

Numerical Recipes Example Programs

This page gives access to the individual Example Programs (which show how to use the Recipes). Scroll down this page and click the left mouse button on any particular Example that you want to **view**, **print**, or **save to disk**. (Note: Be sure to initialize your path with the Set Path button before you save any files to disk.)

We do not recommend copying all the Examples to disk in bulk. ([Here is why.](#)) Instead, we recommend copying just those Examples relevant to a specific project. However, if you really want to copy all the Examples to a single directory, here is how:

1. Set your path using the Set Path button on the button bar.
2. Click here: [Copy all Example Programs to Disk](#)

LIST OF EXAMPLE PROGRAMS

XAIRY.FOR	Sample program using AIRY
XAMEBSA.FOR	Sample program using AMEBSA
XAMOEB.A.FOR	Sample program using AMOEB.A
XANNEAL.FOR	Sample program using ANNEAL
XARCODE.FOR	Sample program using ARCODE
XAVEVAR.FOR	Sample program using AVEVAR
XBALANC.FOR	Sample program using BALANC
XBANDEC.FOR	Sample program using BANDEC
XBANMUL.FOR	Sample program using BANMUL
XBCUCOF.FOR	Sample program using BCUCOF
XBCUINT.FOR	Sample program using BCUINT
XBESCHB.FOR	Sample program using BESCHB
XBESSI.FOR	Sample program using BESSI
XBESSI0.FOR	Sample program using BESSI0
XBESSI1.FOR	Sample program using BESSI1
XBESSIK.FOR	Sample program using BESSIK
XBESSJ.FOR	Sample program using BESSJ
XBESSJ0.FOR	Sample program using BESSJ0
XBESSJ1.FOR	Sample program using BESSJ1
XBESSJY.FOR	Sample program using BESSJY
XBESSK.FOR	Sample program using BESSK
XBESSK0.FOR	Sample program using BESSK0
XBESSK1.FOR	Sample program using BESSK1
XBESSY.FOR	Sample program using BESSY
XBESSY0.FOR	Sample program using BESSY0
XBESSY1.FOR	Sample program using BESSY1
XBETA.FOR	Sample program using BETA
XBETAI.FOR	Sample program using BETAI
XBICO.FOR	Sample program using BICO
XBNLDEV.FOR	Sample program using BNLDEV
XBRENT.FOR	Sample program using BRENT
XBROYDN.FOR	Sample program using BROYDN
XBSSTEP.FOR	Sample program using BSSTEP
XCALDAT.FOR	Sample program using CALDAT
XCHDER.FOR	Sample program using CHDER
XCHEBEV.FOR	Sample program using CHEBEV
XCHEBFT.FOR	Sample program using CHEBFT
XCHEBPC.FOR	Sample program using CHEBPC
XCHINT.FOR	Sample program using CHINT
XCHOLSL.FOR	Sample program using CHOLSL
XCHSONE.FOR	Sample program using CHSONE
XCHSTWO.FOR	Sample program using CHSTWO
XCISI.FOR	Sample program using CISI

<u>XCNTAB1.FOR</u>	Sample program using CNTAB1
<u>XCNTAB2.FOR</u>	Sample program using CNTAB2
<u>XCONVLV.FOR</u>	Sample program using CONVLV
<u>XCORREL.FOR</u>	Sample program using CORREL
<u>XCOSFT1.FOR</u>	Sample program using COSFT1
<u>XCOSFT2.FOR</u>	Sample program using COSFT2
<u>XCOVSRT.FOR</u>	Sample program using COVSRT
<u>XCRANK.FOR</u>	Sample program using CRANK
<u>XCYCLIC.FOR</u>	Sample program using CYCLIC
<u>XDAWSON.FOR</u>	Sample program using DAWSON
<u>XDBRENT.FOR</u>	Sample program using DBRENT
<u>XDDPOLY.FOR</u>	Sample program using DDPOLY
<u>XDECCHK.FOR</u>	Sample program using DECCHK
<u>XDF1DIM.FOR</u>	Sample program using DF1DIM
<u>XDFPMIN.FOR</u>	Sample program using DFPMIN
<u>XDFRIDR.FOR</u>	Sample program using DFRIDR
<u>XDFTINT.FOR</u>	Sample program using DFTINT
<u>XECLASS.FOR</u>	Sample program using ECLASS
<u>XECLAZZ.FOR</u>	Sample program using ECLAZZ
<u>XEI.FOR</u>	Sample program using EI
<u>XEIGSRT.FOR</u>	Sample program using EIGSRT
<u>XELLE.FOR</u>	Sample program using ELLE
<u>XELLF.FOR</u>	Sample program using ELLF
<u>XELLPI.FOR</u>	Sample program using ELLPI
<u>XELMHES.FOR</u>	Sample program using ELMHES
<u>XERF.FOR</u>	Sample program using ERF
<u>XERFC.FOR</u>	Sample program using ERFC
<u>XERFCC.FOR</u>	Sample program using ERFCC
<u>XEULSUM.FOR</u>	Sample program using EULSUM
<u>XEVLMEM.FOR</u>	Sample program using EVLMEM
<u>XEXPDEV.FOR</u>	Sample program using EXPDEV
<u>XEXPINT.FOR</u>	Sample program using EXPINT
<u>XF1DIM.FOR</u>	Sample program using F1DIM
<u>XFACTLN.FOR</u>	Sample program using FACTLN
<u>XFACTRL.FOR</u>	Sample program using FACTRL
<u>XFASPER.FOR</u>	Sample program using FASPER
<u>XFGAUSS.FOR</u>	Sample program using FGAUSS
<u>XFIT.FOR</u>	Sample program using FIT
<u>XFITEXY.FOR</u>	Sample program using FITEXY
<u>XFIXRTS.FOR</u>	Sample program using FIXRTS
<u>XFLEG.FOR</u>	Sample program using FLEG
<u>XFLMOON.FOR</u>	Sample program using FLMOON
<u>XFOUR1.FOR</u>	Sample program using FOUR1
<u>XFOURFS.FOR</u>	Sample program using FOURFS
<u>XFOURN.FOR</u>	Sample program using FOURN
<u>XFPOLY.FOR</u>	Sample program using FPOLY
<u>XFRED2.FOR</u>	Sample program using FRED2
<u>XFREDIN.FOR</u>	Sample program using FREDIN
<u>XFRENEL.FOR</u>	Sample program using FRENEL
<u>XFRPRMN.FOR</u>	Sample program using FRPRMN
<u>XFTTEST.FOR</u>	Sample program using FTEST
<u>XGAMDEV.FOR</u>	Sample program using GAMDEV
<u>XGAMMLN.FOR</u>	Sample program using GAMMLN
<u>XGAMMP.FOR</u>	Sample program using GAMMP
<u>XGAMMQ.FOR</u>	Sample program using GAMMQ
<u>XGASDEV.FOR</u>	Sample program using GASDEV
<u>XGAUCOF.FOR</u>	Sample program using GAUCOF

<u>XGAUHER.FOR</u>	Sample program using GAUHER
<u>XGAUJAC.FOR</u>	Sample program using GAUJAC
<u>XGAULAG.FOR</u>	Sample program using GAULAG
<u>XGAULEG.FOR</u>	Sample program using GAULEG
<u>XGAUSSJ.FOR</u>	Sample program using GAUSSJ
<u>XGCF.FOR</u>	Sample program using GCF
<u>XGOLDEN.FOR</u>	Sample program using GOLDEN
<u>XGSER.FOR</u>	Sample program using GSER
<u>XHPSEL.FOR</u>	Sample program using HPSEL
<u>XHPSORT.FOR</u>	Sample program using HPSORT
<u>XHQR.FOR</u>	Sample program using HQR
<u>XHUFFMAN.FOR</u>	Sample program using HUFFMAN
<u>XHUNT.FOR</u>	Sample program using HUNT
<u>XHYPGEO.FOR</u>	Sample program using HYPGEO
<u>XICRC.FOR</u>	Sample program using ICRC
<u>XIGRAY.FOR</u>	Sample program using IGRAY
<u>XINDEXX.FOR</u>	Sample program using INDEXX
<u>XIRBIT1.FOR</u>	Sample program using IRBIT1
<u>XIRBIT2.FOR</u>	Sample program using IRBIT2
<u>XJACOBI.FOR</u>	Sample program using JACOBI
<u>XJULDAY.FOR</u>	Sample program using JULDAY
<u>XKENDL1.FOR</u>	Sample program using KENDL1
<u>XKENDL2.FOR</u>	Sample program using KENDL2
<u>XKS2D1S.FOR</u>	Sample program using KS2D1S
<u>XKS2D2S.FOR</u>	Sample program using KS2D2S
<u>XKSONE.FOR</u>	Sample program using KSONE
<u>XKSTWO.FOR</u>	Sample program using KSTWO
<u>XLAGUER.FOR</u>	Sample program using LAGUER
<u>XLFIT.FOR</u>	Sample program using LFIT
<u>XLINBCG.FOR</u>	Sample program using LINBCG
<u>XLINMIN.FOR</u>	Sample program using LINMIN
<u>XLOCATE.FOR</u>	Sample program using LOCATE
<u>XLUBKSB.FOR</u>	Sample program using LUBKSB
<u>XLUDCMP.FOR</u>	Sample program using LUDCMP
<u>XMACHAR.FOR</u>	Sample program using MACHAR
<u>XMEDFIT.FOR</u>	Sample program using MEDFIT
<u>XMEMCOF.FOR</u>	Sample program using MEMCOF
<u>XMGFAS.FOR</u>	Sample program using MGFAS
<u>XMGLIN.FOR</u>	Sample program using MGLIN
<u>XMIDPNT.FOR</u>	Sample program using MIDPNT
<u>XMISER.FOR</u>	Sample program using MISER
<u>XMMID.FOR</u>	Sample program using MMID
<u>XMNBRAK.FOR</u>	Sample program using MNBRAK
<u>XMNEWT.FOR</u>	Sample program using MNEWT
<u>XMOMENT.FOR</u>	Sample program using MOMENT
<u>XMPPPI.FOR</u>	Sample program using MPPI
<u>XMPROVE.FOR</u>	Sample program using MPROVE
<u>XMRQCOF.FOR</u>	Sample program using MRQCOF
<u>XMRQMIN.FOR</u>	Sample program using MRQMIN
<u>XNEWT.FOR</u>	Sample program using NEWT
<u>XODEINT.FOR</u>	Sample program using ODEINT
<u>XORTHOG.FOR</u>	Sample program using ORTHOG
<u>XPADE.FOR</u>	Sample program using PADE
<u>XPCCHEB.FOR</u>	Sample program using PCCHEB
<u>XPCSHFT.FOR</u>	Sample program using PCSHFT
<u>XPEARSN.FOR</u>	Sample program using PEARSN
<u>XPERIOD.FOR</u>	Sample program using PERIOD

<u>XPIKSR2.FOR</u>	Sample program using PIKSR2
<u>XPIKSRT.FOR</u>	Sample program using PIKSRT
<u>XPLGNDR.FOR</u>	Sample program using PLGNDR
<u>XPOIDDEV.FOR</u>	Sample program using POIDDEV
<u>XPOLCOE.FOR</u>	Sample program using POLCOE
<u>XPOLCOF.FOR</u>	Sample program using POLCOF
<u>XPOLDIV.FOR</u>	Sample program using POLDIV
<u>XPOLIN2.FOR</u>	Sample program using POLIN2
<u>XPOLINT.FOR</u>	Sample program using POLINT
<u>XPOWELL.FOR</u>	Sample program using POWELL
<u>XPREDIC.FOR</u>	Sample program using PREDIC
<u>XPROBKS.FOR</u>	Sample program using PROBKS
<u>XPSDES.FOR</u>	Sample program using PSDES
<u>XPZEXTR.FOR</u>	Sample program using PZEXTR
<u>XQGAUS.FOR</u>	Sample program using QGAUS
<u>XQRDCMP.FOR</u>	Sample program using QRDCMP
<u>XQROMB.FOR</u>	Sample program using QROMB
<u>XQROMO.FOR</u>	Sample program using QROMO
<u>XQROOT.FOR</u>	Sample program using QROOT
<u>XQRSOLV.FOR</u>	Sample program using QRSOLV
<u>XQRUPDT.FOR</u>	Sample program using QRUPDT
<u>XQSIMP.FOR</u>	Sample program using QSIMP
<u>XQTRAP.FOR</u>	Sample program using QTRAP
<u>XQUAD3D.FOR</u>	Sample program using QUAD3D
<u>XRAN.FOR</u>	Sample program using RAN
<u>XRAN4.FOR</u>	Sample program using RAN4
<u>XRANK.FOR</u>	Sample program using RANK
<u>XRATINT.FOR</u>	Sample program using RATINT
<u>XRATLSQ.FOR</u>	Sample program using RATLSQ
<u>XRC.FOR</u>	Sample program using RC
<u>XRD.FOR</u>	Sample program using RD
<u>XREALFT.FOR</u>	Sample program using REALFT
<u>XRF.FOR</u>	Sample program using RF
<u>XRJ.FOR</u>	Sample program using RJ
<u>XRK4.FOR</u>	Sample program using RK4
<u>XRKDUMB.FOR</u>	Sample program using RKDUMB
<u>XRKQS.FOR</u>	Sample program using RKQS
<u>XRLFT3.FOR</u>	Sample program using RLFT3
<u>XROFUNC.FOR</u>	Sample program using ROFUNC
<u>XRTBIS.FOR</u>	Sample program using RTBIS
<u>XRTFLSP.FOR</u>	Sample program using RTFLSP
<u>XRTNEWT.FOR</u>	Sample program using RTNEWT
<u>XRTSAFE.FOR</u>	Sample program using RTSAFE
<u>XRTSEC.FOR</u>	Sample program using RTSEC
<u>XRZEXTR.FOR</u>	Sample program using RZEXTR
<u>XSAVGOL.FOR</u>	Sample program using SAVGOL
<u>XSCRSHO.FOR</u>	Sample program using SCRSHO
<u>XSELECT.FOR</u>	Sample program using SELECT
<u>XSELIP.FOR</u>	Sample program using SELIP
<u>XSHELL.FOR</u>	Sample program using SHELL
<u>XSIMPLX.FOR</u>	Sample program using SIMPLX
<u>XSIMPR.FOR</u>	Sample program using SIMPR
<u>XSINFT.FOR</u>	Sample program using SINFT
<u>XSNCNDN.FOR</u>	Sample program using SNCNDN
<u>XSOBSEQ.FOR</u>	Sample program using SOBSEQ
<u>XSOR.FOR</u>	Sample program using SOR
<u>XSORT.FOR</u>	Sample program using SORT

<u>XSORT2.FOR</u>	Sample program using SORT2
<u>XSORT3.FOR</u>	Sample program using SORT3
<u>XSPCTRM.FOR</u>	Sample program using SPCTRM
<u>XSPEAR.FOR</u>	Sample program using SPEAR
<u>XSPHBES.FOR</u>	Sample program using SPHBES
<u>XSPHFPT.FOR</u>	Sample program using SPHFPT
<u>XSPLIE2.FOR</u>	Sample program using SPLIE2
<u>XSPLIN2.FOR</u>	Sample program using SPLIN2
<u>XSPLINE.FOR</u>	Sample program using SPLINE
<u>XSPLINT.FOR</u>	Sample program using SPLINT
<u>XSPRSAX.FOR</u>	Sample program using SPRSAX
<u>XSPRSIN.FOR</u>	Sample program using SPRSIN
<u>XSPRSPM.FOR</u>	Sample program using SPRSPM
<u>XSPRSTM.FOR</u>	Sample program using SPRSTM
<u>XSPRSTP.FOR</u>	Sample program using SPRSTP
<u>XSPRSTX.FOR</u>	Sample program using SPRSTX
<u>XSTIFBS.FOR</u>	Sample program using STIFBS
<u>XSTIFF.FOR</u>	Sample program using STIFF
<u>XSTOERM.FOR</u>	Sample program using STOERM
<u>XSVBKS.B.FOR</u>	Sample program using SVBKS.B
<u>XSVDCMP.FOR</u>	Sample program using SVDCMP
<u>XSVDFIT.FOR</u>	Sample program using SVDFIT
<u>XSVDVAR.FOR</u>	Sample program using SVDVAR
<u>XTOEPLZ.FOR</u>	Sample program using TOEPLZ
<u>XTPTTEST.FOR</u>	Sample program using TPTEST
<u>XTQLI.FOR</u>	Sample program using TQLI
<u>XTRAPZD.FOR</u>	Sample program using TRAPZD
<u>XTRED2.FOR</u>	Sample program using TRED2
<u>XTRIDAG.FOR</u>	Sample program using TRIDAG
<u>XTTEST.FOR</u>	Sample program using TTEST
<u>XTUTEST.FOR</u>	Sample program using TUTEST
<u>XTWOFFT.FOR</u>	Sample program using TWOFFT
<u>XVANDER.FOR</u>	Sample program using VANDER
<u>XVEGAS.FOR</u>	Sample program using VEGAS
<u>XVOLTRA.FOR</u>	Sample program using VOLTRA
<u>XWT1.FOR</u>	Sample program using WT1
<u>XWTN.FOR</u>	Sample program using WTN
<u>XZBRAC.FOR</u>	Sample program using ZBRAC
<u>XZBRAK.FOR</u>	Sample program using ZBRAK
<u>XZBRENT.FOR</u>	Sample program using ZBRENT
<u>XZRHQR.FOR</u>	Sample program using ZRHQR
<u>XZRIDDR.FOR</u>	Sample program using ZRIDDR
<u>XZROOTS.FOR</u>	Sample program using ZROOTS