Contents

1.0 The Main Program

The Main Program is normally invoked by double clicking on a scenario icon. The scenario icon executes the main program and passes to it the name of a subdirectory containing the scenario information.

At startup, the main program loads the map files and certain data about the units such as order-of-battle information.   After the main program is invoked, a battle can be loaded by using the New menu item under the File Menu.   If the Prompt for Scenario option under the Options Menu is in effect, then the new scenario dialog will automatically be displayed allowing a new battle to be loaded.

1.1 The Menus

These menus are associated with the main program:

- [The File Menu](#)
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1.1.1 The File Menu

The File Menu is used to start new battles and to load and save previously started battles.

To start a new battle, select the New menu item.   A file selection dialog will appear so that the starting scenario can be selected.   By convention, a starting scenario has the extension scn.   Once a scenario has been selected, certain initialization steps are performed such as the initial command determination and the arrival of reinforcements for the first turn.

To load a previously saved battle, select the Open menu item.   A file selection dialog will appear so that the file name of the battle can be specified.   By convention, a battle file has the extension btl for local save games and bte for PBEM games.

To save a battle that has been started new or loaded from a file, select the Save menu item.   If the battle has never been saved, a file selection dialog will appear so that the file name of the battle can be specified.   A battle file should be saved under a file name with extension btl.   Note: in general it is a good idea to save a battle periodically and not wait until exiting before saving the battle.   Saving the battle protects against its loss due to accidents such as power failures and allows for recovery in the event of a mistake in the use of the program.

The Save As menu item can be used to save a battle under a file name other that the one that currently is being used for the battle.   This allows the current state of a battle to be saved in another file without affecting the file being used for the battle.

The Snapshot menu item can be used to save a map of the current situation including the currently spotted units to a file.   A file selection dialog will appear so that the file name of the graphics file to be generated can be specified.   The created graphics file can be viewed or printed with any standard graphics application such as Paintbrush.

The Replay menu item is used to play a Replay battle file that has previously been recorded using the Record Battle menu item of the Special Menu.   The replay will show all of the actions that were recorded in the file. A replay can be halted by pressing the Escape key while the replay   is showing the Hourglass cursor. To restart the replay after it has been stopped, use the Restart Replay   menu item of the Special Menu.

The Exit menu item is used to exit the program.   If the current battle has changed since the last time it was saved, then a dialog will appear giving the option to save the battle before exiting.

1.1.2 The Phase Menu

The Phase Menu has the single menu item Next.   Selecting this menu item causes the battle to advance to the next phase.   The phases are:
>   Movement Phase
>   Defensive Fire Phase
>   Offensive Fire Phase
>   Melee Phase

In each turn, there are 8 such phases: 4 under the control of the Union side and 4 under the control of the Confederate side.   The first side to move in any turn is determined by the parameter data associated with the scenario. For example, if the Confederate side is the first to move, then the 8 phases of a given turn would be:
>   Confederate Movement Phase
>   Union Defensive Fire Phase
>   Confederate Offensive Fire Phase
>   Confederate Melee Phase
>   Union Movement Phase
>   Confederate Defensive Fire Phase
>   Union Offensive Fire Phase
>   Union Melee Phase

At the beginning of a Movement Phase for a given side, internal calculations are performed to determine such events as reinforcements, command, rout, rally, and supply.   If any events occur as a result of these calculations, a dialog appears with a report on these events.

At the end of a turn, the time is advanced by an amount that depends on parameter data associated with the scenario and whether the turn is a day or night turn.   A day turn is usually 20 minutes long and a night turn is 1 hour long.

1.1.3 The Units Menu

The Units Menu is used to change the state of selected units.   Before selecting a menu item under the Units Menu, units must be selected using the Hex Information Area.   Most changes to selected units can only occur during the Movement Phase by the controlling side and are subject to limitations as a result of the internal rules and movement allowances.

The To Top of Stack menu item will move the selected units to the top of the stack.   This can be done by the controlling side at any time.

The To Bottom of Stack menu item will move the selected units to the bottom of the stack.   This can be done by the controlling side at any time.

The Turn Clockwise menu item changes the facing of the selected units one hex side in a clockwise direction.

The Turn Counterclockwise menu item changes the facing of the selected units one hex side in a counter-clockwise direction.

The Turn About Face menu item causes the selected units to face in the opposite direction of their current facing.   Selected units with a facing of None and Leader units are not affected by this menu item.

The Change Formation menu item changes the current formation of the selected units.   This can only be done by the controlling side during a Movement Phase.   Infantry and Cavalry units can be in Line or Column formation.   Artillery units can be in Limbered or Unlimbered formation. Leaders can be mounted or dismounted.

The Make Breastworks menu item is used to toggle the state of the selected units with respect to breastwork construction.   Units that are selected to begin making breastworks must not have moved in the current Movement Phase.

The Recrew Battery menu item can be used to recrew a battery that has become uncrewed as a result of small-arms fire.   The battery to be recrewed and the unit to do the recrewing must be in the same hex and must both be selected prior to the activation of the Recrew Battery menu item.   Neither unit can move prior to recrewing and the battery cannot fire until the next turn.   Only cavalry units can recrew a horse artillery battery.

The Remove From Map menu item is used to remove units from the map. This is done to signify that these units have moved off the map and are no longer participants in the current battle.   Before units can be removed, they must be in a hex on the outside boundary of the map.

The Artillery Dialog menu item is used to display the Artillery Dialog.   The Artillery Dialog is used to select artillery units to fire during a fire phase.

The Undo Last Movement menu item can be used to undo the last movement, change of facing, or change of formation.   It can also be used to undo the total move generated by a single Column or Auto Movement.

1.1.4 The Melee Menu

The Melee Menu is only used during the Melee phase by the controlling side. To conduct a melee attack, a defending hex must first be selected using the right mouse button.   A special icon is drawn on the selected hex indicating that it is the hex being attacked.

Each group of units that is to attack in this melee must first be selected using the Unit List and then added to the melee using the Add to Melee menu item. Attacking units must be adjacent to the defending hex and satisfy all other internal rules for melees.

After all attacking units have been selected, the melee can be resolved by selecting the Resolve Melee menu item.   This will resolve the melee according to the internal rules and a dialog will be displayed showing the results of the melee.   If the attacking units win the melee, the defending units will be displaced from their hex and the attacking units will occupy the defending hex.

The Clear Melee menu item can be used to clear the current melee before it is resolved.

The Show Differential menu item is used to show the current difference between attacking and defending strengths in the current melee.   A positive value indicates an advantage to the attacker while negative values indicate an advantage to the defender.

1.1.5 The Reinforce Menu

The Reinforce Menu is used to display reinforcements that are scheduled, or have arrived and are available to be placed on the map.   Choosing the Scheduled menu item causes the Scheduled Dialog to be displayed. Choosing the Arrived menu item causes the Arrived Dialog to be displayed. Choosing the Releases menu item causes the Release Dialog to be displayed.

1.1.6 The Status Menu

The Status Menu can be used at any time to display the current strength and losses of the units currently on the map, the status of the objective hexes, and the current victory conditions.

Selecting the Strength menu item causes the Strength Dialog to be displayed showing the strengths of the organizations on the map.

Selecting the Objectives menu item causes the Objectives Dialog to be displayed showing the status of the objective hexes on the map.

Selecting the Victory menu item causes the Victory Dialog to be displayed. This dialog shows the points associated with each side for the purpose of determining victory conditions.

1.1.7 The Display Menu

The Display Menu is used to control how information is displayed on the map.

The Units Off menu item toggles the display of units on the map.   Turning units off allows for better viewing of map details.

The Unit Bases Off menu item toggles the display of bases on the units in the 3D graphics modes.

The Leaders On Top menu item controls how leaders are displayed on the map in the 2D map modes.   When this menu item is checked, the leader symbol will be displayed in a hex whenever a leader unit is present in the stack regardless of its location within the stack.   When this menu item is un-checked, the leader hex symbol will only be displayed in a hex if leaders are the only unit present in the hex.

The Locations menu item displays the Locations Dialog.   This dialog allows specific locations on the map to be located.

The Visible Hexes menu item toggles the display of Line-of-Sight indicators on the map.   When this menu item is selected, all hexes that cannot be seen from the current Hot Spot hex will have a blocked line-of-sight icon drawn on them.

The Full Screen Map menu item toggles the display of the Unit List at the bottom of the screen.   When this menu item is selected, the Unit List will not be drawn and the full screen area available will be used to draw the map. While in this mode, the use of the Selection Dialog allows units to be selected for the purpose of movement and firing.

The Show Organization menu item is used to display the Organization Dialog. This dialog can be used to highlight a particular organization on the map.

The Find Leader or Units menu item is used to display the Find Unit Dialog. This dialog can be used to find specific leaders or units on the map.

The Jump Window menu item is used to display the Jump Window.   The Jump Window is used to quickly jump to another portion of the map.

When the Fixed Units menu item is checked, all units on the map (if Fog of War is in effect, only friendly Fixed units are highlighted) that are currently Fixed will be displayed with red outlines.

When the Spotted Units menu item is checked, all units on the map that are currently Spotted will be displayed with red outlines.

When the Low on or Out of Ammo or Uncrewed menu item is checked, all units on the map that are low on or out of ammo and all uncrewed batteries will be displayed with red outlines.

When the Fired/Fought Units menu item is checked, all units on the map that have fired or participated in a melee during the current turn will be displayed with red outlines.

When the Moved Units menu item is checked, all units on the map that have moved during the current turn will be displayed with a red outline.

When the Disrupted Units menu item is checked, all units on the map that are Disrupted will be displayed with a red outline.

The Organization menu item can be used to display all units on the map associated with a particular organization such as Brigade, Division, or Corps. To use the Organization display feature, first select one or more units on the map using the Unit List.   Then select the Organization display feature from the Display menu.   This will cause all units with the same organization as the organization of the top-most selected unit to be displayed with a red outline.   For example, selecting the leader of a brigade or division and then selecting the Organization menu item will cause all units associated with that brigade or division to be displayed with the special outline.   To turn off the Organization display feature, click on any hex so that no units are selected and then select the Organization menu item.

The 2D Normal View menu item is used to display the map in a flat 2D view using normal resolution.

The 2D Zoom-Out View menu item is used to display the map in a flat 2D view using lower resolution but with more hexes visible at one time.

The 3D Normal View menu item is used to display the map in an isometric 3D view using normal resolution.

The 3D Zoom-Out View menu item is used to display the map in an isometric 3D view using lower resolution but with more hexes visible at one time.

1.1.8 The A/I Menu

The A/I Menu is used to invoke the "Artificial Intelligence" capabilities of the program.   When A/I is in effect, some or all of the decisions for a particular side will be made by the software and the software will automatically carry out the appropriate actions such as firing and moving.   The A/I feature can be used in three modes: Manual, Commander Control, and Automatic.   Each mode can be applied independently to each side: Union and Confederate.

In Manual A/I mode, the user makes all decisions for a particular side and is responsible for making all moves and firings for that side.   This is the default mode.

In Commander Control A/I mode, the user will be prompted for a list of leaders on that side whose orders the user will issue manually at the beginning of each turn.   The software will automatically take care of all low-level actions such as moving and firing.   In this mode, the user plays the part of one or more commanders of that side, but does not have to get involved with the details of carrying out the orders.

In Automatic A/I mode, the software takes care of all decisions and actions for that particular side.   This mode is appropriate when the user wants to take one side and have the software play the role of the other side.

An additional option that can be applied to Automatic A/I mode is Fog-of-War. In this mode, only the units that can currently be spotted for that side will be displayed on the map.   If units hidden by Fog-of-War are encountered during a move phase, then they are displayed using question mark graphics. These units will be displayed in full detail at the beginning of the next phase.

The current A/I mode for a scenario is saved and restored with the battle file. The user uses the Resume A/I menu item after the A/I processing has   been interrupted by the user to restart the A/I processing from the point   it was canceled.

The Set Advantage menu item is used to view or change the current Advantage value associated with a battle.   Advantage values cannot be changed during Modem Play, Play by E-Mail, or Two-Player Hot-Seat Play however.

The message "A/I Control" will appear in the Phase display when that phase is under the control of A/I processing.

1.1.9 The Special Menu

The Special Menu is used for the special modes of the main program such as modem play and play by E-mail.

In modem play, one computer will be the "host" and the other computer will be the "caller".   The host is responsible for starting new battles and reading and writing existing battles.   The user on the caller system is responsible for supplying an encryption key which is used to encrypt the battle file on the host system.   Battles which are currently being played under modem play are saved with the extension ".btx" and have a different format than ordinary battle files.   Battles being played over a modem may be played either with Fog-Of-War on or off.   This option is decided at the beginning of the battle by the user on the host system.   The Communications Dialog supports a "chat" capability which allows the two users engaged in modem play to communicate with each other.

Modem play can also be used with two computers that are connected directly to each other using a null-modem cable.   In this case, the Null Modem option of the Special Menu should be chosen prior to selecting either the Host or Caller mode.

While using modem play, each computer system will either be under Local Control or Remote Control in each phase.   While under Local Control, the user can perform actions normally and these actions will be communicated to the remote system.   While under Remote Control, a user is prevented from making changes to the battle and is dependent on the remote system for the actions that take place.   The current status of Local or Remote Control is listed as part of the phase description in the Status Bar.

The Host menu item is used to establish a computer system as the host for modem play.   After establishing communications parameters, the host system is put into a state where it will accept outside calls from the caller system.

The Caller menu item is used to establish a computer system as the caller for modem play.   After establishing communications parameters, the user on the caller system then specifies a phone number to dial and an encryption key to use to encrypt and decrypt battle files.

The New Encryption Key menu item is used by the user on the caller system to establish a new encryption key.   This new key will be used for all subsequent reads and writes of battle files by the host system.

The Resync with Remote menu item is used whenever communication problems between the host and caller cause the current battles being played

on the two systems to get out of sync with each other.   Either side in modem play can initiate a resync using this menu item. It should only be used when the users decide that the current battle has   become out of sync.

The Communication Dialog menu item is used to reestablish the Communications Dialog after it has been closed by the user.   The Communications Dialog is automatically opened once modem play has been established and will be automatically opened whenever there is "chat" communication from the remote system or if communication lags cause the number of messages waiting to be sent to the remote system to reach 20.

To initiate Play by E-Mail (PBEM), you first select the Play by E-Mail option in the Special Menu.   Next you load a scenario by using the New menu item from the File Menu.   When starting a new PBEM battle, you select the side you want to play, whether you want Fog-Of-War to be in effect and the Advantage value to use for the battle.   Note that Fog-Of-War and Advantage cannot be changed by either side after it is initially set.   Once the battle has begun, you play normally until you advance the phase to one that is controlled by the other side.   At this point, you will be prompted for a battle file to save to.   Note that all PBEM battle files have the default extension .bte.   After you save the file, you will get a message that the battle file is ready to be E-mailed to your opponent.   Note: PBEM battle files are plain text, but are in a certain format that is expected by the program.   When you E-mail the file, you must ensure that your E-mail software does not attempt to reformat the file, but rather sends the file in its correct format.   In the PBEM battle file there are two special lines. One is a header and the other is a trailer line.   The header and trailer lines are:

----- PEM Header -----
----- PEM Trailer -----

It doesn't cause a problem if your E-mail software adds lines before the header line, such as addresses, or lines after the trailer line, such as signatures, as long as the text between these lines is not altered.

The first time the other player opens the PBEM battle file, it will ask them if they want to see a replay of your turn.   This replay will show the other side, within the limits of Fog-Of-War if in effect, what you did during your phases. The other player then conducts their phases until they advance the phase to one that you control.   At that point the PBEM battle file will be saved and can be E-mailed back to you.

Note: given that a player can make a copy of the PBEM battle file and replay it as often as they like until they determine their best possible outcome, it is impossible to prevent a player from cheating during Play by E-mail if that is

what they intend to do.   It must be understood by both sides in Play by E-mail that the contest will be a friendly one undertaken for the enjoyment of the game and not simply to determine a winner.

The Two-Player Hot-Seat menu item is used to toggle a mode where two players may play each other at the same computer with Fog-of-War in effect for each player during their turn.   Battles being played under this option are saved with the default extension .btt.   When control of play changes during a turn, the program will clear the map of all units and prompt the next player to begin.   When the next player is ready, the map will be redrawn with only those units visible to that side on the map.   The other player should sit so they do not see the screen during the turn. Each player will be given the option of seeing a replay of the other player's   turn when they begin.

The Record Battle menu item is used to start and stop the recording of play. When recording is begun, the user is prompted for a "replay" file to save the replay information in.   Replay battle files have the default extension .btr. Selecting the Record Battle menu item a second time terminates the recording.   Replay battle files can be replayed using the Replay menu item of the File Menu.

The Restart Replay menu item is used to restart a Replay battle file that has been stopped by the user.

1.1.10 The Options Menu

The Options Menu is used to control certain options associated with the main program.   The setting of these options is saved in the initialization file. Changes to these options will carry over to subsequent executions of the main program.

The Introduction menu item controls the playing of the introductory material at the beginning of the main program.

The Prompt for Scenario options controls whether the main program will automatically prompt for a new scenario when it is started.

The Beep on Error menu item toggles the option that causes the program to beep when the user makes an error.

The Flash Hot Spot menu item toggles the option that causes the Hot Spot indicator to flash on the map.   Note that the Hot Spot indicator does not flash when in 3D graphics mode.

The Smooth Scroll menu item toggles the option that causes the map to be scrolled smoothly when a new Hot Spot is displayed by the main program. When this option is disabled, the map will be redrawn directly at the new Hot Spot location without scrolling through the intermediate hexes.

The Sound Effects menu item toggles the playing of sound effects associated with various actions of the main program.

The Background Music menu item toggles the playing of background music during the different phases of the main program.

The Video Effects menu item toggles the playing of video effects associated with various actions of the main program.

The Graphical Unit Icons menu item toggles the unit graphics between a graphical representation and a schematic representation when in 2D map mode.   This option has no effect when playing in 3D map modes.

The Leader Faces menu item toggles the display of leader units between using actual leader faces and the use of star symbols when in 2D map mode. This option has no effect when playing in 3D map modes.

The Hex Outlines menu item toggles the drawing of hex outlines on the map.

The 3D Dialogs menu item toggles the appearance of the main program dialogs between the enhanced 3D appearance and the standard Windows

dialog appearance.

The Dialog Help Buttons menu item toggles the appearance of Help buttons in the dialogs used by the main program.

The Auto Save menu item toggles the auto-save option.   When the auto-save option is in effect, the current battle is automatically saved before the phase is advanced except for phases under Automatic A/I control.

1.1.11 The Help Menu

The Help Menu is used to get information about how to use the Battleground Antietam program, about the battle being fought, and about the program itself. The General Help menu item invokes the Windows help program using the Battleground Antietam general help file. The Scenario Notes menu item invokes the Windows help program using a help file specific to the battle. The About Battleground Antietam menu item displays a dialog with certain information about the Battleground Antietam program including version and copyright information.

1.2 The Dialogs

These dialogs are associated with the main program:

1.2.1 The Target Dialog

The Target Dialog is displayed whenever a hex is fired upon that contains more than one possible target unit.

The Target Dialog displays the list of possible target units.   An entry from the list should be selected by clicking on it with the left mouse button and then pressing the OK button.   Alternatively, a target unit can be selected by double-clicking on it.

If the Cancel button is pressed, then no firing will occur.

A unit that is dimmed in the Target Dialog is one that is either low or out of ammo or uncrewed if a battery.

1.2.2 The Scheduled Dialog

The Scheduled Dialog is displayed when the Scheduled menu item of the Reinforce Menu is selected.

The Scheduled Dialog displays a list of units that are scheduled to arrive in the current scenario together with each reinforcement group's arrival time, its arrival hex and the percentage chance of that reinforcement group arriving on the listed turn.   A description of the first unit in each group of units is displayed in the list.   If there is more than one unit in the group, dots (...) are displayed to indicate this.   If an entry in the list of units in the Scheduled Dialog is clicked on, then the map is scrolled so that the arrival hex becomes the new Hot Spot hex.   An asterisk (*) preceding a reinforement group's name in the listing indicates that the group's arrival has been delayed.   The units in this group may show up at a later turn.

1.2.3 The Arrived Dialog

The Arrived Dialog is displayed when the Arrived menu item of the Reinforce Menu is selected.

The Arrived Dialog displays a list of units which have arrived and are available to be placed on the map.   The coordinates of the hex that the units will be placed on is displayed   in the list.   A description of the first unit in each group that has arrived is displayed in the list.   If there is more than one unit in the group, then dots (...) are displayed to indicated this.

To place reinforcements on the map, one or more entries in the list are selected and the OK button is pressed.   Alternatively, the units associated with a single entry may be placed on the map by double clicking on the entry.   Units from the selected groups will be placed on the arrival hexes and the map will be scrolled to display the last arrival hex.

As reinforcements are placed on the map, they should be moved to other hexes to make room for more arriving units.

A good way of using the Arrived Dialog is to select all of the units scheduled to arrive in the same hex before pressing the OK button.   This will place all of these units on the arrival hex and facilitate their movement to other locations on the map.

In certain cases, the presence of enemy units in the arrival hex prevents reinforcements from being placed in that hex.   For example, this would be the case when the arrival hex exists at a bridge over a Creek hexside. However, in most cases, arrival hexes are "protected".   This means that the placement of reinforcements cannot be prevented by the presence of enemy units on or near the arrival hex.   The purpose of this rule is to prevent "crowding" of an arrival hex by enemy units to take advantage of the limited movement capabilities near the boundary of the map.   The arrival schedule associated with a scenario determines if a given arrival of reinforcements is protected and the distance used to determine the protection.   In general, enemy units should avoid moving within 5 hexes of an arrival hex to avoid having the protection mechanism invoked.

1.2.4 The Find Unit Dialog

The Find Dialog is displayed when the Find Leader or Units menu item of the Display Menu is selected.   The Find Dialog can be used to determine the location of individual leaders and organizations on the map.

To use the Find Dialog, first click in the rectangle labeled "Enter search string" and type the string you wish to search.   Note: the search procedure is case sensitive so the search string should be entered using the proper combination of upper and lower case.   If you know that the string you have entered is unique in the unit names, you can hit return after entering the string.   Otherwise, click on the Search button to see a list of unit names containing the search string.   These names will be displayed in the list in the upper half of the dialog.   To select one of these names, click on it and then click on the OK button.

If the unit found is an individual unit, then the hex containing the unit will become the Hot Spot hex and the unit will be selected in the stack list.   The map will be scrolled to place the hex in the approximate center of the display.

If the unit found is an organization such as brigade, division, or corps, then all units belonging to this organization will be displayed with a highlighted border.

1.2.5 The Leader Dialog

The Leader Dialog is displayed when Commander Control mode is selected for a particular side from the AI menu.

The Leader Dialog is used to select those leaders that are to be controlled manually during AI processing.   For each leader selected for manual processing, an Order Dialog will be displayed during AI processing to allow the user to select the orders to be issued by that leader for the current turn. All leaders not selected for manual processing will have their orders generated automatically during the AI processing.

If no leaders are selected in the Leader Dialog and OK is clicked, the result is the same as fully Automatic AI mode.

1.2.6 The A/I Action Dialog

The A/I Action Dialog is used to display the results of A/I processing.   By default, the dialog will appear in the lower right corner of the screen and the map will be scrolled to bring the corresponding portion of the map to the center of the display.   The Dialog will reappear in its previous position each time it is displayed.

The A/I Action dialog has Step, Run, and Cancel buttons.   The Step button is normally the default and will be outlined in black.   The user has the option of clicking on any button with the mouse, or invoking the default button by pressing the Enter key.   If the user invokes the Step button, then A/I processing will continue until the next A/I step.   If the user invokes the Run button, then A/I processing will continue until there are no more A/I actions for that phase (and the Run button becomes the Pause button).   Clicking on the Pause button will temporarily halt actions by the A/I.   The user can select the Cancel button to halt the A/I processing before it terminates for that phase.   Alternatively, the user can press the Escape key to cancel the A/I dialog while it is visible on the screen.   If the A/I dialog is terminated, then the Activate A/I menu item from the A/I Menu should later be selected to resume the A/I processing at the point it was canceled.

1.2.7 The Selection Dialog

The Selection Dialog is displayed when the space bar is pressed.   The main purpose of the Selection Dialog is to allow unit selection when the main program is in Full Map mode.

Units are displayed in the Selection Dialog with notation indicating their current strength and type of weapon.   Units in the list can be selected using either Single, Multiple, or Extended selection.   In Single selection, a single unit in the list is selected by clicking on it with the left mouse button. Alternatively, a unit can be double clicked on, which not only selects the unit but closes the Selection Dialog.   In Multiple selection, the left mouse button is clicked on and held while the mouse is dragged to select multiple units.   In Extended selection, the Ctrl key is held while individual units are selected using the left mouse button.   Extended selection is used when the units to be selected are not all together in the list.

1.2.8 The Jump Window

The Jump Window allows the user to easily go from one part of the map to another.   The Jump Window displays a reduced version of the map with the current portion of the map visible on the screen drawn in a rectangle and the hot spot identified with a small square.   Clicking on a location of the Jump Window with the left mouse button causes the map to be repositioned so that the selected hex is the new hot spot and is centered as much as possible in the middle of the screen.

1.2.9 The Communications Dialog

The Communications Dialog is used to provide communication information to the user during modem play and to support "chat" communication.   There are two main windows in the Communications Dialog.   One of them can be used by the user to type chat communication for transmission to the other system.   The Remote window is used to display chat communication typed by the remote user.

The Queue window is used to display the number of events waiting to be communicated to the other side.   If this number is 0, then both sides are in sync.   The Status window displays a message indicating the current status of communications between the two systems.

1.2.10 The Locations Dialog

The Locations Dialog displays a list of the map labels and can be used to find specific locations on the map.   Each map label in the list is followed by its hex coordinates.   Clicking on an entry in the list causes the map to scroll to that hex location, and that hex will become the Hot Spot.

1.2.11 The Objectives Dialog

The Objectives Dialog displays a list of objectives, their value, and which side is currently in possession of the objective.   Clicking on an entry in the list causes the map to scroll to that objective hex, and that hex will become the Hot Spot.   If an objective hex is not currently occupied, then possession of the hex is based on which side last occupied the hex.

1.2.12 The Strength Dialog

The Strength Dialog is displayed when the Strengths menu item of the Status Menu is selected.

The Strength Dialog displays a list of the organizations associated with each side and the current number of men on the map for each of these organizations.   In this calculation, artillery batteries count as 25 men per gun.

1.2.13 The Organization Dialog

The Organization Dialog is displayed when the Show Organization menu item of the Display Menu is selected.

The Organization Dialog displays a list of the organizations associated with each side.   Clicking on an organization in this list causes all units currently on the map associated with this organization to be highlighted.

1.2.14 The Artillery Dialog

The Artillery Dialog allows artillery to be selected and fired during the fire phases.   To fire a unit which is displayed in the Artillery Dialog, first select the unit in the list using the left mouse button, and then click on the target hex with the right mouse button.

1.2.15 The Victory Dialog

The Victory Dialog displays the current state of the victory conditions.   The number of infantry, cavalry, and artillery lost by each side and the point value associated with this loss is displayed.   The objective points held by the first side to move in the scenario are also displayed.   The total victory points given the first side are calculated using the total objective points held by the first side minus the loss point value for that side, but plus the loss point value for the other side.   The range of values used to determine victory is displayed as well as current level of victory for the First Side at that point in the battle.

1.2.16 The Order Dialog

The Order Dialog allows the user to specify the orders for a leader when a particular side is in Commander Control A/I Mode.   The Order Dialog lists the organization that the leader is currently in command of, plus all of the subordinate organizations.   As an organization is selected, information about the organization and any order currently given to the organization are displayed.   The information displayed about an organization includes the size of the organization in strength points, the percentage of those units that are currently in good order, and the center location of the organization. Reinforcements that have not arrived have their entry hex as their location.

The first order shown in the Order Dialog is the order that has been generated by his superior for that leader to carry out.   It is up to the leader to then assign orders to his subordinate organizations to meet that objective.

Orders can be given to the selected organization using the Order Dialog and the map.   The type of order is first selected from the list shown. Once the type of order is selected, the objective hex is selected by   clicking on the map hex with the right mouse button.

The Order Dialog is redisplayed at the beginning of each player turn. Existing orders can be left unchanged by clicking on the OK button.   Clicking on the Cancel button cancels the A/I processing at that point.   The A/I processing can be resumed by using the A/I menu or clicking on the A/I button in the toolbox.

1.2.17 The New Scenario Dialog

The New Scenario Dialog is used at the beginning of a scenario that is going to be played using the modem or Play-By-E-Mail to define which sides each user will be playing and whether Fog-of-War will be in effect for the battle. If Fog-of-War is assigned at the beginning of the battle, it cannot be disabled during the battle. The dialog also allows the initial Advantage value of the battle to be set.

1.2.18 The A/I Selection Dialog

The A/I Selection Dialog allows the A/I setting of a scenario to be set at the beginning of the scenario.   For more information on the A/I settings, see the A/I Menu.   The dialog also allows the initial Advantage value of the battle to be set.

1.2.19 The Modem Dial Dialog

The Modem Dial Dialog is used by the caller system in modem play to dial the host system and to specify the encryption key to be used when reading and writing modem battle files on the host system.   The encryption key chosen by the user on the caller system should be kept secret to prevent other users from reading the modem battle file on the host system.

1.2.20 The Modem Settings Dialog

The Modem Settings Dialog is used to configure the modem before starting modem play.   The values set in this dialog are saved in the initialization file and restored in subsequent executions of the main program.

The Initialization string is sent to the modem before any other commands. This command resets the modem back to its initial state.   The default value of this string is ATZ.

The Dial Prefix string is sent to the modem just prior to dialing the remote phone number.   The default value of this string is ATDT.

The Dial Suffix string is sent to the modem just after dialing the remote phone number.   The default value of this string is empty.

The Escape string is sent to the modem to cause it to go off-hook just prior to hanging up.   The default value of this string is +++.

The Hang-up string is sent to the modem to cause it to hang-up the phone and to put it in a state where it will not auto-answer.   The default value of this string is ATHS0=0.

The Auto Answer string is sent to the modem to put it in a state where it will auto-answer any incoming call.   The default value of this string is ATS0=1.

The Baud Rate setting in this dialog establishes the baud rate of the communication between the computer and the modem.   This setting should correspond to the highest speed supported by the modem.   For modems which support 28.8Kb, the baud rate should be set at 38400.

The Port setting in this dialog should correspond to the port that the modem is connected to.

The Time-out setting determines how long the communication code will wait after issuing a modem command for a reply from the modem.   The default time-out value is 30 seconds.

1.2.21 The Advantage Dialog

The Advantage Dialog is used to view or change the current Advantage value associated with a battle.   Once set, advantage values cannot be changed during Modem Play or Play by E-Mail.

1.2.22 The Release Dialog

In certain scenarios, units may begin in a "Fixed" state which prevents them from moving from their initial position.   Depending on the scenario, certain "releases" to this fixed state may exist that allow the units to become unfixed and thereby move normally from a certain time onward.   The Release Dialog is used to view any releases that may be scheduled in the current scenario and the probability of these releases occurring.

1.3 The Hex Information Area

The Hex Information Area is displayed below the map.   The Hex Information Area is used to display information regarding the current "Hot Spot".   A hex is selected to be the Hot Spot by clicking in the hex with the left mouse button or as a result of placing reinforcements in the hex.   The Hot Spot hex is indicated on the map with a red outline. The Hex Information Area contains three parts:

The Unit List
The Terrain Information Area
The Status Bar

1.3.1 The Unit List

The Unit List displays the units in the Hot Spot.   All units in the Hot Spot hex may be selected by double clicking in the Hot Spot hex with the left mouse button.   Alternatively, individual units in the Unit List may be selected by clicking on their entries with the left mouse button.

When the program is in Full-Screen Map mode, the Unit List is not displayed. In this mode, the Selection Dialog is used to select units on the map.

A list showing the complete location of a unit in the order-of-battle can be displayed by clicking on the unit in the Unit List with the right mouse button.

For each leader in the Hot Spot hex, three values are shown in the Unit List. The C value represents the Command Rating of the leader.   This value determines the ability of the leader to command the organizations under his command.   When a Brigade leader is currently "Detached", an icon will appear behind the command value when the leader is selected.   Being detached occurs when a Brigade leader is outside the command radius of his Division commander.   The L value represents the Leadership Rating of the leader.   This value determines the ability of the leader to rally units under his command that have routed.   The M value represents the leaders movement allowance.   This value will change depending on how far the leader has moved in the current movement phase and whether the leader is mounted or dismounted.   When a leader is currently mounted, a horse head icon will appear behind the movement allowance.   A gold star in a leader's picture indicates that the leader has been promoted to command the next level in his organization.

For each regiment and battery in the Hot Spot hex, 5 values plus associated icons are displayed in the Unit List.   The S value is the current strength of the unit.   For infantry and cavalry units, the strength value is the number of men.   For artillery, the strength value is the number of cannon.   The RG value is the firing range of the unit.   The MV value is the movement allowance of the unit.   The QL value is the Quality rating of the unit.   This value will determine how easily the unit routs and how quickly it will rally after routing.   Quality values range from "A" (best) to "F" (worst).   The FA value is the fatigue level of the unit.   As a result of combat, the fatigue level of a unit will increase up to a maximum value of 9.   When the fatigue level of a unit reaches 4, it will be more likely to rout as a result of combat.   This penalty will increase again when the fatigue level of the unit reaches 7.   To be eligible to recover from fatigue, a unit must not move, fire, be fired upon, or participate in melee for one complete game turn.

Certain icons are displayed in the Unit List to indicate various states associated with units.   A full-color bullet icon indicates that the unit can fire

or attack in melee in the current phase.   A full-color cannon ball icon indicates that the battery can fire in the current phase.   A brown bullet icon indicates that the unit has fired or attacked in melee in the current phase.   A brown cannon ball icon indicates that the battery has fired in the current phase.   A half-color bullet icon indicates that the unit is low on ammo.   This state prevents the unit from firing in the Offensive Fire Phase.   A hollow bullet icon indicates that the unit is out of ammo.   This state prevents the unit from firing in all fire phases.   A hollow cannon ball icon indicates that the unit is uncrewed and cannot fire or move.   The weapon type of the unit is displayed in a brown square in the icon display area.   See the Scenario Notes help file for more information on weapon types.   A full-color wheel icon indicates that the unit can move in the current Movement Phase.   A brown wheel icon indicates that the unit has moved some but not all of its movement allowance.   A pick and shovel icon indicates that the unit is currently constructing breastworks.   An orange D icon indicates that the unit is disrupted.   A red R icon indicates that the unit is routed.   A full-color binoculars icon indicates that the unit is currently spotted by an enemy unit. A brown binoculars icon indicates that the unit is spotted only by an enemy supply wagon.

1.3.2 The Terrain Info Field

The Terrain Info field displays the terrain in and around the Hot Spot hex. The possible values for terrain are: Clear, Water, Forest, Orchard, Marsh, Field, Town, and Blocked.   Following the terrain type is a value indicating the defensive benefit of the terrain.   On the second line of the Terrain Info field is the elevation of the hex in feet.   The third line indicates the objective value of the hex if any.   The fourth line shows the current artillery ammunition values for each side with the Union value first, followed by the Confederate value.

1.3.3 The Status Bar

The Status Bar appears at the bottom of the main program window.   The Status Bar is used to display informational messages and the map coordinates of the current Hot Spot hex.

1.4 Other Features

Other features associated with the main program are:
Using The Mouse
Accelerators
Column and Auto Movement
The Toolbox
Advantage
Initialization File

1.4.1 Using The Mouse

The mouse is used to get information on the units and terrain on the map and to control the actions of units on the map.

Single-click with Left Mouse Button: This will display information on the units and terrain in the designated hex.   This action can be performed on any hex during any phase.

Double-click with Left Mouse Button: In addition to displaying information on the units and terrain in the designated hex, this action also selects all units in the Unit List.   This is commonly done before moving units, having them fire, or using them in a Melee attack.

Single-click with Right Mouse Button: The result of this action is dependent on the current phase.

1. During the Movement Phase, this action causes the units selected in the Unit List to be moved to the designated hex

2. During a Fire Phase, this action causes the units selected in the Unit List to fire on the designated hex.   If there is more than one potential target in the target hex, a dialog will be displayed that allows for the selection of the target.

3. During a Melee Phase, this action causes the selected hex to be designated as the defending hex.   After this has been done, adjacent units can be designated as attacking units using the Left Mouse Button, selecting from the Unit List, and adding them to the attack using the Melee Menu.

1.4.2 Accelerators

The main program supports the use of the following accelerators:

Ctrl-N - advance to next phase
Ctrl-U - undo last movement
Keypad 0 - change formation of selected units
Keypad 1 - move selected units down and left
Keypad 2 - move selected units down
Keypad 3 - move selected units down and right
Keypad 4 - turn selected units counterclockwise
Keypad 5 - turn selected units about face
Keypad 6 - turn selected units clockwise
Keypad 7 - move selected units up and left
Keypad 8 - move selected units up
Keypad 9 - move selected units up and right
Left Arrow - scroll map to the left
Right Arrow - scroll map to the right
Up Arrow - scroll map up
Down Arrow - scroll map down
Shift - display location names on the map
Delete or Ctrl-L - turn selected unit icons counter-clockwise
Page Down or Ctrl-R - turn selected unit icons clockwise
Home or Ctrl-F - move selected unit icons forward
End or Ctrl-B - move selected unit icons backward
F1 - open general help file
F2 - open scenario notes file

1.4.3 Column and Auto Movement

Column and Auto Movement can be used to facilitate the movement of individual units and groups of units.   These features are most useful when moving recently arrived reinforcements to the scene of battle.

Auto Movement is used to automatically move units from one location to another on the map without having to specify all of the intermediate hexes. To use Auto Movement, you first select the units to be moved in the normal way using the left mouse button and making selections in the Unit List.   You then click on the target hex using the right mouse button while holding down the Alt key.   This causes the program to determine a minimum-distance path towards the target hex and then to move the selected units along that path up to the limits of the movement allowance.   Auto Movement is particularly useful when combined with Column Movement.

Column Movement is used to move a column of units in a coordinated manner by only having to specify where the lead unit moves to.   The Column Movement feature will insure that the trailing units in the column will move in a "follow-the-leader" fashion.   Column Movement can be used in two modes: "Chain" Column Movement and "Organization" Column Movement.

Chain Column Movement is used when you want to move a column of units together without consideration for which brigade, division, or corps the units belong to.   This mode is most useful when you are bringing newly arrived reinforcements onto the map from the arrival hex.   However, Chain Column Movement is not useful when moving units in a "crowd" where the question of which unit to move next in the column can be ambiguous.

To use Chain Column Movement, the Hot Spot must be located on the hex containing the lead units, but no units in the Unit List can be selected.   You then click on the adjacent target hex using the right mouse button while holding down the Ctrl button.   Column Movement will automatically move the topmost non-Leader unit in the stack, together with all Leaders above this unit, to the target hex.   If this movement empties the original hex, then the Column Movement feature will pick a unit from an adjacent hex and move it into the original hex.   This process of picking a unit from an adjacent hex is then repeated as long as the movement creates an empty hex.   Note that Chain Column Movement will fail when there is more than one choice of unit to move into the empty hex.

Organization Column Movement is used when you want to move a column of units together using the common organization of the units as the factor determining which units to move.   Organization Column Movement is useful when you want to move a particular brigade, division, or corps as a group.

To use Organization Column Movement, the Hot Spot must be located on the hex containing the lead units and some or all of the units in the Unit List need to be selected.   The organization of the top selected unit will be used to determine which organization is being moved.   For example, if the Leader of a brigade is the top selected unit in the Unit List, then the Organization Column Movement feature will move only units from that brigade.   To invoke the Organization Column Movement feature, you then click on the adjacent target hex using the right mouse button while holding down the Ctrl key.   The Organization Column Movement feature will move the topmost non-Leader selected unit into the target hex together will all selected Leaders above it.   If this movement empties the original hex, then a unit in an adjacent hex from the organization selected will be moved into the original hex.   This process will be repeated as long as the movement produces an empty hex.   The Organization Column Movement feature will fail if the choice of which unit to move into the empty hex is ambiguous.

Both forms of Column Movement can be combined with Auto Movement.   To use both Column and Auto Movement, you hold down both the Ctrl and the Alt keys while clicking on the target hex with the right mouse button.   If no units in the Hot Spot hex have been selected, then Chain Column Movement will be used to move the column along the minimum path towards the target hex.   If units in the Hot Spot hex have been selected, then Organization Column Movement will be used to move the units.

1.4.4 The Tool Box

The Tool Box is a floating box of buttons that can be used to facilitate certain actions of the main program.   The buttons in the box and the action they perform are:

Next - Advance to the next phase

Zoom - Toggle display between normal and zoom-in view

Counterclockwise - Turn the selected units counterclockwise

Clockwise - Turn the selected units clockwise

About Face - Turn the selected units about face

Change Formation - Change the formation of the selected units

Units - Toggle the display of units on the map

Bases - Toggle the display of unit bases on the 3D map

Artillery - Display the Artillery Dialog

Melee - Resolve the current melee

Display Low Ammo - Highlight units that are low or have no ammo, or are uncrewed

Display Spotted - Highlight spotted units

Display Moved - Highlight units that have moved

Display Fired/Fought - Highlight units that have fired or fought

Display Disrupted - Highlight units that are disrupted

Display Org - Highlight units in same organization as selected units

Full Map - Toggle Full Map mode

Visible Hexes - toggle the display showing visible hexes from the current Hot Spot hex

Objectives - toggle the display of objective hexes on the map

Jump Window - Display the Jump Window

Next Stack - Jump to the next stack to be processed

A/I - Complete current phase under A/I

Command hints for each tool box button are displayed in the status bar at the bottom of the main window when the button is pressed.   Leaving the button without releasing clears the command hint.

1.4.5 Advantage

The Advantage feature can be used to give one side or another a combat advantage during a battle.   The advantage value is set at the beginning of the battle using either the A/I Selection Dialog or the New Scenario Dialog. Advantage values can range from 0 to 100 for either side.   The default value of 0 means that neither side will get an advantage.   Giving an advantage value to a side means that combat losses for that side will be reduced below normal and combat losses for the other side will be increased above normal. Advantage values can be viewed and changed using the Advantage Dialog.

1.4.6 The Initialization File

The Battleground Antietam initialization file bgn.ini is located in the Windows directory.   This file is read when the main program begins and is used to establish certain settings and options.   Changes to these values are saved to the initialization file when the main program ends.