*

compilation:

```
static
```

template:

```
serve(Queue_in, Head, Queue_out)
```

mode - number of solutions:

```
serve(+queue, ?term, -queue) - zero_or_one
```

### **as\_list/2**

*Converts a queue to a list.*

compilation:

```
static
```

template:

```
as_list(Queue, List)
```

mode - number of solutions:  
as\_list(+queue,-list) - one

## Protected interface

*(none)*

## Private predicates

*(none)*