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#### Introduction

Welcome to JQCALC for Windows.

As far as I am aware, this is the first  $\underline{\text{Shareware}}$  Windows Spreadsheet, and having written it, I now know why this is the first!

The idea behind JQCALC is to produce a fully functional Windows Spreadsheet for the least possible cost that would work with Windows version 3.0 and above. It is not designed to compete with the big spreadsheet packages. It is a basic, every day, working spreadsheet designed to appeal to the millions of people who need a basic spreadsheet and cannot justify the cost of the big spreadsheet packages. If you need the extra facilities, just copy the cells from your Spreadsheet (and graphs in the Registered Version) into your word processor, it is as simple as that.

Some of the functions in this Shareware version have been removed so that it would fit onto a 720kb disk (these functions are included on the Registered Version). This makes it easier to distribute and also means that those of you who do not have the most up to date computers, or disk drives, can still load it. See the section Limitations for more details.

It may be of interest, but JQCALC is the first Spreadsheet I have written (a good training in Systems Analysis and Design helped). Believe it or not, JQCALC is the only Windows Spreadsheet I own (I cannot justify the cost of one of the big spreadsheet packages). I do have a very basic DOS Spreadsheet that is now pensioned off!

JQCALC is my fourth Windows Shareware program but my first really mainstream Windows program therefore I would be grateful for any suggestions you may have on improving IQCALC.

John Q. Lavelle April 1994.

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# **The Legal Stuff**

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<u>Registration Details</u>

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The Licence Agreement and Warranty shall be construed, interpreted and governed by the Laws of England and Wales. You may have other rights that may vary from one Country and/or State to another.

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The Legal Stuff

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JQCALC and J.Q.L. are trademarks of John Q. Lavelle.

Microsoft Corporation: VBRUN300.DLL, EXPAND.EXE, LZEXPAND.EXE, CTL3D.DLL, GRID.VBX, COMMDLG.DLL, CMDIALOG.VBX, MMSYSTEM.DLL, VER.DLL, CHIMES.WAV, DING.WAV.

Sheridan Software Systems: THREED.VBX

Stefan Olson: SETUP.EXE (Normally known as INSTALL.EXE.)

John Q. Lavelle: JQCALC.EXE, JQCALC.WAV, JQCALCUR.HLP, JQOOPS.WAV, PRODINFO.TXT, REGISTER.TXT, README.TXT, NEW ICON, OPEN Icon, SAVE Icon, SCISSORS Icons, COPY Icons, PASTE Icon, DELETE Icon, CURRENCY Icon, PERCENT Icon, DECIMAL Icon, SUM Icon, GRAPH Icon, PREVIEW Icon, PRINTER Icons.

All other Trademarks and Copyrights acknowledged.

### **Licence (Shareware)**

JQCALC is a Shareware program, and is provided at no charge to users for an evaluation period of 30 days. If you wish to use JQCALC after this 30 day period then you must register it. If you continue to use JQCALC after the 30 day period without registering it, then you are effectively stealing -- it is as simple as that.

Feel free to share JQCALC with your colleagues and friends, but please do not give JQCALC away altered or as part of another system without the permission of the author.

You may not rent or lease JQCALC. You may not reverse engineer, dis-assemble or decompile JQCALC.

The essence of user-supported software is to provide personal computer users with quality software at reasonable prices, and at the same time provide an incentive for programmers to continue to develop new products.

### **Registration Details**

### Do NOT use this telephone number or address for **Support**

If you find JQCALC useful and you are continuing to use it after a trial period of **30 days**, you must make a Registration payment of **UK £14.95** (Sterling) plus <u>postage and packing</u> to:

Springsoft PC Shareware, Springfield House, LLanfynydd, Wrexham, Clwyd, LL11 5HW, United Kingdom.
Telephone: 0352 770049 International: +44 352 77049 Fax: 0352 770816

Please specify whether you require the Windows 3.0 version or the Windows 3.1 and above version. The program is the same for both versions, but different library files and Help File are required for the Windows 3.0 version.

The Windows 3.1 (and above) version of JQCALC on a 3.5" HIGH DENSITY (1.44MB) disk is dispatched unless otherwise advised.

The Registration Fee licenses one copy of the current Registered Version of JQCALC for Windows for use on any one computer at any one time. For more information on the Registered License and Site Licenses please contact John Lavelle.

**Credit Card Registrations** 

Postage and Packing

Special Note for U.S. Users of JQCALC

**CompuServe Registrations** 

### **CompuServe Registrations**

You can Register via CompuServe by typing **GO SWREG** at the ! Prompt. If you are using WINCIM type **SWREG** in the GO window.

JQCALC's CompuServe Registration ID is: **2432** you will need this number when registering IQCALC through CompuServe.

The cost of Registration via CompuServe is:

Registration: \$30.00 (US Dollars) Shipping and Handling: \$6.00 (US Dollars)

Total: \$36.00 (US Dollars)

CompuServe only accepts Credit Card payments and deals in US Dollars. Your Credit Card is billed in the currency of your country for the equivalent of \$36.00 (US Dollars).

### **Registration Bonus Certificate**

When you register via CompuServe you will **automatically** receive a Bonus Registration Certificate offering you a Bonus CD - The JCSM Shareware Collection -- full of Shareware programs and Utilities (3900 on the April 1994 release) at over **50% discount**. This CD is updated every three months and contains the latest and greatest Shareware Programs. If you do not have a CD-ROM player then do not worry, the Certificate is valid for about 18 months from the date the Certificate is issued, not the date of registration, which gives you lots of time before you need to redeem it. Please note that this offer is only for the CD and is not exchangeable or transferable in any way. Please allow 28 days for delivery. You will receive a Bonus Certificate for every copy of JQCALC you register.

If you did not register your copy of JQCALC via CompuServe you may still take part in the CD offer. Send your receipt for the Registered Copy(s) of JQCALC to the address below (not to CompuServe, International Money Orders or Springsoft) and I will send you the Bonus Registration Certificate(s) and return your receipt to you.

John Q. Lavelle 63, Senhouse Street Siddick Cumbria CA14 1LB United Kingdom

The Bonus Registration Certificate is a special "Thank you" from John Lavelle, the author of JQCALC.

Do NOT contact CompuServe, International Money Orders or Springsoft for the Bonus Certificate.

### **Credit Card Registrations**

You can Register using **Access, Visa or Mastercard** by telephoning:

United Kingdom: 0352 770049 Fax: 0352 770816 International: +44 352 770049 Fax: +44 352 770816

Only use these numbers for Credit Card Orders. For <u>Support</u> and other queries please use the telephone numbers in the section Support.

Paying by credit card means you will be charged the equivilent of £14.95 + postage and packing in your own currency.

# **Postage and Packing:**

Prices are in Pounds Sterling

United Kingdom £1.95

European Community £3.00

Rest of the World £4.00

### Special Note for U.S. Users of JQCALC

You can register through your Post Office.

# Do NOT use the Springsoft address for this method of registration, use my name and address as shown in the following paragraph.

Go to your local Post Office and ask for an Authorization to issue an International Money Order in the amount of \$36.00 (\$30.00 + \$6.00 shipping and handling). You must put your own name and address on the front of the form, and my name (**John Q. Lavelle**) and address (**63 Senhouse Street, Siddick, Cumbria, CA14 1LB, United Kingdom**) in the Payee's box on the back of the form and **JQCALC** (along with the disk type and Windows version number) in the Notes box. *Make sure your name is on the front and my name is on the back as it is easy to get this wrong!* 

The completed form must be mailed to:

International Money Orders, Box 14964, St. Louis, MO63182-9421

In St. Louis, the money is converted into British pounds (Sterling) and mailed to me. When I receive it, I will send you your Registered Version of JQCALC by return.

This may sound a bit complicated but it does work. It also avoids the ridiculously high bank charges that the United Kingdom banks charge -- in some cases nearly the same price as the program! (I sometimes wonder whether I am working for the Bank or myself.)

My thanks to Dave Jewell for pointing me in the direction of this method of Registration.

#### **Registration Bonus Certificate**

When you register using International Money Orders you will **automatically** receive a Bonus Registration Certificate offering you a Bonus CD - The JCSM Shareware Collection -- full of Shareware programs and Utilities (3900 on the April 1994 release) at over **50% discount**. This CD is updated every three months and contains the latest and greatest Shareware Programs. If you do not have a CD-ROM player then do not worry, the Certificate is valid for about 18 months from the date the Certificate is issued, not the date of registration, which gives you lots of time before you need to redeem it. Please note that this offer is only for the CD and is not exchangeable or transferable in any way. Please allow 28 days for delivery. You will receive a Bonus Certificate for every copy of JQCALC you register.

If you did not register your copy of JQCALC via International Money Orders you may still take part in the CD offer. Send your receipt for the Registered Copy(s) of JQCALC to the address below (not to CompuServe, International Money Orders or Springsoft) and I will send you the Bonus Registration Certificate and return your receipt to you.

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# **Using JQCALC**

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### **Installing JQCALC**

First you need to set up JQCALC to run on your computer.

Microsoft Windows version 3.0 or greater (from now on referred to as Windows) must be installed on your computer. For information on installing and using Windows, please see your Windows documentation.

Switch on your computer and monitor.

WINDOWS 3.0 users **MUST** use the file <u>WIN30.BAT</u> instead of SETUP.EXE. If Windows 3.0 Users use SETUP.EXE the files may not be properly copied across and an error may occur reporting DDE problems.

- 1. Start Windows. If windows is not running, type **win** at the command prompt (the C:> prompt) and press **ENTER**.
- 2. Open the Windows Program Manager window. If the Windows Program Manager window is not open, then double-click on the Program Manager icon, (or press CTRL+ESC to display the Windows Task List, then press the DOWN ARROW or UP ARROW key until the Program Manager item is highlighted, then press ENTER).
- 3. Insert the JQCALC for Windows program disk in your floppy disk drive (if you are using a 5 1/4 inch disk or a drive that has a door, then close the door).
- 4. From the Program Manager window, click on the word **FILE** to open the menu and click on **RUN**, (or press **ALT+F**, and press the **R** key).
- 5. In the Command Line box, type **A:\SETUP**. (If you are using a different drive to drive A:, then type the correct drive letter instead of "A:". e.g. If you are using drive B:, then type **B:\SETUP**.)
- 6. Click on the **ok** button
- 7. Once the Setup Program has loaded, a series of instructions is displayed on your screen, just select the options that best match your system and requirements. We recommend that the first time you set up JQCALC on your system you use the FULL INSTALL option.
- 8. For users of Windows 3.1 and better JQCALC will create its own Program Group in your Program Manager window. Windows 3.0 users will need to create their own Program Group. This is due to Windows 3.0 not having the file DDEML.DLL.
- 9. Check the DRIVERS section of CONTROL PANEL to ensure that the driver [MCI] **Sound** appears in the list of drivers. If it is **not** listed, click on **ADD** and enter it onto your system. For more information please see your Windows documentation.

### **NOTES**

The Full Installation (recommended) copies ALL the required files to the JQCALC directory. The Minimum Install copies all the files EXCEPT for VBRUN300.DLL, DING.WAV and CHIMES.WAV. JQCALC will not run without VBRUN300.DLL in either the JQCALC directory or your \WINDOWS\SYSTEM directory. The .WAV files are optional.

Check your \WINDOWS\SYSTEM directory for the file VBRUN300.DLL, be careful as you may

have files with very similar names (i.e. vbrun100.dll or vbrun200.dll). If VBRUN300.DLL is not in your \WINDOWS\SYSTEM directory you must copy it from the JQCALC directory to your \WINDOWS\SYSTEM directory. For more information on copying files see your Windows documentation or use this example (which should typed all on one line) from the DOS prompt.

#### COPY C:\JQCALC\VBRUN300.DLL C:\WINDOWS\SYSTEM\VBRUN300.DLL

No manual is supplied on the disk because the Help file is always more up to date and is recompiled every time there is a change in the program. If you wish a manual then use the Print option in the Help file menu to print out each page.

### **Manually Expand Files**

If you experience any problems with any aspect of JQCALC, telephone 0900 870833 (or International +44 900 870833) or leave a message on CompuServe 73062,2642. Do not use the Springsoft telephone number or address.

**Using JQCALC** 

### **Starting JQCALC**

You can start JQCALC at any time from the Windows Program Manager.

### To start JQCALC from Program Manager.

- 1. If Windows has not been started, type **win** at the command prompt and then press **ENTER**.
- 2. In the Program Manager Window, choose the JQCALC group icon.
- 3. In the JQCALC group window, choose the JQCALC icon to start the program.

After the Registration window is displayed it may take 5 to 20 seconds, depending on your system for the JQCALC window to be displayed.

### API

### **Application Programming Interface**

Basically this is the set of functions available to programmers to tap into the Windows Operating System.

# DLL

### **Dynamic Link Library**

Files containing extra functions available to programmers.

#### **Overview**

JQCALC is a general purpose Spreadsheet with one worksheet available at any one time. If you open more than one copy of JQCALC using the same worksheet then make sure you save the correct one! When you have multiple copies of JQCALC open Sharing Violations may occur if they try to access the same files or Libraries (<u>DLL</u>s) at the same time. To get round this, only work on one of the copies at any one time.

#### **Quick Start**

To enter text and numbers, move to the required cell and type in the text or number.

To enter a formula, move to the required cell enter an = sign then the formula

e.g. 
$$=2+2$$
 or  $=A1/A16$ 

To enter a function, move to the required cell and enter an = sign then precede the function with an @ sign.

E.g. 
$$= @SUM(A1:A10) \text{ or } = A1/@SUM(B10:C20)$$

To move around the spreadsheet, use the scroll bars or the Home, End, Page Up and Page Down keys.

Single cells or groups of cells may be  $\underline{CUT}$ ,  $\underline{COPY}$ ed ,  $\underline{PASTE}$ d and  $\underline{DELETE}$ d within the worksheet. They may also be CUT or Copied to and from the Windows  $\underline{Clipboard}$ . See  $\underline{Edit}$   $\underline{Menu}$  for more information.

Columns, groups of columns and single rows can be <u>highlight</u>ed and Auto Summed using the <u>Auto Sum</u> icon or menu option.

<u>Auto ReCalculate</u> can be switched on or off. Press F9 to <u>Calculate Now</u>. <u>Full Error Checking</u> can be switched on or off to speed up calculations. The <u>Sound</u> and <u>Hint Line</u> can also be switched on or off.

Column widths can be altered by placing the cursor in the top column on the column boundary and dragging it wider or narrower. Row height can similarly be altered. <u>Column alignment</u> can also be altered. Columns and rows can be inserted or deleted.

There are six different number formats and three different date formats available:

<u>General Number</u>, <u>Currency</u>, <u>Fixed</u>, <u>Standard</u>, <u>Percent</u>, <u>Scientific</u>, <u>General Date</u>, <u>Long Date</u> and <u>Medium Date</u>.

The <u>Font</u>, Font Colour and Font Style can be altered, but please note that the alterations affect the whole worksheet not just a single cell.

#### **Functions and Formulae**

#### **Formulae**

Formulae start with an = sign and can contain any legal mathematical expression or function which is supported by JQCALC. There is a limit of 50 individual formulae per cell.

#### **Operators**

<u>+</u> <u>-</u> \* <u>/</u> <u>\</u> <u>\</u>

#### **Functions**

Functions are preceded by an **@** sign, because it makes searching for them quicker when recalculating the worksheet. They can contain any legal mathematical expression or <u>cell reference</u> that is supported by the function and by JQCALC (remember the = sign).

#### **Mathematical Functions**

- @ABS(numeric expression)
- @ATN(numeric expression in the correct range)
- @AVG(cell reference:cell reference)
- @COS(numeric expression in the correct range)
- @EXP(numeric expression in the correct range)
- @FIX(numeric expression)
- @INT(numeric expression)
- @LOG(numeric expression in the correct range)
- @MAX(cell reference:cell reference)
- @MIN(cell reference:cell reference)
- @RND(numeric expression)
- <u>@SEC(numeric expression in the correct range)</u>
- @SGN(numeric expression in the correct range)
- @SIN(numeric expression in the correct range)
- @SQR(numeric expression)
- @SUM(cell reference:cell reference)
- @TAN(numeric expression in the correct range)

### **Derived Mathematical Functions**

### **Financial Functions**

### **Cell Reference**

In a spreadsheet, rows and columns intersect to form cells. The Cell Reference is the address of a cell made up from the Column letter(s) and Row Numbers. For example the top left-hand cell is A1 and the bottom right-hand cell is CU99.

# **Numeric Expression**

A sequence of characters that can be interpreted as a number. Also, any combination of variables, constants, functions, cell references and operators that JQCALC can evaluate to a number.

#### **Derived Mathematical Functions**

The following is a list of the mathematical functions that can be derived from the math functions provided with JQCALC:

#### **Function**

### **JQCALC** equivalent

Cosecant =1/@Sin(X)Cotangent =1/@Tan(X)

Inverse Sine =@Atn(X/@Sqr(-X\*X+1))

Inverse Cosine =@Atn(-X/@Sqr(-X\*X+1))+1.5708

Inverse Secant = @Atn(X/@Sqr(X\*X-1)) + @Sgn(@Sgn(X)-1)\*1.5708Inverse Cosecant = @Atn(X/@Sqr(X\*X-1)) + (@Sgn(X)-1)\*1.5708

Inverse Cotangent = @Atn(X)+1.5708

Hyperbolic Sine =(@Exp(X)-@Exp(-X))/2Hyperbolic Cosine =(@Exp(X)+@Exp(-X))/2

Hyperbolic Tangent =(@Exp(X)-@Exp(-X))/(@Exp(X)+@Exp(-X))

Hyperbolic Secant =2/(@Exp(X)+@Exp(-X))Hyperbolic Cosecant =2/(@Exp(X)-@Exp(-X))

Hyperbolic Cotangent =(@Exp(X)+@Exp(-X))/(@Exp(X)-@Exp(-X))

Inverse Hyperbolic Sine = @Log(X+@Sqr(X\*X+1))Inverse Hyperbolic Cosine = @Log(X+@Sqr(X\*X+1))

Inverse Hyperbolic Tangent = @Log((1+X)/(1-X))/2

Inverse Hyperbolic Secant = @Log((@Sqr(-X\*X+1)+1)/X)

Inverse Hyperbolic Cosecant = @Log((@Sgn(X)\*@Sqr(X\*X+1)+1)/X)

Inverse Hyperbolic Cotangent =@Log((X+1)/(X-1))/2

Logarithm = @Log(X)/@Log(N)

### **Financial Functions**

The following functions are available in the Registered version only

- @DDB Double Declining Balance, @FVL Future Value,
- @IPM Interest Payment for a given Period, @NPR Number of Periods for an Annuity,
- @PMT Payment for Annuity,
- @PPT Principal Payment,
- @PVL Present Value,
- @RTE Interest Rate,
- @SLN Straight Line Depreciation,
- @SYD Sum of Years' Depreciation.

+

Used to sum two numbers.

### Usage

=operand1+operand2

### Notes

Operand1 and operand2 can be any valid number,  $\underline{\text{numeric expression}}$  or  $\underline{\text{cell reference}}$   $\underline{\text{Functions and Formulae}}$ 

\_

Used to find the difference between two numbers or to indicate the negative value of an operand.

### Usage 1

=operand1-operand2

### Usage 2

-number

### **Notes**

In Usage 1, the - operator is the arithmetic subtraction operator used to find the difference between two numbers. The operands can be any <u>numeric expression</u> or <u>cell reference</u>.

Used to multiply two numbers.

### Usage

=operand1\*operand2

### Notes

The operands can be any valid <u>numeric expression</u> or <u>cell reference</u>.

1

Used to divide two numbers and return a floating-point result.

### Usage

=operand1/operand2

### **Notes**

The operands can be any  $\underline{\text{numeric expression}}$  or  $\underline{\text{cell reference}}$ . If division by zero occurs then JQCALC returns 0.

# \ (Integer Divide)

Used to divide two numbers and return an **integer** result.

### Usage

=operand1\operand2

### **Notes**

The operands can be any <u>numeric expression</u> or <u>cell reference</u>. Before division is performed, the operands are rounded to Integer formulae. If division by zero occurs then JQCALC returns 0.

Used to raise a number to the power of an exponent.

### Usage

=number^exponent

### **Notes**

The number and exponent operands can be any <u>numeric expression</u> or <u>cell reference</u>. However, the number operand can be negative only if exponent is an integer value.

### **ABS**

Returns the absolute value of a number.

### Usage

@ABS(number)

### **Notes**

The argument number can be any valid  $\underline{\text{numeric expression}}$  or  $\underline{\text{cell reference}}$ . The absolute value of a number is its unsigned magnitude.

For example, =@ABS(-1) and =@ABS(1) both return 1.

#### **ATN**

Returns the arctangent of a number.

#### **Usage**

@ATN(number)

#### **Notes**

The argument number can be any valid <u>numeric expression</u> or <u>cell reference</u>. The ATN function takes the ratio (number) of two sides of a right-angled triangle and returns the corresponding angle. The ratio is the length of the side opposite the angle divided by the length of the side adjacent to the angle. The result is expressed in radians and is in the range -Pi/2 to Pi/2 radians. Pi is approximately 3.141593. Pi is not supported by JQCALC.

To convert degrees to radians, multiply degrees by Pi/180. To convert radians to degrees, multiply radians by 180/Pi.

ATN is the inverse trigonometric function of  $\underline{\text{TAN}}$ , which takes an angle as its argument and returns the ratio of two sides of a right-angled triangle. Do not confuse ATN with the cotangent, which is the simple inverse of a tangent (1/tangent).

### **AVG**

Calculates the arithmetic mean of a set of values contained in the specified cell references.

### Usage

@AVG(cell reference1:cell reference2)

#### **Notes**

Cell reference1 (the starting cell) and cell reference2 (the ending cell) can be any legal <u>cell reference</u> and are separated with a colon (:). AVG will add all the cells within the range that contain a number or numeric expression and divide the result by the number of cells containing a number or numeric expression.

### COS

Returns the cosine of an angle.

### Usage

@COS(angle)

#### **Notes**

The argument angle can be any valid <u>numeric expression</u> or <u>cell reference</u> measured in radians. The COS function takes an angle and returns the ratio of two sides of a right-angled triangle. The ratio is the length of the side adjacent to the angle divided by the length of the hypotenuse. The result lies in the range -1 to 1. To convert degrees to radians, multiply degrees by Pi/180. To convert radians to degrees, multiply radians by 180/Pi. Pi is approximately 3.141593. Pi is not supported by JQCALC.

# **EXP**

Returns *e* (the base of natural logarithms) raised to a power.

# Usage

@EXP(number)

#### **Notes**

The argument number can be any valid <u>numeric expression</u> or <u>cell reference</u>. If the value of number exceeds 709.782712893, an Overflow error occurs. The constant *e* is approximately 2.718282.

#### N.B.

The EXP function complements the action of the  $\underline{\text{LOG}}$  function and is sometimes referred to as the antilogarithm.

# INT, FIX

Return the integer portion of a number.

#### Usage

@INT(number)

@FIX(number)

#### **Notes**

The argument number can be any valid <u>numeric expression</u> or <u>cell reference</u>. Both INT and FIX remove the fractional part of number and return the resulting integer value.

If the numeric expression results in a Null, INT and FIX return a Null. The difference between INT and FIX is that if number is negative, INT returns the first negative integer less than or equal to number, whereas FIX returns the first negative integer greater than or equal to number.

For example, INT converts -8.4 to -9, and FIX converts -8.4 to -8.

@FIX(number) is equivalent to: =@SGN(number)\*@INT(@ABS(number))

# LOG

Returns the natural logarithm of a number.

# Usage

@LOG(number)

#### **Notes**

The argument number can be any valid <u>numeric expression</u> or <u>cell reference</u> that results in a value greater than 0. The natural logarithm is the logarithm to the base e. The constant e is approximately 2.718282. You can calculate base-n logarithms for any number x by dividing the natural logarithm of x by the natural logarithm of x as follows:

=@LOG(x)/@LOG(n)

The following example illustrates an expression that calculates base-10 logarithms:

= @LOG(X)/@LOG(10)

# MAX, MIN

Return the minimum or maximum of a set of values contained in the specified cell references.

# **Usage**

@MIN(cell reference1:cell reference2) @MAX(cell reference1:cell reference2)

#### **Notes**

Cell reference1 (the starting cell) and cell reference2 (the ending cell) can be any legal <u>cell reference</u> and are separated with a colon (:). If a range of empty cells are specified then MIN returns 3.402823E38 and MAX returns -3.402823E38.

# **RND**

Returns a random number.

# Usage

@RND(number)

#### **Notes**

The argument number can be any valid <u>numeric expression</u> or <u>cell reference</u>. The RND function returns a value less than 1 but greater than or equal to 0. The value of number determines how RND generates a random number:

Value of number	Number returned
< 0	The same number every time, as determined by number.
> 0	The next random number in the sequence.
= 0	The number most recently generated.
number omitted	The next random number in the sequence.

The same random-number sequence is generated every time the program is run because each successive call to the RND function uses the previous random number as a seed for the next number in the random-number sequence.

# **SEC**

Returns the ratio of the hypotenuse of a right-angled triangle to that of one side.

# Usage

@SEC(number)

# **Notes**

The argument number can be any valid <u>numeric expression</u> or <u>cell reference</u>. SEC is defined as 1/@COS(angle).

# **SGN**

Returns an integer indicating the sign of a number.

# Usage

@SGN(number)

#### **Notes**

The argument number can be any valid <u>numeric expression</u> or <u>cell reference</u>. Its sign determines the value returned by the SGN function:

```
\begin{array}{ll} \mbox{If number} > 0, & \mbox{then} = \mbox{@SGN(number) returns 1.} \\ \mbox{If number} = 0, & \mbox{then} = \mbox{@SGN(number) returns 0.} \\ \mbox{If number} < 0, & \mbox{then} = \mbox{@SGN(number) returns -1.} \\ \end{array}
```

# SIN

Returns the sine of an angle.

# Usage

@SIN(angle)

#### **Notes**

The argument angle can be any valid <u>numeric expression</u> or <u>cell reference</u> measured in radians. The SIN function takes an angle and returns the ratio of two sides of a right-angled triangle. The ratio is the length of the side opposite the angle divided by the length of the hypotenuse. The result lies in the range -1 to 1. To convert degrees to radians, multiply degrees by Pi/180. To convert radians to degrees, multiply radians by 180/Pi. Pi is approximately 3.141593. Pi is not supported by JQCALC.

# **SQR**

Returns the square root of a number.

# Usage

@SQR(number)

# **Notes**

The argument number can be any valid  $\underline{\text{numeric expression}}$  or  $\underline{\text{cell reference}}$  that results in a value greater than or equal to 0.

# **SUM**

Calculates the arithmetic sum of values contained in the specified cell references.

# Usage

@SUM(cell reference1:cell reference2)

# **Notes**

Cell reference1 (the starting cell) and cell reference2 (the ending cell) can be any legal <u>cell reference</u> and are separated with a colon (:). SUM will add all the cells within the range which contain a number or numeric expression

# **TAN**

Returns the tangent of an angle.

# **Usage**

@TAN(angle)

#### **Notes**

The argument angle can be any valid <u>numeric expression</u> or <u>cell reference</u> measured in radians. TAN takes an angle and returns the ratio of two sides of a right-angled triangle. The ratio is the length of the side opposite an angle divided by the length of the side adjacent to the angle. If the return value is too large, an Overflow error occurs. To convert degrees to radians, multiply degrees by Pi/180. To convert radians to degrees, multiply radians by 180/Pi. Pi is approximately 3.141593. Pi is not supported by JQCALC.

#### WIN30.BAT

# Only required with Windows 3.0

WIN30.BAT is a standard DOS batch file which Expands the files from the distribution disk to the directory JQCALC. Regardless of which drive or directory you specify for the destination directory, the directory JQCALC is created off that drive or directory and the files placed into the directory JQCALC. It does not create a Program Group or Program Item for JQCALC, that has to be done manually.

WIN30.BAT is best used from the DOS prompt. The full command line instruction is:

WIN30.BAT <source drive[directory]> <destination drive[directory]>

For example if the distribution disk is in drive B: and you wish to install JQCALC to drive D: then enter the following at the command prompt. This will place the JQCALC files in D:\ JQCALC.

#### WIN30.BAT B: D:

If you have downloaded JQCALC from a Bulletin Board and it is in the directory DOWNLOAD on drive C: and you wish to install JQCALC on drive C: then enter the following at the command prompt. This will place the JQCALC files in C:\JQCALC.

#### WIN30.BAT C:\DOWNLOAD C:

When all the files have been transferred across, you will need to set up a Program Group JQCALC and Program Items for the following files

JQCALC.EXE JQCALC
JQCALCUR.HLP JQCALC Help File
PRODINFO.TXT J.Q.L. Product Information
REGISTER.TXTRegistration Form

Manually Expand Files

# **Manually Expand Files**

Each file can be manually Expanded if so required. The command for each file (assuming the distribution disk is in drive A: and the destination directory is C:) is:

VBRUN300.DLL -- Interpreter
A:\EXPAND.EXE A:\VBRUN300.DL C:\JQCALC\VBRUN300.DLL

CHIMES.WAV -- Chimes Sound
A:\EXPAND.EXE A:\CHIMES.WA C:\JQCALC\CHIMES.WAV

DING.WAV -- Ding Sound A:\EXPAND.EXE A:\DING.WA C:\JQCALC\DING.WAV

COMMDLG.DLL -- For the Standard Dialog boxes
A:\EXPAND.EXE A:\COMMDLG.DL C:\JQCALC\COMMDLG.DLL

JQCALC.EXE -- The Main Program File
A:\EXPAND.EXE A:\JQCALC.EX\_ C:\JQCALC\JQCALC.EXE

MMSYSTEM.DLL -- Sound Driver
A:\EXPAND.EXE A:\MMSYSTEM.DL C:\JQCALC\MMSYSTEM.DLL

THREED.VBX -- 3D effects
A:\EXPAND.EXE A:\THREED.VB C:\JQCALC\THREED.VBX

GRID.VBX -- The grid layout on the worksheet A:\EXPAND.EXE A:\GRID.VB C:\JQCALC\GRID.VBX

JQCALC.WAV -- "Welcome to JQCALC" Sound A:\EXPAND.EXE A:\JQCALC.WA\_ C:\JQCALC\JQCALC.WAV

CMDIALOG.VBX -- For the Standard Dialog Boxes A:\EXPAND.EXE A:\CMDIALOG.VB\_ C:\JQCALC\CMDIALOG.VBX

VER.DLL -- Checks the versions of the files on your system COPY A:\VER.DLL C:\JQCALC\VER.DLL

CTL3D.DLL -- 3D effects for the message boxes A:\EXPAND.EXE A:\CTL3D.DL C:\JQCALC\CTL3D.DLL

JQOOPS.WAV -- OOPS Sound
A:\EXPAND.EXE A:\JQOOPS.WAV

PRODINFO.TXT -- J.Q.L. Product Information
A:\EXPAND.EXE A:\PRODINFO.TX\_ C:\JQCALC\PRODINFO.TXT

REGISTER.TXT -- The Registration Form A:\EXPAND.EXE A:\REGISTER.TX\_ C:\JQCALC\REGISTER.TXT

JQCALCUR.HLP -- This Help File
A:\EXPAND.EXE A:\JQCALCUR.HL C:\JQCALC\JQCALCUR.HLP

Use the version of EXPAND.EXE that is on the distribution disk, **not** the version in your DOS directory.

# File Menu

To access the File Menu either click on the word **FILE** on the Menu Bar or press **ALT+F**.

The following is the list of options available from the File Menu:

Option	Short Cut
Create New File Open Existing File Save Save As	Ctrl+N Ctrl+O Ctrl+S Ctrl+A
Printer Setup Print Print Preview	Ctrl+P
<u>Exit</u>	ALT+F4

# Create New FileCtrl+N



Creates a new Spreadsheet with all the default options.

This option can be accessed in one of four ways:

- 1. Click on FILE on the Menu Bar and then on Create New File
- -or-
- 2. Press **ALT+F** then **C**.
- -or-
- 3. Press ctrl+n.
- -or-
- 4. Clicking on the Create New File TOOLBAR button

If there is a Spreadsheet open that has not been <u>Save</u>d a message is displayed asking if you wish to save the old file. Click on Yes to save it, No to discard it and Cancel to return to it.

The time taken to reset the worksheet depends on how large the old worksheet was.

# File Menu

# Open Existing File... Ctrl+O



Opens an Existing JQCALC file.

This option can be accessed in one of four ways:

- 1. Click on FILE on the Menu Bar and then on Open Existing File
- 2. Press **ALT+F** then **o**.
- 3. Press **ctrl+o**.
- 4. Clicking on the Open Existing File TOOLBAR button

If there is a Spreadsheet open that has not been <u>Save</u>d a message is displayed asking if you wish to save the old file. Click on Yes to save it, No to discard it and Cancel to return to it.

JQCALC displays a standard Windows Dialog Box that allows you to choose the drive, directory and file name of the JQCALC file. For more information on the Standard Dialog Boxes please see your Windows documentation.

JQCALC resets the worksheet before loading the file. The time taken to reset the worksheet depends on how large the old worksheet was.

#### Note

JQCALC can **only** use files in JQCALC format. It cannot use files in other formats.

# Save Ctrl+S

Saves a JQCALC file

This option can be accessed in one of three ways:

- 1. Click on FILE on the Menu Bar and then on Save
- -or-
- 2. Press **ALT+F** then **s**.
- -or
- 3. Press **ctrl+s**.

If there is no file to Save or the file does not require Saving then this option is *ghosted out*. If you still wish to Save the file use the <u>Save As</u> option.

JQCALC displays a standard Windows Dialog Box that allows you to choose the drive, directory and file name of the JQCALC file. For more information on the Standard Dialog Boxes please see your Windows documentation.

# Save As... Ctrl+A



Saves a JQCALC file

This option can be accessed in one of four ways:

- 1. Click on FILE on the Menu Bar and then on Save As
- -or-
- 2. Press **ALT+F** then **A**.
- -or-
- 3. Press **CTRL+A**.
- -or-
- 4. Clicking on the Save As TOOLBAR button.

JQCALC displays a standard Windows Dialog Box that allows you to choose the drive, directory and file name of the JQCALC file. For more information on the Standard Dialog Boxes please see your Windows documentation.

# **Printer Setup...**



Changes the current Printer and/or its settings.

This option can be accessed in one of two ways:

- 1. Click on **FILE** on the Menu Bar and then on **Printer Setup** -or-
- 2. Press **ALT+F** then **R**.

JQCALC displays the standard Windows Dialog Box for altering the Printer Settings. Changes made are not local to JQCALC and will need resetting to their old values. For more information on the Standard Dialog Boxes please see your Windows documentation.

#### **Print Ctrl+P**



Prints the current worksheet

This option can be accessed in one of four ways:

- 1. Click on FILE on the Menu Bar and then on Print
- -or-
- 2. Press **ALT+F** then **P**.
- -or-
- 3. Press **CTRL+P**.
- -or-
- 4. Clicking on the Print TOOLBAR button.

Print prints in true **W**hat **Y**ou **S**ee **I**s **W**hat **Y**ou **G**et. It creates a Windows Metafile (WMF) Image of the Screen and copies it direct to your printer. JQCALC then scrolls the worksheet to the next part and copies that and so on until all the used portion of the worksheet has been printed.

Pressing the Cancel button aborts the printout.

Because JQCALC is designed as a working spreadsheet, on a standard A4 or 8.5x11 printout space will be available at the bottom for you to make notes and the like. To produce high quality printouts, it is recommended that the area of the worksheet required is copied to the Windows <u>Clipboard</u> and from there, copied into your word processor.

# **Print Preview**



Previews the worksheet as it will appear when printed out.

This option can be accessed in one of three ways:

- 1. Click on FILE on the Menu Bar and then on Print Preview
- -or-
- 2. Press **ALT+F** then **V**.
- -or-
- 3. Clicking on the Print Preview TOOLBAR button.

Print preview displays in true **W**hat **Y**ou **S**ee **I**s **W**hat **Y**ou **G**et. It creates a full screen image of the area of the worksheet, click on OK to move to the next section. JQCALC then scrolls the worksheet to the next part and so on until all the used portion of the worksheet has been viewed.

Pressing the Cancel button aborts the preview.

# Exit ALT+F4

Ends your JQCALC session.

This option can be accessed in one of three ways:

- 1. Click on FILE on the Menu Bar and then on Exit
- -or-
- 2. Press **ALT+F** then **X**.
- -or-
- 3. Press **ALT+F4**.

If there is a Spreadsheet open that has not been <u>Save</u>d a message is displayed asking if you wish to save the old file. Click on Yes to save it, No to discard it and Cancel to return to it.

#### Note

JQCALC saves the state (i.e., on or off) of the <u>Sound</u> and <u>Hint Line</u> menu options in your WIN.INI file under the heading [JQCALC].

# **Edit Menu**

To access the Edit Menu either click on the word **EDIT** on the Menu Bar or press **ALT+E**.

The following is the list of options available from the EDIT Menu:

Option	Short Cut
<u>Cut</u> <u>Copy</u> <u>Paste</u> <u>Delete</u>	Ctrl+X Ctrl+C Ctrl+V Del
Insert Row Insert Column Delete Row Delete Column	

# Cut Ctrl+X

Moves a cell or a range of cells from an area of your worksheet to the Windows Clipboard.

First <u>highlight</u> the cell or range of cells to be moved then choose one of the following methods of cutting the cells.

- 1. Click on EDIT on the Menu Bar and then on Cut
- -or-
- 2. Press **ALT+E** then **T**.
- -or-
- 3. Press **ctrl+x**.
- -or-
- 4. Clicking on the Cut TOOLBAR button

The value's cell or range of cells have now been copied to the Clipboard in tab delimited format and to the internal JQCALC clipboard in JQCALC format.

If the cell or the range of cells are empty then both the Menu option and the TOOLBAR button are *ghosted out*. If the copied cell is empty, only the number format is copied.

When you copy or move cells to another part of the worksheet, JQCALC also copies the number format and the cell references.

# Edit Menu

# Copy Ctrl+C



Copies a cell or a range of cells from an area of your worksheet to the Windows Clipboard.

First <u>highlight</u> the cell or range of cells to be copied then choose one of the following methods of copying the cells.

- 1. Click on **EDIT** on the Menu Bar and then on **Copy**
- -or-
- 2. Press **ALT+E** then **C**.
- -or-
- 3. Press **ctrl+c**.
- -or-
- 4. Clicking on the Copy TOOLBAR button

The value's cell or range of cells have now been copied to the Clipboard in tab delimited format and to the internal JQCALC clipboard in JQCALC format.

If the cell, the start cell or the range of cells are empty then both the Menu option and the TOOLBAR button are *ghosted out*. If the copied cell is empty, only the number format is copied.

When you copy or move cells to another part of the worksheet, JQCALC also copies the number format and the cell references.

# **Windows Clipboard**

A temporary storage area in memory for cut or copied information. You can paste the contents into another area (or the same area) of a JQCALC worksheet or into another Windows application.

# Paste Ctrl+V



Inserts a copy of the <u>Clipboard</u> contents in a new location.

First <u>highlight</u> the cell or range of cells where you wish to insert the Clipboard information, then choose one of the following methods of pasting the cells.

- 1. Click on EDIT on the Menu Bar and then on Paste
- -or-
- 2. Press ALT+E then P.
- -or-
- 3. Press **ctrl+v**.
- -or-
- 4. Clicking on the Paste TOOLBAR button

If you are Pasting from JQCALC, the number format is pasted as well. Any cell references are also altered. This can take some time for large worksheets and large areas.

If you are Pasting from another application, the information for each cell must be in Tab delimited format with an end of line character -- chr(13) -- at the end of each row. The better spreadsheets and word processors will either copy data to the Clipboard in this format, or give you the option of copying in this format.

# **Delete Del**



Delete a cell or range of cells.

First <u>highlight</u> the cell or range of cells where you wish to delete, then choose one of the following methods of deleting the cells.

- 1. Click on **EDIT** on the Menu Bar and then on **Delete**
- -or-
- 2. Press **ALT+E** then **DEL**.
- -or-
- 3. Press **DELETE**.
- -or-
- 4. Clicking on the Delete TOOLBAR button

# **WARNING**

Deleting a cell or range of cells is final! There is no undo in JQCALC.

# highlight

You highlight cells in the JQCALC worksheet to tell JQCALC what you want to copy, delete, format, move, insert or act upon. To highlight a range of cells place the cursor on the first cell, press the left mouse button and while keeping the mouse button pressed, move the cursor to the last cell of the range. The background behind the selection changes colour.

The first cell of the range is **not** highlighted instead a border is placed around it. The same applies to single cell highlighting.

Only highlight the cells you require. If for example you highlight the whole of column A by clicking on the A, this changes the range of the worksheet, shown on the right-hand of the Hint Bar, which makes JQCALC search all the cells in the range each time you recalculate regardless of whether they hold a value or not.

# **Insert Row**

Inserts a row into the worksheet at the cursor position.

<u>Highlight</u> the row where you wish to insert a blank row then choose one of the following methods to insert the blank row.

- 1. Click on  $\operatorname{\textbf{EDIT}}$  on the Menu Bar and then on  $\operatorname{\textbf{Insert Row}}$  -or-
- 2. Press **ALT+E** then **R**.

JQCALC will change all cell references of the rows that are moved which can take some time on larger worksheets.

# **Insert Column**

Inserts a column into the worksheet at the cursor position.

 $\underline{\text{Highlight}}$  the column where you wish to insert a blank column then choose one of the following methods to insert the blank column.

- 1. Click on  $\operatorname{\textbf{EDIT}}$  on the Menu Bar and then on  $\operatorname{\textbf{Insert}}$   $\operatorname{\textbf{Column}}$  -or-
- 2. Press **ALT+E** then **I**.

JQCALC will change all cell references of the columns that are move which can take sometime on larger worksheets.

# **Delete Row**

Delete a row from the worksheet at the cursor position.

<u>Highlight</u> the row you wish to delete then choose one of the following methods to delete the row.

- 1. Click on EDIT on the Menu Bar and then on Delete Row
- -or-
- 2. Press **ALT+E** then **L**.

JQCALC will change all cell references of the rows that are moved which can take sometime on larger worksheets.

# **WARNING**

Deleting a row is final! There is no undo in JQCALC.

# **Delete Column**

Delete a column from the worksheet at the cursor position.

<u>Highlight</u> the column you wish to delete then choose one of the following methods to delete the column.

- 1. Click on EDIT on the Menu Bar and then on Delete Column
- -or-
- 2. Press **ALT+E** then **M**.

JQCALC will change all cell references of the columns that are moved which can take some time on larger worksheets.

# **WARNING**

Deleting a column is final! There is no undo in JQCALC.

# **Format Menu**

To access the Format Menu either click on the word **FORMAT** on the Menu Bar or press **ALT+T**.

The following is the list of options available from the Format Menu:

Option	Short Cut
Font	Ctrl+F
General Number Currency Fixed Standard Percent Scientific General Date Long Date Medium Date	

Column Align

# Font Ctrl+F

Changes the Font, style, size, effects and font colour.

This option can be accessed in one of three ways:

- 1. Click on FORMAT on the Menu Bar and then on FONT
- -or-
- 2. Press **ALT+T** then **F**.
- -or-
- 3. Press **ctrl+f**.

JQCALC displays a standard Windows Dialog Box that allows you to choose the font, style, size, effects and font colour which is applied to the *whole* of the worksheet. For more information on the Standard Dialog Boxes please see your Windows documentation.

# Format Menu

## **General Number**

The default number format for a cell or range of cells. Displays the number as is, with no thousand separators.

The number format of the current cell is displayed on the Hint Bar.

This option can be accessed in one of two ways:

- 1. Click on **FORMAT** on the Menu Bar and then on **GENERAL NUMBER** -or-
- 2. Press **ALT+T** then **G**.

## Note

JQCALC hold numbers as 32 bit values. Because of this General Number format cannot always display the fractional part correctly. To display a decimal number correctly use one of the other number formats.

For Example in cell A1 place the value 0.8 in cell A2 place the value 1 in cell A3 place the formula =@SUM(A1:A2). Make sure all three cells are in General Number format and the result in cell A3 is 1.79999995231628.

## **Currency**

## £\$

Displays numbers with thousand separators and the currency character(s) appended to the left, if appropriate; displays negative numbers enclosed in parentheses or with a minus sign; displays two digits to the right of the decimal separator.

The number format of the current cell is displayed on the Hint Bar.

This option can be accessed in one of three ways:

- 1. Click on FORMAT on the Menu Bar and then on CURRENCY
- -or-
- 2. Press **ALT+T** then **U**.
- -or-
- 3. Clicking on the Currency TOOLBAR button.

#### Note

Currency uses the International settings and number settings as defined in the International section of Control Panel.

## **Fixed**

Displays at least one digit to the left and two digits to the right of the decimal separator.

The number format of the current cell is displayed on the Hint Bar.

This option can be accessed in one of two ways:

- 1. Click on  $\ensuremath{\mathbf{FORMAT}}$  on the Menu Bar and then on  $\ensuremath{\mathbf{FIXED}}$
- 2. Press **ALT+T** then **I**.

#### Note

Fixed uses the International settings and number settings as defined in the International section of Control Panel.

## **Standard**



Displays number with thousand separators, if appropriate; displays two digits to the right of the decimal separator.

The number format of the current cell is displayed on the Hint Bar.

This option can be accessed in one of three ways:

- 1. Click on FORMAT on the Menu Bar and then on STANDARD
- -or-
- 2. Press **ALT+T** then **A**.
- -or-
- 3. Clicking on the Standard TOOLBAR button

#### Note

Standard uses the International settings and number settings as defined in the International section of Control Panel.

## **Percent**



Displays number multiplied by 100 with a percent sign (%) appended to the right; displays two digits to the right of the decimal separator.

The number format of the current cell is displayed on the Hint Bar.

This option can be accessed in one of three ways:

- 1. Click on  $\ensuremath{\text{\textbf{FORMAT}}}$  on the Menu Bar and then on  $\ensuremath{\text{\textbf{PERCENT}}}$
- -or-
- 2. Press **ALT+T** then **P**.
- -or-
- 3. Clicking on the Percent TOOLBAR button

#### Note

Percent uses the International settings and number settings as defined in the International section of Control Panel.

## **Scientific**

Uses standard scientific notation.

The number format of the current cell is displayed on the Hint Bar.

This option can be accessed in one of two ways:

- 1. Click on **FORMAT** on the Menu Bar and then on **SCIENTIFIC**
- 2. Press **ALT+T** then **s**.

#### Note

Scientific uses the International settings and number settings as defined in the International section of Control Panel.

## **General Date**

Displays a date and/or time.

For real numbers, displays a date and time. (E.g. 4/3/93 05:34 P.M.); If there is no fractional part, displays only a date (e.g. 4/3/93); if there is no integer part, displays time only (e.g. 05:34 P.M.).

The Date format of the current cell is displayed on the Hint Bar.

This option can be accessed in one of two ways:

- 1. Click on  $\ensuremath{\mathbf{FORMAT}}$  on the Menu Bar and then on  $\ensuremath{\mathbf{GENERAL}}$   $\ensuremath{\mathbf{DATE}}$  -or-
- 2. Press **ALT+T** then **D**.

## **Long Date**

Displays a date.

Displays a Long Date, as defined in the International section of the Control Panel.

The Date format of the current cell is displayed on the Hint Bar.

This option can be accessed in one of two ways:

- 1. Click on **FORMAT** on the Menu Bar and then on **LONG DATE**
- 2. Press **ALT+T** then **E**.

## **Medium Date**

Displays a date.

Displays a date in the same form as the Short Date, as defined in the International section of the Control Panel, except spell out the month abbreviation.

The Date format of the current cell is displayed on the Hint Bar.

This option can be accessed in one of two ways:

- 1. Click on **FORMAT** on the Menu Bar and then on **MEDIUM DATE**
- 2. Press **ALT+T** then **M**.

## **Column Align**

Displays a second menu with the following options:

Left Right Center

Align the whole column in one of those formats.

## **Options Menu**

To access the Options Menu either click on the word **OPTIONS** on the Menu Bar or press **ALT+O**.

The following is the list of options available from the Options Menu:

Option	Short Cut
Show Grid Lines	
Auto ReCalculate Calculate Now Auto Sum	F9
<u>Full Error Checking</u> <u>Sound</u> Hint Line	

## **Show Grid Lines**

Toggles the Grid Lines on or off.

This option can be accessed in one of two ways:

- 1. Click on  $\mathbf{OPTIONS}$  on the Menu Bar and then on  $\mathbf{SHOW}$   $\mathbf{GRID}$  LINES -or-
- 2. Press **ALT+0** then **L**.

The Grid Labels are always shown.

The Grid Lines are never shown in print outs.

Options Menu

## **Auto ReCalculate**

Toggles Auto ReCalculate on or off.

This option can be accessed in one of two ways:

- 1. Click on **OPTIONS** on the Menu Bar and then on **AUTO RECALCULATE** -or-
- 2. Press **ALT+O** then **R**.

The current state of Auto ReCalculate is displayed in the first box on the Hint Bar as Auto ReCalc or Manual Calc.

## Note

On large worksheets it can take quite some time to recalculate the whole sheet, therefore it maybe advantageous to turn off Auto ReCalculate and use the  $\underline{\mathbf{F9}}$  key whenever you need to recalculate the worksheet.

## **Calculate Now F9**

Immediately recalculate the whole worksheet.

This option can be accessed in one of three ways:

- 1. Click on **OPTIONS** on the Menu Bar and then on **CALCULATE NOW**
- -or-
- 2. Press **ALT+O** then **N**.
- -or
- 3. Pressing the **F9** key

Displays Calculating in the third box on the Hint Bar

## **Auto Sum**



 $\underline{\text{SUM}}$ s a range of cells and places the result after the last cell of a range in a single row; or below the last cell of a range in columns.

First <u>highlight</u> a range of cells then choose one of the following methods of activating Auto Sum:

- 1. Click on **OPTIONS** on the Menu Bar and then on **AUTO SUM**
- -or-
- 2. Press **ALT+O** then **M**.
- -or-
- 3. Clicking on the Auto Sum TOOLBAR button

#### Note

If a single cell is selected the following formula is placed in the formula line: =@SUM( ready for you to complete.

## **Full Error Checking**

Toggles Full Error Checking on or off.

This option can be accessed in one of two ways:

- 1. Click on **OPTIONS** on the Menu Bar and then on **FULL ERROR CHECKING**
- -or-
- 2. Press **ALT+0** then  $\kappa$ .

#### **WARNING**

Spurious results may occur if an error is encountered. Only use this option when you are 100% certain that your worksheet is error free.

#### Note

This option does not turn off all the error checking, only parts of it and is useful in speeding up the recalculation of large worksheets.

## Sound

Toggles the Sound on or off.

This option can be accessed in one of two ways:

- 1. Click on **OPTIONS** on the Menu Bar and then on **SOUND**
- -or-
- 2. Press **ALT+O** then **U**.

JQCALC stores the state of this switch in your WIN.INI file under the heading [JQCALC]. Sound=0 (FALSE) is off, Sound=-1 (TRUE) is on.

The driver [MCI] Sound must be loaded in the DRIVERS section of Control Panel for this option to operate.

## **Hint Line**

Toggles the Hint Line on or off.

This option can be accessed in one of two ways:

- 1. Click on **OPTIONS** on the Menu Bar and then on **Hint Line**
- -or-
- 2. Press **ALT+0** then **I**.

As the cursor moves over the JQCALC window the functions of the areas it passes over are displayed at the left-hand of the Hint Bar. If a button is unavailable (ghosted out) then the Hint Line is blank.

JQCALC stores the state of this switch in your WIN.INI file under the heading [JQCALC]. Hint Line=0 (FALSE) is off, Hint Line=-1 (TRUE) is on.

## **Help Menu**

To access the Help Menu either click on the word **HELP** on the Menu Bar or press **ALT+H**.

The following is the list of options available from the Help Menu:

Option	Short Cut
<u>Contents</u> <u>Help on Help</u> <u>Functions</u>	F1 Shift+F1
<u>About</u>	Ctrl+B
<u>Register</u>	Ctrl+R

## **Contents F1**

Displays the Contents section of this Help File.

This option can be accessed in one of three ways:

- 1. Click on **HELP** on the Menu Bar and then on **CONTENTS**
- -or-
- 2. Press **ALT+H** then **C**.
- -or
- 3. Pressing the **F1** key gives context sensitive help.

## Help Menu

## Help on Help Shift F1

Displays the Windows Help File.

This option can be accessed in one of three ways:

- 1. Click on **HELP** on the Menu Bar and then on **HELP ON HELP**
- -or-
- 2. Press **ALT**+**H** then **H**.
- -or-
- 3. Pressing the **SHIFT+F1**.

## **Functions**

Displays a brief list of the functions and operators supported by JQCALC.

This option can be accessed in one of two ways:

- 1. Click on  $\ensuremath{\mathbf{HELP}}$  on the Menu Bar and then on  $\ensuremath{\mathbf{FUNCTIONS}}$
- -or-
- 2. Press **ALT+H** then **U**.

Click on  $\mathbf{o}\mathbf{K}$  or press  $\mathbf{E}\mathbf{N}\mathbf{T}\mathbf{E}\mathbf{R}$  to close this message window

## About Ctrl+B

Displays the Copyright Information and Version Information on JQCALC.

This option can be accessed in one of three ways:

- 1. Click on **HELP** on the Menu Bar and then on **ABOUT**
- -or-
- 2. Press **ALT+H** then **B**.
- -or
- 3. Pressing **CTRL+B**.

Click on **ok** or press **enter** to close this window.

## Register Ctrl+R

Displays the Registration Information.

This option can be accessed in one of three ways:

- 1. Click on **HELP** on the Menu Bar and then on **REGISTER**
- -or-
- 2. Press **ALT+H** then **R**.
- -or
- 3. Pressing **CTRL+R**.

Click on **REGISTER.TXT** to open Windows NOTEPAD with the Registration Form. Click on **OK** to close the window. For more information on Windows NOTEPAD please see your Windows documentation.

# Graphics

## This option is only available in the Registered Version

A full complement of graph functions are available in the Registered Version including Saving, loading, Copying and Printing.

## **Graph Types include:**

Pie Charts
Bar Graphs
Gantt Charts
Line Graphs
Log/Lin Graphs
Polar Graphs
Scatter Graphs
High-Low-Close Graphs

Many of the Graph Types also support 3D.

Registering really is worth it!

#### Limitations

JQCALC was designed to a price and a very competitive price at that. Therefore there are certain things it cannot do (but you never know what the next version may include) which are common place on some budget DOS spreadsheets.

- 1. Text can only be placed in its own cell. It cannot overrun adjacent cells. Row Height and column Width can be adjusted to make it fit.
- 2. Fonts, Font Styles, Font Sizes and Font Effects affect the whole spreadsheet, not just a single cell.
- 3. Printing has been designed as very basic (mainly to keep the size down). If you require good quality output, copy the required cells to your word processor.
- 4. General Number: JQCALC holds numbers as 32 bit values, therefore the General Number format cannot always display the fractional part correctly. To display a decimal number correctly use one of the other number formats. For Example in cell A1 place the value 0.8 in cell A2 place the value 1 in cell A3 place the formula =@SUM(A1:A2). Make sure all three cells are in General Number format and the result in cell A3 is 1.79999995231628.
- 5. Recalculation and Pasting can take quite some time on larger sheets (recalculating the full 10000 cells (including 1500 formulae) takes over 12 minutes on a 386SX 25Mhz and just 4 minutes on a 486DX2 66Mhz -- I doubt very much that you will ever require JQCALC to produce a 10000 cell worksheet). Please be patient or turn off <a href="Auto ReCalculate">Auto ReCalculate</a>. The Formula Line will display JQCALC's progress. The Registered Version uses a different method to recalculate the worksheet which brings the time taken dramatically down depending on the number of formulae in your worksheet.
- 6. This version of JQCALC was written using Visual Basic. This means that it does not really need a co-processor as much as it requires a fast processor and memory. 4MB of memory and above is recommended regardless of the type of computer, though it will work on a 286 with 2MB running Windows 3.0 but the recalculation times are very slow (my guess is about 25 minutes for a 10000 cell worksheet!).
- 7. The Shareware version (this Version) of JQCALC has been "trimmed" to fit on a 720 KB disk (have a look at the bytes free figure at the bottom left of the File Manager Window). This means that various functions have had to be left out, Graphs, Financial Functions and faster recalculating. The graphics libraries and drivers alone come to approximately 500KB!

## The Registered Version of JQCALC is supplied with all these functions so it really is worth while Registering.

- 8. JQCALC does not support **undo**, though we are looking at ways of incorporating it in later versions. When you Register, you automatically receive the Latest Version whereas this Shareware Version is only upgraded on major version releases (about once a year).
- 9. In simple terms, the Windows operating system needs access to the processor to update events and windows. JQCALC yields to Windows during Calculations

after every tenth row has been calculated. Therefore certain events may be delayed on machines with slower processors and large worksheets (use shorter rows and longer columns when running other time-critical Windows programs).

## **JQCALC** for Windows

## **General Information**

<u>Files</u> <u>Error Messages</u> <u>Support</u> <u>About Shareware</u>

#### **Files**

# You make any changes to your system entirely and totally at your own risk.

You must read and agree to the <u>Disclaimer</u> in the section <u>The Legal Stuff</u> before you read any further, install JQCALC or make any of the changes detailed below.

The SETUP program copies all the files required by JQCALC to the JQCALC directory. No files are copied to any other directory.

JQCALC makes an entry in your WIN.INI file called [JQCALC]. It keeps the state of the <u>Hint</u> Line switch and Sound switch in this section.

Some of the files copied to the JQCALC directory may already be on your computer. Some of these files in the JQCALC directory may, therefore, be deleted if they are already in your \WINDOWS\SYSTEM directory. Only delete these files if you are an experienced Windows user, already have these files in your \WINDOWS\SYSTEM directory and sure of what you are doing. If in doubt, leave well alone!

VBRUN300.DLL CHIMES.WAV DING.WAV COMMDLG.DLL MMSYSTEM.DLL VER.DLL

If you experience problems with JQCALC **after** deleting any of these files please <u>Manually Expand</u> them from the distribution disk back to your JQCALC directory.

#### **IMPORTANT**

Certain files are not compatible with files of the same name located elsewhere on your system (for which we have Microsoft to thank!). It is very strongly recommended that the following files are not deleted or moved from the JQCALC directory.

CTL3D.DLL GRID.VBX THREED.VBX CMDIALOG.VBX

These files are not backwards or forward compatible. Therefore, although your system may operate correctly if you move or delete these files, when you add a package which uses a different version of any of these files, either the package may not operate, or other programs, not just JQCALC, may not function correctly.

#### Uninstall

If for some reason, though I cannot think why, you wish to remove JQCALC from your system. Delete the directory JQCALC, the program group JQCALC and edit the WIN.INI file and delete the section [JQCALC].

#### **WARNING**

When editing your WIN.INI file ALWAYS make a backup first. If in doubt, leave well alone!

**General Information** 

## **Error Messages**

There are two basic types of Error Message that may be displayed by JQCALC. They are JQCALC's own Error Messages and Standard Error Messages.

The Standard Error Messages are displayed when something happens that the system does not like and usually have a number in the range 3 to 31017 followed by (if you are lucky) a terse message.

JQCALC's Error Messages are in the Range 32758 to 32767 and are as follows:

- 32767 " Calculation Stack Overflow" Over 50 functions in one cell "This expression is too complex for me!"
- 32766 " Close Bracket Error"
  "You have more OPEN brackets than CLOSE brackets!"
- 32765 " Open Bracket Error"
  "You have more CLOSE brackets than OPEN Brackets!"
- 32764 " Colon Error"

  "Check the number of COLONS in your expression"
- 32763 " Paste Error"

  "The area you are Pasting to must either be"

  "The same size or an exact multiple of the data CUT or COPYed"
- 32762 "File Name" If JQCALC cannot open the named file "This file is not in JQCALC format or has been corrupted"
- 32761 " Paste Error" *JQCALC cannot understand the contents of the Windows Clipboard.*"To PASTE over a range of Cells the item must be in JQCALC format"
- 32760 "Copy Error" *If you select an area yet to be used!*"The range you have selected is invalid"
- 32759 " Cell Reference Error" Cell reference is outside the area used -- turn off AUTO RECALCULATE if you are making a forward reference "The Cell Reference is invalid"
- 32758 "Function not recognised"

  "The function is either not supported"

  "in this version of JQCALC"

  "or has been incorrectly entered."

## **Support**

The following Telephone numbers and address are for support only. Do not use these numbers or address for Registrations.

In the Registered Version of JQCALC you have unlimited support. Just dial the Support number given below or contact J.Q.L. on the CompuServe address shown below.

In this Shareware Version of JQCALC "get you working" support is available. This means if you have problems installing JQCALC or creating your First Spreadsheet then you can call the Support number given below or contact J.Q.L. on the CompuServe address shown below.

Telephone United Kingdom: 0900 870833 Telephone International: +44 900 870833

Fax United Kingdom: 0900 870833 Fax International +44 900 870833

CompuServe: 73062,2642

#### Address:

John Q. Lavelle, J.Q.L., 63, Senhouse Street, Siddick, Cumbria, CA14 1LB United Kingdom.

#### **Notes**

(0900 is the exchange for Workington\Cockermouth, Cumbria and not one of these funny numbers!)

For all Support Calls, you must contact me. If you get the Answering Machine then please phone me back. British Telecom's rates make it uneconomic for me to call you and I do not want to have to charge for support.

The best time to call is between 11.00 and 12.00 UK time though support is usually available between 10.00 and 23.30 (either GMT or BST depending on the time of year).

If your data file becomes corrupted, then I can try to fix it for you or extract the data to a new file. The conditions are:

- 1. You must have a Registered Copy of JQCALC.
- 2. The cost is £15.00(Sterling) + <u>postage and packing</u> which must be enclosed with the disk. Cheques are to be made payable to John Q. Lavelle and drawn on a British bank. Send the disk and your remittance to the **support address** shown above.
- 3. The file should be sent to me by Registered Post on a 3.5" or 5.25" disk with as much information as possible.

- 4. I will try to make the repairs within five working days, but do not guarantee to do so within this time nor do I guarantee to repair the file.
- 5. Your original file and the repaired file are returned to you. All temporary copies are destroyed.
- 6. If you require an express same day service, this can be arranged by telephoning me first to make the arrangements. The cost is £50.00(Sterling) + postage and packing if the transfer takes place by Post or Modem (via CompuServe or Internet). For Courier Service then the cost is the same but you book and pay the Courier for **both** legs of the journey. Cheques are to be made payable to John Q. Lavelle and drawn on a British bank. Send the disk and your remittance to the **support address** shown above.
- 7. The charges are not refundable in any way even if I am unable to repair the file.

#### **Shareware**

"Shareware distribution gives users a chance to try software before buying it. If you try a shareware program and continue using it, you are expected to register. Individual programs differ on details -- some request registration while others require it, some specify a maximum trial period. With registration, you get anything from a simple right to continue using the software to an updated program with a printed manual."

"Copyright laws apply to both shareware and commercial software, and the copyright holder retains all rights, with a few specific exceptions as stated below. Shareware authors are accomplished programmers, just like commercial authors, and the programs are of comparable quality. (In both cases, there are good programs and bad ones!) The main difference is in the method of distribution. The author specifically grants the right to copy and distributed the software, either to all and sundry or to a specific group. For example, some authors require written permission before a commercial disk vendor may copy their shareware."

"Shareware is a distribution method, not a type of software. You should find software that suits your needs and wallet, whether it's commercial or shareware. The shareware system makes fitting your needs easier, because you can try before you buy. And because the overhead is low, prices are low also. Shareware has the ultimate money-back guarantee -- if you don't use the product, you don't pay for it."