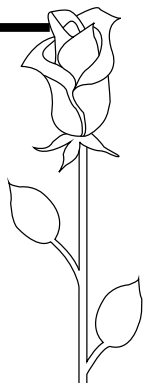


TCalc

Instruction Manual

❖❖❖❖❖❖❖❖❖❖

Bleu Rose Ltd.
P.O. Box 5536, Hacienda Heights,
California 91745-0536, U.S.A.

✍ email: info@bleurose.com
Web address: www.bleurose.com
+1 626-913-7996 (voice mail)
+1 626-965-6241 (fax)

Version 1.0.1

TCalc

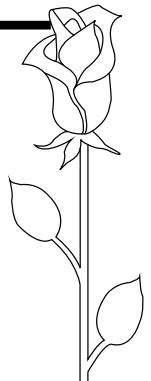


Table of Contents

System Requirements *3*
License Agreement (synopsis) *3*
Installing TCalc *3*
Calculator *4*
TCalc's Menus *6*
Keyboard Shortcuts *7*
Command Key Shortcuts *8*
Background *9*
Complete License Agreement *11*

TCalc

System Requirements

Mac OS v7.0 or later
250K bytes RAM
200K bytes disk space
Any Mac or compatible manufactured after 1987 (MacPlus or later)

License Agreement (synopsis)

Terms and Conditions (See last section of this manual for a full text)

- You may use this software on any computer you like.
- You may NOT use it on more than 1 computer at a time unless you have purchased more than 1 copy. Then you may use it concurrently on as many computers as you would like up to the number of copies of the software that you own.
- You may NOT sell or give this software to someone else unless it is the official DEMO copy distributed by Bleu Rose Ltd.
- Technical questions must be submitted in writing (either by letter, FAX or E-Mail).
- No new versions of this software will be provided by Bleu Rose Ltd. unless an additional license fee is paid.
- Full Refunds will be paid for ANY reason. Requests for a refund MUST be submitted in writing (via letter, E-Mail or FAX) no later than 60 days from the date of the original sale of this software. After 60 days, no refunds will be made.

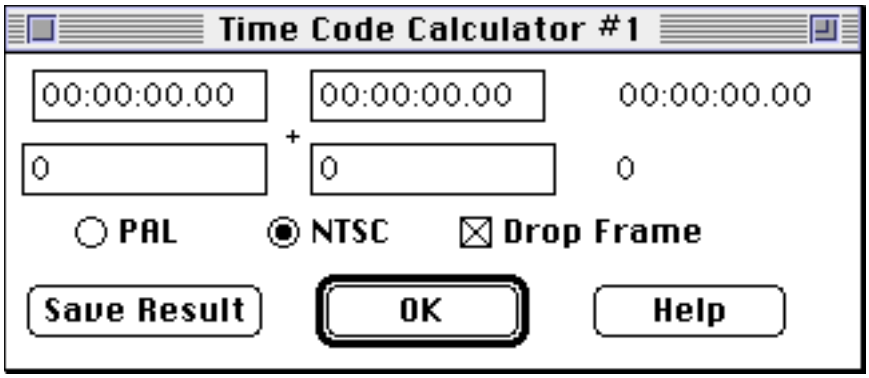
Installing TCalc

TCalc is supplied as a self-extracting StuffIt archive file. Most browsers will extract the files automatically. If not, double click on the archive to extract the files. The archive contains 6 files:

TCalc	- the Calculator application.
Read about TCalc	- a copy of the file you are reading
TCalc Documentation.pdf	- the TCalc Instruction manual in Adobe Acrobat™ format.
Prepare your Order	- an application that helps you pay for TCalc via EMail or traditional Mail.
How To Order	- instructions for ordering including using Prepare your Order.Prepare your Order helps you order TCalc.
Your License Key	- Information about the License Key that you need to turn the demo into the commercial version.

Calculator

A typical calculator window looks like this:



Time Code

Each Calculator Window contains 4 editable fields. The top 2 fields are designated as "Time Code" fields. The bottom 2 are "Frame Number" fields.

Entering Numbers

When a new Calculator Window is opened (you may open as many as you like), the caret cursor (a vertical line) is automatically placed in the top left edit field just to the right of the 8-digit time code value of 00:00:00:00. This field is designed for entering time code values. You will find it very easy to enter and change the contents of the 2 Digit Time Code fields using the keypad keys of your keyboard. Attempting to use the mouse to select and modify the contents of the 2 Digit Time Code fields will be tedious and time-consuming. Thus, you should become familiar with what the keypad keys do and make use of them when entering or changing the contents of Time Code fields. The keypad keys are described in this section under the topic titled "Keyboard Shortcuts".

Rules for NTSC Time Code values:

1) A frame number cannot be larger than 29;
2) Seconds cannot be larger than 59;
3) Minutes cannot be larger than 59;
4) Hours cannot be larger than 39;

If the "Drop Frame" box is checked and the Time Code value you enter is actually a "dropped frame" value, a warning message will appear. Refer to the "Background" section for a description of what frame numbers are "dropped" (and therefore ar undefined or not allowed).

Rules for PAL Time Code values:

1) A frame number cannot be larger than 24;
2) Seconds cannot be larger than 59;
3) Minutes cannot be larger than 59;
4) Hours cannot be larger than 39;

Frame Numbers

When you want to calculate using Frame Numbers, you should enter numbers into the 2 lower edit fields of the Calculator Window. These

values are pure numbers. Most of the keypad shortcuts are not available when entering Frame Numbers. See the section titled "Keyboard Shortcuts" for a description of keypad keys and what they do when you are entering Frame Numbers or Time Code values.

Rules for NTSC Frame number values

1) A frame number cannot be larger than 4,319,999.
2) A frame number cannot be smaller than 0.

Rules for Drop Frame Values

1) A frame number cannot be larger than 4,319,679.
2) A frame number cannot be smaller than 0.

Rules for PAL frame number values

1) A frame number cannot be larger than 3,599,999.
2) A frame number cannot be smaller than 0.

As you enter values into the edit fields of the Calculator Window, calculations are immediately performed and displayed.

The calculator will indicate an error:
1) If the calculated value is less than 0;
2) If the calculated value is more than 4,319,999 (NTSC), 4,315,679 (Drop Frame) or 3,599,999 (PAL);

+ or -

The type of calculation performed (addition or subtraction) is determined by what is displayed on the screen. To change the calculation from addition to subtraction, press the keypad "-" key. To change the calculation from subtraction to addition, press the keypad "+" key. Alternatively, you can change the type of calculation being performed by moving the mouse cursor over the top of the addition (or subtraction) sign and clicking the mouse button.

Close box

Click the mouse button when the mouse cursor is inside this part of the window to close the window.

Zoom box

Click the mouse button when the mouse cursor is inside this part of the window to display (or hide) an illustration of what the keypad keys do when you press them. If the illustration is currently visible, clicking this box will hide the illustration.

"OK" Button

Click the mouse button when the mouse cursor is inside this button to close the Calculator window containing the button. Alternatively, you can press the <Return> key to perform the same action. When the window closes, all of it's contents will be discarded.

"Save Result" Button

Click the mouse button when the mouse cursor is inside this button to copy the current calculated value to the Clipboard. If the caret cursor (a vertical line) is blinking in one of the Time Code Format edit areas, the saved value will be in time code format (HH:MM:SS: FF). If it is blinking in one of the Frame Format edit fields, the saved value will be in frame number format.

"Help" Button Click the mouse button when the cursor is inside this button to display (or hide) an illustration of what the keypad keys do when you press them. If the illustration is currently visible, clicking this button will hide the illustration.

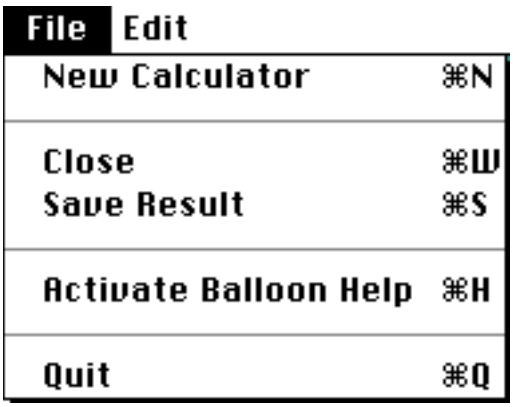
"PAL" Selecting this option will cause the values displayed in the window to be based on a frame rate of 25 frames per second.

"NTSC" Selecting this option will cause the values displayed in the window to be based on a frame rate of 30 frames per second.

"Drop Frame" Selecting this option will cause the values displayed in the window to be based on a frame rate of 29.97 frames per second. Note that the "Drop Frame" option is not available when you are using the PAL frame rate choice.

TCalc's Menus

File Menu



The items on this menu perform the following functions:

New Calculator Selecting this item opens a new calculator window. **You may open as many calculator windows as you like.** Each calculator is independent of the others. That is, in one window you can calculate values in PAL and in another, you can use Drop-Frame, for example. The results of the calculation in any window has no effect on the results in any other window.

Close Selecting this item closes the currently active window. This could be a Calculator window or the Clipboard window. Windows from other applications are not affected by this option.

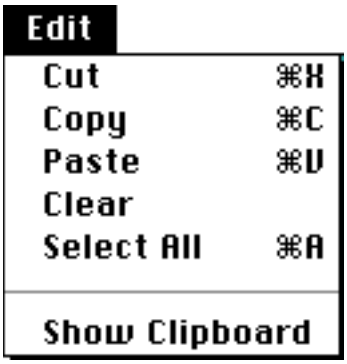
Save Result When you choose this item, the calculated result from the Calculator that is currently active will be copied to the Clipboard.

Activate Balloon Help/ This menu item provides you with a shortcut way to turn Balloon Help

Deactivate Balloon Help on or off. It is primarily designed to give you a keyboard shortcut for controlling Balloons. Note that TCalc comes with complete Balloon Help support.

Quit To exit from TCalc, select this menu item.

Edit Menu



Cut The items on this menu perform the following functions:

Copy This item causes the contents of the current editable text field to be copied to the Clipboard and then erased from the field.

Paste This item causes the contents of the current editable text field to be copied to the Clipboard.

Clear This item causes the contents of the current editable text field to be replaced with the contents of the Clipboard, if the Clipboard contains text.

Select All This item causes the contents of the current editable text field to be erased. The contents of the Clipboard is not changed.

Show Clipboard This item causes the contents of the current editable text field to be selected and highlighted.

If you select this item, a window is opened at the bottom of your monitor showing the contents of the Clipboard.

Keyboard Shortcuts

Tab If the current window is a Calculator Window, pressing this key will move the caret cursor to the other edit field of the same type. That is, if the caret cursor is blinking in a Time Code field, it will be moved to the other Time Code field. The same holds true for Frame Number fields.

Shift tab Pressing this keystroke combination will move the caret cursor to the edit field of the opposite type. That is, if the caret cursor is blinking in a Time Code field, it will be moved to the corresponding Frame Number field and vice versa.

Clear (on the keypad) Pressing this key will select (and highlight) the HOURS part of the current Time Code edit field. If the current edit field is a Frame Number field, this key does nothing.

= (on the keypad) Pressing this key will select (and highlight) the MINUTES part of the current Time Code edit field. If the current edit field is a Frame Number field, this key does nothing.

/ (on the keypad) Pressing this key will select (and highlight) the SECONDS part of the current Time Code edit field. If the current edit field is a Frame Number field, this key does nothing.

**** (on the keypad)*** Pressing this key will select (and highlight) the FRAMES part of the current Time Code edit field. If the current edit field is a Frame Number field, this key does nothing.

- (on the keypad) Pressing this key will tell the calculator to perform a SUBTRACTION operation.

+ (on the keypad) Pressing this key will tell the calculator to perform a ADDITION operation.

. (on the keypad) Pressing this key will tell the calculator to replace the current selection with ZEROs.

Enter (on the keypad) Pressing this key will tell the calculator that you intend to only enter 1 digit of the 2 digits selected. When you select part of a Time Code field, 2 digits are highlighted. After you enter the first digit, the selected value will be replaced with that digit preceded by a zero. If you want to keep the leading zero in the final number, just press Enter. The leading zero will be preserved. If the current edit field is a Frame Number field, this key does nothing.

Command Key Shortcuts

File Menu Shortcuts

⌘ N This keystroke combination is the same as selecting the "New Calculator" option of the File menu. It opens a new Calculator Window. You may open as many Calculator Windows as you like. Each one is independent of the others.

⌘ W This keystroke combination is the same as selecting the "Close" option of the File menu. It closes the current window. If that window is a Calculator Window, all of the window's contents will be discarded.

⌘ S This keystroke combination is the same as selecting the "Save Result" option of the File menu. It copies the calculated value displayed in the current Calculator Window. If the current window is not a Calculator Window, this keystroke combination is not available.

⌘ *H* This keystroke combination activates (or deactivates) Balloon Help. The File menu has an item that performs the same action.

⌘ *Q* This keystroke combination is the same as selecting the "Quit" option of the File menu. It stops TCalc and returns you to the Finder.

Edit Menu shortcuts

⌘ *X* This keystroke combination is the same as selecting the "Cut" option of the Edit menu. It deletes the editable characters that are currently highlighted. Behind the scenes, it copies the same characters to the Clipboard.

⌘ *C* This keystroke combination is the same as selecting the "Copy" option of the Edit menu. It copies the editable characters that are currently highlighted to the Clipboard.

⌘ *V* This keystroke combination is the same as selecting the "Paste" option of the Edit menu. It inserts the contents of the Clipboard into the current edit field just in front of the caret cursor (vertical line). If the Clipboard contains something besides a number, a warning is displayed.

⌘ *A* This keystroke combination is the same as selecting the "Select All" option of the Edit menu. It highlights all of the characters in the current edit field.

All other keyboard keys (or combinations) do the same thing as they always did.

Background

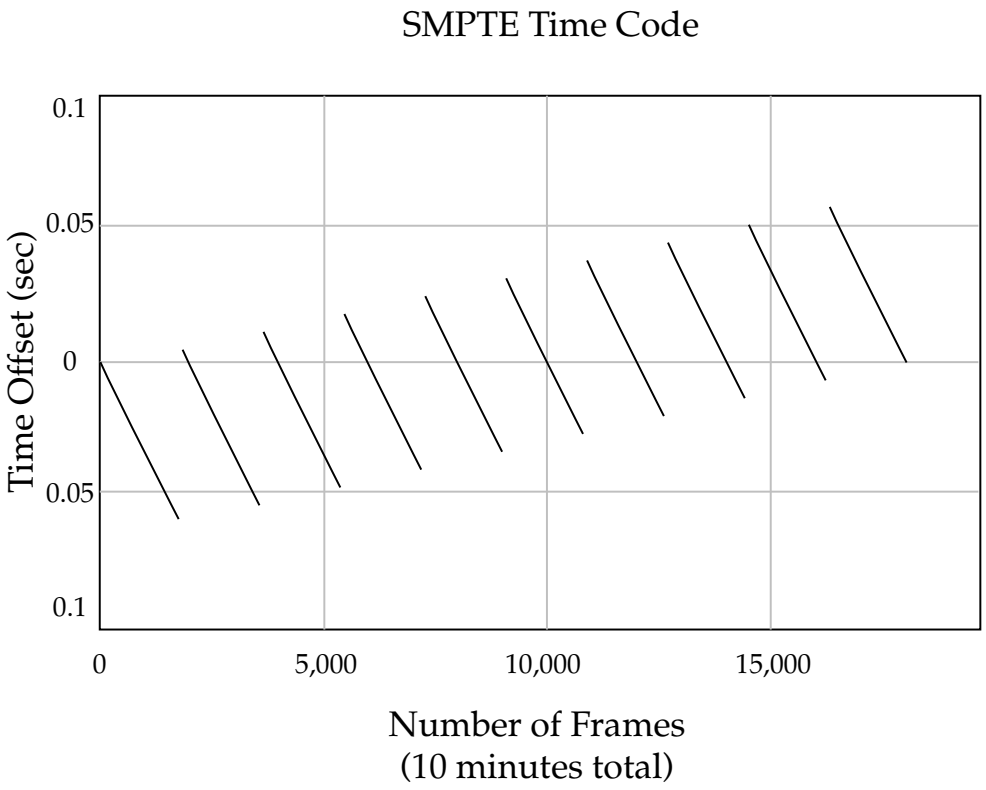
SMPTE time code is a broadcast standard time which is recorded in the HH:MM:SS:FF format where HH represents hours, MM refers to minutes, SS is seconds and FF is a frame number.

In countries adhering to the NTSC standard such as the United States, FF is a number between 00 and 29. This gives the television frame rate of 30 frames per second (well, almost... keep reading). Each frame is made of two interlaced fields, so video data resolution of 1/60 of a second is possible with professional VCR equipment.

Simple enough so far. The problem comes because NTSC actually uses a frame rate of 29.97 frames per second. So a "Drop Frame" counting scheme is used instead.

During the drop-frame cycle, error accumulates at the rate of .001 seconds per frame. When end cycle minute is reached, a .066 second compensation is made by dropping 2 frames. By convention, the frame numbers that are dropped are the 00 and 01 frames at the start of each minute. When the minutes value is an even multiple of 10, no frames are dropped.

Below you can see an image of the saw tooth pattern this creates in time code over a ten minute period.



The plot shows a total of ten minutes worth of frames.

Complete License Agreement

Bleu Rose Limited
REDISTRIBUTION NOT PERMITTED

BY CLICKING ON THE "Purchase" BUTTON OR OPENING THE PACKAGE, YOU ARE CONSENTING TO BE BOUND BY THIS AGREEMENT. IF YOU DO NOT AGREE TO ALL OF THE TERMS OF THIS AGREEMENT, CLICK THE "Quit" BUTTON AND THE INSTALLATION PROCESS WILL NOT CONTINUE OR RETURN THE PRODUCT TO THE PLACE OF PURCHASE FOR A FULL REFUND.

PART I – TERMS APPLICABLE WHEN LICENSE FEES NOT (YET) PAID (LIMITED TO EVALUATION, EDUCATIONAL AND NONPROFIT USE) GRANT.

This Agreement has 3 parts. Part I applies if you have not purchased a license to the accompanying software (the "Software"). Part II applies if you have purchased a license to the Software. Part III applies to all license grants. If you initially acquired a copy of the Software without purchasing a license and you wish to purchase a license, contact Bleu Rose Limited ("Bleu Rose") on the Internet at http://www.bleurose.com.

Bleu Rose grants you a nonexclusive license to use the Software free of charge if your use of the Software is for the purpose of evaluating whether to purchase an ongoing license to the Software. If you are using the Software free of charge, you are not entitled to hard-copy documentation, support or technical assistance. If you fit within the description above, you may use the Software in the manner described in Part III below under "Scope of Grant."

Disclaimer of Warranty
Free of charge Software is provided on an "AS IS" basis, without warranty of any kind, including without limitation the warranties of merchantability, fitness for a particular purpose and non-infringement. The entire risk as to the quality and performance of the Software is borne by you. Should the Software prove defective, you and not Bleu Rose assume the entire cost of any service and repair. In addition, the security mechanisms implemented by Bleu Rose software have inherent limitations, and you must determine that the Software sufficiently meets your requirements. This disclaimer of warranty constitutes an essential part of the agreement. SOME JURISDICTIONS DO NOT ALLOW EXCLUSIONS OF AN IMPLIED WARRANTY, SO THIS DISCLAIMER MAY NOT APPLY TO YOU AND YOU MAY HAVE OTHER LEGAL RIGHTS THAT VARY BY JURISDICTION.

Subject to payment of applicable license fees, Bleu Rose grants to you a nonexclusive license to use the Software and accompanying documentation ("Documentation") in the manner described in Part III below under "Scope of Grant."

PART II (TERMS APPLICABLE WHEN LICENSE FEES PAID GRANT)

Limited Warranty

Bleu Rose warrants that for a period of sixty (60) days from the date of acquisition, the Software, if operated as directed, will substantially achieve the functionality described in the Documentation. Bleu Rose does not warrant, however, that your use of the Software will be uninterrupted or that the operation of the Software will be error-free. Bleu Rose also warrants that the media containing the Software, if provided by Bleu Rose, is free from defects in material and workmanship and will so remain for sixty (60) days from the date you acquired the Software. Bleu Rose's sole liability for any breach of this warranty shall be, in Bleu Rose's sole discretion: (i) to replace your defective media; or (ii) to advise you how to achieve substantially the same functionality with the Software as described in the Documentation through a procedure different from that set forth in the Documentation; or (iii) if the above remedies are impracticable, to refund the license fee you paid for the Software. Repaired, corrected, or replaced Software and Documentation shall be covered by this limited warranty for the period remaining under the warranty that covered the original Software, or if longer, for thirty (30) days after the date (a) of shipment to you of the repaired or replaced Software, or (b) Bleu Rose advised you how to operate the Software so as to achieve the functionality described in the Documentation. Only if you inform Bleu Rose of your problem with the Software during the applicable warranty period and provide evidence of the date you purchased a license to the Software will Bleu Rose be obligated to honor this warranty. Bleu Rose will use reasonable commercial efforts to repair, replace, advise or, for individual consumers, refund pursuant to the foregoing warranty within 30 days of being so notified.

THIS IS A LIMITED WARRANTY AND IT IS THE ONLY WARRANTY MADE BY Bleu Rose. Bleu Rose MAKES NO OTHER EXPRESS WARRANTY AND NO WARRANTY OF NON-INFRINGEMENT OF THIRD PARTIES' RIGHTS. THE DURATION OF IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE, IS LIMITED TO THE ABOVE LIMITED WARRANTY PERIOD; SOME JURISDICTIONS DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO LIMITATIONS MAY NOT APPLY TO YOU. NO Bleu Rose DEALER, AGENT, OR EMPLOYEE IS AUTHORIZED TO MAKE ANY MODIFICATIONS, EXTENSIONS, OR ADDITIONS TO THIS WARRANTY. If any modifications are made to the Software by you during the warranty period; if the media is subjected to accident, abuse, or improper use; or if you violate the terms of this Agreement, then this warranty shall immediately be terminated. This warranty shall not apply if the Software is used on or in conjunction with hardware or software other than the unmodified version of hardware and software with which the software was designed to be used as described in the

Documentation. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY HAVE OTHER LEGAL RIGHTS THAT VARY BY JURISDICTION.

PART III TERMS APPLICABLE TO ALL LICENSE GRANTS

Scope of Grant

You may:

- ❖ Use the Software on any single computer;
- ❖ Use the Software on a network, provided that each person accessing the Software through the network must has a copy licensed to that person;
- ❖ Use the Software on a second computer so long as only one copy is used at a time;
- ❖ Copy the Software for archival purposes, provided any copy must contain all of the original Software's proprietary notices;

You may not:

- ❖ Permit other individuals to use the Software except under the terms listed previously;
- ❖ Permit concurrent use of the Software;
- ❖ Modify, translate, reverse engineer, decompile, disassemble (except to the extent applicable laws specifically prohibit such restriction), or create derivative works based on the Software;
- ❖ Copy the Software other than as specified above;
- ❖ Rent, lease, grant a security interest in, or otherwise transfer rights to the Software.
- ❖ Remove any proprietary notices or labels on the Software.

Title

Title, ownership rights, and intellectual property rights in the Software shall remain in Bleu Rose and/or its suppliers. The Software is protected by the copyright laws and treaties. Title and related rights in the content accessed through the Software is the property of the applicable content owner and may be protected by applicable law. This License gives you no rights to such content.

Termination

The license will terminate automatically if you fail to comply with the limitations described herein. On termination, you must destroy all copies of the Software and Documentation.

Export Controls

None of the Software or underlying information or technology may be downloaded or otherwise exported or reexported (i) into (or to a national or resident of) Cuba, Iraq, Libya, Yugoslavia, North Korea, Iran, Syria or any other country to which the U.S. has embargoed goods; or (ii) to anyone on the U.S. Treasury Department's list of Specially Designated Nationals or the U.S. Commerce Department's Table of Denial Orders. By downloading or using the Software, you are agreeing to the foregoing

and you are representing and warranting that you are not located in, under the control of, or a national or resident of any such country or on any such list.

In addition, if the licensed Software is identified as a not-for-export product (for example, on the box, media or in the installation process), then the following applies: EXCEPT FOR EXPORT TO CANADA FOR USE IN CANADA BY CANADIAN CITIZENS, THE SOFTWARE AND ANY UNDERLYING TECHNOLOGY MAY NOT BE EXPORTED OUTSIDE THE UNITED STATES OR TO ANY FOREIGN ENTITY OR "FOREIGN PERSON" AS DEFINED BY U.S. GOVERNMENT REGULATIONS, INCLUDING WITHOUT LIMITATION, ANYONE WHO IS NOT A CITIZEN, NATIONAL OR LAWFUL PERMANENT RESIDENT OF THE UNITED STATES. BY DOWNLOADING OR USING THE SOFTWARE, YOU ARE AGREEING TO THE FOREGOING AND YOU ARE WARRANTING THAT YOU ARE NOT A "FOREIGN PERSON" OR UNDER THE CONTROL OF A FOREIGN PERSON.

LIMITATION OF LIABILITY. UNDER NO CIRCUMSTANCES AND UNDER NO LEGAL THEORY, TORT, CONTRACT, OR OTHERWISE, SHALL Bleu Rose OR ITS SUPPLIERS OR RESELLERS BE LIABLE TO YOU OR ANY OTHER PERSON FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY CHARACTER INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF GOODWILL, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, OR ANY AND ALL OTHER COMMERCIAL DAMAGES OR LOSSES. IN NO EVENT WILL Bleu Rose BE LIABLE FOR ANY DAMAGES IN EXCESS OF THE AMOUNT Bleu Rose RECEIVED FROM YOU FOR A LICENSE TO THE SOFTWARE, EVEN IF Bleu Rose SHALL HAVE BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES, OR FOR ANY CLAIM BY ANY OTHER PARTY. THIS LIMITATION OF LIABILITY SHALL NOT APPLY TO LIABILITY FOR DEATH OR PERSONAL INJURY TO THE EXTENT APPLICABLE LAW PROHIBITS SUCH LIMITATION. FURTHERMORE, SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS LIMITATION AND EXCLUSION MAY NOT APPLY TO YOU.

High Risk Activities

The Software is not fault-tolerant and is not designed, manufactured or intended for use or resale as on-line control equipment in hazardous environments requiring fail-safe performance, such as in the operation of nuclear facilities, aircraft navigation or communication systems, air traffic control, direct life support machines, or weapons systems, in which the failure of the Software could lead directly to death, personal injury, or severe physical or environmental damage ("High Risk Activities"). Bleu Rose and its suppliers specifically disclaim any express or implied warranty of fitness for High Risk Activities.

Miscellaneous

If the copy of the Software you received was accompanied by a printed or other form of "hard-copy" End User License Agreement whose terms vary from this Agreement, then the hard-copy End User License Agreement governs your use of the Software. This Agreement represents the complete agreement concerning this license and may amended only by a writing executed by both parties. THE ACCEPTANCE OF ANY PURCHASE ORDER PLACED BY YOU IS EXPRESSLY MADE CONDITIONAL ON YOUR ASSENT TO THE TERMS SET FORTH HEREIN, AND NOT THOSE IN YOUR PURCHASE ORDER. If any provision of this Agreement is held to be unenforceable, such provision shall be reformed only to the extent necessary to make it enforceable. This Agreement shall be governed by California law (except for conflict of law provisions). The application the United Nations Convention of Contracts for the International Sale of Goods is expressly excluded.

U.S. Government Restricted Rights

Use, duplication or disclosure by the Government is subject to restrictions set forth in subparagraphs (a) through (d) of the Commercial Computer-Restricted Rights clause at FAR 52.227-19 when applicable, or in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013, or at 252.211-7015, or to Bleu Rose's standard commercial license, as applicable, and in similar clauses in the NASA FAR Supplement. Contractor/ manufacturer is Bleu Rose Limited, Post Office Box 5536, Hacienda Heights, California 91745-0536, U.S.A..