

## NAG Library Chapter Contents

### c05 – Roots of One or More Transcendental Equations

c05 Chapter Introduction

Function Name	Mark of Introduction	Purpose
c05auc	23	nag_zero_cont_func_brent_binsrch Zero of continuous function, Brent algorithm, from a given starting value, binary search for interval
c05avc	9	nag_interval_zero_cont_func Binary search for interval containing zero of continuous function (reverse communication)
c05awc	23	nag_zero_cont_func_contin Zero of continuous function, continuation method, from a given starting value
c05axc	9	nag_zero_cont_func_contin_rcomm Zero of continuous function, continuation method, from a given starting value (reverse communication)
c05ayc	23	nag_zero_cont_func_brent Zero of continuous function in a given interval, Brent algorithm
c05azc	9	nag_zero_cont_func_brent_rcomm Zero of continuous function in a given interval, Brent algorithm (reverse communication)
c05bac	9	nag_lambertW Real values of Lambert's $W$ function, $W(x)$
c05bbc	23	nag_lambertW_complex Values of Lambert's $W$ function, $W(z)$
c05qbc	23	nag_zero_nonlin_eqns_easy Solution of a system of nonlinear equations using function values only (easy-to-use)
c05qcc	23	nag_zero_nonlin_eqns_expert Solution of a system of nonlinear equations using function values only (comprehensive)
c05qdc	23	nag_zero_nonlin_eqns_rcomm Solution of a system of nonlinear equations using function values only (reverse communication)
c05qsc	23	nag_zero_sparse_nonlin_eqns_easy Solution of a sparse system of nonlinear equations using function values only (easy-to-use)
c05rbc	23	nag_zero_nonlin_eqns_deriv_easy Solution of a system of nonlinear equations using first derivatives (easy-to-use)
c05rcc	23	nag_zero_nonlin_eqns_deriv_expert Solution of a system of nonlinear equations using first derivatives (comprehensive)
c05rdc	23	nag_zero_nonlin_eqns_deriv_rcomm Solution of a system of nonlinear equations using first derivatives (reverse communication)
c05zdc	23	nag_check_derivs Check user's function for calculating first derivatives of a set of nonlinear functions of several variables