

## *Matrix maker 2.5 (fat)*

### TWELVE-TONE MATRIX APPLICATION

**ReadMe** FILE for using *Matrix maker 2.5 (fat)* with Microsoft Word 6.x

This folder contains the latest (January, 1996) version of *Matrix maker*. This program is a "fat" binary application, containing both 68K and native PowerPC code.

The folder containing this text file includes several items:

- 1) the Macintosh *Matrix maker 2.5 (fat)* application, a fat binary application containing both 68K and PowerPC native code;
- 2) a SimpleText **ReadMe** file;
- 3) a folder labeled "for MSW 5.1 users";
- 4) a folder labeled "for MSW 6 users" (the folder containing the file that you are now reading);
- 5) the *Matrix maker script* AppleScript application
- 6) a sample output file labeled 'sample "matrix.txt"';
- 7) a sample output file labeled 'sample "header.txt"';
- 8) a sample of the "finished product", labeled "sample matrix output".

If you are equipped with Microsoft Word 6.x, set the default font to "Times" (12 points)—this is not an absolute necessity, but the script is designed with that font and type size in mind—, open the folder "for MSW 6 users", test the operation of *Matrix maker 2.5 (fat)* and either (or both) the AppleScript "*Matrix formatter*" and/or "*Matrix maker script*" application(s), and then (if everything works properly) drag the folder labeled "for MSW 5.1 users" and its contents, if you so desire, to the trash. You must have System 7.5 or later installed on your computer in order to use the AppleScript applications, and the "Finder scripting extension" must be in the active "Extensions" folder within your System Folder. *Do not trash the MSW 5.1 folder until you are sure that the "Matrix formatter" and/or "Matrix maker script" AppleScript work(s) correctly with your Word 6.x installation!*

If you have reached this line, then I assume that your MSW version is 6.x (i.e., 6.0 or 6.0.1) rather than 5.1. This folder ("for MSW 6 users") contains six items:

- 1) this **ReadMe** file;
- 2–5) four "Document template" files in Microsoft Word 6.x for converting the output of the *Matrix maker 2.5 (fat)* application into easily readable form as 12 by 12, 7 by 7, 6 by 6, and 5 by 5 matrices;
- 6) the AppleScript application "*Matrix formatter*".

This application was originally designed (v 1.0) to facilitate the necessary but often somewhat laborious "busy-work" of constructing 12 by 12 matrices used in the composition (or analysis) of twelve-tone musical compositions. The application was subsequently

(v 1.1) augmented to allow the creation of matrices of other dimensions than twelve, particularly those involving five, six, and seven elements. From its inception, the software package has also allowed the use of the M5 and M7 transforms and rotation as optional operations. The stationery files included for matrices of five, six, seven, and twelve elements allow the easy creation of matrices, either with or without pitch-class names, within the standard grid format. An additional option allows the selection of any pitch-class name as "0" (zero). *Matrix maker 1.2.1* added "hidden text" instructions for pasting the created data onto each of the (MS Word only) stationery files. *Matrix maker 2.0* eliminated some remaining error-detection bugs, provided a more user-friendly interface, and added the option (for MSW 6.x users) of automating the formatting process by using an AppleScript application, while still allowing the formatting to be accomplished manually, as before, for those who either do not have MSW 6.x or whose MSW 6.x applications stubbornly refuse to work with the script provided (an option dictated by the always prudent application, whenever computers are involved, of Murphy's Law). *Matrix maker 2.5* has added a completely automated interface option for Word 6.x users that requires only that the user double-click on the "*Matrix maker script*" application to initiate the process, which then continues through the formatting process with no user intervention except the entering of the data for the set that is to be created.

### *Setting up the application for automated and/or manual formatting*

Open your Microsoft Word folder (not the application itself) and drag the four "Document template" files ("12 x 12 matrix template", "5 x 5 matrix template", "6 x 6 matrix template", and "7 by 7 matrix template") to the "Templates" folder within your Microsoft Word 6.x folder. [See *1*] on page 4 for a note concerning a message that will occur only once upon your first use of the *Matrix formatter* and/or the *Matrix maker script* AppleScript applications.]

### *Testing the "Matrix maker 2.5 (fat)" application*

It is suggested that you test the *Matrix maker 2.5 (fat)* application by itself after installing it and before testing the automated formatting application to make certain that the application's output corresponds to that of the sample output files.

To perform this test, double-click on the application file *Matrix maker 2.5 (fat)* and enter the following information at the prompts. (In this list each prompt line is preceded by "<" and followed by ">" for your convenience; these symbols do not appear in the prompts on the screen. You should enter in turn all items not preceded by "<" and followed by ">" [these items are printed here in bold type for your convenience].):

<Enter the title of the piece.>

**My Incomparable Masterpiece**

<Enter the set in one-digit integers, separated by commas;>

<for pc numbers 10 and 11, use "t" and "e" respectively.>

**3,t,7,6,e,2,9,0,5,4,1,8**

<You have asked for a 12 by 12 matrix. Is this correct? Enter y>

<or n.>

**y**

<Do you want an M5 or M7 transform? Enter y or n.>

**y**

<Enter the M-transform number.>

**7**

<Do you want set-rotation? Enter y or n.>

**y**

<Your set is a full twelve-tone set. Do you want intra-hexachordal>

<rotation? [This type of rotation will preserve the properties of the>

<source hexachord.] If so, enter y.>

<If not, enter n, in which case the rotation>

<will be applied to the set as a whole.>

**y**

<Enter 2 for 2nd note, 3 for 3rd note, etc. for the desired rotation.>

**3**

<Do you want pitch-class names to appear under the pc>

<numbers in your matrix? Enter y or n.>

**y**

<Enter pitch-class name to be used as pitch-class 0 as>

<letter-name--sharps only.>

**f#**

< (space)>

< (space)>

<The matrix has been successfully created!>

<The matrix output files have been saved in the folder in which this application>

<is located.>

< (space)>

<To exit, type <Return>.>

< (space)>

<If you are using Microsoft Word 6.x with the AppleScript "Matrix maker script">

<automated formatting application, the matrix will be formatted without further>

<user intervention.>

< (space)>

<If you are not taking advantage of the full automation capabilities of this>

<package but are using the AppleScript "Matrix formatter" application, then>

<double-click on the "Matrix formatter" icon within the folder "for MSW 6 users">

<to format and save your matrix.>

< (space)>

<Otherwise, format and save it manually according to the instructions in the  
<appropriate "ReadMe" document.>  
<**Return**>

The output file "matrix.txt", should be identical to the sample file ‘**sample “matrix.txt”**’ provided for comparison; likewise, the output file "header.txt" should match the sample file ‘**sample “header.txt”**’. The sample input data listing and output files are designed to create a 12 by 12 matrix, but other matrices can be created in the same way by following the instructions on the screen. Remember, if at any time you should wish to abort the program, simply type "<COMMAND>–<period>", followed by "Quit" from the file menu (or the shortcut "<Command>–Q"). The file “mtrxsize.txt”, for which a sample file is *not* provided, should contain only one number, which should in the case of the sample data above be “12”; this number always equals the number of elements in your matrix.

## *Creating a fully-formatted matrix automatically*

**These instructions apply only in the event that you are taking advantage of the fully automated features of the “*Matrix maker script*” AppleScript application! A set of simplified instructions is given on page 10 at the end of this file.**

- 1) Double-click on the AppleScript application “*Matrix maker script*”. After the program has checked that your system has a Scriptable Finder (you must have System 7.5—and preferably 7.5.1—in order to use the automated features in this package), you will then be asked a series of questions. **NOTE:** Upon the occasion of your first use of this script, a dialogue box that asks the question “Where is Microsoft Word?” will probably appear. This question, which is not to be confused with that mentioned a few sentences later in this document, will occur only upon your first use of this application; the question refers to the MSW application itself, rather than to the folder. If you answer this question incorrectly, *strange* things for which I accept no responsibility will happen. It is very important that this and all other questions concerning the locations of files be answered correctly! After the question described in the previous sentence has been answered satisfactorily, each subsequent activation of the script will occur as follows: You will be asked to locate the folders (the *folders*, not the applications themselves) in which your Microsoft Word and ***Matrix maker 2.5*** applications are located. Locate and the folder requested and click “Open”, after which the box at the *bottom* of the dialog box should read, respectively, “Choose Microsoft Word” (or whatever you have named your MSW 6 folder) and “Choose Matrix maker 2.5”. In each case, click this box below the folder. (Alternate ways for choosing the folders, including one method that is much simpler than that above, are found under item 5) on page 10 of this document in the *Simplified guide . . .*) The program will then proceed to create and format your matrix automatically, beginning with step 2). One caveat: *Be sure that the option “Confirm conversions” in the dialog box that appears when you issue an “Open” command to Word is **not** checked! If this box is checked, Word will ask for the type of file conversion every time that it tries to open a file, which will defeat the entire purpose of the script application!*
- 2) The console window will appear, and you will be issued several prompts. In each case, after entering the information requested, press <ENTER>. You may exit from the application at any time by typing "<COMMAND>-<period>" followed by "<COMMAND>-Q" (or by just typing "<COMMAND>-Q").
  - a) You will first be prompted to enter the name of the piece for which the matrix will be used. **WARNING:** *Do not enter as part of the name either an en-dash or an em-dash. The script does not know how to handle these and will interrupt the formatting of the matrix to ask for help!* Characters such as “:” are permissible, however.

- b) You will next be prompted for the set on which you want the matrix to be based. (These instructions apply to the creation of a 12 by 12 matrix, but they may be used with some modifications for other matrices as well—see below.) This set **MUST** be entered as a series of one-digit numbers from 0 to 11, all but the last followed by a comma. The numbers "10" and "11" must be represented by the characters "t" and "e", respectively (whether these characters are in upper or lower case is irrelevant; this is also the case with all other alphabetic characters entered when this application is used). Typing errors will be flagged, including the entry of duplicate pitch-class numbers and the typing of more than twelve entries, and an opportunity for re-entry of the set will be provided. The set entered need not begin on "0" (zero); a set entered as beginning on any other number will automatically be transposed so that the first note becomes zero. You will be asked if the number of elements in the array is correct. As in all such prompts, type "y" (yes) or "n" (no).
- c) You will be asked whether or not you wish the set entered to be subjected to an M5 or M7 transform. Enter "y" or "n", as above. If you entered "n", the program will proceed to **d)** below. If you entered "y", you will be prompted for the number of the transform, in which case you should enter either 5 or 7. (If you are not familiar with this relatively recent twelve-tone transformation, enter "n".)
- d) You will be asked whether or not you want rotation. If you entered "n", the program will proceed to **e)** below. If you entered "y", you will be asked for the number of the note within the hexachord or set on which the rotation will begin (the numbers range from 2 through 6, in the case of hexachords). Obviously, you could enter "1", but this would result in no rotation at all.
- e) You will be asked whether or not you wish pitch-class names to appear below the numbers. If you enter "n", the window will display the message **"The matrix has been successfully created! The matrix output files have been saved in the folder in which this application is located."** (2 spaces) **"To exit, type <Return>."** (2 spaces) **"If you are using Microsoft Word 6.x with the AppleScript "Matrix maker script" automated formatting application, the matrix will be formatted without further user intervention.** (space) **If you are not taking advantage of the full automation capabilities of this package but are using the AppleScript "Matrix formatter" application, then double-click on the "Matrix formatter" icon within the folder "for MSW 6 users" to format and save your matrix.** (space) **Otherwise, format and save it manually according to the instructions in the appropriate "ReadMe" document."**

If you enter "y", you will be prompted to enter the pitch-class name (either single letters from A through G (case irrelevant) or two-character names consisting of one of these letters followed by "#" (no flats, please--there is no flat character in the font!). After you enter this item, the message mentioned ear-

lier in this paragraph will appear. *If for any reason you have aborted the program after it has created any of the three text files (“header.txt”, “matrix.txt”, or “mtrxsize.txt”), you must delete these files before running it again. If you do not do so, the application will refuse to run!!*

Press “Return” to exit the ***Matrix maker 2.5 (fat)*** application and to continue with the formatting process.

The “*Matrix maker script*” will then check to determine the dimensions of your matrix. ***Please note that this application is designed to handle only 12 by 12, 7 by 7, 6 by 6, and 5 by 5 matrices; an output file that indicates a matrix of any other size will cause the program to terminate execution.*** After creating and formatting your matrix, the program will automatically save it in the “Matrix maker 2.5” folder as a Word 6.x file under the name “Matrix output” and will put the three output files produced by the ***Matrix maker 2.5 (fat)*** application (“matrix.txt”, “header.txt”, and “mtrxsize.txt”) in the Trash. If a file called “matrix output” has either deliberately or accidentally been left in the folder, you will be informed that the file “matrix output” that you have just created will be saved on the desktop; if by some chance a file by that name also exists on the desktop, you will be informed that the program will terminate execution but will leave Word open, allowing you to save the file under another name. *In no case will an existing “matrix output” file be over-written by a new one.* The program is designed to leave the deleted items in the “Trash” rather than emptying the “Trash” to avoid deleting other files that the user may have placed there but not definitely decided to trash permanently; therefore, there will always be at least four items in the “Trash” following the creation of each matrix.

### ***Creating the matrix data manually***

**The instructions in this section and the following section (“*Processing the output file*”) apply only in the event that you are not using the fully-automated capabilities of the “*Matrix maker script*” AppleScript application!**

To use the ***Matrix maker 2.5 (fat)*** application, perform the following steps to create a 12 by 12 matrix:

- 1) Double-click on the “***Matrix maker 2.5 (fat)***” icon.
- 2) The console window will appear, and you will be issued several prompts. In each case, after entering the information requested, press <ENTER>. You may exit from the application at any time by typing "<COMMAND>-<period>" followed by "<COMMAND>-Q" (or by just typing "<COMMAND>-Q").
  - a) You will first be prompted to enter the name of the piece for which the matrix will be used. **WARNING:** *Do not enter as part of the name either an en-dash*

*or an em-dash. The script does not know how to handle these and will interrupt the formatting of the matrix to ask for help!* Characters such as “:” are permissible, however.

- b) You will next be prompted for the set on which you want the matrix to be based. (These instructions apply to the creation of a 12 by 12 matrix, but they may be used with some modifications for other matrices as well—see below.) This set **MUST** be entered as a series of one-digit numbers from 0 to 11, all but the last followed by a comma. The numbers "10" and "11" must be represented by the characters "t" and "e", respectively (whether these characters are in upper or lower case is irrelevant; this is also the case with all other alphabetic characters entered when this application is used). Typing errors will be flagged, including the entry of duplicate pitch-class numbers and the typing of more than twelve entries, and an opportunity for re-entry of the set will be provided. The set entered need not begin on "0" (zero); a set entered as beginning on any other number will automatically be transposed so that the first note becomes zero. You will be asked if the number of elements in the array is correct. As in all such prompts, type "y" (yes) or "n" (no).
- c) You will be asked whether or not you wish the set entered to be subjected to an M5 or M7 transform. Enter "y" or "n", as above. If you entered "n", the program will proceed to **d)** below. If you entered "y", you will be prompted for the number of the transform, in which case you should enter either 5 or 7. (If you are not familiar with this relatively recent twelve-tone transformation, enter "n".)
- d) You will be asked whether or not you want rotation. If you entered "n", the program will proceed to **e)** below. If you entered "y", you will be asked for the number of the note within the hexachord or set on which the rotation will begin (the numbers range from 2 through 6, in the case of hexachords). Obviously, you could enter "1", but this would result in no rotation at all.
- e) You will be asked whether or not you wish pitch-class names to appear below the numbers. If you enter "n", the window will display the message "**The matrix has been successfully created! The matrix output files have been saved in the folder in which this application is located.**" (2 spaces) "**To exit, type <Return>.**" (2 spaces) "**If you are using Microsoft Word 6.x with the AppleScript “Matrix maker script” automated formatting application, the matrix will be formatted without further user intervention.** (space) **If you are not taking advantage of the full automation capabilities of this package but are using the AppleScript “Matrix formatter” application, then double-click on the “Matrix formatter” icon within the folder “for MSW 6 users” to format and save your matrix.** (space) **Otherwise, format and save it manually according to the instructions in the appropriate “ReadMe” document.**"



If you enter "y", you will be prompted to enter the pitch-class name (either single letters from A through G (case irrelevant) or two-character names consisting of one of these letters followed by "#" (no flats, please--there is no flat character in the font!). After you enter this item, the message mentioned earlier in this paragraph will appear. *If for any reason you have aborted the program after it has created any of the three text files ("header.txt", "matrix.txt", or "mtrxsize.txt"), you must delete these files before running it again. If you do not do so, the application will refuse to run!!*

### *Processing the output file*

When you have exited the application, you will notice that the output files "matrix.txt", "header.txt", and "mtrxsize.txt" will reside within the same folder that contains the *Matrix maker 2.5 (fat)* application.

Next, double-click on the AppleScript application "*Matrix formatter*". After the program has checked that your system has a Scriptable Finder (you must have System 7.5—and preferably 7.5.1—in order to use the automated features in this package), you will then be asked a series of questions. **NOTE:** Upon the occasion of your first use of this script, a dialogue box that asks the question "Where is Microsoft Word?" will probably appear. This question, which is not to be confused with that mentioned a few sentences later in this document, will occur only upon your first use of this application; the question refers to the MSW application itself, rather than to the folder. If you answer this question incorrectly, *strange* things for which I accept no responsibility will happen. It is very important that this and all other questions concerning the locations of files be answered correctly! After the question described in the previous sentence has been answered satisfactorily, each subsequent activation of the script will occur as follows: You will be asked to locate the folders (the *folders*, not the applications themselves) in which your *Microsoft Word* and *Matrix maker 2.5* applications are located. Locate the folder requested and click "Open", after which the box at the *bottom* of the dialog box should read, respectively, "**Choose Microsoft Word**" (or whatever you have named your MSW 6 folder) and "**Choose Matrix maker 2.5**". In each case, click this box below the folder. (Alternate ways for choosing the folders, including one method that is much simpler than that above, are found under item 5) on page 10 of this document in the *Simplified guide . . .*) The program will then proceed to create and format your matrix automatically. One caveat: *Be sure that the option "Confirm conversions" in the dialog box that appears when you issue an "Open" command to Word is **not** checked! If this box is checked, Word will ask for the type of file conversion every time that it tries to open a file, which will defeat the entire purpose of the script application!*

The “*Matrix formatter*” will then check to determine the dimensions of your matrix. ***Please note that this application is designed to handle only 12 by 12, 7 by 7, 6 by 6, and 5 by 5 matrices; an output file that indicates a matrix of any other size will cause the program to terminate execution.*** After creating and formatting your matrix, the program will automatically save it in the “Matrix maker 2.5” folder as a Word 6.x file under the name “Matrix output” and will put the three output files produced by the ***Matrix maker 2.5 (fat)*** application (“matrix.txt”, “header.txt”, and “mtrxsize.txt”) in the Trash. If a file called “matrix output” has either deliberately or accidentally been left in the folder, you will be informed that the file “matrix output” that you have just created will be saved on the desktop; if by some chance a file by that name also exists on the desktop, you will be informed that the program will terminate execution but will leave Word open, allowing you to save the file under another name. *In no case will an existing “matrix output” file be over-written by a new one.* The program is designed to leave the deleted items in the “Trash” rather than emptying the “Trash” to avoid deleting other files that the user may have placed there but not definitely decided to trash permanently; therefore, there will always be at least four items in the “Trash” following the creation of each matrix.

***If you cannot get the “Matrix formatter” script to work***

NOTE: If you are using Microsoft Word 6.x *and you cannot get the AppleScript “Matrix formatter” to work with your Word installation*, then either save the MSW 5.1 stationery files provided in the folder “for MSW 5.1 users” as MSW 6.x “Document templates” and drag them to the “Templates” folder within your Microsoft Word 6.x folder or drag the templates provided for that purpose in the “for MSW 6 users” folder to the Word 6.x “Templates” folder. Then open a “New” file, select the appropriate template, open the document “matrix.txt”, choose “Select All” from the “Edit” menu, select “Convert text to table” from the “Table” menu, select “Copy” from the “Edit” menu when the text-to-table conversion is complete, and proceed to paste onto the “new” file (which will probably be called “DocumentN”, where “N” is some number) by double-clicking anywhere within the grid, using the "Paste special" command from the "Edit" menu and selecting "Unformatted text" in the dialogue box (this is very important!). If you have saved the MSW 5.1 stationery files as templates as outlined above, “hidden text” will appear, exactly as in the original MSW 5.1 stationery files; this text will not print unless your Word application is configured to print hidden characters. In case you forget the procedure to be used, it is very convenient to be able to refer to the hidden text that appears above the grid for instructions about how to proceed. (You may find it necessary, when the matrix is completed, to nudge the number in the upper left-hand corner one or two spaces to the right to line it up with the others.)

Next, open and copy, as above, the contents of the file "header.txt" and paste the line(s) at the top of the matrix grid document, centering the line(s) and making font changes if desired.

All that remains is to name and save the file in the usual fashion, as a normal Word Document.

(It is also possible to leave the stationery files in their original format, since in this case they will function just as do such files in MSW 5.1; however, since Word 6.x is set up somewhat differently than Word 5.1, it makes sense to use templates instead. The choice is up to the user.)

### ***Differences between v 2.5 and v 2.0***

***Matrix maker 2.5*** represents a major improvement over v 2.0 for those equipped with Microsoft Word 6.x. In this version, the option of creating the matrix automatically from start to finish, with the only user intervention occurring during the initial entering of the data used to create the set itself, has been added. The other options present in v 2.0, however, namely either semi-automatic or manual formatting, have been retained, making the program adaptable to many different circumstances, depending upon the word-processing application available to the user. The requirement for a minor user intervention at the end of the process to prevent the saving of a useless file has been eliminated.

### ***Differences between v 2.0 and v 1.2.1***

The differences between v 2.0 and earlier versions were significant. Some remaining bugs were ironed out, and a much more user-friendly interface was added. The principal change, however, was the addition of an AppleScript application that can automatically copy, format, and save a completed matrix with almost no user intervention, provided that the user has an active installation of Microsoft Word 6.x on his/her system. Since the use of the script application may not work in all cases, however, the option of formatting the matrix manually, as in earlier versions, was retained. Folders for use with both MSW 5.1 and MSW 6.x were included, each with pertinent documentation.

### ***Differences between v 1.2.1 and 1.2***

The principal change in this version was the addition of the "hidden text" in the stationery files. Version 1.2.1 also contained some significant fixes regarding bugs in error-detection that managed to slip by in v 1.2!

### ***Differences between v 1.2 and 1.1***

This version was the first "fat" binary version, containing both Macintosh 68K (68020 and above) and native PowerPC code. The code for both types of processor was optimized to run more quickly and efficiently than in previous versions. Improved error-detection for typing errors in the entry of data not present in earlier versions was included in v 1.2. Additional word-processing template files for matrix layout were provided. The option of selecting either intra-hexachordal or entire-set rotation for full twelve-tone sets

was also added (v 1.1 allowed only intra-hexachordal rotation). The other principal difference was a fix of a minor but potentially annoying bug involving creator types.

### *Differences between v 1.1 and 1.0*

The differences between v 1.1 and v 1.0 were minimal. The code was optimized somewhat, and it became unnecessary to adjust the column width in the Microsoft Word text-to-table conversion prior to pasting the table onto the appropriate stationery file.

### *Simplified guide to the use of the “Matrix maker script” for automated formatting of matrices created with “Matrix maker 2.5 (fat)”*

- 1) Double-click on the *Matrix maker script* AppleScript application icon.
- 2) Follow the directions given by the prompts to enter your matrix data.
- 3) When prompted, press “**Return**” to format the matrix automatically.
- 4) When asked for the type of word-processing application being used, click the button labeled *Microsoft Word 6.x*.
- 5) When prompted, select the folder in which your *Microsoft Word* application is located in **one** of these three ways:
  - a) Navigate to the folder on your hard drive, highlight the folder, double-click on it, and click the button *below* the hard drive file-list marked **Choose “Microsoft Word”** (the name within the quotation marks will be whatever you have named the Word 6.x folder, if different from the above).
  - b) Navigate to the folder on your hard drive, highlight it, and click the **Choose** button to the right of the file list.
  - c) Navigate to the folder on your hard drive, highlight it, click **Open**, and click on the button *below* labeled **Choose “Microsoft Word”** [or whatever—see **a)** above].
- 6) Select the “*Matrix maker 2.5*” folder, following one of the procedures in **5)** above.
- 7) If you have made the correct choices and if nothing is wrong with the matrix data computed earlier, your matrix will be formatted and saved with no further interruptions. You will be notified when the process is complete; when this occurs, click **OK** and the program will terminate.

- 8) It is a good idea to move your “matrix output” file to another folder or to rename the file. However, a “matrix output” file will in no circumstances be over-written when you attempt to create another matrix. In such a case, execution of the program will terminate, but Word will be left open to allow you to save the most recent matrix under another file name.

This application is freeware, with no strings attached except that the application and related files may not be sold or otherwise commercially exploited (though it may, of course, be used by composers and/or analysts—after all, that's why it was written!). For information, comments, etc., send me an e-mail message at "j-melby@uiuc.edu" or "JB-Melby@aol.com". Enjoy!

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