From: Frank Farance Organization: Farance Inc. Telephone: +1 212 486 4700 Fax: +1 212 759 1605 E-mail: frank@farance.com Date: 1995-12-22 Document Number: WG14/N527 X3J11/95-128 Subject: DR on Variable Length Structures Question: It the following conforming? struct x char y[1]; struct x \*z; z = (struct x \*) malloc(sizeof(\*z)+100);

z - > y[5] = '?';

In defect report 051, we state that this isn't conforming behavior because the pointer arithmetic for the larger structure might not be compatible with a smaller structure. Thus, we recommend the ''safer'' idiom:

```
#define HUGE ARR
struct x
        char y[HUGE ARR];
struct x *z;
z = (struct x *) malloc(sizeof(*z)-HUGE ARR+100);
z - > v[5] = '?';
```

However, in defect report 073, we state that the ''safer'' idiom is undefined behavior because it is possible implement the "->" operator as first fetching all of "\*z", then selecting "y[5]" from it. This approach would cause access to unallocated memory, thus, the operation produces undefined behavior.

Our responses to the question have been inconsistent. At the 1995-10 meeting in Nashua, WG14 indicated that it wanted to designate this as undefined behavior.