GASCalc™ 5.0
Getting Started Guide

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Getting Help - Contact Us

Hours - Our normal work hours are 8:00 A.M. to 5:00 P.M. Mountain Time, Monday through Friday. However if you have a problem, please try at any time, we may be in.

By Telephone - Telephone: (719) 578-9391   Toll Free (US Only): 1-800-391-9391

By Email - help@b3pe.com

By Website - www.b3pe.com

Hardware/Software Requirements

GASCalc will operate on any personal computer (PC) configured to run the Windows XP or newer operating system, through Windows 10. The *Full* version of the GASCalc software will require a minimum of 161 MB of free hard disk space when installed with full documentation.

Installing GASCalc

An appropriate version of Windows must be running in order to install GASCalc. If it is not, start Windows now. Depending on the format that the software was received in, proceed with one of the installation options described below.

Note... | On Windows Vista and newer machines, you will need to be logged on as the Full Administrator or use the "*Run as administrator*" option when executing the installation file.

Installation From A CD

! Place the CD in the appropriate disk drive.

For **Windows XP, Vista, 7**:

     • If the AutoPlay screen is displayed, select the "Open folder to view files" item. Double-click the **setup.exe** file. If the User Account Control screen is displayed, select the *Yes* command button to proceed.

• If the AutoPlay screen is not displayed, select the *Start* button on the Windows Task Bar. Select the *Run* item from the *Start* menu list or on Windows 7 click in the *File Search* prompt. Type the letter corresponding to the drive containing the setup CD, followed by "setup.exe", then press the *Enter* key. For example, type **d:setup.exe**, then press the *Enter* key or select the *OK* command button to proceed.

For **Windows 8**:

• Switch to the Windows 8 desktop.

• If a notification appears on the desktop, click the notification. Select to open the folder. If a notification does not appear, a window displaying the disk contents should automatically appear. Double-click the **setup.exe** file. If the User Account Control screen is displayed, select the *Yes* command button to proceed.

• If the disk contents are not automatically displayed, right-click the mouse pointer in the lower-left corner of the desktop. Select the *Run* item from the menu list. Type the letter corresponding to the drive containing the setup CD, followed by "setup.exe", then press the *Enter* key. For example, type **d:setup.exe**, then press the *Enter* key or select the *OK* command button. If the User Account Control screen is displayed, select the *Yes* command button to proceed.

For **Windows 10**:

• If the File Explorer screen is displayed, double-click the **setup.exe** file. If the User Account Control screen is displayed, select the *Yes* command button to proceed.

• If the File Explorer screen is not displayed, select the *Windows/Start* button on the Windows Task Bar. Select the *File Explorer* item from the *Start* menu list. The File Explorer screen will be displayed. Double-click the **setup.exe** file. If the User Account Control screen is displayed, select the *Yes* command button to proceed.

! After completing the appropriate steps from above, the main setup screen will be displayed. Proceed by following the *General Installation Instructions* described later.

Installation From An Electronically Received File

Note... | • In the following steps it is assumed that the "setup" file containing the GASCalc software has already been downloaded to your machine. If it has not been downloaded, follow the instructions that were provided at the time of purchase.

! Find the location where the downloaded folder is saved on your machine. Open the folder using Windows File Explorer.

! Double-click on the executable setup file contained in the compressed folder. If a Windows Security warning appears, allow your machine to install the file.

! The main setup screen will be displayed. Proceed by following the *General Installation Instructions* described later.

General Installation Instructions

After the setup program has been started, several screens will be displayed during the installation process. Read the contents of each screen carefully and respond appropriately.

Note... On the License Agreement screen, read the terms of the License carefully and select the "*Agree to*" option. If you do not wish to accept the License Agreement, you will not be able to continue with the installation process.

A message will be displayed when the installation process is complete. The message will indicate whether the installation was successful or whether it failed. Select the appropriate option to clear the message.

Starting GASCalc

Note... • An appropriate version of Windows must be running before GASCalc may be executed. If Windows is not running, begin its execution now.

• On Windows Vista and newer machines, you will need to be logged on as the Full Administrator or use the "*Run as administrator*" option the first time you execute the GASCalc software.

! From the Windows Desktop select the *GASCalc 5.0* shortcut icon.
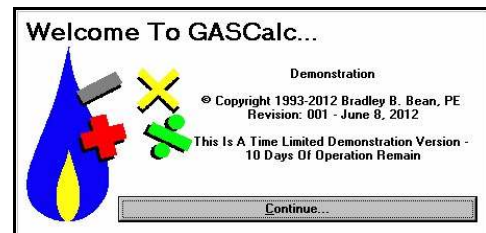
! The GASCalc software will be started.

Note...

> • Some versions of GASCalc will require the software to be registered. If your version does, the Registration screen will be displayed. This displays the Serial Number associated with your license and will prompt you to enter the Registration Number. To request the Registration Number, select the *Request Registration Number* command button, or manually request the registration number by sending an email (please include your Company Name and the Serial Number) to registration@b3pe.com. Once you have received the Registration Number, enter the number at the prompt, then select the *Continue* command button. You will **not** be able to fully use the software until it has been registered.
>
> • If you need to enter the registration number at a later time, select the *Cancel* command button to close the Registration screen. After you have received the Registration Number, restart GASCalc and enter the number at the prompt.

!After the software has been loaded into memory, the GASCalc *Copyright Notice* will be displayed. Select the *Continue* command button.

Once installed and executed, the use of GASCalc is virtually self explanatory. To perform a calculation, choose the appropriate calculation routine from one of the menu lists, on the calculation screen click the label for the item to be calculated so that it is underlined, enter the desired values in the data fields, then select the *Calculate* command button.

User Count

The number of Users that can simultaneously run the GASCalc software is dependent on the license style purchased. This number is referred to as the User Count. A Single-User License allows only one User at a time. A Limited Network License allows a fixed number of Users, which is dependent upon the purchase agreement. Licenses with an unlimited number of Users are also available.

When GASCalc is executed, it checks the number of Users currently using the software. If the User Count is not exceeded, the software will be started. If the User Count is exceeded, a warning message will be displayed.

If GASCalc is abnormally terminated, the User count may become corrupt and GASCalc may erroneously report the number of current Users. If this occurs, select the *Reset User Count* menu item from the *Technical Support* submenu of the *Help* menu list.

Using The Menus

The various routines and features associated with the GASCalc software are accessed through pull-down menus. The menus are grouped under headings by functionality. The menu headings are displayed near the top of the main GASCalc screen.

Menu items are accessed by selecting an item from a menu list. The menu lists are activated by selecting the appropriate menu heading. Menu headings and menu items may be selected by clicking on the menu heading or menu item. A menu list may be deactivated by pressing the *Esc* key or selecting another menu heading.

Some menu items have submenus associated with them, these are accessed through submenu "headers". Submenu headers are followed by "..." and a "right arrow" symbol. Rest or click the mouse on the header title to access the submenu. Multiple submenus may exist.

Negotiating The Screens

GASCalc provides numerous data screens for entering, editing, viewing, and managing the data it requires. Generally, a data screen will contain various controls including data fields for entering individual data values, drop-down lists for selecting predefined data, option buttons and check boxes for selecting specific options, data tabs for displaying specific data groups, and command buttons and icons for executing various functions. The *Tab* or *Enter* keys, or the mouse may be used to move between the controls contained on all screens.

Calculated Item Label - Items that can be calculated are labeled with a colored font. The item label that is underlined, indicates that the item is unknown and will be calculated. To underline an item label, click on the label until it is underlined. Some calculations have more than one "group" of calculated items. The groups are identified by common colored items. For example, one group might be colored with red labels and another group might be colored with blue labels. Only one item in each group may be calculated at a time.

Calculated Value - Data fields or display panels highlighted with a yellow background represent calculated data values. In general, they cannot be directly edited by the User - these values change when one of the editable values are changed and a calculation is successfully executed.

Checkbox - On some screens, options are presented using checkboxes. Where a checkbox is used, a check mark will appear in the box when the option is selected. The status of a checkbox may be changed by clicking on the box, or by pressing the *SpaceBar* while the cursor is in the box.

Data Field - Data fields are provided for items where the value must be entered by typing. To enter a value in a data field, position the cursor in the appropriate data field, then type the desired value. When entering numbers in a data field, do not include the digit grouping identifier (thousands identifier). For example, enter ten thousand as "10000" not as "10,000".

Drop-Down List - Some items are supported by drop-down data lists. For example, dimensional units are associated with a drop-down list of available values. To activate a data list, click on the arrow symbol next to the right side of the data field. Select an item from the list by clicking on the item.

Icon - An icon is a small image which represents the function that the command performs. Icons can only be selected using the mouse. An example of an icon, is the printer symbol icon found on many report screens.

Option Button - On some screens, "either-or" options are presented using an option button. When option buttons are used, a dot inside the option circle indicates that the option is selected. Option buttons are usually found in groups. Only one option may be selected at a time. To change the status of an option button, click on the desired button, or use the *Arrow* keys to move between options.

Scroll Bar - The horizontal scroll bar (the bar directly beneath the viewing screen) is used to move the screen right and left. The screen contents may be wider than the display window, the horizontal scroll bar allows viewing of the off-display portions of the screen. The vertical scroll bar (the bar directly to the right of the viewing screen) is used to move up and down in the screen. The vertical bar allows the screen to be browsed by adjusting the bar's slider. The scroll bars may be adjusted by moving the bar's "slider" with the mouse, or by clicking on the arrow symbols associated with the specific bar. Large changes in the display can be made by clicking on the desired bar, either before or after the slider's position.

Tabs - On some screens, data items are grouped and displayed on data tabs. To access the data contained on a tab, click on the tab's heading, use the *Arrow* keys when the tab heading is highlighted, or hold down the *Alt* key while pressing the key associated with the underlined letter displayed in the tab's heading.

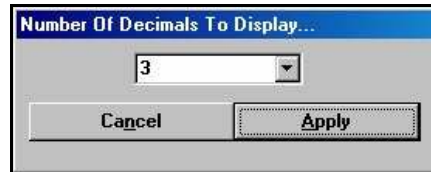## Executing Commands & Functions

Many dialog boxes and data screens contain command buttons. These buttons may be used to access a specific function or to perform a specific action. The *Close* or *Cancel* buttons found on many of the calculation screens are examples of command buttons. When a button is selected, the function associated with the button is executed. Command buttons may be selected by one of the following methods:

     ! Click on the command button using the left mouse button.

     ! Use the *Tab* key to position the cursor on the desired command button, then press the *Enter* key.

     ! Press and hold down the *Alt* key while pressing the key corresponding to the underlined letter of the desired command button.

Setting The Number Of Displayed Decimals

The number of digits displayed to the right of the decimal place can be specified by the User. The number of displayed decimal places may be set by double-clicking on the data field associated with the desired item. The Decimal Specification screen will be displayed.

Enter the desired number of digits to display to the right of the decimal location. Select the *Apply* command button to save and apply the changes.

Notes On Dimensional Units

When GASCalc first starts, its default dimensional units are set to standard US values (Feet, Inches, Psi, Fahrenheit). However, you will notice that the software supports a variety of dimensional units. Once a unit has been selected on a calculation screen, and the screen has been closed, that unit will be saved as the default dimensional unit the next time the screen is opened.

As used in GASCalc, unless otherwise specified, all pressure units represent "gauge" units. Within the documentation, gauge pressure units are generally shown without a suffix, absolute pressure units are shown with an "a" or " (Abs)" suffix. Gas Volume values or volumetric flow rates are expressed in "standard" cubic units, based on (adjusted to) the specified base pressure and temperature.

Notes For International Users

GASCalc attempts to accommodate the needs of International Users by providing a robust set of dimensional units. These units can be selected as appropriate for the User's particular needs.

GASCalc does have a particular weakness when it comes to the various property tables that contain predefined fitting, pipe, regulator, relief, and valve data. These lists are primarily oriented towards US manufacturers and sizes. These tables can be easily modified by the User to more specifically meet the particular needs of each User. The tables provided with the software are intended to provide a starting point to allow the User to create their own custom tables.

Using The Help System

The GASCalc "Help System" consists of various Portable Document Format (PDF) documents. A suitable PDF document viewer or reader is required to view and print the documents. When associated with a calculation screen, the associated help file is referred to as a "calculation reference".

The calculation references may be accessed from the *Help* menu or from the individual calculation screens.

    ! To view a calculation reference from a calculation screen, open the desired calculation screen by selecting the appropriate menu item. When opened, select the *Help* command button or icon on the associated calculation screen.

    ! To view a calculation reference using the *Help* menu, select the associated topic from the appropriate section of the *Calculation Reference* submenu of the *Help* menu list.

Generally, the help documents are installed when the software is installed. If one or more of the documents are missing, they are available for download from our website, www.b3pe.com.

Uninstalling GASCalc

If after using the GASCalc software you wish to remove it, select the *Uninstall GASCalc 5.0* menu item from the *GASCalc* menu list. In Windows 8, right-click on the *GASCalc 5.0* tile on the start screen, then select the Uninstall option.

! After the Uninstall Program has been started, read the contents of each screen carefully and respond appropriately.

Note... | If the *Uninstall Program* asks to remove any shared system files, select the *No* command button.

! A message will be displayed when the Uninstall routine is complete. The message will indicate whether the uninstall process was successful or whether it failed. Select the appropriate option to clear the message.

Note...

On some machines, the uninstall routine will not be able to remove any directory or file that has been created after the initial installation.

! Some of the files and/or folders created by GASCalc after the installation may include files in the initialization directory (ini), files in the default calculation file directory (files), and/or files in the application directory (app).

! To remove these files and/or folders, use *Windows File Explorer* to find and delete the remaining files and folders. An example of the path for the initialization folder is shown below. The other folders have similar path locations.

- 32-bit machines- **C:\Program Files\GASCalc 5\ini**
- 64-bit machines- **C:\Program Files (x86)\GASCalc 5\ini**