

## Introduction

This report present the data structures used to attach informations to some word of text, mainly to use in the hypertext Emacs interface.

```
import call from "ri.newgen"  
import entity from "ri.newgen"  
import loop from "ri.newgen"  
import reference from "ri.newgen"
```

I need to store pointer object:

```
External void_star
```

## 1 Attachments

Are only a list of attachments:

```
attachments = attachment*
```

## 2 Attachment

Here is what can be attached to a word:

```
attachment = attachee x begin:int x end:int
```

*begin* is the position of the attachment begin in the output file and *end* the position of its end.

The various objects that can be attached:

```
attachee = statement_line_number:int + persistent reference + persistent  
call + persistent declaration:entity + type:string + persistent loop  
+ persistent module_head:entity + complementary_sections:unit + complexities:unit  
+ continuation_conditions:unit + cumulated_effects:unit + out_regions:unit  
+ preconditions:unit + privatized_regions:unit + proper_effects:unit  
+ proper_regions:unit + regions:unit + static_control:unit + transformers:unit  
+ decoration:unit + comment:unit
```

Persistence is need because we do not want the RI to be broken when the attachments are freed.

## 3 The mapping used to attach various internal informations

Each word can have a list of attachments:

```
word_to_attachments = word_pointer:void_star->attachments
```

*word\_pointer* is an *int* instead of a *string* since the address must be used instead of the string content. So it needs a cast...