nag_ip_mps_free (h02bvc)

1. Purpose

nag_ip_mps_free (h02bvc) frees the memory allocated by nag_ip_mps_read (h02buc).

2. Specification

```
#include <nag.h>
#include <nagh02.h>

void h02bvc(double **a, double **bl, double **bu,
            Boolean **intvar, double **cvec, double **x)
```

3. Description

This function should be used in conjuction with nag_ip_mps_read (h02buc), which reads data for an integer programming problem from an MPSX file, allocates several arrays, and populates them with the data contained in the file. nag_ip_mps_free is a utility provided for the convenient freeing of this memory. It should be called in order to conserve memory which is no longer required, e.g. following a call to nag_ip_bb (h02bbc) (which may be used to solve the problem defined by the MPSX file). Any memory not freed will, of course, be freed when the user's program terminates.

nag_ip_mps_free can be used to free a subset of the allocated arrays by passing null pointers for those arguments which the user does not wish to free.

4. Parameters

a

Input: the non-zeros of the constraint matrix A, to be freed. If **a** or $*$**a** is a null pointer, no action is taken.
Output: if **a** is not null, $*$**a** is set to the null pointer.

bl

Input: the lower bounds of the problem variables and general constraints, to be freed. If **bl** or $*$**bl** is a null pointer, no action is taken.
Output: if **bl** is not null, $*$**bl** is set to the null pointer.

bu

Input: the upper bounds of the problem variables and general constraints, to be freed. If **bu** or $*$**bu** is a null pointer, no action is taken.
Output: if **bu** is not null, $*$**bu** is set to the null pointer.

intvar

Input: the indicators as to which are the integer variables in the problem, to be freed. If **intvar** or $*$**intvar** is a null pointer, no action is taken.
Output: if **intvar** is not null, $*$**intvar** is set to the null pointer.

cvec

Input: the coefficents, c, of the linear term of the objective function, to be freed. If **cvec** or $*$**cvec** is a null pointer, no action is taken.
Output: if **cvec** is not null, $*$**cvec** is set to the null pointer.

x

Input: a set of initial values for the variables, to be freed. If **x** or $*$**x** is a null pointer no action is taken.
Output: if **x** is not null, $*$**x** is set to the null pointer.

5. Error Indications and Warnings

None.

6. Further Comments

In addition to allocating the memory freed by this function, nag_ip_mps_read (h02buc) also allocates memory to the **crnames** member of the **options** structure (if the structure is supplied as an argument). The function nag_ip_free (h02xzc) should be used to free this memory. Users should **not** use the standard C function `free()` for this purpose.

7. See Also

nag_ip_bb (h02bbc)
nag_ip_mps_read (h02buc)
nag_ip_free (h02xzc)

8. Example

For an example of the use of nag_ip_mps_free see the documentation for nag_ip_mps_read (h02buc).