

# 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 `zgthrz`.

### 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><i>complex*16</i></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><i>complex*16</i></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.

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