

## NAG Library Chapter Contents

### M01 – Sorting and Searching

M01 Chapter Introduction – a description of the Chapter and an overview of the algorithms available

<b>Routine Name</b>	<b>Mark of Introduction</b>	<b>Purpose</b>
M01CAF	12	nagf_sort_realvec_sort Sort a vector, real numbers
M01CBF	12	nagf_sort_intvec_sort Sort a vector, integer numbers
M01CCF	12	nagf_sort_charvec_sort Sort a vector, character data
M01DAF	12	nagf_sort_realvec_rank Rank a vector, real numbers
M01DBF	12	nagf_sort_intvec_rank Rank a vector, integer numbers
M01DCF	12	nagf_sort_charvec_rank Rank a vector, character data
M01DEF	12	nagf_sort_realmat_rank_rows Rank rows of a matrix, real numbers
M01DFF	12	nagf_sort_intmat_rank_rows Rank rows of a matrix, integer numbers
M01DJF	12	nagf_sort_realmat_rank_columns Rank columns of a matrix, real numbers
M01DKF	12	nagf_sort_intmat_rank_columns Rank columns of a matrix, integer numbers
M01DZF	12	nagf_sort_arbitrary_rank Rank arbitrary data
M01EAF	12	nagf_sort_realvec_rank_rearrange Rearrange a vector according to given ranks, real numbers
M01EBF	12	nagf_sort_intvec_rank_rearrange Rearrange a vector according to given ranks, integer numbers
M01ECF	12	nagf_sort_charvec_rank_rearrange Rearrange a vector according to given ranks, character data
M01EDF	19	nagf_sort_cmplxvec_rank_rearrange Rearrange a vector according to given ranks, complex numbers
M01NAF	22	nagf_sort_realvec_search Binary search in set of real numbers
M01NBF	22	nagf_sort_intvec_search Binary search in set of integer numbers
M01NCF	22	nagf_sort_charvec_search Binary search in set of character data
M01ZAF	12	nagf_sort_permute_invert Invert a permutation
M01ZBF	12	nagf_sort_permute_check Check validity of a permutation
M01ZCF	12	nagf_sort_permute_decompose Decompose a permutation into cycles

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