Contents

1.0   The Menus

These menus are associated with the Main program:

1.1   The File Menu

The File Menu is used to start a new battle and to load and save previously created battles.

To start a new battle, select the New menu item. A dialog will be displayed allowing the scenario file to be selected.

To save the current battle, select the Save menu item. By default, battle files are saved with the .btl filename extension.

To save the current battle under a different filename, select the Save As menu item.

A recorded battle can be replayed by selecting the Replay menu item. A dialog will be displayed allowing the replay file to be selected. By default, replay files have the .btr filename extension. A Battle Replay can be paused once started by pressing the Escape key. The Restart Replay option of the Special Menu is used to restart the replay.

To exit the Main program, select the Exit menu selection.

1.2   The Turn Menu

Selecting the Next menu item causes the current player turn to end and the battle to advance to the next player turn.

1.3   The Units Menu

Selecting the To Top menu item moves the selected units to the top of the stack.

Selecting the To Bottom menu item moves the selected units to the bottom of the stack.

To load units, first select both passenger and carrier units and then select the Load/Unload menu item. To unload units, select the carrier unit and then select the Load/Unload menu item.

The Toggle Digging-In menu item toggles the Digging-In status of the selected units.

The Double-Time menu item initiates Double-Time movement for the selected units.

The Save AP's for Firing menu item causes the number of Action Points required to fire to be set aside for the selected units.

The Save AP's for Unloading menu item causes the number of Action Points required to unload to be set aside for the selected units.

Selecting the Turn Clockwise menu item causes the selected units to turn clockwise.

Selecting the Turn Counterclockwise menu item causes the selected units to turn counterclockwise.

Selecting the Air Attack menu item causes an Air Attack to be initiated on the current Hot Spot hex.

Selecting the Artillery Dialog menu item displays the Artillery Dialog so that artillery units can be fired.

Selecting the Assign Opportunity Fire menu item displays the Opportunity Fire Dialog, which allows the player to set certain range restrictions for his unit's opportunity fire.

Selecting the Remove From Map menu item causes the selected units to be removed from the map. Units to be removed from the map must be on the boundary of the map.

Selecting the Undo Last Movement menu item causes the last movement of units to be undone. Note that movement cannot be undone if Fog-Of-War is in effect for the other side.

1.4   The Assault Menu

Selecting the Clear Assault menu item will reset an assault on the map that has not been resolved.

Selecting the Add To Assault menu item will cause the currently selected units to be added to the current assault.

Selecting the Resolve Assault menu item will resolve the current assault.

The Show Odds menu item will - unless Extreme Fog of War is in effect - display the combat odds associated with the current assault prior to its resolution.

1.5   The Reinforce Menu

To view the reinforcements scheduled to appear in the current battle, select the Scheduled menu item.

To view reinforcements that are available to be placed on the map this turn, select the Arrived menu item.

To view the list of Fixed-Unit Releases, select the Releases menu item.

1.6   The Status Menu

Selecting the Scenario Information menu item displays a dialog with various information about the current scenario such as title, maximum visibility, ground conditions, and number of turns.

To view the current strengths of each side, select the Strength menu item.

To view a list of objectives and their current owner, select the Objectives menu item.

To view the current victory level, select the Victory menu item.

1.7   The Display Menu

Selecting the Units Off menu item causes the units on the map to be hidden so that the underlying terrain can be viewed better.

Selecting the Unit Bases menu item toggles the display of bases on the 3D units.

Selecting the Specials On Top menu item toggles the display of special counters on the top of each stack in the 2D view.

Selecting the Objectives menu item toggles the display of objective hexes on the map with ownership designations.

Selecting the Locations menu item displays the Location Dialog.

Selecting the Visible Hexes menu item shades the hexes which are not visible from the current Hot Spot hex.

Selecting the Reachable Hexes menu item shades the hexes that cannot be entered by the currently selected unit during the current turn.

Selecting the Find Org menu item displays the Organization Dialog.

Selecting the Jump Map menu item displays the Jump Map.

Selecting the Hex Contours menu item toggles the drawing of hex contours which help visualize elevation changes on the map.

Selecting the Opaque Infobox menu item toggles the drawing of the Infobox with an opaque background to improve legibility.

The Highlight submenu contains several selections for identifying certain units on the map.

Selecting the Spotted Units menu item highlights units that are currently spotted on the map.

Selecting the Fired/Fought Units menu item highlights units that have either fired or conducted assaults in the current turn.

Selecting the Moved Units menu item highlights units that have moved in the current turn.

Selecting the Disrupted Units menu item highlights units that are currently disrupted.

Selecting the Indirect Fire Units menu item highlights units capable of firing using Indirect Fire.

Selecting the Anti-Aircraft Units menu item highlights units capable of firing using Anti-Aircraft Fire.

Selecting the Organization menu item highlights all units belonging to the same organization as the currently selected unit.

Selecting the Mine Clearing Units menu item highlights all units that can clear mines.

Selecting the Leaders menu item highlights all leaders on the map.

Selecting the Headquarters menu item highlights all headquarters units on the map.

Selecting the Fixed Units menu item highlights all fixed units on the map.

Selecting the 2D Normal View, 2D Zoom-Out View, 3D Normal View, 3D Zoom-Out View, or 3D Extreme Zoom-Out View displays the corresponding map view.

Selecting the Rotate Map menu item rotates the map 180 degrees.

1.8 The AI Menu

Each side can be set to Manual, Computer, or Computer with Fog-of-War AI. Under Manual AI, all actions are taken by the user. Under Computer and Computer with Fog-of-War, the computer moves and fires all units for the selected side. Under the Fog-of-War option, the opposing side can only see enemy units that are visible from one or more of their units. Selecting the Manual, Computer, and Computer with FOW menu items sets the AI for the corresponding side.

The Activate AI menu item starts and stops the execution of the AI for the current side.

The Set Advantage menu item displays the Advantage Dialog.

1.9   The Special Menu

The Special Menu is used to select options for network play.

Selecting the Modem Host option selects the current computer as the Host computer for Direct Play(tm). The user will be prompted for the connection type based on the configuration of the computer system. If the user plans on selecting the TCP/IP connection type, they should first determine their IP address using the WINIPCFG utility. Callers will need to know the IP address of the Host computer. If Modem Host is already selected, selecting it again will disconnect the computer from the connection.

Selecting the Modem Caller option establishes the current computer as the caller computer for Direct Play(tm). The user will be prompted for the connection type and session on the Host computer. If the user plans on selecting the TCP/IP connection type, they should already know the IP address of the Host computer (see Modem Host option). If Modem Caller is already selected, selecting it again will disconnect the computer from the connection.

The Play By E-Mail option enables Play By E-Mail battles to be started and continued. Once this option is set, the user should either start a new scenario using the New option or continue an existing battle using the Open option of the File Menu. By default, PBEM battle files have the .bte filename extension.

The Two-Player Hot Seat option enables two players to play a battle at the same computer with FOW for each side during their turn. Once this option is set, the user should either start a new scenario using the New option or continue an existing battle using the Open option of the File Menu. By default, Two-Player Hot Seat battle files have the .btt filename extension.

The Record Battle option can be used to record a battle played either manually or against the computer. A file recording the battle is saved in a file with filename extension .btr. Selecting the Record Battle option a second time terminates the recording. Battle replay files can be replayed using the Replay option of the File Menu.

The New Encryption Key menu item can be used by the Modem Caller to specify a new string to be used to encrypt battle files on the Modem Host computer.

The Restart Replay menu item can be used to restart a Battle Replay that was paused by pressing the Escape key.

The Communication Dialog menu item can be used to redisplay the Communication Dialog after it has been closed. The Communication Dialog is available only during Modem play.

1.10   The Options Menu

Settings under the Options Menu are saved in the Windows Registry and restored the next time the Main program is executed.

The Prompt for Scenario option causes the Main program to prompt the user for a new scenario when the Main program is executed directly without going through the West Front front-end application.

The Beep on Error option causes the Main program to beep when an error is made by the user.

The Hide 3D Hot-Spot option causes the 3D hot spot outline to be hidden.

The Blink Hot-Spot option causes the 2D hot spot outline to blink. Note: the 3D hot spot outline does not blink even when it is visible.

The Auto Scroll option causes the map to automatically scroll when the mouse is moved to the screen edge. Otherwise, standard Windows scroll bars are displayed.

The Smooth Scroll option causes the map to scroll through all intermediate hexes when it is repositioned. Otherwise, the map is immediately redrawn at the new location.

The Hex Outlines option causes hex outlines to be drawn on the map.

The Sound Effects option causes combat sound effects to be played during battle.

The Background Music option causes background music to be played during a battle.

The Background Sound option causes background combat sound effects to be played during a battle. Note that this option and Background Music cannot both be enabled simultaneously.

The Graphical Icons option causes graphical icons to be displayed on counters in 2D modes. Otherwise, schematic NATO-style icons are drawn.

The Unit List option causes a list of units in the current Hot Spot hex to be displayed along the right-hand side of the screen. Otherwise, units are displayed using the Infobox.

The Auto Save option causes the current battle file to be automatically saved at the end of every turn not under AI control.

The Auto Save AP's for Firing option causes the Action Points required to fire to be set aside for each unit at the beginning of each player turn.

The Details submenu controls the level of detail associated with reports and information generated the game. Higher levels of detail increase the amount of information reported to the user.

The Fast Computer Player option will cause 3D animations to play at a faster speed when the computer is resolving movement and fire by the computer-controlled opponent.

The Ask Before Advancing Turn option prompts you to confirm your intention to end the turn.

The Initial View submenu controls the initial map view when the Main program is first executed.

The Last View option causes the map to be redisplayed using the same view as when the Main program was last exited.

> The 2D Normal View, 2D Zoom-Out View, 3D Normal View, 3D Zoom-Out View, and 3D Extreme Zoom-Out View options select the initial view for the Main program correspondingly.

1.11   The Help Menu

The General Help menu item displays this help file.

The Unit Handbook menu item displays the Unit Handbook help file.

The Parameter Data menu item displays the Parameter Data help file.

The About menu item displays information concerning the West Front version and copyright.

2.0   The Dialogs

These dialogs are associated with the Main program:

2.1   The Target Dialog

The Target Dialog appears whenever a direct-fire attack is made into a hex that contains more than one potential target. Selecting a target unit and clicking OK, or double-clicking on a target unit, causes the fire to be directed at that unit.

2.2   The Artillery Dialog

The Artillery Dialog is used to conduct Indirect Fire attacks during a player's turn. Selecting a unit in the dialog and right-clicking on the map causes the unit to fire at the selected map hex. Units that are in range of the selected artillery unit are highlighted on the map. Clicking on the Locate button, or double-clicking on an artillery unit's name in the dialog, causes the map to scroll to that unit on the map.

2.3   The Strength Dialog

The Strength Dialog lists the units which are on the map for each side. Associated with each unit type is the number of units of that type and the Victory Points associated with that unit.

2.4   The Victory Dialog

The Victory Dialog displays the current victory level. Victory Points are calculated based on the objectives held by the first side in the scenario. Depending on the total victory points, the first side is awarded a Major Defeat, Minor Defeat, Draw, Minor Victory or Major Victory.

2.5   The Objectives Dialog

The Objectives Dialog lists the objectives in the current battle, their ownership, and their victory-point value. Clicking on an objective in the dialog causes the map to scroll to that objective hex.

2.6   The Advantage Dialog

The Advantage Dialog can be used to display, and perhaps modify, the current Advantage Value of the current battle. Note: the Advantage Value of Play-By-E-Mail and Modem Play battles cannot be changed after the battle has started.

2.7   The A/I Selection Dialog

The A/I Selection Dialog is used to select the A/I setting of each side in a new battle and to select any Advantage Value. The A/I setting of a side can be Manual, in which case the player moves and fires the units for that side; or Computer, in which case the computer moves and fires the units for that side. In addition, for a side controlled by the computer, the Fog-Of-War option can be set which prevents the player from seeing enemy units on the map that are not visible to friendly units.

 Setting the Advantage Value to a value other than 0 gives that side an advantage in combat and the other side a corresponding disadvantage.

2.8   The New Scenario Dialog

The New Scenario Dialog is used to make selections under special play modes such as Modem Play or Play-By-E-Mail. The local user can select which side they wish to play and if Fog-of-War should be in effect during the battle. Note that the Advantage value can be set in this dialog, but cannot be changed during the course of battle.

2.9   The Arrived Dialog

The Arrived Dialog is used to display units which have arrived as reinforcements and to place those units on the map. Selecting an entry in the Arrived Dialog causes the map to scroll to the arrival location. Double clicking on the entry causes the units to be placed on the map.

2.10   The Schedule Dialog

The Schedule Dialog displays a list of reinforcements for the current scenario. Associated with each reinforcement entry is an arrival location, an arrival turn, and a probability of arrival at that time. If the probability is less than 100%, then the reinforcement may not arrive at the exact arrival turn, but may arrive at a later time. An asterisk (*) preceding the reinforcement entry indicates that the reinforcement is late in arriving. Selecting a reinforcement entry causes the map to scroll to the entry hex. Double-clocking a reinforcement entry displays a list of the units in that reinforcement.

2.11   The Release Dialog

The Release Dialog displays a list of Fixed-Unit releases for the current scenario. Associated with each release is a turn and a probability that the release will be applied at that time. If the probability is less than 100%, then the release may not be applied at the exact time noted, but may be applied at a later time.

2.12   The Jump Dialog

The Jump Dialog displays a reduced version of the current map. Units that are visible on the map are indicated, and the current visible portion of the map is indicated by a red rectangle. Clicking on any portion of the map causes the map to be repositioned to that location.

2.13 The Organization Dialog

The Organization Dialog displays the organizations associated with the current battle. Selecting an entry in the list highlights that organization's units on the map. Clicking OK closes the dialog but leaves highlighted units still highlighted. Clicking Cancel closes the dialog and removes the highlighting.

2.14   The Location Dialog

The Location Dialog displays a list of map locations. Clicking on an entry in this list causes the map to scroll to that location.

2.15   The Rule Dialog

The Rule Dialog displays the settings for the Optional Rules currently in effect for a battle. Note that Optional Rules can only be changed at the beginning of a battle and not after it has started.

2.16 The Opportunity Fire Dialog

The Opportunity Fire Dialog allows the player to exert a degree of control over his units' opportunity fire by letting him select (at any time during his turn) maximum engagement ranges for certain firing unit types vs. certain target types. In the Opportunity Fire dialog, target types are listed across the top and firing types are listed along the side. For each combination of firing unit vs. target unit, one of four settings is possible. The setting N (Never) forces units of the given firing type to never fire at units of the corresponding target type. The setting S (Short) restricts opportunity fire between the given firing type and corresponding target type to 1/3 of the firing unit's maximum range. M (Medium) restricts opportunity fire to 2/3 of the firing unit's maximum range. L (Long) allows opportunity fire out to the firing unit's maximum range.

3.0   Other Features

These features are associated with the Main program:

3.1 Hot Keys

These hot keys can be used in the Main program:

F1 - Open Main program help file

F2 - Open Unit Handbook

F3 - Open Scenario Parameter Data help file

F4 - Open Miscellaneous (Platoon) Data file

F5 - Open Weapon Data file

Keyboard 1 - Display in 3D Normal mode

Keyboard 2 - Display in 3D Zoom-Out mode

Keyboard 3 - Display in 3D Extreme Zoom-Out mode

Keyboard 4 - Display in 2D Normal mode

Keyboard 5 - Display in 2D Zoom-Out mode

Number Pad 0 - Load/unload units

Number Pad 1 - Move selected units down and left

Number Pad 2 - Move selected units down

Number Pad 3 - Move selected units down and right

Number Pad 4 - Turn selected units counter-clockwise

Number Pad 5 - Initiate air attack on current Hot Spot hex

Number Pad 6 - Turn selected units clockwise

Number Pad 7 - Move selected units up and left

Number Pad 8 - Move selected units up

Number Pad 9 - Move selected units up and right

Delete - Turn selected units counter-clockwise

Page Down - Turn selected units clockwise

Home - Move selected units forward in hex

End - Move selected units backward in hex

A - Display Arrived Dialog

C - Toggle display of map contours

F - Display Release Dialog

H - Display hexes reachable by currently selected unit

I - Display scenario information

M - Toggle display of program menu

N - Advance to next unit to move or fire

O - Toggle display of objectives

P - Return to previous unit to move or fire

R - Rotate map 180 degrees

S - Display Schedule Dialog

T - Toggle display of on-map thermometers

U - Toggle display of Unit List

V - Display hexes visible from selected hex/unit
X - Exit Main program
Up Arrow - Scroll map up
Down Arrow - Scroll map down
Right Arrow - Scroll map right
Left Arrow - Scroll map left
Space Bar - Re-center map on selected hex/unit

3.2   Min-Path Algorithm

There are three implementations of the Min-Path Algorithm in the game. Each has characteristics in terms of speed and accuracy.

When a unit is moved by the player, the default Fast Min-Path Algorithm is used. This implementation attempts to find a Min-Path to the destination hex subject to the restriction that the distance from the intermediate hexes of the path to the destination hex must not exceed the distance from the unit to the destination hex. The goal of this restriction is to avoid wild detours to the destination hex that may be unexpected and totally unwanted by the player. For example, in a river crossing situation, if the main bridge is currently unable to accommodate more units, then a pure Min-Path could end up moving the unit a great distance away from the main bridge so as to reach a secondary bridge over the river. If the Fast Min-Path Algorithm is unable to find a path, then the player is told that there is no "Direct Path" to the destination hex.

A generalization of the default Min-Path Algorithm that looks for small detours to the destination hex is also available to the player. This algorithm, the Slow Min-Path Algorithm, takes longer than the default algorithm but will consider small detours in order to find paths around obstructions such as rivers. This algorithm is invoked by holding down the Alt key when the unit is moved.

The Slow Min-Path Algorithm is also the basis for Organization Moves. To perform an Organization Move, first highlight the organization to be moved and then select the destination hex for the organization by holding down the Alt key and clicking with the right mouse button. The Organization Move will move each unit of the organization in turn towards the destination hex.

Finally, a pure implementation of the Min-Path Algorithm is used when the Reachable Hexes of a unit are displayed (see the Display Menu). This algorithm takes much longer than the other two but will find the absolute Min-Path to all hexes within the movement allowance of the unit. If a unit is moved while the Reachable Hexes are displayed, then the Min-Path found by this algorithm is used to move the unit.

3.3   Optional Rules

These Optional Rules can be established at the beginning of a battle. However, once set, they cannot be changed during the battle.

Indirect Fire By The Map - Under this rule, Indirect Fire can be targeted at hexes that are not currently spotted by friendly units. However, such fire has reduced effectiveness and is subject to drift.

Extreme Fog-Of-War - This rule affects Fog-Of-War effects. When in effect, additional information is hidden from the opposing player such as the name of enemy units, their morale, and their strength (except in Open hexes). In addition, when the opposing side has Extreme Fog-Of-War, then the arrival probability and release probability of friendly units is not reported.

Armor Facing Effects - Under this rule, Direct Fire against Armored targets is affected by the facing of the target unit. Fire which is directed through the three facing hexsides of the target unit is reduced by 20%. Fire which is directed through the two rear flank hexsides of the target unit is increased by 30%. Finally, fire which is directed through the rear facing hexside of the target unit is increased by 50%.

Command Control - Under this rule, the HQ supply "ranges" are varied depending on the year and the nationality. Each nationality has a built in modifier that modifies the base "50% range" of each HQ. For example: In 1939, each Russian HQ has a 60 % (0.6) modifier that is applied to modify the base range of each HQ (as seen in EF's Pdata.hlp file). Thus, a battalion HQ, that normally has a 50% range of "8", has that multiplied by 0.6, thus resulting in a new "50% range" value of "5".

In addition to the above modifier (depending on year and nationality), any HQ that is stacked in the same hex with the leader associated with that HQ, has its base "50% range" increased by that leader's Leadership#. For instance, a divisional-level leader only increases the range of his division's HQ, *not* the regimental and/or battalion HQ of his division.