

Discrete Signals and Systems II - TRANSFORMS, WINDOWS, MODULATION:
READ ME FIRST
VERSION 1.01

To All Users:

This disk is delivered with the version of the System Folder; System (v2.0) and Finder (v4.1). To replace the System Folder, startup your Macintosh with another disk "containing" System (v2.0) and Finder (v4.1), eject that disk (unless you have an external drive), insert a copy of this disk and then drag the icons of the System and Finder from the startup disk onto your copy.

Transforms, Windows, Modulation will NOT operate on a 128K Macintosh.

If you wish to use this product with newer versions of the System Folder, the screen will not refresh properly when the File Menu is used.

The TWM Data Folder must be on the same disk as Transforms, Windows, Modulation otherwise, a "File Error" will occur when the application is started and the program may crash if you proceed. The TWM Data Folder contains the "TWM Image Folder" and the "TWM Scrap Folder." The images necessary for the operation of the program are stored in the TWM Image Folder. TWM Scrap Folder saves signals stored in 'storage bins.' Do NOT remove scrap #0 or screen save signal documents from the TWM Scrap Folder.

TWM v1.01 can run on SCSI hard drives. It is recommended that on an HFS device, TWM 1.01 and all the related data/image files (scrap#0, screen save, saw, THEwindowER, POS) included on the disk be at the same level, i.e. in the same folder or all at the root level. If the files are scattered over the volume at different levels, the program will ask the location of each file at the start of the program. Also, TWM 1.01 is not recommended for a Mac SE or a Mac II; erratic behavior in signal file operations may result.

Make sure the Discrete Signals and Systems disk is unlocked otherwise, a "File Error" will occur when you attempt to store a signal in a Storage bin. The Discrete Signals and Systems disk MUST be in the internal or external drive and do not operate the program after ejecting the disk.

Due to a limitation in the graphics routines and screen resolution, discrete data values may appear unevenly spaced when the display width exceeds 60 points. Furthermore, when an array is all negative, the tick marks may overlap. In the "Point by Point" mode, if the value entered falls beyond the specified boundaries, lines may be drawn over the scroll bar.

All standard Apple Desk Accessories are operational. However, if a desk accessory is moved around on the screen, the screen will not refresh until the accessory is put away.

If infinite (INF) numbers are created during an operation, clear the signal in the graph window and then proceed. If vertical lines appear on the screen, save all signals, exit the program and restart. INF values may occur when using the exponential function generator or the exponential operation, if the base and/or the exponent are not carefully selected such that values exceed 1037.

The OK buttons in the dialog boxes can be activated by pressing the Return or Enter key except for the y-axis scale dialog box. Wherever possible, we have tried to protect the dialog boxes from illegal entries. Some dialog boxes accept scientific notation (e.g. 1e-2 for 0.01). However, if e is not preceded by a numeric character, the program may crash. We suggest that you enter values according to the type of the default/set value in the dialog box. Whenever applicable, enter boundary values in the right order (larger number for the upper bound; smaller number for the lower bound etc.) Also, note that when the window graph-generalized Hamming dialog box is canceled, the dialog box entries are set.

To obtain the correct value of the Instantaneous frequency, multiply the signal (or Y-axis scale) by the 'Transform record length' (i.e. 128, 64, etc.)

The Window graph option provides a number of commonly used data windows. If a window extends beyond ± 64 points on the x-axis, the boundaries are set to ± 64 . In the latter case, a spurious end value may appear when the window is superimposed on the signal. Also, in this version, the Gaussian window assumes zero mean and is centered at the origin.

Note that Oper.1 menu items operate on selected bins. Therefore, deselect [dehighlight] bins if the operation is to occur on the signal contained in the 'Graph window.'

The Semilog and Decibel (dB) menu items under the Display menu are only for display purposes when the signal is showed in magnitude or power.

Note that since 'magnitude' is always positive, if a signal is 'generated' or the make signal menu item is used when set in Magnitude, the absolute value of the signal will be taken.

Command-shift-number combinations are available on 512Ke Mac and Mac Plus (128K ROM); however, on 128K and 512K Mac (64KROM), the user must hit a key or click the mouse.

Refer to the USAGE CHART displayed after these notes to choose the best suited hardware/software configuration.

If you wish to use this product with a hard disk, be sure to copy only the application and its associated files/folders. Use the System Folder which you have installed on your hard disk to "launch" the application (with the precautions outlined above).

USAGE SUGGESTIONS

"Signal Operations v1.21" and "Transforms, Windows, Modulations ... TWM v1.01" are the first and second modules of the Discrete Signals and Systems package. The two programs can exchange data and complement each other in many functionalities. A particularly convenient approach is to place both applications on the same 800K disk when using 800K-drive machines [512Ke Mac or Mac Plus]. On 400K-drive machines [128K and 512K Mac], it is recommended to place either one of the programs on a separate disk in the external drive. Otherwise, not much space is left on the disk to operate the programs. Note that TWM must be used with System 2.0/ Finder 4.1 and that TWM program and TWM Data Folder must be on the same disk. Therefore, when both programs are used together, System 2.0/ Finder 4.1 must be used, which precludes hard disk installation. When used independently of TWM, the "Signal Operations 1.21" is compatible with System 3.2/ Finder 5.3, and can be installed on the hard disk. It is also compatible with most file servers and Switcher TM.

*** USAGE CHART ***

Discrete Signals and Systems I:

SIGNAL OPERATIONS v1.21

DSS I: Signal Operations v. 1.21 FUNCTIONS ON:

Macintosh Type	128K, 512K, 512Ke, Mac Plus
Finder/System	Finder 4.1 System 2.0
Finder/System	Finder 5.3 System 3.2
Disk Structure	MFS 400K, MFS 800K, HFS

Discrete Signals and Systems II:

TRANSFORMS, WINDOWS, MODULATION.. v 1.0 and v 1.01

DSS II: TWM v. 1.0 FUNCTIONS ON:

Macintosh Type	512K, 512Ke, Mac Plus
Finder/System	Finder 4.1 System 2.0
Disk Structure	MFS 400K, MFS 800K

DSS II: TWM v. 1.01 FUNCTIONS ON:

Macintosh Type	512K, 512Ke, Mac Plus
Finder/System	Finder 4.1 System 2.0
Finder/System	Finder 5.3 System 3.2
Disk Structure	MFS 400K, MFS 800K, HFS

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