

Introduction

Overview

EC-Math is a program that automates column summary in Ecco. More specifically, EC-Math will calculate the total, minimum, maximum, average or weighted average of detail item values and put the summary in the parent item. Specific examples include totaling hours, finding the earliest start date, finding the latest finish date and averaging test scores. Once you define the operations you want to execute, you only have to click on an icon to update the values.

License Agreement

Shareware

This product is distributed under the shareware marketing concept. This means that you can the program for a limited amount of time to see if it meets your needs. After the trial period, you are required to register and pay the registration fee or to stop using it.

Shareware is a distribution method, NOT a type of software. The primary difference between shareware and retail software is that with shareware you know if it fits your needs BEFORE you pay for it.

The shareware system and the continued availability of quality shareware products depend on your willingness to register and pay for the shareware you use. It's the registration fees you pay which allow us to support and continue to develop our products. Please show your support for shareware by registering those programs you actually use and by passing them on to others.

License

Non-registered users are granted a limited license to try EC-Math for a period of 30 days. After the trial period you are required to register and to pay the registration fee or stop using it. The 30 day evaluation period is a legal requirement based on the license agreement. EC-Math will not stop working or cause any damage to itself or your system at the end of the 30 day period.

Registration grants a user the right to use EC-Math only on a single computer. If that user uses the computer at least 80% of the time the computer is in use, then that person may also use EC-Math on his or her home or laptop computer.

No one may modify EC-Math in any way, including but not limited to decompiling, disassembling or otherwise reverse engineering the program.

All users are granted a limited license to copy EC-Math only for the trial use of others subject to the above limitations, and also the following:

- EC-Math and accompanying documentation must be copied in unmodified form, complete with the file containing license and ordering information,
- The full EC-Math documentation must be included with the copy, and
- No fee, charge or other compensation may be accepted or requested by any licensee except a minimal charge to cover distribution costs.

Operators of electronic bulletin board systems (Sysops) may post EC-Math for downloading by their users only as long as the above conditions are met.

Warranty

Use of this software for any purpose whatsoever constitutes your unqualified acceptance of the following statements.

The author makes no warranty or representation that the software will be error free. The author disclaims any warranties, either express or implied, including but not limited to any implied warranty of merchantability or fitness for any particular purpose.

The user agrees to take full responsibility for the selection of and any use whatsoever made of the software.

In no event will the author be liable for any damages whatsoever (including, without limitation, damages for loss of business profits, business interruption, loss of business information or the like) arising out of the use of, interruption in the use of, or inability to use this software, even if the author has been advised of any possibility or likelihood of such damages.

Copyright/Trademarks

EC-Math program and documentation copyright © 1994 by Stevers Software. All rights reserved.

Arabesque is a registered trademark and ECCO and the Shooter are trademarks of Arabesque Software Inc.

Windows is a trademark of Microsoft Corporation.

Registering

This software can be registered by filling out the registration form.

Registering will entitle you to the following benefits:

- allow you to keep using EC-Math beyond the 30 day trial period,
- a key that will disable the 'Please Register' dialog box,
- answers to your questions sent by mail and
- notices about future upgrades to EC-Math or other products that work with Ecco (if you've checked the appropriate boxes on your registration form).

Registration Form

EC-Math can be registered by filling out this form and sending it and a check or money order payable in US funds to:

Stevens Software
1011 West Lincoln Ave
Goshen, IN 46526

Name: _____

Company: _____

Address: _____

City, State, Zip: _____

Phone #: _____

EC-Math version _____ (use the command Help|About EC-Math to determine this)

Please check one of the following:

I wish to register 1 copy of EC-Math at \$20
(Each person must fill out a registration form)

I wish to have a small site license and register ____ copies of EC-Math at \$15 per copy
(A small site license requires that at least 5 copies be registered)

I wish to have a large site license and register ____ copies of EC-Math at \$10 per copy
(A large site license requires that at least 9 copies be registered)

Please check the following if appropriate:

Please notify me of any upgrades to EC-Math as they become available

Please notify me of other products that you develop for Ecco

I would be interested in a spell checker for Ecco

Other comments:

Quick Tour

This section is a quick guide to some of the features of EC-Math. The sample Ecco and EC-Math files are provided with EC-Math and have been copied on your computer if you chose to do so during the installation. You'll need the sample Ecco file for the tour.

Specifying an Ecco file

The first thing you'll need to do in EC-Math is specify the Ecco file that contains the information you'll update. Do this done by pressing the Define button (or pressing Alt-D). You will then see a dialog box where you can specify the Ecco file. Double click on EC-MATHS.ECO.

After the file is specified, EC-Math will load the file into Ecco. EC-Math will try to start Ecco if Ecco is not running. You'll have to start Ecco yourself if EC-Math is unable to start it. (See "Why can't EC-Math start Ecco" for an explanation.) EC-Math should report there are 41 folders in the file.

Define a Math Operation

If you were to look at the task view from Ecco, you would notice not all the detail hours are totaled up to the summary items. Our first math operation will total these numbers for us. Press the New button.

We want to total the Hours column values for items in the Tasks folder. Scan through the folder list box and find the Tasks folder. You will have to select the checkmark folder type if the folder isn't listed. Click on the Tasks folder.

The next item to specify is the type of operation. We want to calculate the total in this case. Notice that Total is already selected. We'll add a different type of operation later.

The last item we'll specify is the column to operate on; in this case it is Hours. Click on the Hours column. You will have to select the number column type if the column isn't listed.

Your dialog box should now look something like this:

Define Math Operation

Items in folder:

- New Columns
- PhoneBook
- Scheduling
- Search Results
- System Folders
- Tasks

Folder type:

- Unknown
- Number
- Checkmark
- Text
- Date
- Pop-up list

Math operation

Average Weighted avg Maximum Minimum Total

Items in column:

- Appointments
- Birthday
- Done
- Finish Dates
- Hours
- Phone Log

Column type:

- Date
- Text
- Number
- Pop-up list

Top level items summarized in item:

Ok **Cancel**

That's all. Press Enter or press the OK button to add the math operation.

Calculate Values

The Calculate button is now enabled since there is a math operation defined. Go ahead and press this button (or press F9) to have EC-Math update the values. You might see that three values were updated. Switch to Ecco to see the new information.

Another method of updating values is to click on the Calc icon on Ecco's title bar. Change the hours of 'Fireplace brick' from 15 to 16 and click on this icon to have EC-Math update the hours of 'Do rough brickwork' from 45 to 46.

Switch back to EC-Math and define a new math operation that will find the minimum start date for items in folder Tasks. Before you press Enter or press the OK button, enter 'Task summary' in the 'Top level items summarized in item' box. Your dialog should look something like this:

Do the same thing to find the latest (maximum) finish date. Press OK and your main EC-Math screen should look something like this:

Press F9 and when you switch back to Ecco you'll find a new item in folder Tasks named 'Task summary' which has the earliest start date and the latest end date. Before you play around with changing column values, change the Hours math operation to also put a total in this item (double click on the total hours math operation and put 'Task summary' in the 'Top level items summarized in item' box).

Switch back to Ecco and change some column values and click the Calc icon to have EC-Math update the summary values.

Find a New Folder

After working with the Ecco view, let's say you decide to track costs associated with each item. You'll have to add a new column, Costs, for this. Add this column in Ecco.

Switch back to EC-Math and add a new math operation that will total costs for items in folder Tasks. You can't do this because EC-Math doesn't show you a costs column. EC-Math does not know you added a new column; you have to press F5 or choose the *Edit|Reload folder list* command. You should see the number of folders change from 41 to 42 after doing this. Now you can add the new math operation.

Conclusion

This concludes the quick tour. You can save the EC-Math information to a file if you wish, using the name EC-MATHS.EC#. It should be the same as EC-MATH.EC# if you copied the latter when you installed EC-Math.

This tour didn't show all the functionality of EC-Math (it didn't cover averaging or finding the minimum or maximum value of text) but it should be enough to get you going.

Context Help

File Menu

This menu has commands that deal with loading and storing EC-Math information to a disk file. You should do this after defining math operations so you won't have to repeat the definition each time you run EC-Math. There is also a command to end the program.

New Command

This command will erase the information in EC-Math. You will be given a chance to save the information before it is erased if it has not been saved since the last change.

Open Command

This command will load EC-Math information from a disk file previously saved from EC-Math. You will be given a chance to save the current information before it is erased if it has not been saved since the last change.

You may use Ctrl-O in place of this menu command.

Save Command

This command will save the current EC-Math information to a disk file that can later be used by the Open command. You will be asked for a name (as if you had chosen Save As instead of Save) if you have not yet saved the information.

You may use Ctrl-S in place of this menu command.

Save As Command

This command allows you to save the current EC-Math information with a new file name. This is also the command that is executed if you do a Save when EC-Math doesn't have a name for the file.

Exit Command

This command allows you to end EC-Math. This is the same as choosing the Close command from the System menu.

You may use Alt-X in place of this menu command.

Edit Menu

EC-Math's Edit menu is not like most Windows programs' Edit menu because you don't edit text in EC-Math. Because of this, you'll find commands that update values instead of text.

Reload Folder List Command

This command causes EC-Math to update its list of folders from Ecco. EC-Math has no way of knowing when you change folders or columns and relies on you to tell it when it's necessary to update its internal list.

You may use F5 in place of this menu command.

Calculate Command

This command causes EC-Math to query Ecco column values and update the values when necessary.

You may use F9 in place of this menu command or, if you're in Ecco, click on the math symbol icon on Ecco's title bar.

Configure Menu

This menu has commands that allow you to customize the way EC-Math operates.

Change Options Command

This command displays a dialog box where you can enable or disable certain EC-Math features.

Refer to the Options Dialog for more information.

Register Command

This command displays a dialog box where you can enter your name and EC-Math registration key. The 'Please Register' dialog box will no longer be displayed if you enter a valid key.

Refer to the Register Dialog for more information.

Help Menu

The Help menu allows you to access the on-line help for EC-Math and to view information about the version of EC-Math and Ecco's DDE. There are several different ways to get into the help system so there are several commands on the Help menu.

Contents

This command accesses the highest level of EC-Math help. From here you can branch to any level of detail you want.

Context

This command accesses help about EC-Math menus, dialog boxes, the main screen and menu shortcut keys.

Search

This command allows you to search EC-Math help by entering a word and seeing what topics may be relevant.

Getting Started

This command takes you to the help section that describes a sample EC-Math session. You may want to read through this help topic to get an overview of EC-Math features and how they work together with Ecco.

Common Questions

This command takes you to a list of frequently asked questions about EC-Math.

Using Help

This command gives you some tips on how to use the Windows Help system, including how to navigate and understand the various items on the screen.

About Ecco DDE

This command displays the Ecco DDE version. You'll be asked to supply the Ecco DDE version when you report a potential problem about EC-Math.

About EC-Math

This command displays the EC-Math version.

System Menu

This menu is a standard menu provided by Windows. Refer to your Windows manual if you want more information.

Restore Command

This command returns the window to the size it was before the last minimize or maximize command.

Move Command

This command allows you to move the window. You can also move the window by dragging the window's title bar.

Size Command

This command allows you to change the size of the EC-Math window. Please be aware that there's a limit to how small you can make the EC-Math window. This assures that the window is large enough to contain the necessary information. You can also change the size of the window by dragging on any window border.

Minimize Command

This command reduces the size of the EC-Math window to an icon at the bottom of the screen. The restore command will return the window to its previous size.

Maximize Command

This command changes the size of the EC-Math window to take up the entire screen. The restore command will return the window to its previous size.

Close Command

This command ends EC-Math. This is the same as choosing the Exit command from the file menu.

Switch To Command

This command allows you to switch to a different application.

Main Screen

There are many items on the main screen of EC-Math but it is designed to allow you to do most of your work from it.

Ecco File

This item identifies the Ecco file that EC-Math will update. EC-Math will make sure this file is loaded in Ecco when EC-Math asks Ecco for folder names and column values.

Number of Folders

This item simply tells you how many folders are stored in EC-Math. This can be used to verify that a new folder has been loaded into EC-Math when you press F5 or choose the *Edit/Reload folder list* command.

Math Operations

This item lists the current math operations defined over the Ecco file. You can add items to this list by pressing the New button, change items by selecting an item and pressing the Change button (or double clicking on an operation) and remove items by selecting an item and pressing the Delete button.

You can change the wording in this list box by checking or unchecking the **Terse separator text on main window** on the options dialog box. The item will change between "Total 'Hours' values in folder 'Projects'" and "Total 'Hours' in 'Projects'".

Define Button

This button allows you to define or change the Ecco file used by the math operations. This process will load the file into Ecco if it is not in Ecco already. You will be required to change or delete existing math operations if you change the Ecco file and there are operations that use folders not in the new Ecco file.

Note that this process requires you to have saved the Ecco file to disk.

Calculate Button

This button causes EC-Math to calculate column values using the math operations listed on the main screen. This button is disabled until a math operation is defined.

You can also calculate column values by pressing F9 or clicking on the EC-Math icon on the Ecco title bar.

New Button

This button displays the Math Operation Dialog that allows you to define a math operation. This button is disabled until an Ecco file is defined.

Change Button

This button allows you to change an existing math operation. This button is disabled until a math operation is selected.

You can also change an operation by double clicking on a math operation.

Delete Button

This button allows you to delete an existing math operation. This button is disabled until a math operation is selected.

Status Line

The status line displays text that gives you some clue about the purpose of the item underneath the mouse arrow. The status line also keeps you informed as EC-Math is calculating column values and will display the number of values updated when the calculation is finished.

About Dialog

This dialog box displays the version of EC-Math that you're running along with the name entered on the registration dialog. The name will be 'Unregistered evaluation copy' if you haven't yet registered EC-Math.

Define Math Operation Dialog

This dialog box allows you to create or change a math operation. There are several pieces that define a math operation so there are several parts to the dialog box.

Items in Folder

This box lists the folders in the Ecco file. You should select a folder that contains the items that you want to summarize. All items in the folder will be summarized.

Folder Type

You can change the folders listed in the box by checking different items in the folder type group. Only folders that are a type that is checked will be displayed. You can select as many types as you wish.

Math Operation

This is where you choose the type of summary that will be performed. You can choose from average, weighted average, maximum, minimum or total. You can select only one operation.

Note that not all operations are valid for all column types. The following table lists the dependencies:

<u>Operation</u>	<u>Column type</u>
Average	Number
Weighted Avg	Number
Maximum	Any type
Minimum	Any type
Total	Number

Values in Column

This box identifies which column will be summarized. Please note the dependencies between the column type and math operation that is outlined in the table above.

Column Type

You can change the columns listed in the box by checking different items in the column type group. Only columns that are a type that is checked will be displayed. You can select as many types as you wish.

Top level items summarized in item

This box allows you to name an item that will contain a summary of other top level items in the folder. Ecco does not allow folders to contain column values so if you want to have a summary of all items EC-Math can place the summary in a separate item. Column values for this item are not used in future calculations.

Edit Operation Dialog

This dialog box is displayed when EC-Math's list of folders is updated and an operation uses a folder that no longer exists or has changed type. You will be required to change or delete the operation that uses the deleted or changed folder.

A specific example would be a math operation that totals the column **Hours** for items in folder **Projects**. If you delete column **Hours** from Ecco and reload the folder list from EC-Math, EC-Math will display this dialog informing you of the change you need to make to the math operation (since **Hours** is no longer a valid column).

Options Dialog

This dialog allows you to customize EC-Math to suit your preferences. Your settings will be saved from day to day so you won't have to save them each time you start EC-Math.

Terse separator text on main window

You can check this option to reduce the wording used by EC-Math in the math operation list box on the main screen. The separator text will change from 'values in folder' to 'in' (i.e. from "Total 'Hours' values in folder 'Projects'" to "Total 'Hours' in 'Projects'") allowing you to choose clarity or brevity.

Display calc icon on Ecco window

This setting allows you to enable or disable the Calc icon that is displayed on the Ecco title bar. The Calc icon gives you quick access to the calculation features of EC-Math without leaving Ecco.

Leave room for Shooter icon

This option will cause EC-Math to position the Calc icon over far enough to leave room for the Shooter icon. (You can always move the Calc icon if you wish.) You can uncheck this box if you don't use the Shooter.

This option is disabled unless the **Display calc icon on Ecco window** is checked.

Please Register Dialog

This dialog box is displayed until you register EC-Math. You have a 30 day trial period that you can use to evaluate EC-Math. After this period you should register EC-Math if you want to continue using it.

This dialog box cannot be closed and will periodically move around the screen while EC-Math is active.

Register Dialog

This dialog box allows you to register EC-Math after you have received a registration key from Stevers Software. The key is entered into the key field and you may enter any name you like in the name field. The 'Please Register' dialog box will no longer be displayed after you have entered a valid key.

Keyboard Shortcuts

There are some keys you can press as an alternative to choosing a menu command or pressing a button:

F1 Help
F5 Reload folder list
F9 Calculate
Alt-X Exit EC-Math
Ctrl-O Open an existing EC-Math file
Ctrl-S Save current EC-Math information to disk

Common Questions

I'm trying to open file EC-MATHS.ECO as I'm told to in the Getting Started section but I don't see it. What do I do now?

One of two things happened: either you didn't copy the sample files when you installed EC-Math or you're not looking at the directory where you installed EC-Math.

Here is an easy way to determine if you've installed the sample files:

- Start File Manager
- Choose Search from the File menu
- Enter EC-MATHS.ECO in the *Search for* box and make sure the *Start from* box looks like C:\, D:\, or E:\, and the *Subdirectories* box is checked. Then press Enter.

You'll need to install the sample files if File Manager doesn't find the file. If it does, you simply have to change to that directory to open the file into Ecco.

I just added a new column (or folder) in Ecco but I can't find it in EC-Math. What's wrong?

Nothing. The discrepancy is that EC-Math maintains its list of Ecco folders and doesn't know when you change the folders in Ecco. The only thing you have to do is press F5 (from EC-Math) or select the *Edit|Reload folder list* command to tell EC-Math to update its folder list.

How do I remove the dialog box that says 'Please Register'?

You need to register EC-Math by filling out the registration form and mailing it to Stevers Software. (Complete instructions are on the form.)

What is the icon with the math symbols on the Ecco title bar?

This icon allows you to update column values without leaving Ecco (assuming you've already defined a set of math operations). You can click on the icon after you've changed some column values and you would like to see the results of your changes. Clicking on this icon is the same as pressing the Calculate button, pressing F9 or choosing the *Edit|Calculate* command (all from EC-Math).

Why doesn't EC-Math start Ecco when I tell it to?

EC-Math doesn't know what in directory Ecco is located on your computer's disk so it relies on that directory being in your path statement. EC-Math can't start Ecco if Ecco's directory is not one of the path directories.

You have two ways of avoiding this problem:

- always start Ecco before loading a file into EC-Math
- add Ecco's directory to your computer's path statement

How do I add Ecco's directory to my computer's path statement?

Follow these steps:

- Start Notepad and open the file C:\AUTOEXEC.BAT
- Find the line that starts with 'PATH='
- Go to the end of that line
- Add a semicolon (;) If the line doesn't already end with one
- Type the directory where Ecco is located (i.e. C:\ECCO). You can use File Manager to browse your disk if you don't know where Ecco is located.
- Save the file (choose the save option from the file menu) and exit Notepad

The path will be updated the next time you turn on or reboot your computer and EC-Math should be able to start Ecco.

Why can't I make the EC-Math window small?

There is a limit to how small you can make the EC-Math window. This limit exists to ensure that the window is large enough to contain the controls needed.

How do I remove EC-Math from my computer?

You simply need to remove files that start with EC-Math. Here is one way of accomplishing this:

- Start File Manager
- Choose Search from the File menu
- Enter EC-Math*. * in the *Search for* box and make sure the *Start from* box looks like C:\, D:\, or E:\, and the *Subdirectories* box is checked. Then press Enter.
- Select all the files by pressing the shift key as you click on the last file
- Press the Delete key to remove all the files

Glossary

Average

The average is a number obtained by taking the total of a set of numbers and dividing by the number of numbers. The average of 2, 7 and 6 is 5 ($2 + 7 + 6 = 15$; $15 / 3 = 5$). An example as it might appear in Ecco would be:

Summary item	5
Item 2	
Item 7	
Sub-item 9	
Sub-item 5	
Item 6	

Note that the sub-item values are not used for this type of average. They are used for a weighted average.

Column

A column is a term used by Ecco to represent a place where you can enter values for items that are in a folder. It is these values that EC-Math updates for you.

DDE

This is an acronym of Dynamic Data Exchange. This is the method that EC-Math uses to communicate to Ecco. Using this, EC-Math is able to tell Ecco to load a file and can read and update the information displayed.

Double click

This is the process in which you click the left mouse button twice very quickly without moving the mouse.

Dragging

This is the process in which you click and hold the left mouse button down over an item and move the item to a different location before releasing the button.

File

This is used by computer programs to represent how information is stored on a disk. This is necessary because information in memory is forgotten when the computer is turned off.

Folder

This is a way of grouping related items together. Folders can have a type of text, number, date, checkmark or pop-up list.

Item

This is a basic building block of Ecco. Items can have a parent and several children. Items can also have values in columns.

Math Operation

This is a definition in EC-Math that tells EC-Math how to summarize values in a particular column for items in a particular folder.

Maximum

The maximum is the largest value of a set of numbers or text. The maximum of 2, 7 and 6 is 7. The maximum of "Hello", "How are you" and "I'm fine" is "I'm fine" because "I" is after "H" in the alphabet. (Also "a" is after "Z" because the lower case letters start after the uppercase letters.) An example as it might appear in Ecco would be:

```
Summary item          9
  Item  2
  Item  9
    Sub-item 9
    Sub-item 5
  Item  6
```

Minimum

The minimum is the smallest value of a set of numbers or text. The minimum of 2, 7 and 6 is 2. The minimum of "Hello", "How are you" and "I'm fine" is "Hello" because "e" is before "o" in the alphabet (the second letter is used since they both start with the same letter). (Also "Z" is before "a" because the upper case letters finish before the lowercase letters.) An example as it might appear in Ecco would be:

```
Summary item          2
  Item  2
  Item  5
    Sub-item 9
    Sub-item 5
  Item  6
```

Path

This is a series of directories which the computer searches when looking for a program to run. Each directory is separated with a semicolon (;).

Shooter

This is a program supplied with Ecco that facilitates the sharing of information between Windows programs. The shooter can be started by clicking on the arrow icon on the title bar of the active window.

System Menu

This is a standard item for Windows programs that is activated by pressing the bar located at the upper left of the window. The active program can be closed by double clicking this icon.

Title Bar

The title bar is a standard part of Windows programs that contain the title of the program. The title bar may also contain the Shooter icon or the EC-Math icon.

Total

The total is a number obtained by adding up all numbers in a set. The total of 2, 7 and 6 is 15. An example as it might appear in Ecco would be:

Summary item	22
Item 2	
Item 14	
Sub-item 9	
Sub-item 5	
Item 6	

Weighted Average

The weighted average is similar to an average except for cases where a number is itself an average of two or more numbers (i.e. an item has detail items underneath it). In this case, the two or more numbers are used in place of the single number. An example as it might appear in Ecco would be:

Summary item	5.5
Item 2	
Item 7	
Sub-item 9	
Sub-item 5	
Item 6	

because $2 + 9 + 5 + 6 = 22$ and $22 / 4 = 5.5$ (the $9 + 5$ is used in place of the 7 to give more importance to the 7).