

# NAG Fortran Library Routine Document

## F06GVF (ZGTHRZ)

**Note:** before using this routine, please read the Users' Note for your implementation to check the interpretation of *bold italicised* terms and other implementation-dependent details.

### 1 Purpose

F06GVF (ZGTHRZ) gathers specified (usually non-zero) elements of a complex vector  $y$  in full storage form into a sparse complex vector  $x$  in compressed form. The specified elements of  $y$  are set to zero.

### 2 Specification

```
SUBROUTINE F06GVF (NZ, Y, X, INDX)
  INTEGER          NZ, INDX(*)
  complex*16     Y(*), X(*)
```

The routine may be called by its BLAS name *zghrz*.

### 3 Description

None.

### 4 References

None.

### 5 Parameters

- |    |  |                     |
|----|--|---------------------|
| 1: | NZ – INTEGER   | <i>Input</i>        |
|    | <i>On entry:</i> the number of elements in the compressed vector $x$ .                         |                     |
| 2: | Y(*) – <b>complex*16</b> array   | <i>Input/Output</i> |
|    | <i>On entry:</i> the vector $y$ . Only elements corresponding to indices in INDX are accessed. |                     |
|    | <i>On exit:</i> the elements of $y$ corresponding to indices in INDX are set to zero.          |                     |
| 3: | X(*) – <b>complex*16</b> array   | <i>Output</i>       |
|    | <i>On exit:</i> the compressed vector $x$ .  |                     |
| 4: | INDX(*) – INTEGER array  | <i>Input</i>        |
|    | <i>On entry:</i> the indices of the elements in the compressed vector $x$ .                    |                     |

### 6 Error Indicators and Warnings

None.