

## **EBP Help**

Empire Builder Pronto™ plays "crayon rails" against you, itself, or a combination of human and computer players. EBP™ is an "open system": it displays and lets you play on a wide variety of game maps, including maps you or others create.

**If you like this software, please support our efforts, and get a bonus, by registering.**

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The EBP and EBPedit software and documentation were created and are © Copyright 2005, 2020 by Intersystem Concepts, Inc (ICI). ICI has been producing and publishing software for over 30 years. Empire Builder Pronto is not a product of Mayfair Games but is authorized by them. We would like to thank the following people for their help: Joseph Thomas, Don Woods, Dave Mitton, Paul Van Bloem, Elmer Driver, John Randecker, Anthony Thomas and the other active members of the beta test group. Certain sound effects courtesy Scuzzpuck per terms at freesound.org. Use of the Porter steam locomotive photo courtesy of the B&O Railroad Museum. Intersystem Concepts, Inc.

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## AI - [[EBP Help Contents](#)]

At the heart of any competitive computer game are artificial intelligence (AI) routines. The AI helps the computer make decisions in the game...the better the AI, the better the decisions. AI players in games are often called robots, or "bots". You select and configure AI bot opponents via the [Game Setup](#) window.

### TRIP FINDER

The primary workhorse of EBP's AI is the trip finder; it searches for a good series of load pickup and delivery trips. The number of possible trip combinations grows factorially with the number of cities supplying loads, and number of demands. In order to save time, depending on the situation, some combinations are skipped. To influence how deeply EBP searches, adjust the Skill setting in the [Game Setup](#) window; at higher skill levels, EBP searches deeper.

Even though EBP's trip finder is not perfect, it usually picks a decent route in a short amount of time. The most difficult (time consuming) calculation occurs at the start of the game when the AI also has to decide the city in which to start its train.

### BUILDING DECISIONS

The next most important AI decision is where to build. By changing the AI's "personality", the Type/Style setting (in the Game Setup window), you can influence the relative weight the AI applies to the decision, and thus how it plays the game. For example, the Jay Gould AI prefers to build track to cities that generate high payoffs.

### BAD DECISIONS

If you find a situation in which you feel the AI clearly makes a poor decision or recommendation, we would like to know about it. In order to investigate, we will need a copy of the game saved *just prior* to the poor choice. See the [Technical Support](#) topic for instructions on how to obtain and send us the game.

### CHEATING

By default, the AI plays "fair and square" (no cheating). It does not know what contract or event is coming next. Unlike the AI in most games, in EBP the AI players do not collude against the human players.

If you should want the extra challenge of the AI colluding and/or cheating, in the [Options](#) window, see the Computer Play frame, and pick one of the revenge or cheat options. When you play with the "revenge" option enabled, the computer players will gang up on you, but they still will not cheat. Ganging up means they ride your railroads less frequently. Cheating lightly means the AI will deal itself the next contract from the deck that demands a load supplied by the city at which it is presently located. Cheating heavily means the AI will search the deck and deal itself what it deems the best such contract. Note that this form of cheating merely exploits good luck: the specially chosen contract might have been dealt to the player via sheer randomness.

### TESTING

To run experiments with the AI, see the [continuous play](#) topic.



## **Alternate Maps - [[EBP Help Contents](#)]**

A game map of the USA is included free with EBP; the map contains 51 cities and 26 load types. Because EBP is an "open system" you can play on other game maps as well. Alternate maps can be a fun, new challenge.

### **OBTAINING MORE MAPS**

Alternate game maps can be downloaded from our Web site, or ordered from us when you register EBP. Some maps are free and others available for a small fee. Visit <http://www.railgamefans.com> for an up-to-date list.

### **TO PLAY ON AN ALTERNATE MAP**

From the game's File pull-down menu, choose Load Map. Select a map from the list. Please note that to *play* on an alternate map you must first register your copy of EBP.

To learn about a new map before playing on it, from the Information menu choose Map Basics and Map Details. When ready to play, use the Game, Start menu item.

### **MISSING MAPS?**

The set of files that make up an alternate map **must** be placed in the same directory / folder as your EBP.EXE game program. If you download a map in ZIP form, uncompress it and put the resulting files in the same directory / folder as your EBP.EXE game program.

Map files have file name extensions of .EBM. Map background images are named xxxBGND\* (usually .JPG), for example USABGND.JPG. Load icons are named xxxICON\* (usually .GIF). Put all these files in the same directory / folder as your EBP.EXE game program.

### **CREATING ALTERNATE MAPS**

EBPEdit is our visual map editor software. EBPEdit lets you modify existing maps as well as create new ones. You visually create the dots, regions, cities, railroads and borders that constitute a map. Download a trial copy from RailGameFans.com.

### **RESERVING A MAP NAME**

Maps are identified by the first three characters in the name of their files. To avoid creating a map with a name already in use by someone else's map, contact us to reserve a map name. There is a small fee associated with reserving a name.

### **DISTRIBUTING ALTERNATE MAPS**

If you would like us to sell an alternate map you have created, contact us for details on issues such as reserving a map name and collecting royalties on sales of your map.

### **OWNERSHIP**

Please note that while some alternate maps are considered freeware, others are shareware, and still others are copyrighted and may not be redistributed without permission. View [Information, Map Basics](#) to check.

## **Blitz Play - [[EBP Help Contents](#)]**

In Blitz Play mode there's no waiting for an opponent: all players keep taking turns until someone wins. It makes for a speedy, exciting challenge for experienced players. Try it by selecting Blitz in the [Game Setup](#) window when you are setting up a match. Blitz can be played against the AI and/or remote human opponents via the Web.

### **ROUND TIME**

For Blitz matches with AI players, be sure to set a Round Time in the Game Setup window. Round Time controls how often the AI players take a turn. Without this limit, the human player would not be able to keep up since EBP's AI can finish an entire match in just a few seconds.

EBP divides the Round Time you choose among all AI players in the match. For example, if you set it to 45 in a 4-player match (1 human and 3 AI players), each of the 3 AI players will start a turn 15 seconds after the completion of the previous AI turn. Expert human players can challenge themselves by gradually reducing the Round Time setting. Can you win with a setting of 30 seconds? What about 15? What about 10?

During the first round of a match, no AI player will take a turn until either the Round Time has elapsed, or you complete building some track. If there are no AI players in the match, the Round Time setting is superfluous.

### **BUILDING CONFLICTS**

Two players may simultaneously survey track segments between the same two mileposts, but the player who wins the right to actually build the track is the one who first confirms they have finished building that turn by clicking the OK (done) button.

### **LOAD CONFLICTS**

As you are placing [loads](#) aboard your train, note that other players may be doing so simultaneously. EBP actively updates the Loads window to depict the currently available number of loads. Due to latency (the lag time associated with communication over the Internet), it is remotely possible during [Web Play](#) that two human players could grab the last available load of a given type at the same time and thus temporarily introduce an extra load of that type into the match. This will correct itself after the excess load is delivered or tossed.

### **EVENTS**

EBP automatically turns off [events](#) for a Blitz match because many events cause too much confusing disruption of the rapid-fire blitz play. Note this means the Tax event will not occur, and therefore cash level will be secret for the entire match unless you disable "Keep cash levels secret" in the [Game Options](#).

### **DISCARDING CONTRACTS**

In a Blitz match no player may discard a contract more than once per round. A round is defined as a chance for all players to take a turn. This automatic limitation prevents players from rapid, repeated discards done simply to find a desirable set of contracts.

## AUTOMOVE

For matches vs. the AI, EBP gives each AI player a full turn in between the human player's automove steps. For Blitz matches with multiple humans, we strongly recommend disabling Automove by clearing its checkbox found in the Game Options window. Automove operates so quickly that a human vs. human Blitz match can degenerate into a contest of who can engage the feature most often.

## SUGGESTIONS

Since speed is very important in Blitz mode, we suggest you turn off EBP's map background animation feature: clear its checkbox in the Display Settings window.

Movement is more important than careful building. Don't spend too much time building the best route, instead build an acceptable route quickly, and use the time savings to move your train.

In the race to the victory cash level, don't forget you also need to connect the minimum number of big cities.

The Open Contracts variant vastly increases the amount of computation the AI must perform, and may result in sluggish user interface response on older, slower devices. If you experience this, we recommend not using Open Contracts during Blitz Play on that device.



## **Building Track - [\[EBP Help Contents\]](#)**

Each player is allowed to build track each round per [game rules](#), spending up to the MaxBuildPerTurn setting (see [Game Options](#)), normally \$20.

All track built must extend from the player's existing track, or from the edge of any big (hexagon) [city](#), to an immediately adjacent milepost. You may build out of a big city up to 2 times per turn; further attempts the same turn are considered building *into* the city, and normally cost more. EBP automatically pays build costs to the bank and adjusts your remaining cash.

### HOW TO BUILD

EBP will prompt you for the build phase of your [turn](#): the mouse cursor will change to I beam style, and the B button near the lower right corner of the map will gently blink. Clicking B will zoom the map to the area of your previous build, if any. To scroll and zoom the map see the [Map Use](#) topic.

All builds must start from your existing track, from the edge of a big (hexagonal) [city](#), or from a city marked with a hexagon. To survey a route, point to the milepost (typically a black dot) at which to start building, left click and hold, then drag the mouse to an adjacent milepost. Via touch screen: touch the milepost at which to start, then drag your finger/stylus to an adjacent milepost. As you go, between the mileposts EBP lays down railroad ties in your color and displays the total build cost.

If your track build does not appear and instead the map scrolls/drag, it means EBP did not see you start at an eligible milepost. Zoom closer into the map and retry by pointing more precisely to your desired starting milepost.

Build cost is influenced by the [terrain](#) you are building across and to. For example, building across a river, and/or to a mountain or [alpine](#), typically costs more than to a clear milepost. You can customize these fees via the [Game Options](#) window.

If you survey too far, to undo one segment at a time, 1) press Backspace, 2) click/touch the Swipe bar above the map and slide right, or 3) click/move your mouse backward over the track you had marked. To undo larger portions at once, press Shift+Backspace or choose the Turn, Undo Building/Upgrade pull-down menu.

When you are happy with your surveyed route, click the OK (done) button, at which time EBP will build the track (add rails atop the ties), charge the build cost to you, and move to the next player's turn.

### BIG (MAJOR) CITIES

Under standard rules you can build up to two segments per turn out of any major city, even ones not already served by your track. If you are eligible to build out, and doing so costs less than building in, EBP automatically treats those major city builds as build outs regardless of the direction in which you draw the segment.

To build a ferry at a big city (such as the Hong Kong on the China map), click the city's milepost served by the ferry then click the milepost at the other end of the ferry.

## DISALLOWED BUILDS

Game rules place various limitations on building, for example no more than 2 players may build into a given small city. EBP will warn you if you attempt an illegal build.

Certain game event disallow building for a brief period. EBP overlays orange (default color) lines to mark event areas. To build in such areas you must wait until after the event ends.

## AUTOBUILD

The Autobuild feature simplifies building track to a distant milepost. During the build phase of your turn, right-click the desired milepost and choosing Build to. EBP will automatically survey a route all the way there from your existing track. If you have not yet built any track, first left click the big city milepost at which to start building, then right click the distant milepost and choose Build to.

If you like the suggested route, click OK (done) to build that track, otherwise undo it as described further above. To Autobuild to a big city, click an a milepost outside but near the city and then finish the connection manually. Autobuild (followed by undo) can be handy to estimate the total track build cost from your network to a distant location.

When EBP autobuilds for you, it plays the AUTOBLD.WAV sound effect as feedback; this file is stored in the same subdirectory as EBP.EXE. If you prefer a different sound effect, replace the supplied sound file with one of your own (in WAV format) named AUTOBLD.WAV.

## ESTIMATED BUILD COST

During play, to see EBP's estimate of the cost to build to a particular unserved milepost, right click the milepost and choose Information.

## Continuous Play - [[EBP Help Contents](#)]

EBP's continuous play feature is a handy way to test the ability of the various computer players against each other, or to test a custom map.

To enable continuous play, from the Game menu choose Start. From the Game Setup window that appears, click the Game Options button. In the Variants section of the Game Options window, enable both the "Bots: game repeat" and "Bots: non-stop" checkboxes.

## STATISTICS

You can view cumulative statistics about the continuous games via the Game Status window: from its Display pull-down menu choose AI Stats.

## STOP AT

You can tell EBP to play up to a certain number of games, then stop. In the Game Status window, choose the Continuous, Stop at... pull-down menu, and enter the desired quantity.

If you employ the Sum Data feature (described below), in the first instance of EBP (the one in which you activated Sum Data), choose Stop at... and enter the total quantity of games you want played across all instances. You'll also be asked if you want the other (the secondary) instances of EBP to close automatically after the total is reached; choose No if you want the programs to *not* shut down so, for example, you can individually examine the continuous play stats generated by each instance.

## INCREASING PLAY SPEED

After play has begun, for maximum play speed, minimize the map window: EBP will skip updating that window until you restore it to its normal size, and will execute in the processing background so that you can run other Windows programs concurrently. If your device has a multi-core processor, or if you will *not* be running other programs simultaneously, you can gain an additional ~10% speed boost by enabling the "Bots: max processor" checkbox in the Game Options window. This is commonly employed when letting the game run unattended overnight to collect stats.

Leaving the Game Status window open at its normal size will not slow the game much, especially if left viewing the AI Stats.

When using standard games rules on popular maps, and one processor core of a 4 Gz Wintel computing device, EBP can complete a match of four, max-skill AI bots in about 2 to 9 seconds, depending on the map in use.

## SUM DATA

If your device has a multi-core processor, you can run multiple instances of EBP concurrently, and each (up to the number of cores) will automatically execute on its own processor. Enabling the "Bots: sum data" checkbox in the Game Options window tells EBP to gather and combine the data from all instances into the AI Stats displayed for the first instance. Tech note: the data communication between instances is handled via DDE.

"Bots: sum data" is intended for use only with the "Bots: game repeat" and "Bots: non-stop" features. If you forget, EBP enables those checkboxes automatically when you enable "Bots: sum data".

Starting with version 2.0, EBP asks how many instances you wish it to spawn. If you have a quad-core processor, you might enter the value 3 so EBP will automatically set up and run a total of 4 instances of the program, and gather the resulting stats in the Game Status window of the first copy of EBP. If you agree when it asks, EBP will assign a unique window caption to each instance, such as EBP #2, EBP #3, etc. EBP #1 is the instance that will gather the stats.

You can still use Sum data's old, manual method, though it does not support all the spawning features, such as instance window caption numbering. To employ the Sum Data feature manually, enable the "Bots: sum data" checkbox for *each* EBP instance you start manually. In that case, for number of instances enter 0. Be sure to employ the same map and settings (number of players, etc.) for each instance, otherwise the statistics gathered may be unreliable.

If your device has a large number of cores, perhaps 16 or more, all of which are running EBP, the copy of EBP receiving the results from other instances might become too busy with stat collection to also run continuous games itself, in which case you might see frequent "Error 286 in ddesend" messages. If that happens, instead enter a *negative* value when prompted for the number of additional instances to spawn. For example, with a 16-core processor, you could enter -15 to have EBP spawn 15 other copies and reserve itself for tallying the results that will be incoming from those 15 instances.

To shut down other running instances, without having to close each one manually, in the Game Status window of instance #1, choose the Continuous, Close instances pull-down menu. Allow a minute or so for your closure request to propagate to the other instances.

Note that some multi-core processors automatically slow their speed of operation to keep from overheating. If that happens, you will notice that adding instances of EBP paradoxically will reduce the combined rate at which games are completed. In that situation, consider running fewer instances of EBP concurrently, or explore ways to cool your device, such as using a fan to blow air on it.

There can only be one "first instance" of EBP (or EBPHP) at a time within a given machine because all secondary instances will connect to it for "sum data" purposes. You can, however, run two separate "sum data" groups by using both EBP and EBPHP concurrently. EBPHP is available upon request to those who have registered the EBPEdit map editor.

## ERRORS

"Error 286 in ddesend" means the EBP instance summing the results was momentarily too busy to quickly receive statistics incoming from secondary instances. If the error occurs sporadically it can be ignored because the stats are not lost: they will be retransmitted after the next game is completed.

If other errors are reported during play of a map you are testing, it is possible something about the map is related to the trouble. Enable the "Bots: halt on error" checkbox when setting up for Continuous Play and EBP will stop the game if a trappable error occurs. You can then review the game to help find the cause.

## CONTINUOUS SAVES

To save every game the AI plays, enable the "Bots: save at end" checkbox in the Game Options window. Upon completion, each game will be saved into the directory that contains EBP, and automatically assigned a name, such as 17311DXL.EBZ, that represents the date and time.

If a continuous-play game becomes stuck (player cash unchanged for 100 rounds) EBP halts it and saves the game per the file name system of the prior paragraph. Later you can open such a saved game to investigate why it stalled.

## EBPHP

If you register both EBP and EBPedit, you are entitled upon request to a free copy of EBPHP, the high performance version of EBP. It can run up to about twice as many continuous play games in a given amount of time, a boon for map designers who wish to test their map. Note that to achieve the higher speed, certain error checking is omitted from the program, and that introduces the possibility that EBPHP may hang or fail unexpectedly. Upon exit from EBPHP you may see a message from Windows that EBPHP failed, but this is a Windows bug, and can be ignored. If EBPHP hangs, retry with EBP. Most such problems arise from unanticipated interaction between various game events. See the Events topic for suggestions on how to debug such event interaction.

## Display - [[EBP Help Contents](#)]

The "display" is the main EBP game window.

### MAP BOX

The majority of the display is occupied by the map box; see [usage topic](#). It is here that track is [built](#) and trains are [moved](#) during play; see [symbols](#). To adjust the size of the map box, drag the resize icon found near its lower left corner. Many aspects of the map display, such as text font and color, can be adjusted to suit your preferences via the [Display Settings](#) window, and [Show](#) pull-down menu.

When you mouse over a city, EBP displays above the map the city name and loads it supplies. A load name in ALL CAPS means the city is the only source of that load.

Learn how to zoom and scroll the map in the [Map Use](#) topic.

### HISTORY BOX

Beneath the map is the scrollable [history box](#). It records a text description of game play. To search for text within the box use the Game, History, Search pull-down menu.

### PLAYER CONTRACTS BOX

At the left of the map is the Player Contracts box. During a game, the Player Contracts box lists the players in turn order from top to bottom. The listing for each player includes (from the top):

Player's name, engine speed and [avatar](#) (if any)  
[Loads](#) onboard (mouse over to blink supply cities on map)  
Contracts, typically listing 3 demands of cities/loads/payoffs

If your track serves a demand city, that city name is italicized; if your train is in that city, a \* appears before the city name. If you have a load onboard that matches a demand, that load name is italicized.

Mouse over or touch the listed cities to blink them on the map. Mouse over or touch the load names to blink their supply cities on the map. To blink info about remaining demands, upon a contract left click between the demand city/load text and the load icons.

To scroll the contracts, click and hold on a city or load name and drag up or down. You can also scroll via the numeric keypad's arrows, after you press the Ins key there to move the focus to the contracts.

To remind yourself about a particular delivery, double click that contract demand to toggle the display of a RR crossing icon. This reminder is *not* shown to opponents in [Web](#) and [Pbem](#) matches. If a particular delivery is locked and must be done (honeymoon [variant rules](#)), a padlock icon will automatically be displayed. As a further reminder, EBP will also overlay these icons in the [Loads](#) window.

To change the display order of the contracts, click and hold on the right side of the contract (the load icons) and drag the contract to the desired position. Note that the display order you choose

is revealed to opponents in Web and Pbem matches, just as if you had changed your arrangement of contracts during board game play.

Right click a demand's city or load to popup a menu, and choose Information for details.

If any Special Demands and/or Open Contracts are active, they are displayed below the contracts of the last player. To scroll directly to Special Demands during play, click the box found below the contracts box and above the cash box.

To monitor a particular Special Demand or Open Contract, right click on it and from the popup menu choose Watch. EBP displays watched contracts in the same area as your regular contracts, but does *not* reveal them to opponents in Web and Pbem matches. To stop watching a contract, right click on it and again choose Watch.

If the load demanded is one generated by building to an xspot, mouse over the payoff to blink the cities in which an already generated load currently exists for pickup. Move the mouse over the load name to blink all cities at which the load can be generated.

For Pbem and Web matches, to change the avatar displayed with your locomotive, right click on your name and enter the full URL (starting with http://) of the desired JPG, non-animated GIF or BMP picture file online. You are welcome to use for this purpose any of the images at <http://www.railgamefans.com/avatars/>

To open a separate window showing the contracts of all players, use the Game, Contracts menu. Resize the window taller than wide and EBP will show two players per column. Right click for a popup menu to adjust the text size for a better fit, or toggle non-player contracts so that only Special Demands and Open Contracts show. Those running a dual-monitor system can drag the window to their other monitor. This separate Contracts window supports none of the left-mouse-click accessible features of the contracts box.

## CASH BOX

Near the bottom left corner of the display is the cash box. It shows the current cash level for each active player as well as loads onboard. Players are listed in turn order; the name of the current player is underlined; the name of the most recent player to collect a payoff is displayed in bold. Mouse over to view the speed and load capacity of a player's train, the number of big cities connected with his track, plus the names of any onboard loads. Mouse over also blinks the player's train on the map. Click a player's name to scroll to that player's contracts, and double click to zoom the map to that player's train.

The exact cash level can be hidden by enabling the "Keep cash levels secret" check box on the Game Options window. When cash is secret, multiple currency symbols will show the approximate cash levels of the players. When a tax card event occurs during a match, cash becomes public through match end.

If you find the text in the Cash box too difficult to read, right click it to reverse the background color.

## THUMBNAIL

The thumbnail "mini-map" blinks city, load and train locations plus facilitates zooming into the main map. You can reposition the thumbnail into any corner of the main map, or share the area with the Cash box, or place it to the right of the Cash box. To reposition the thumbnail, right click upon it then drag and drop it near one of the aforementioned locations. Alternatively, instead of drag and drop, you can reposition (and resize) via a dropdown menu in the Display Settings window.

To zoom to an area click or double-click the thumbnail map, or then rotate the mouse wheel upon it. To scroll the main map, drag the thumbnail's viewport.



## Display Settings - [[EBP Help Contents](#)]

Many aspects of the main EBP display can be adjusted to suit your preferences. From the File menu, choose Display Settings. You can adjust:

the map's background image  
zoom operation  
map symbol colors  
text fonts and font size  
and more

### BACKGROUND IMAGE

The background image is that displayed on the map behind the track, mileposts and cities. If you find the image distracting, or if you receive a "StretchBlit failed" message from Windows, try disabling the background image by toggling it via the Show, Bgnd Image pull-down menu. Also, note that some maps come with alternate background images; if so, you can select the image of your choice from the nearby dropdown list in the Display Settings window

Map background images are named xxxBGND\* (usually .JPG), for example USABGND.JPG. Feel free to create your own alternate images with your preferred graphics editor; for example, you might name such an image USABGNDMINE.JPG.

### REVERSE BGND COLOR

Enable this option to inverse (reverse) the map's background color. Try this if you have trouble seeing the track because of limited contrast with the normal background.

### ZOOM: AUTOMATIC

With this enabled, during game play EBP automatically zooms the map to your train.

### ZOOM: ANIMATED

With this enabled, EBP animates the map background when you scroll or zoom. For faster map operation, turn this feature off.

### MOUSE WHEEL

Choose your preferred direction of zoom when you rotate the mouse wheel upon the map.

### THUMBNAIL

Choose your preferred location for the thumbnail mini-map, or hide it entirely. If you select a map corner, EBP will prompt you to specify the thumbnail's desired size.

### ICONS

Most maps come with one or more sets of icons to depict loads. The icon storage files are named xxxICON\* (usually .GIF), for example USAICONS.GIF. If more than one set of icons is available, you can choose among them via the Load Icons drop down.

## FONTS

EBP shows a list of text fonts available on your computer. Choose the one you wish, as well as the size. Note that if you pick something very large, it may not fit within the room allocated in various places, causing the text there to wrap or get cut off from display.

## AUTOBUILD

Enable this to allow EBP to suggest a track build route when you click a distant milepost. While the feature is disabled, you can access similar via the right-click pop up menu's "Build to" selection.

## HELP

EBP's in-game help is offered in a variety of formats. Choose from:

**No help** - turns off EBP's help system; not recommended

**WinHelp** - an option for users of Windows XP and earlier, or those who have installed Microsoft's WinHelp addon

**Browser** - to have EBP invoke your browser and display EBP's .htm help topics within it

**Internal** - EBP's own built-in help display system; the default option

**RGFHelp** - requires ICI's rgfhelp.exe program installed in the same directory with ebp.exe; good for those who want to leave the help window open while the game proceeds. Rgfhelp.exe comes with the EBPEdit map editor.

If EBP detects a problem with the help option you choose, it will try to switch to a different help display method. If No help and WinHelp are the only options offered, EBP was unable to find the ebp.hhp help file in the directory containing ebp.exe.

## AVATARS

Avatars are images displayed near each player's load circles in the contract box. Toggle off this checkbox to turn off the loading and display of such avatars.

## PLAY BY EMAIL

**NOTE: If you do not know what to enter for the following fields, contact tech support at your Internet Service Provider (ISP), or your Email Service Provider (ESP).** An example follows the details below.

My Email Address(es): enter your email address in the form abc@xyz.com This will be the outbound email address displayed to others as well as the default one at which you receive Play by Email matches from your opponents. If your receipt address for email is different than your sending address, the person setting up a Pbem match should enter your receipt address when prompted by EBP for your email address.

SMTP Mail Server: enter the name of your Simple Mail Transfer Protocol (SMTP) server for outgoing email. This is usually the name of your ISP prefixed by smtp, for example smtp.comcast.net, but sometimes varies, for example outgoing.verizon.net. Even if the address you enter in the email field contains an ESP like Gmail, Hotmail, or Yahoo, in the server field

most people enter the server name of their ISP. If that fails, then switch to the ESP. As of this writing, a list of common mail server names appears at <http://www.realifewebdesigns.com/web-resources/pop3-smtp.html>.

Username: leave this field empty unless your service provider requires email authentication or SSL, in which case fill in your login or mail user name. To employ email authentication with EBP, your provider must offer outbound email via Auth Login or SSL. For the latest info, see the FAQ at [RailGameFans.com](http://RailGameFans.com).

Password: leave this field empty unless your service provider requires email authentication or SSL, in which case fill in your mail user password. EBP will save this password in encrypted form between sessions; if you prefer EBP not do that, leave this field empty and EBP will instead prompt you for the password once each session you send Pbem.

SMTP Port Number: enter your service provider's port number for outgoing email. For basic SMTP this is usually 25, though some use 587 if they require authentication, or 465 if they employ SSL.

Use SSL: enable this if your service provider employs Secure Sockets Layer for email. With SSL, you must also enter a Username and Password. Note that this SSL capability operates via Microsoft's Collaboration Data Objects (CDO) which are usually found on computers with Windows XP and later, or can be added (search online if details needed).

Turn notify: enable the Turn notify checkbox if you want to receive emailed notice that another player in the match has completed his turn and sent the match to yet another player. Via notification, you can track the progress of your opponents, and know whose turn is pending. No notices are sent unless there are at least three humans participating in the match. If you change the setting while a Pbem match is in progress, it will take effect after you complete your (next) turn.

Avatar URL: for Pbem and Web matches, to display an avatar with your locomotive, enter the full URL (starting with <http://> or <https://>) of the desired JPG, non-animated GIF or BMP picture file online. You are welcome to use any of the images at <http://www.railgamefans.com/avatars/>. Avoid using images that are a large file size as they are slow to load. To paste text (such as a copied URL) from your clipboard into the field, move the cursor to the field and press Shift+Ins. For non-Web or Pbem matches, you can also employ an image file stored on your local computer.

#### PLAY BY EMAIL EXAMPLE

Here are example settings that as of this writing work with Gmail:

My Email Address(es): [YourEmailName]@gmail.com

SMTP Mail Server: smtp.gmail.com

Username: [YourEmailName]@gmail.com

Password: [YourPassword]

SMTP Port Number: 465

Use SSL: (enable this checkbox)

For [YourEmailName] substitute your Gmail account name, and omit the [ ]. Do similar for [YourPassword].



## **Engines - [[EBP Help Contents](#)]**

Each player has an engine (locomotive) to propel his train for movement. During play, your engine/train is represented by a symbol matching your chosen color; symbol shape varies with engine type, but most are rectangular. Typically you can upgrade your engine to types that can move further (faster) each turn and/or carry more loads.

### **STARTING YOUR TRAIN**

After the initial track build rounds, EBP will prompt you to place your train on the map. Click the city at which to begin. Cities are typically represented by a red circle, square or hexagon. Usually you place your train at a city that supplies a load you wish to pick up for a delivery demanded by one of the cities on your contracts.

### **MOVING YOUR TRAIN**

Your engine symbol blinks gently when it is the movement phase of your turn. To learn how to move it, see the Moving help topic.

### **UPGRADING YOUR ENGINE**

Multiple types of engines can be employed in the game. Upgraded engines let you move further (on average) each turn, and/or carry more loads. The default engines available are:

Slow Freight - move 6, carry 2  
Freight - move 9, carry 2  
Heavy Freight - move 9, carry 3  
Fast Freight - move 12, carry 2  
Super Freight - move 12, carry 3  
Ultra Freight - move 16, carry 3

Certain maps employ custom engines of other speed and capacity; you can ignore them, if you wish, and use the standard set by enabling the Engines: Standard variant in the the Game Options window. You can create custom locomotives via the EBPEdit map editor.

You can upgrade your engine when the game allows you to build track: use the Turn, Upgrade Engine pull-down menu. You'll be told how much the upgrade costs when asked to verify your choice.

Each player normally begins a match with a Freight, but you can start with any engine by changing the "Start with Engine" setting in the Game Options window. Ultra Freight is an upgrade from Super Freight and available only if you enable the Ultra Freight checkbox found in the Game Options window.

If your new engine cannot carry as many loads as the old, EBP will automatically discard the onboard load that appears in the rightmost slot. To rearrange your onboard loads before upgrading, use the Loads window.

## Events - [[EBP Help Contents](#)]

Events are random special occurrences that can have a variety of effects on game play. An "event" can occur any time a load delivery is made. Common events are derailments, floods and storms.

Upon an event EBP describes what happens, and highlights via the "event color" (orange by default) map areas impacted. Players can lose turns and/or loads due to an event. Taxes may be charged. Some events have an immediate impact and are finished, while others endure for another round or more.

### TAXES

Upon and after the Taxes event, the cash level of all players becomes public.

### LOSE LOAD

Certain events, such as a derailment, cause a loss of one or more loads. If you have a choice of loads to lose, EBP will automatically open the Loads window, and you must toss a load before you can continue moving. Similarly, events can trigger the loss of a contract; EBP will require you to choose a contract to discard.

### ACTIVE EVENTS

At the upper left corner of the map, on the Event button EBP displays the number events currently active. If the button color is the event color (normally orange), at least one event is active. If two events are active, the button will read "2E". If the only events active are Shortages and/or Special Demands, the letter S will be displayed in place of E.

### VIEW EVENTS

If you find the display of events on the map distracting, you can toggle it off via the Show, Events pull-down menu.

### EVENT INFO

Choose the Show, Event Info pull-down menu to open the Event Info window that lists all possible events during a match. In the list, events prefixed with the letter A are currently active, those marked with x have occurred and are no longer active, those with P are pending and may occur upon the next delivery, and those marked with F are future events that can occur only after they are made eligible via a Revolution-type event (such as on the Russia map). Those marked S are secondary events, ones that can be triggered only by another event.

For more information, highlight an event in the list and click Details. To visualize the areas of the map impacted by one of more events, use the Checked, Pending, or All buttons. These buttons do not trigger an event, they merely let you view its impact.

For map testing purposes, or if there is simply an event you dislike, check mark it and click Toggle. During play (including continuous play), EBP will ignore events you toggle off. Or, to turn off all events but one, check mark it, hold down the Shift key and click Toggle. To turn an event back on, repeat the process, or reload the map into EBP via File, Load Map.

## SHORTAGE

During a Shortage event, certain cities offer a bonus for delivery of certain loads. To collect the bonus, you must make a delivery demanded on a contract as you would normally; without a matching contract you cannot satisfy a Shortage.

## SPECIAL DEMANDS

A Special Demand event is a demand for delivery of one or more loads to a particular city. Any player can satisfy a Special Demand, but only the first player to do so collects the payoff offered. Unlike the Shortage event, no separate "normal" demand contract is needed. When multiple loads are demanded, they must all be delivered by the same player in the same round. EBP displays a list of Special Demands in the scrollable contracts box at the left of the map, below the contracts of the players. To scroll directly to Special Demands during play, click the box found below the contracts box and above the cash box. Not all game maps have Special Demand events; the Russia map is one that does.

## DISABLE EVENTS

To play without any Events, in the Game Options window uncheck the Events variant checkbox.

## **FAQ - Frequently Asked Questions - [\[EBP Help Contents\]](#)**

For a more extensive FAQ, visit the Crayon Rail Fanatics Web site at <http://www.railgamefans.com>.

Q. I reinstalled Windows, but my old EBP registration passcode doesn't work. Help!

A. Solutions are described in the Lost Registration section of the [registration](#) topic.

Q. Where can I buy a copy of Empire Builder board games?

A. Specialty hobby and game stores often carry the game.

Q. The distance display box is interfering with my ability to choose a route. Help!

A. Click on the box or press Esc to hide it temporarily.

Q. How does EBP calculate the game score?

A. This is described in the [Hall of Fame](#) topic.

Q. EBP crashed mid-way through the match. What's the problem?

A. If you can tell us how to recreate the problem here, and it is in EBP, we can fix it. That might involve sending us a copy of the match saved just before the crash. You can obtain this for future occurrences by enabling AutoSave in the [Game Options](#) window.

Q. Does Mayfair know about EBP?

A. Yes, Mayfair Games has granted us license to use their trademarked content in Empire Builder Pronto.

For more questions and answers, see the FAQs at our Web site <http://www.railgamefans.com>



## **Files - [\[EBP Help Contents\]](#)**

The following files (found in EBP.ZIP) are considered shareware and may be distributed to others provided no fee whatsoever is charged (even if other files are distributed at the same time):

EBP.EXE  
EBP.HLP  
EBP.HHP  
EBPxxxx.HTM  
USAICONB.GIF  
README.TXT

The following map files (also found in EBP.ZIP) are considered freeware and may be distributed to others provided no fee whatsoever is charged (even if other files are distributed at the same time):

USAMAP.EBM  
USABGND.JPG  
USAICONS.GIF  
USAINFO.TXT  
EBPENG1.WAV  
EBPENG2.WAV  
EBPENG3.WAV  
AUTOBLD.WAV

The following files are support files for EBP.EXE:

CP5DLL32.DLL  
INSTALL.BAT  
MSINET.OCX  
MSINET.INF  
MSWINSCK.OCX  
MSWINSCK.INF

EBP also employs various driver files that are typically provided by Microsoft with each copy of Windows; one such file is MSVBVM60.DLL. Most computers already have this file, but if yours does not you may see the message "A required .DLL file, MSVBVM60.DLL was not found." If your computer lacks this driver file, or you experience unusual problems running EBP, obtain and install the most recent version of VBRUN60.EXE as described on the FAQ page at our Web site.

For Web features, EBP relies on the Windows components MSINET.OCX and MSWINSCK.OCX. If you experience problems with [Web Play](#) or [Play by Email](#) obtain and install the most recent version of these drivers as described in the [Hardware](#) topic.

## UNINSTALLING

If you installed EBP into a directory/folder of its own (such as one named \EBP), you can remove the game from your device easily: simply delete all the files in that directory/folder.

## Game Setup - [\[EBP Help Contents\]](#)

The Game Setup window appears when you choose Start from the Game pull-down menu. In the Game Setup window you choose the configuration of the match you wish to play.

### NUMBER OF PLAYERS

You can choose from 1 to 6 players by clicking one of the 6 option buttons in the # column found to the left of player names. Any combination of computer and human players is allowed. A computer-only game can be operated in [continuous play](#) mode, which runs one or more matches without stopping in order to collect statistics and study other aspects of the game.

### NAME

Enter a unique name for each player. The default name matches the default player color. Click the Name label at the top of the column to reset the player names to match their color.

### COLOR

Choose a color with which to depict the player's track and train. If you prefer a color not in the list, choose Custom. In Web or Pbem matches, white and black are not recommended as player colors since many people use one of those two colors as their preferred display background.

### TYPE/STYLE

Designate the player's type in this column: human or computer [AI](#). Several different types of computer players are available; each computer player type makes slightly different play decisions. As you make a selection, a brief description is given in the Type/Style Information box.

The ability level of the built-in AI computer players differs. On most maps, their order, from toughest to weakest competitor, is as follows: Hill, Morgan, Vanderbilt, Gould, Pullman, Newby.

To set up a [Play by Email](#) match choose the Human, Pbem type for your opponent(s). You will be prompted to enter their email address.

For live Web and home network play, **do not** manually choose Human, Remote, instead put your name into player slot 1, and begin a Web match via the Web, Make me GameMaster or Web, Make me a Player pull-down menus. See the [Web Play](#) topic for details.

### SKILL

Choose a skill level for each player. The skill level influences how deeply EBP's [AI](#) searches for good combinations of pickups and deliveries. Higher skill levels generally find better combinations, but play more slowly. For a human player, the skill level determines how deeply EBP searches when you ask it for a play suggestion. Click the Skill label at the top of the column to advance the setting of all players.

### RANDOMIZE TURN ORDER

Choose how you want EBP to determine the turn order of the players at the start of the game.

## ROUND STYLE - TURN BASED

Choose this for a match in which each player takes a turn in sequence, as in typical board games.

## ROUND STYLE - BLITZ

Choose this for a match in which each player takes turns repeatedly/rapidly without waiting for other players. Recommended for experienced players only. See [Blitz Play](#).

## ROUND STYLE - PAUSE / ROUND

For turn-based matches, enter the number of seconds to pause after each computer turn. Enter 0 for no pause, or -1 to pause until you click OK (done). For use with Blitz matches, see [Blitz Play](#).

## MAP - Randomize

Via the Randomize features, millions of possible map variations can be played.

Use this pull-down menu to change the contract demands (payoffs, loads, etc.) and/or city locations. For contracts, you can 1) edit the list manually, 2) click Randomize Contracts, or 3) copy and paste demand sets from the Crayon Rails Deck Generator on the Web. Any such changes are not permanent, i.e. they are not saved with the map; to restore the original contracts and city locations, simply reload the map into EBP (File, Load Map).

As of this writing the Crayon Rails Deck Generator is found at <http://www.icynic.com/cgi-bin/rails>. Visit the site with your browser, and choose the appropriate map. For "Output format" choose Plain Text. For "Where to put results" choose Show in form. Then click Generate a new deck. When the deck appears, highlight and copy it from your browser to EBP. Do not worry if the Deck Generator abbreviates city names, EBP should recognize them anyhow by looking for the closest match.

For more variety, try the Randomize City Location feature. It relocates cities randomly, and adjusts the contract payoffs to match the supply/demand locations. Enter a number that acts as a randomizer seed, or have EBP pick one for you. Any such changes are not permanent, i.e. they are not saved with the map; to restore the original contracts and city locations, simply reload the map into EBP (File, Load Map). To later recreate a particular city randomization, reuse the same seed number.

## LEVELS

Use these pull-down menus to select a built-in computer opponent configuration (i.e. easily change the player type and skill levels to one of various predetermined settings).

## WEB

Use these pull-down menus to [play a game via the Internet](#) versus remote human opponents, or against local opponents via your home network/router. You can also [Play by Email](#).

## MORE GAME OPTIONS

Click this button to open a window with more configurable game options.

## Glossary - [[EBP Help Contents](#)]

Here are definitions of some terminology used in the game.

**AI** - artificial intelligence; when a computer program evaluates situations and makes decisions, it is sometimes said to be artificially intelligent; AI players in games are sometimes called bots; see [AI](#)

**alpine** - very mountainous terrain that typically is expensive to build through; it is represented on the map by an empty triangle; see [symbols](#)

**big city** - the phrase by which EBP refers to all cities larger than medium; includes major (hexagon), jumbo (large hexagon) and oval cities; players may build track outward from big cities even if their network does not already connect to them

**container ferry** - a type of **ferry** that cannot be moved across but which can be used to **deliver** and pick up **loads**

**contract** - an offer from cities for payment upon **delivery** of a specific type of **load**; typically each player holds 3 contracts at a time; typically 3 demands appear on each contract, and the player chooses which one to satisfy; also known as a demand card

**crayon** - an ancient tool for drawing railroad track upon board games; EBP reduces the wear and tear on your crayons

**deliver** - to transfer a **load** onboard a train to the city demanding it

**demand** - a payment offer for **delivery** of a specific type of **load**; commonly 3 demands appear on each **contract**

**demand card** - a **contract**

**EBPEdit** - map editor for EBP; lets you modify existing game maps and create new ones

**event** - a random special occurrence that can have a variety of effects on game play; common events are derailments, floods and storms; see [events](#)

**ferry** - a connection between otherwise non-adjacent mileposts; trains typically must stop and wait until next turn to cross a ferry

**load** - a good, an item to be transported from one place to another; loads are supplied by cities, and are typically depicted on the map via a small icon; see [loads](#)

**major city** - see **big city**

**medium city** - a city represented on the map by a square; only 3 players may build into a given medium city

**milepost** - a unit of distance on the map marked by dots, triangles and other symbols depending on terrain

**net worth** - cash plus amount spent on track and engine upgrades

**open contracts** - a variant rule under which up to four **pitched contracts** become available for **delivery** by any player

**operation phase** - the part of a turn during which a player may move his train and pick up / deliver **loads**

**payoff** - cash collected upon **delivery** of a **load**

**pbem** - play by Email, a means by which to conduct a match with remote opponents, one turn at a time

**pickup** - said of **loads**; when a train is located in a city with an available load, the player can move that load onto his train for transportation and **delivery** purposes

**pitch** - to discard one's hand of **contracts** for fresh, hopefully better ones

**small city** - a city represented on the map by a circle; only 2 players may build into a given small city

**spec loads** - speculative loads are picked up and carried even though a player does not currently have a **demand** for them

**special demand** - a type of **event** that requests **delivery** of one or more **loads** at a particular city; any player may satisfy a special demand, and the first to do so collects a payment

**teleport** - a specialized type of **ferry** that imposes no delay upon movement; the Moon map has teleports to connect its sides

**track rental** - moving your train upon the tracks of an opponent in exchange for a **use fee**

**track segment** - the piece of track connecting two adjacent **mileposts**

**tunnel** - a type of **milepost** that can be served by the track of only one player, the first one to build to it

**use fee** - a cash payment to another player that reflects rental of track on which the player's train moved

**watch** - in EBP, a means by which to display a copy of certain **Open Contracts** and **Special Demands** near your contracts to serve as a reminder; to toggle watch on/off, right click an OC or SD contract and choose Watch from the pop-up menu

**xspot** - a type of **milepost** that when built to causes a **load** of a certain type to become available for pickup at a corresponding, usually nearby, city; xspot mileposts look like the letter x (think treasure map)

## Hall of Fame - [\[EBP Help Contents\]](#)

The Hall of Fame (HOF) records the highest scores achieved by both human and computer AI players. You can view the HOF by choosing it on the File pull-down menu.

### SCORE

The score is EBP's way of evaluating a player's performance. First, EBP establishes a baseline for how many rounds it "should" take a player of average skill to win. The primary factors involved are: how much cash it takes to win, how much you start with, and how large the payoffs are relative to the distance traveled. That formula looks like:

$$\text{WinByRound} = 4 * (\text{WinCash} - \text{StartCash}) / (\text{MapAvgPayPerMP} * \text{MapHighestSpeed})$$

On EB7 map that's  $4 * (250 - 50) / (0.93 * 12) + \text{adjustment} = 66$  rounds

Given that number, EBP can calculate the amount of cash that must be earned per round to reach the WinCash level:

$$\text{EarnPerRound} = \text{WinCash} / \text{WinByRound}$$

On EB7 map that's  $250 / 66 = 3.79$

The EarnPerRound value gives EBP a yardstick by which to measure how well someone is doing. Simply multiply it by the round number, and compare it to your cash to see if you are on pace (the pace of a player of average skill).

For example, at round 10, you should have  $3.79 * 10 = 38$  cash (rounding up) to be on pace to reach 250 by round 66. Of course, in the early phases of the game, you are investing in track and engines, so your cash will likely lag the average pace. That's OK, you'll catch up in subsequent rounds.

With that data, EBP can generate a Score that expresses how close you are to winning, as well as how close to the average pace. This does that:

$$\text{Score} = 100 * \text{PlayerCash} / (\text{EarnPerRound} * \text{Round})$$

Here are examples of the Score value at certain times in a game:

$$\text{At game start (round 1): } 100 * 50 / (3.79 * 1) = 13$$

$$\text{At round 3, all cash spent: } 100 * 0 / (3.79 * 3) = 0 \text{ (score dips, like that of a startup RR company)}$$

$$\text{At round 36, midgame: } 100 * 100 / (3.79 * 36) = 74$$

$$\text{Win at round 66: } 100 * 250 / (3.79 * 66) = 100$$

$$\text{Win at round 50: } 100 * 250 / (3.79 * 50) = 132 \text{ (more pts due to quicker win)}$$

Furthermore, upon winning, the victor is granted bonus pts equal to 10% of his score margin over each of his opponents. The bonus is reduced if the opponents are of lower skill. The formula looks like:

$$\text{Bonus} = \text{Bonus} + 0.1 * (\text{WinnerScore} - \text{Opponent1Score})$$

$$\text{Bonus} = \text{Bonus} + 0.1 * (\text{WinnerScore} - \text{Opponent2Score})$$

$$\text{Bonus} = \text{Bonus} + 0.1 * (\text{WinnerScore} - \text{Opponent3Score})$$

etc.

$\text{TotalWinnerScore} = \text{WinnerScore} + \text{Bonus}$

The TotalWinnerScore is used for ranking within the Hall of Fame.

An average win vs. exactly equal opponents (not possible, of course) would yield a TotalWinnerScore of 100.

A TotalWinnerScore approaching 200 can be attained by playing the max number of opponents and winning in the fewest rounds by a large margin over the opponents.



## Hardware - [[EBP Help Contents](#)]

EBP runs on most Windows-based devices made since the year 2000. If your computer or tablet can run Windows 98 or newer, typically it is suitable for running EBP. **At minimum**, EBP requires the following equipment, though a speedier computer will give a more enjoyable gaming experience:

Wintel '486 computer/tablet or newer  
32M RAM available  
Microsoft Windows (98, NT4, 2000, ME, XP, Vista, 7, 8, 10, etc.)  
VGA display (256-color mode minimum, higher recommended)  
Mouse or touch screen

### TABLETS / SMARTPHONES

Tablets that run a full version of Windows, such as Microsoft's Surface Pro, are typically also EBP-compatible. Microsoft reports smartphones that run Windows 10 are compatible. An easy way to check a device is to install and run EBP's free trial version.

On devices equipped with a touch screen, generally a tap is the equivalent of a mouse left click, and a press+hold is the equivalent of a mouse right click. NOTE: Windows does not tell EBP you have touched the screen until you either lift your finger/stylus or slide it.

When using tablets, or any touch device and/or small display, we recommend the following:

- \* make the map larger by turning off [Map scroll bars](#)
- \* enlarge the game's [text fonts](#)
- \* enlarge all windows elements, such as pull-down menus, via the Windows 8 or 10 Control Panel, Appearance and Personalization, Display, Change the size of all items
- \* if you turn off the Windows "press and hold to right click" feature, you can still access EBP's right click popup menu features by choosing Show, Right-click menu
- \* in windows lacking a Help button or Help pull-down menu item, help can usually be reached by tapping the descriptive text found below the window's title bar; often this text will include wording like "Click here for Help"

### WINDOWS VISTA / 7 / 8 / 10

EBP has been tested to work properly within Windows Vista, 7, 8, and 10. For the setup and registration process, you must run the game as an Administrator. Running *Windows* as Administrator is not enough, you have to run the *game* as Administrator. The easiest way to do so is to right click on the game's desktop icon and choose Run as Administrator. If you still have trouble, see the FAQ at our RailGameFans.com.

### DRIVERS

If you wish to use EBP's Web features ([Play by Email](#), [Web Play](#) or Download Update) the MSINET.OCX and MSWINSCK.OCX drivers must be installed on your computer. Many computers already have these Windows internet communication drivers installed, but if yours does not, when you attempt to use the features they provide, EBP will detect a problem (usually error number 372 or 339) and offer to automatically install the drivers.

If the automated install fails or if you prefer to install the drivers manually, here is what to do: exit EBP and look for the MSINET.INF and MSWINSCK.INF files in the directory in which you installed EBP. If they are not there, you can find them on an EBP CD, at our Web site, or at Microsoft's Web site (search for msinet.ocx and mswinsck.ocx). Using Windows to view the folder contents, right click on MSINET.INF file and choose Install, and then repeat for MSWINSCK.INF. Finally restart EBP and retry the feature.

If you continue to have trouble, check the FAQ at [RailGameFans.com](http://RailGameFans.com) for updated driver information.

## ALTERNATE PLATFORMS

Since EBP is a "well-behaved" application, most computing devices made since 2010 can run it. Playtesters report EBP runs successfully on a Macintosh via a PC emulator such as that from Parallels.com or Vmware Fusion. Similar success is reported on UNIX and Linux using Wine. People report playing on iPad/iOS and Android devices via something called Windows Access. There exist too many alternate platforms for us to know the details of them all, so we do not test or provide tech support for them.

## **History Box - [[EBP Help Contents](#)]**

The game history box appears beneath the map; it records in textual form the action of a match.

### **HIGHLIGHT**

Double click on a move or build to highlight it on the map.

### **ADD COMMENT**

To add a comment to the history, right click on it.

### **HISTORY SEARCH**

To search this history, from the Game menu, choose History, Search. You will be prompted to enter the word or phrase for which to search. Lines containing your entry will be highlighted.

### **SHOW INFO**

To (re)show the description of an event, or highlight the route of a move or build, double click in the history box.

### **HISTORY PRINTING**

The Game pull-down menu contains an item that prints the history text on your printer, or copies it to the clipboard.

### **REPLAY**

Constructed from the history, EBP can replay a match as a sort of movie for you to watch. Choose the Game, Replay pull-down menu.

## **Introduction - [[EBP Help Contents](#)]**

Welcome to Empire Builder Pronto™, the software that plays Empire Builder® crayon rails.

### PLAYING A GAME (QUICK START)

If this is the first time you have used EBP on your device, and you want to get started playing right away, after you close this help window:

- 1) If the "About EBP" window is open, close it.
- 2) From the Game pull-down menu, choose Start.
- 3) In the [Game Setup](#) window that appears, click OK.

The three quick steps above will start a 4-player game with 3 [computer opponents](#) of various skill levels and 1 human player. Via drop down menus, you can adjust the skill level of the computer opponents as you prefer. The blue color will be the human player (you). EBP will automatically make decisions for the computer players, and, when it is your turn, prompt you to [build track](#) and [move](#).

### RULES

If you wish to learn how to play, review the [rules](#) summary. If you don't recognize symbols on the map, see the [symbols](#) help topic. The [Map Use](#) topic describes how to operate the display.

### REGISTERING

You can try EBP freely with the USA map for the first 30 days. If you like the software, please [register](#) it and receive as a bonus another map on which to play.

### ALTERNATE MAPS AND VARIANT RULES

EBP works with many different maps, not only a USA map, and you can even create your own game maps via our EBPEdit map editor. See the [alternate map](#) topic for more information. EBP also supports many popular game [variants](#).

### MORE INFORMATION

For more information about the software, visit the [contents](#) page of this in-game help system, or our Web site at <http://www.railgamefans.com>. Context-sensitive help is available in many places in the program. Thanks for using EBP!

## **Keys - [\[EBP Help Contents\]](#)**

Listed below are various hot keys / shortcuts you may find handy:

### **MAP WINDOW**

F1 .....	Context-sensitive help
F2 .....	<u>Game Status</u> window
F3 .....	Find a milepost, city or load supplier
F4 .....	Contracts window
F12 .....	Save game window
Backspace .....	Undo last track segment built or moved
Shift+Backspace .....	Erase track branch under construction
Ctrl+A .....	disengage automove
Ctrl+B .....	zoom to location of last build
Ctrl+C .....	display Find City list
Ctrl+G .....	engage automove to a city
Ctrl+L .....	display Find Loads list
Ctrl+R .....	reengage automove express
Ctrl+T .....	zoom to train
z .....	zoom map in to mouse location
Shift+Z .....	zoom map out
+ key on the numeric keypad .....	zoom map in
- key on the numeric keypad .....	zoom map out
5 on the numeric keypad .....	reset the map to center, unzoomed
Del on the numeric keypad .....	move the focus to the map area
Ins on the numeric keypad .....	move the focus to the player contracts
Ctrl++ .....	increase font size (before using, click map to focus upon it)
Ctrl+- .....	decrease font size (before using, click map to focus upon it)

### **LOADS WINDOW**

Alt+1, Alt+2, etc. ....	highlight an available load
Ctrl+1, Ctrl+2, etc. ....	highlight an onboard load
Ctrl+W .....	highlight warehoused load
Shift+(above) .....	show load quantity and demand cities of remaining contracts
Spacebar .....	unhighlight load
o .....	put a highlighted load onboard
d .....	deliver a highlighted load
t .....	toss a highlighted load
r .....	blink remaining cities that demand the load
w .....	warehouse a highlighted load
F4 .....	open the contracts window

## **Loading a Game - [\[EBP Help Contents\]](#)**

You can (re)load a game that was previously saved: from the File menu, choose Open Game. If the game had not been completed, you may resume playing it.

### **LOCAL vs. ONLINE**

Use the pull-down menus to switch between accessing your saved games locally (on your device's hard drive or other storage) or online (cloud storage). To employ online storage you need File Transfer Protocol (FTP) access to an online storage site of your preference. Online storage is useful if you want to access your saved games from any of multiple devices on which you play EBP.

When you choose Switch to Online for the first time, EBP will prompt you to enter FTP specifics: site, username, password, etc. If you need to know the proper information for your site, contact your FTP service provider. The information you enter is preserved across sessions in a simple encrypted form via the EBP.INI file. If you leave the password field blank, EBP will not save it into EBP.INI but instead will prompt you to enter it once each session.

As part of the FTP transfer process, EBP employs a temporary file saved in the Autosave location you specify via the Game Options window.

### **FROM WEB**

If the saved game is stored online but you do not have FTP access, you can load the game directly by entering the full URL, starting with http:// or https://

Similarly, if the .ebz saved game URL is displayed in a browser, you can double-click on it to open it with EBP provided you have told Windows to associate EBP with the .ebz extention.

### **MISSING MAP**

Stored within a saved game is the name of the map on which the game is played. When you load a game that employs an alternate map, EBP will automatically attempt to load that map. If that alternate map cannot be found, you will not be able to load and resume the game. A map's .ebm file must reside in the same folder/subdirectory as your EBP.EXE program.

### **GAME REPLAY**

The currently loaded match can be replayed, that is, re-executed so you can watch it unfold step-by-step, turn-by-turn. Use the Game, Replay pull-down menu. To replay a prior match, simply load it first via the File, Open Game pull-down menu.

Note that during such replay, cash levels displayed for the players or other numerical values may be off by small amounts. Player builds and moves are animated by milepost; for faster replay, uncheck Animate. If the Game Replay window becomes hidden, you can bring it back by clicking the main window's OK (done) button.

At the start of Replay, EBP saves the current match into a file named ~replay~.ebz stored at the AutoSave location; when Replay is complete, EBP reloads the match from this file. Replay is not available for Blitz Play matches.



## Loads - [[EBP Help Contents](#)]

Loads (goods) are key to the game because to collect payoffs players must transport loads from their supply location and deliver them at their demand location. Each player's engine can haul a limited number of loads at one time. To manually open your train's Loads window, select the Turn, Loads pull-down menu.

### FINDING LOADS

Loads are typically represented by icons. If you zoom into the map, the loads supplied by a city are displayed by icons. If you see load names as text instead it is either because the map's designer did not include load icons, or because you have turned the icon display off via Display Settings. EBP shows the same names and icons on demand contracts.

In the contracts box left of the map, on the left half of the contract mouse over or touch the name of a demanded load to make EBP boldly blink on the map the cities at which that load is supplied. If the blinking is not bold, but rather is a thin line, it means that load is not currently available for pickup, something that can happen if all loads of that type are already onboard your train and/or those of opponents.

You can also find loads by city: when you mouse over a city, above the map EBP displays a list of loads supplied by that city, as well as the number available. If all loads of a given type are already aboard trains, temporarily none are available and you cannot pick up another of that type.

To learn of (other) cities that normally supply a given load, right click the map city, and from the pop-up menu choose Blink, (Load name). Alternatively, if you mouse over or click a load name on a contract, EBP will blink the cities that normally supply it.

### SETTING A REMINDER

To remind yourself about a particular delivery, in your contracts displayed left of the map window, double click that contract demand to toggle the display of a RR crossing icon. This reminder is *not* shown to opponents in Web and Pbem matches. If a particular delivery is locked and must be done (honeymoon variant rules), a padlock icon will automatically be displayed. As a further reminder, EBP will also overlay these icons in the Loads window.

### PICKING UP LOADS

To pick up a demanded load, move your train to a city that supplies it, and EBP will automatically open the Loads window. If your train is already in the city, use the Turn, Loads pull-down menu to manually open the Loads window, or click the loads area of your train above your contracts.

In the Loads window, use the mouse to drag and drop loads from the supplied area to your train, or from your train to the delivery/warehouse/toss areas. Mouse over an icon to see a load's text name, or drop a load onto itself for information, then repeat for additional information. A load name in ALL CAPS means the current city is the only source of that load.

### KEYBOARD

Instead of dragging and dropping loads, you can use the keyboard. Press:



Alt+1, Alt+2, etc. to highlight an available load  
Ctrl+1, Ctrl+2, etc. to highlight an onboard load  
Ctrl+w to highlight the warehoused load  
o to put a highlighted load onboard  
d to deliver a highlighted load  
t to toss a highlighted load  
r to blink remaining cities that demand the load  
w to warehouse a highlighted load  
F4 to open the contracts window (which you must then close to be able to continue)

## DELIVERING LOADS

When your train arrives at a city that demands a load onboard, the Loads window opens and you can deliver the load by dragging it from the Onboard Loads box to the Deliver box. Doing so satisfies that demand, and EBP assigns you a new contract. An event may also occur. Delivering a load makes it immediately available for pick up at all cities that normally supply it. If you find it necessary to reopen the Loads window manually, use the Turn, Loads pull-down menu.

## SPECULATIVE LOADS

There is no fee to pick up or carry a load, so many players carry extra ones in case of a derailment event, or in hope of later getting a demand for them. Typically the best spec loads are ones for which many demands remain. Note that if you enable the Light Trains variant, instead leaving slots empty allows your train to move further.

When you mouse over a load, EBP displays its "spec load rating" based on your current contracts (especially a delivery for which you have toggled a reminder icon), the remaining contracts, and your train's location on the map. The larger a load's rating, the more money that load is expected to generate for you when carried speculatively. The values shown for loads are relative to each other given the current game situation. To see the spec load rating of any load, in the Loads window click Info, then in the Map Details window click the desired load.

## FINDING DEMANDS

There are several ways to learn which cities demand a load on the remaining, yet-to-be-drawn contracts:

- \* right click a load supply city, and while holding down the Shift key from the pop-up menu choose Blink, (Load name)
- \* in the area above your contracts, Shift+mouse over the loads aboard your train
- \* on a contract left of the map, click in the area between the load name and its icon
- \* in the Loads window, click repeatedly on a load to cycle through various information, including the remaining demands for that load
- \* use the Show, Map Details pull-down menu, then in the Map Details window click the name of a load, and scroll down the information to its "Demanded by" section

## WAREHOUSING

Warehousing is a variant rule that lets players store up to one load at a city that does not normally supply it. Any player may pick up a warehoused load. You can enable warehousing in the Game

Options window. Warehoused loads can be set to expire after a certain number of rounds, or remain indefinitely. When a warehoused load is in a city, on the map EBP displays a small box around the city milepost. If you mouse over the city, above the map EBP will display the name of the the warehoused load along with either (w) for permanent warehousing, or (r\_p\_) for the round number and player turn at which the warehousing expires.

## CIRCUS

A Circus load is available on some maps, such as Europe. The Circus stays in the city at which a player delivers it, occupying the warehouse. The Circus is a variant rule you can enable via the Game Options window before a match starts. If a player tosses a Circus load, EBP places it in the nearest city. On some maps the Circus goes by a different name, for example on Mars it's called a Road Show, but its function remains the same.

## XSPOT LOADS

Certain maps have certain loads that become available only upon building to what is called an xspot milepost; this is true of Coal in the Agent of Change map (also known as West Virginia Rails). Xspot mileposts are shaped like the letter x (think treasure map). When a player builds into a xspot milepost, one load of a given type becomes available for pickup at a city designated by the map's designer; typically this city is near the xspot milepost. To learn which city will gain the load, right click the xspot milepost and choose Information.

Any player may pick up the load that has been generated, unless the Xspot novice variant is enabled in which case the load is reserved for the player who had built into the xspot milepost. Be aware that unless the Xspot novice variant is enabled, the total number of such loads that become available in cities may be limited.

Xspot mileposts that are desert or water colored typically generate different loads than do normal xspots.

## INFO

For expanded details about a particular load, drag and drop it on the Info button of the Loads window.

## CANCEL

If you moved to the wrong city and the Loads window opened, close the window via the Cancel button. Those steps allow you to undo the move via the Turn, Undo Move pull-down menu. Note that you cannot cancel after delivering a load.

## SPECIAL OPPORTUNITY

Certain events, such as a Supply Scandal, permit you to pick up a load from a nearby source even when it is not your turn. Follow the directions displayed. Note that if you close the Loads window (via Cancel, OK or other means) without using the special opportunity, such opportunity may be forfeited.

## Map Use - [\[EBP Help Contents\]](#)

This topic describes how to use EBP's map [display](#). For information about choosing a game map on which to play, see the [alternate map](#) topic.

### INFORMATION

Mouse over a [city](#) to learn its name, and the names of [loads](#) it supplies. The information is displayed above the map. Hold down Shift during mouse over to learn the loads a city demands via remaining contracts.

Right click any milepost or [symbol](#) and choose Information for various details, such as build cost.

### ZOOMING

Most people slide the mouse to the desired map zoom area, then rotate the mouse wheel. Zooming (magnifying) can be accomplished in other ways too:

- \* click/touch the thumbnail "mini-map" image
- \* use the horizontal slider located above the OK ([done](#)) button
- \* double click the map
- \* press the z key to zoom in to mouse location, Shift+Z to zoom out
- \* press the + key of the numeric keypad to zoom in, - to zoom out
- \* [touchscreen](#) users can double tap, or employ spread and pinch gestures

To zoom to your train, click the T button or press Alt+t. To zoom to the location of your most recent [build](#), click the B button or press Alt+b.

If a background image is displayed, EBP will animate the zooming process. To remove this animation, uncheck "Zoom: Animated" in the [Display Settings](#) window.

To change the display location of the mini-map, right click upon it and drag it to a corner of the main map, or to the cash box or history box.

### SCROLLING

To slide the map after zooming into it, most people left-click-and-hold, then drag the mouse. Scrolling can be performed in other ways too:

- \* click-and-hold left mouse button from outside the dashed rectangle, then drag (by starting outside the dashed rectangle, EBP knows you do not want to move your train or build track)
- \* click close to the edge of the map
- \* click and drag on the map thumbnail
- \* use the arrow keys when the map has the focus (if needed, first press the numeric keypad's Del key to give the map the focus)

If a background image is displayed, during certain operations EBP will animate certain scrolling. To remove this animation, uncheck "Zoom: Animate" in the [Display Settings](#) window.

### RESETTING

To quickly reset the map to center, unzoomed, press the center 5 digit on the numeric keypad or click "Zoom" near the lower right corner of the map.

## RESIZING

To alter the area of the window occupied by the map, use the mouse and drag the small resize icon located at the lower left corner of the map.

## CONTRACTS

For information about the Contracts area left of the map, refer to the [Display](#) topic.

## TOUCH / TABLETS

On devices with [touch screens](#), generally a tap is the equivalent of a left mouse click, and a press+hold is the equivalent of a right mouse click. Windows does not tell EBP you have touched the screen until you either lift your finger/stylus or slide it.

## MOVING YOUR TRAIN

See the [Moving](#) help topic.

## SHORTCUTS

See the [Keys](#) help topic.

## Moving - [[EBP Help Contents](#)]

A mouse or touch device is required when playing an EBP match. You need one to designate the desired route for your train and to build track. Also see the [game rules](#).

### MOVING YOUR TRAIN MANUALLY

During the operation phase of your turn, to manually mark the track you want your train to follow, click a milepost adjacent to your engine, then the next mp, etc. As you mark the route, a small "trip tip" box floats nearby with distance information. If the box gets in the way, click on it to temporarily hide it. When EBP encloses the distance value within parentheses, you are pointing to a location further than you are allowed to move this turn.

When known, around the most-distant milepost(s) possible via your move, EBP draws an oval with vertical shading. Click one to move your train all the way there. Note that events that impact movement may cause an oval to appear in an apparently incorrect location because your maximum distance may depend on the direction in which you choose to move you train.

To undo the move one segment at a time, 1) press Backspace, 2) click/touch the Swipe bar above the map and slide right, or 3) click/move your mouse backward over the route you had marked. To undo the entire move, press Shift+Backspace or choose the Turn, Undo Move pull-down menu.

Your train will not actually move until you consume the maximum distance you can move this turn. If you wish to stop at a milepost before consuming the max move, click OK (done).

The rules do not allow you to end your movement at a wrap point (teleport) milepost. You must either stop before it, or continue across to the other side and move away from the wrap point.

If you move upon the tracks of another player, to that player you must pay a rental fee, traditionally \$4. EBP automatically collects this fee from you at the end of your movement. If you'd like to change the amount of this fee, in the Options double click on UseFee.

### MOVING YOUR TRAIN WITH ASSISTANCE

This is easier than clicking adjacent mileposts. As you slide your mouse around the map, the trip tip box will display the distance. When that value equals your max move distance for the turn, click that milepost, and EBP will move your train all the way to that spot. If you do not like the route EBP used, choose Turn, Undo Move and redo your move step by step.

### AUTOMOVE

Automove moves your train along your tracks all the way to a destination. There are several ways to engage Automove, plus you can tell EBP whether or not you want the program to wait for you to build after each automove. To engage Automove, when it is your turn either 1) point to a milepost served by your track, right click and choose Automove, or 2) point to a city name on one of your contracts, right click and choose Automove.

Another way to engage Automove (without building) is via the Turn, Go To pull-down menu.

Automove automatically moves your train when it is possible to reach your destination using only your track. To turn off Automove, even when it is not your turn, press Ctrl+A. Standard Automove deactivates itself automatically upon any event, while Automove Express deactivates only upon events that cause you to lose loads or track, or certain other significant events, such as Congress and Special Demand for which you may need or want to replan your route. Automove Express can be reengaged by pressing Ctrl+R. Automove also deactivates automatically if an opponent delivers upon an Open Contract or Special Demand and you have onboard a load demanded by that OC or SD, or are watching that OC/SD (right click on contract, choose Watch).

## BUILDING TRACK

See the Building Track help topic.

## RIGHT CLICKING

Right clicking (or touch and hold) on a milepost displays a popup menu with additional features. The function of most should be obvious. "Information" displays more information about the milepost, such as terrain type, and estimated build cost from your existing track.

## MOUSE WHEEL

The mouse wheel zooms in or out of the map. Configure the direction of zoom, or turn off this feature entirely, via the Display Settings window. Note that reversing the setting may also reverse the operation of pinch and spread touch screen gestures.

## AI MOVEMENT

If an AI bot encounters trouble finding a move, it may stop, and in the history box you might see something like "Red Bot stopped at Chicago, reason 2". The reason codes are largely for debugging purposes, but if you are curious, refer to the list below for a basic explanation.

- 1 - stop due to rail strike, load unavailability, or pausing before renting opponent track
- 2 - new track needs to be built for movement
- 4 - wait for an events to end before building needed track
- 8 - can't afford to build needed track
- 16 - upgraded engine deemed helpful
- 32 - an event is preventing movement
- 32 - can happen if and event is impacting a ferry
- 64 - an event is preventing movement, wait and assume the event will end soon
- 128 - a discontinuity in rail network, or inability to reverse direction, is preventing movement
- 256 - can't afford track rental needed
- 512 - need to rent track to reach a city in trip plan
- 1024 - at unserved milepost, pausing to find a good way back to own track
- 2048 - rail network is disconnected
- 4096 - pausing to switch from track of one owner to another
- 8192 - at unserved milepost, pausing to find a new trip plan
- 16384 - can't afford border crossing fee

You might also see other reason codes that are negative values. These represent the city number +1 to which the bot is having trouble moving.

## Options - [[EBP Help Contents](#)]

Via the Game Options window you can alter the operation of many aspects of the game. To change the "master copy" of these options (saved in the EBP.INI file), choose the File, Game Options pull-down menu. To change the settings for the current map, choose the Game, Edit Setup pull-down menu and click the More Game Options button in the Game Setup window.

Note: a separate copy of most settings is saved for each map! Therefore, if it seems EBP is not remembering your settings, it may be because you had made changes for a different map.

In EBP's Game Options window related configurable items are grouped into frames, and described below. Except as noted below, changing any of these settings while a match is in progress is considered by EBP to be cheating, and will be logged in the match history. In general, avoid making changes after a match has begun because some may confuse the AI or cause it to malfunction, or other unpredictable play behavior may result.

### MOVEMENT - START WITH ENGINE

Select the engine with which each player starts. Normally, this should be set to Freight.

### MOVEMENT - AT FERRY

For maps with ferries, from the dropdown list choose the movement style you prefer.

### MOVEMENT - WAREHOUSING

Enable this to allow field warehousing. One load may be dropped at a warehouse at each city. Enter the number of rounds the warehouse keeps the load; use 0 for permanent warehousing, or -1 to permanently warehouse tossed loads (often used as part of the 2-player Honeymoon variant).

### MOVEMENT - CIRCUS

For maps that have circus-type loads, enable this to convert the lowest payoff on certain contracts into a Circus demand. Via the digits field indicate which contracts will be converted (examples: entering 0 will convert all contracts with a card number ending in 0, while 05 will convert all contracts with a card number ending in either 0 or 5. If the map does not have a circus-type load, EBP deactivates this check box.

### MOVEMENT - RANDOMNESS

By drawing random numbers from a long list, EBP picks the next contract or event. Via the Randomness setting, you can control how randomly EBP draws those numbers.

When set to Normal (the default), EBP chooses from a long list of possible values that is randomized based on varying factors such as the amount of time since your device was started, the amount of free memory available, etc. Nevertheless, since conventional computers are deterministic, none can generate values that are entirely, unpredictably random.

Choose a setting of Quantum to introduce an unpredictable factor into EBP's Normal random number generation. This makes the random elements in EBP non-deterministic and thus, according to quantum physics, truly random. To initiate the process, EBP will prompt you to

enter a number in the range of 1 to 9. You can obtain the value to input from any online source that displays a random result it derives from a quantum mechanical device. Search online for quantum dice generator, or quantum world splitter.

Choose a setting of None to instruct EBP to not randomize its list of random values. EBP will prompt you to enter a number in the range 10 to 32000, which determines the location in the list at which EBP starts retrieving random numbers. For any given value you enter, EBP will, during the match, draw the same sequence of random numbers, and thus the same sequence of contracts and events. You might use this to test a map, or to replay a match from its start and make different choices along the way to see which would have been best. When this feature is in use, a match of all AI bot players will proceed and conclude in the same manner each time it is executed (within a given version of EBP). Do not use the None setting with Web or Pbem matches since random number lists are not coordinated across multiple devices. Note that if you reload a saved game that employs the None setting, the random number sequence is restarted rather than resumed.

#### AI BOT PLAY - AI REVENGE/CHEAT

The AI bots are designed to obey all the game rules the human player does, but for an added challenge, via the dropdown list choices you can allow the bots to "cheat" in any of several ways. When revenge is chosen, the computer players make efforts to avoid riding track owned by human players. Cheating lightly means the AI will deal itself the next contract from the deck that demands a load supplied by the city at which it is presently located (this reduces the AI's average rounds-to-win by about 12%). Cheating heavily means the AI will search the deck and deal itself a contract listing a high payoff for a load supplied by the city at which it is presently located (this reduces the AI's average rounds-to-win by about 25%).

#### AUTOSAVE - BEFORE EVERY TURN

Enable this to automatically save the game before each turn; the games will be saved in files with names such as ebpAS001a.ebz, ebpAS002d.ebz, etc. the AutoSave location of your choice. For speed, autosaved files during AI Continuous Play matches are saved uncompressed as .ebg files.

#### AUTOSAVE - LOCATION

Choose the disk path to the location for storage of AutoSaved games; a RAM disk makes the fastest AutoSave location. EBP will also use the location for temporary files and error reports.

#### MONEY, BUILDING, ETC.

Via the money fields you can customize the values for cash, engine prices, track fees and other miscellaneous items. EBP's AI should be able to handle all *reasonable* customizations. An example of an unreasonable customization is setting the starting cash greater than the amount of cash needed to win. We cannot guarantee that EBP will operate properly with unreasonable custom values.

Most values should be self explanatory. A few notes follow:



WinCash - the amount of money needed for victory. If you set it to 0, the winner will be the first player to interconnect with track the WinMajor number of cities.

StartContracts - the number of contracts EBP should give to each player at the start of the match; the range is 3 to 6. EBP will prompt each player to discard any excess down to 3 contracts before he places his train.

WinMajor - the number of big cities that must be connected by a player to be eligible to win. A value of -1 means "all but one" of the big cities.

WinMust - the name of a city, or Group of cities (defined by the map's designer), to which a player's track must connect to be eligible to win

BigBuildOuts - the maximum number of times each player may build out of a big city per turn, usually 2

WaterMove - the number of additional movement steps consumed by moving to a water/snow milepost

WarehousingCost - the fee to charge each time a player places a load in a warehouse; payment goes to the bank

BorrowMax - the maximum total a player may borrow from the bank for track building and rental; double the loan amount must be repaid; EBP automatically collects repayment when the player delivers loads

TunnelBuildMin - the minimum engine needed to be allowed to build to a tunnel milepost (-1 = slow freight, 0 = freight, 1= heavy freight, 2= fast freight, 3 = super freight)

TunnelMoveMin - the minimum engine needed to be allowed to move to a tunnel milepost (-1 = slow freight, 0 = freight, 1= heavy freight, 2= fast freight, 3 = super freight)

Pilgrims - the number of Pilgrim loads that may be carried aboard a given player's train (appears only for those maps with Pilgrims) at any one time

UseFee - rental fee for use of opponent's track

NormalCost - the build cost to a standard milepost

CityPlus - the added cost (above and beyond that of the milepost) to build into a small or medium city

YellowPlus - the added cost to build across a yellow boundary line on the map

JungleMax - the maximum number of jungle-type mileposts to which a player can build per turn (set to 0 for no limit)

FreeMax - the maximum number of 0 cost mileposts to which a player can build per turn (set to 0 for no limit)

**MONEY - KEEP CASH SECRET**

Enable this to keep the cash level for your opponents secret until a tax event.

#### VARIANTS - AUTOMOVE ALLOWED

Enable to allow human players to ask EBP to automatically move their train to a desired spot. We recommend you disable this feature when setting up for Blitz Play.

#### VARIANTS - BACKTRACKING

Enable this to allow trains to reverse direction at any milepost after loss of a full turn.

#### VARIANTS - BOTS: game repeat

Enable this to have EBP start a new game immediately after one finishes. This feature is handy for running multiple games that consist only of computer players. For such multiple games, also enable the Bots: non-stop feature described below. Cumulative statistics for multiple games can be found in the Game Status window.

#### VARIANTS - BOTS: halt on error

Use this if you want EBP to stop if it detects an error. This can be handy when using the Bots: non-stop feature (below) to test a map you have created. If an error occurs while this is enabled, 1) EBP automatically unminimizes the map window to call attention to the problem, and 2) EBP displays error info in the caption of the game windows to make that info visible in case the error causes the program to hang

If both this option and "Bots: game repeat" are enabled, upon an error EBP will attempt to save the game so you can later open it to view what happened. This saved game will be placed in the AutoSave directory (which you can specify in the Game Options window) with a filename in the form ebperr#####.ebg where ##### are up to 6 digits.

#### VARIANTS - BOTS: max processor

Enable this to tell EBP to not give much processing time to other Windows applications running simultaneously. Takes effect only when the map window is minimized, and then boosts play speed about 10%. Useful when running continuous games while you are away from the computer or if your device has multiple processor cores.

#### VARIANTS - BOTS: non-stop

Enable this to skip the messages during AI bot player turns that require you to click OK.

#### VARIANTS - BOTS: save at end

Enable this to save to disk each "Bots: game repeat" match at its end.

#### VARIANTS - BOTS: sum data

Enable this on multi-core processor devices to collect and combine AI statistics from multiple instances of EBP running continuous games simultaneously. For proper use, "Bots: game repeat" and "Bots: non-stop" must also be enabled.

When you enable this option, EBP asks if you wish it to automatically spawn additional game instances for "Bots: game repeat" stat collection purposes. For example, if your device has four processor cores, you can enter 3 for EBP to start three more instances and send the game results they generate to the copy of EBP in which you are making this selection. The combined results will appear in the Game Status window.

Important additional information is found in the continuous games topic.

#### VARIANTS - CROSSGRADING

Enable this to allow players to change between Heavy Freight and Fast Freight engines. When crossgrading from Heavy to Fast, if there is insufficient room on the Fast for all loads being carried on the Heavy, the rightmost-displayed onboard load is automatically removed from the train.

#### VARIANTS - DISCARD 1 CONTRACT

Enable to allow players the option to selectively discard one of their contracts per turn, and draw a replacement.

#### VARIANTS - ENGINES: STANDARD

Enable this to use EBP's built-in set of standard locomotives rather than a custom set supplied with the map. If a map does not supply a custom locomotive set, changing this Variant's setting has no impact.

#### VARIANTS - EQUAL-TURNS VICTORY

Enable this to grant all players an equal number of turns in the game. If a player declares meeting victory conditions, the remaining players of the round each get to take their final turn. Any subsequent events that occur cannot disqualify a declared player from winning. If a remaining player also meets victory conditions and has more cash than the player who declared initially, then the remaining player wins. If there is a tie in cash, the Winning Cash level is increased by the Starting Cash amount, and play continues unless the Sudden Death variant has been enabled in which case the game ends in a tie.

#### VARIANTS - EVENTS

Enable to allow events to occur during the match. Events occur at random from a selection designed with the map. If you are testing a map you have created, and suspect an event might be causing odd AI behavior, disable events via this checkbox to learn if that solves the odd behavior. Additionally, for detailed testing, you can toggle individual events on and off via the Event Info window.

#### VARIANTS - EXTRA LOAD

Enable this to increase the load carrying ability of all engine types by 1.

#### VARIANTS - FAST TRAINS

Enable this to increase the speed of all engine types by one third. Tests indicate Fast Trains reduces the average number of rounds in match by about 20%.

#### VARIANTS - HALL OF FAME

Enable this feature to make the game eligible to appear in the Hall of Fame should player end-game score(s) qualify.

#### VARIANTS - HONEYMOON 2-PLAYER

Enabling this 1) reduces availability of each load by one, 2) disallows both players from building into the same small city, and 3) any building into a small city must be accompanied by a demand for a delivery or pickup at that city, and a requirement that that delivery must be fulfilled; a lock icon is displayed next to such deliveries. This feature is intended as an option for 2- or 3- player matches. If you also want tossed loads to be warehoused, enable Warehousing and in the Warehousing turns field enter -1.

#### VARIANTS - LIGHT TRAINS +1

Enable this to allow a train to move one more milepost per turn per empty onboard load slot.

#### VARIANTS - LIGHT TRAINS +2

Enable this to allow a train to move two more mileposts per turn per empty onboard load slot. Enable both this and Light Trains +1 to instead get three more mps.

#### VARIANTS - MANUAL CARD ENTRY

Enable this if you wish to manually select the contract/event each player will be dealt next. This feature is handy if you are recreating a prior board game match for analysis purposes.

#### VARIANTS - MY-TURN SOUND

Enable to choose a .WAV audio file that EBP will play as a prompt when it becomes your turn during the match, or if an event requires you to toss or pick up a load outside of your normal turn. Especially handy for Web-based. You can change this setting while a match is in progress without EBP considering it to be cheating, and without the change being logged in the match history.

#### VARIANTS - NO HAND DISCARDING

Enable to disallow players from pitching all their contracts and drawing new ones. Enabling this is not recommended for use with AI players since the AI can sometimes get itself into an untenable position.

#### VARIANTS - OPEN CONTRACTS

When Open Contracts is enabled, and a player discards contracts, EBP will designate those contracts as open, that is, in play for all. The first player to deliver any demanded load of an Open Contract completes that contract, and it is then removed from play. EBP allows up to four Open Contracts at a time and ignores excess ones. EBP displays Open Contracts below the contracts of the players; to see them you may need to scroll down, or use the Game, Contracts pull-down menu.

#### VARIANTS - RESTARTING ALLOWED

Enable this to allow players to restart during the match. Disabling this is not recommended for use with AI players since the AI can sometimes get itself into an untenable position. When testing a map you have designed, a large number of AI restarts (relative to other maps) can indicate a basic problem in your design, such as too many contracts with demands that cannot be satisfied at the start of a match because track connecting the load source and delivery cities costs more than the players' starting cash.

#### VARIANTS - SOUND EFFECTS

Disable this to turn off all audio sound effects in EBP and the maps. You can change this setting while a match is in progress without EBP considering it to be cheating, and without the change being logged in the match history.

#### VARIANTS - SUDDEN DEATH

Enable this to extend play of the match until all contracts are exhausted. The player with the greatest amount of cash and who connects the required number of big cities wins. At the bottom-right corner of the map, EBP displays a small color bar of a height that represents the number of contracts remaining; mouse over this bar to pop up the exact number.

#### VARIANTS - SWITCHBACK START

Enable this to allow the build turns at match start to alternate in turn and then reverse-turn order.

#### VARIANTS - ULTRA FREIGHT

Enable this if you want a faster speed engine (usually speed 16) available as a final upgrade.

#### VARIANTS - VERIFY CONNECTABILITY

Enable this to have EBP check and enforce the revised EB-series rules that 1) no track build may prevent any other player from interconnecting all big cities, and 2) no track may be built to or from a medium/small city that would block a third/second player from having one section of track to that city. Note that enabling this option adds computational overhead that slows the program. Furthermore, this feature is not guaranteed to prevent AI bots from building in a way that blocks an opponent's connection. This feature is intended for use in non-AI bot matches with many (5 or 6) human players on maps with bottlenecks that limit track routes, such as Japan.

#### VARIANTS - XSPOT NOVICE

Normally, the load generated upon building to an xspot can be picked up by any player. For a less-competitive style of play, enable the Xspot novice variant, which reserves such loads for

pickup only by the player who built to the xspot milepost. Also, when this variant is enabled, the number of possible loads generated via builds may exceed the maximum number of that type of load that had been permitted by the map designer.

#### GAME REMARKS

In this field, you can enter a brief comment about this match. This comment will be displayed in the File, Open Game window.

## **Play by Email - [[EBP Help Contents](#)]**

With the Play by Email (Pbem) feature, you can play matches against remote opponents, a turn at a time, as EBP automates the emailing process.

### **WHAT YOU NEED**

To play via email with EBP version 2.0, you and your opponents need an email address, a copy of EBP version 1.7 or newer, and the map on which you want to play. Please follow the courtesy notes as described further below.

### **QUICK START**

If you don't want details, and just want to get going, here's what to do:

- 1) Run EBP, and go to the File, Display Settings pull-down menu.
- 2) In the Pbem area, enter your email address, and enter the name of your ISP's mail server (usually resembles smtp.comcast.net or outgoing.verizon.net). If your mail server needs authentication, fill in the username and password fields per your service provider's instructions.
- 3) In EBP, use the Game, Start pull-down menu, and select number of players, names, colors, etc. Each player must be given a unique name.
- 4) For each of your Pbem opponents, click Type/Style, select "Human, Pbem" and input his/her email address. If prompted for a match name, accept the default.
- 5) In the Game Setup window, when ready to begin your Pbem match click OK.
- 6) If it is your turn, play. When a human opponent's turn occurs EBP will inform you it is ready to send the match to that person via email. Click OK to proceed, then exit EBP.
- 7) Check your incoming email as you do normally, and watch for an EBP Pbem message from an opponent. When it arrives, it is your turn. Click on the file attached to the message, and open it with EBP. Repeat steps 6 and 7 until someone wins. Have fun.

The steps above will work for most people; if you encounter difficulty, check the details below.

### **EMAIL SETUP**

Before a Pbem match, each participant must tell EBP their email settings. To do so, use the File, Display Settings window and see the Play by Email area. **At minimum the email, server and port number fields must be correctly filled in. See [Display Settings](#) for instructions.**

Even if you've forgotten the name of the email account or address associated with your ISP (for example, Comcast), Pbem should be able to operate if you have another address at which to receive email (for example, Gmail).

### **EMAIL SELF-TEST**

To be sure your email settings are functional, perform the following test. Via this test you'll send a test email to yourself from EBP.

- 1) First, be sure your Internet connection is operational and you are presently online.
- 2) In EBP choose the Game, Play by Email pull-down menu.
- 3) You may be prompted to install the Winsock control. Follow the on-screen information.
- 4) In the Pbem Control Window, choose the Options, Self-mail Test pull-down menu.

- 5) Emailing information will be displayed. If it looks proper, click OK.
- 6) Status information will flash near the top of the Pbem Control Window. Watch for messages. Most successful tests will complete in less than a second, and show "Test emailed to" <your email address>.

A timeout message during send often means you have not correctly specified the name of your email server in Display Settings. Upon any error messages, verify your Internet service is connected, and check with your service provider that your email settings in the Display Settings window are proper. Correct improper information and retry.

To email via a system that requires SSL/TLS (Gmail is one), enable EBP's "Use SSL" checkbox and set the port number to 465 or as the email provider instructs; you will also need to fill in the Username and Password fields.

If problems persist, check that your firewall is not blocking EBP (the default port is 25). Perhaps try a different computer.

If you cannot resolve the trouble, your email configuration and EBP are not compatible. Unfortunately with so many possible email systems and setups in existence, we cannot guarantee that all will be compatible, nor can we provide tech support for this beyond the FAQ at RailGameFans.com.

If the outbound test message process appeared OK, check for incoming email via your normal means (i.e. the inbox you regularly use for email). If a message titled Pbem self-test arrives properly, the test was a success, and you should be able to participate in a Pbem match. If the test message appears to have gone out, but does not arrive, check your spam filters. Some email receipt systems might filter out mail coming from EBP, so if you suspect that problem, retry the test after entering a different email address of yours in Display Settings.

## MATCH SETUP

Before starting a Pbem match, use File, Load Map to open the game map on which you want to play. Each match participant must be licensed to use the map by having paid for their own copy. Next, to set up the match, use the Game, Start pull-down menu.

In the Game Setup window, choose the number of participants and enter the names of the players. Each player must be assigned a unique name. A Pbem match must have at least 2 and up to 6 human players; inclusion of AI (bot) players is acceptable.

For yourself in the Type/Style column, choose Human. For all other human players, scroll up to and choose "Human, Pbem". Avoid selecting Human, Remote. EBP will prompt you to enter an email address for each Pbem player; this is the address to which EBP will email the match so the remote opponent can take his turn. The addresses you enter will appear in the Pbem Control Window. Redo any incorrect by double clicking on them in the Pbem Control Window.

EBP automatically assigns a name for your match, and asks you to confirm it. EBP will include this name within the file name under which it saves the match and sends it to opponents as an email attachment. Use only letters, digits, underscores and hyphens in the name. Since participants might be playing in several different Pbem matches concurrently, choose a name unlikely to be confused with another: the name must not be the same as that of a Pbem match in which any of the participants are already playing.



To play again, the Pbem window's Match, Copy Setup pull-down menu is an easy way to retrieve settings of a prior match.

## START PLAY

When all settings look right, in the Game Setup window click OK. If the local human player gets the first turn, EBP will prompt for that turn to be taken. If a human-pbem player gets the first turn, EBP will email the match to that person. AI players will take their turns normally.

If the Pbem Control Window gets in the way of play, you can close it.

When an email is about to be sent, a message window will pop up and ask you to verify. In general, you should approve the request. If you cancel, to reinitiate the email sending process, click the OK (done) button. At the same time you approve the outbound email, you can enter a comment to add to the banter box; to enter multiple comments, hold down the Ctrl key when you click OK in the comment entry window.

While an email is being sent, EBP will show the Pbem Control Window. The window will flash the email sending status. Be alert for error messages. Success is indicated by "Match emailed to..." or "Notice emailed to..." text. You can then close EBP.

## EMAIL RECEIPT

After the remote player(s) have completed their turn(s), you should receive an email from one of those players prompting you to take your turn. The match will be attached to the email message. If you have established a "file association" to EBP.EXE for the .ebz file extension of saved games, you can click (or perhaps double click) on the file attachment so as to automatically invoke EBP, and load the attached game; you can then easily take your turn, and have EBP email it to the next person. The process of creating a "file association" varies depending on your version of Windows, so check online sources for instructions.

If you do not have a file association established, save to disk the file attached to the email. Then manually start EBP, and use File, Open Game to load that file from where you had saved it.

## EVENT REVIEW

Once the Pbem match is loaded into EBP, if any events have occurred since your last turn, to bring you up-to-date EBP shows an "Event Review". Note that the event is not re-initiated, but merely displayed to you as information.

To close an Event Review window, simply click on it. If multiple events have occurred, each will pop up separately. After the Event Review, you can proceed normally with your turn.

## AUTOMOVE

EBP's automove feature can speed up matches. When you engage Automove (without its wait-to-build option), EBP will automatically move your train for you, and even do so if your turn occurs when the Pbem match is operating on an opponent's computer. In that way, your turn is processed without the need for an email to you, and the next opponent sooner gets a turn. If

Automove reaches your destination or otherwise turns itself off, you will be emailed the match as usual.

If all human participants have their Automove engaged at the same time, several rounds could be processed within a few seconds, thereby reducing the total number of emails that are sent.

Automove turns itself off upon any event, while Automove Express turns off only for events that cause you to lose a load or track, or certain other events for which players often want to replan their route. If an AI bot takes a turn before email to the next human player and draws an event, to re-enable Automove Express 1) at the "ready to send match via email" message click Cancel, 2) choose the Turn, Automove Reengage pull-down menu, and 3) click the OK (done) button to resume sending the match via email.

## EVENT DIFFERENCES

As compared to local play on one device, during Pbem matches you may observe minor differences in how EBP handles events. For example, events that cannot be resolved immediately upon occurring, such as Derailment and Supply Scandal that cause/allow an opponent the choice of a load to lose/pickup, are logged for resolution the next time that opponent receives the match via email and takes his turn.

## MULTIPLE PBEM MATCHES

EBP imposes no quantity limit on the number of Pbem matches in which you may participate concurrently. To help remind yourself of your plans in a match, click on "PM" in your contracts area. The PM feature lets you enter a brief private message that is saved with the match; when your turn comes around later, you can view the message by clicking on PM again. Your PM is not visible to opponents.

## MAIL RECEIPT FAILURE

If during the match a participant does not timely receive an email, thereby holding up the match, the last person to have taken a turn can resend the match. To do so, use the Game, Play by Email pull-down menu, then in the Pbem Control Window, choose the Match, Remail menu. A list of Pbem matches will appear. Select the one you wish to resend, and when prompted, verify it is being sent to the correct email address.

## CALC DELAY

The Match, Calc delay pull-down menu displays for each player the total time elapsed between when the match was sent to the player, and when he began taking his turn. It is a measure of how much delay each participant has introduced into the match. The features helps you learn if opponents are playing at a pace you prefer.

## NUDGE

The frequency with which each Pbem player takes a turn is determined by the pace of the participants. If all participants take turns quickly, as soon as the email arrives, a Pbem match can be completed the same day it started. Typically, however, people are not always available to take their turn immediately, so most Pbem matches extend over several days, or even weeks.

If a match bogs down, running slower than usual for the participants, and no one has indicated a delay reason, consider the Nudge feature. Nudge sends an automated "please take your turn" reminder to all opponents. To Nudge, run EBP, select the Game, Play by Email pull-down menu, and in the Pbem Control Window choose the Match, Nudge menu. You'll be presented with a list of Pbem matches; choose the one you want to nudge. EBP will let you add a brief comment to the nudge message it sends.

Do not nudge excessively or without reason. If someone stops participating without explanation, you can replace him with an AI bot as described below. Since EBP supports multiple concurrent Pbem matches, as an alternate you can start another match with other people.

## PLAYER DROPOUT

If a human player ceases to participate, when the turn comes around to the missing player someone else can fill in. The most recent human player to take a turn should reload the match as he received it, access the Pbem Control Window, double click to edit the appropriate email address and fill in the address of the substitute. Then use the Control Window's Match, Remail menu. If you prefer to instead substitute an AI player, use the main window's Game, Edit Setup menu and change the missing Pbem player's type into one of the AIs. After doing so, click the main window's OK (done) button to proceed with the match.

## COURTESY

Before including people in a Pbem match, we recommend as courtesy you contact them in advance to check their interest and availability to participate. It is also a good opportunity to ask what color they prefer to play in the match.

In advance of accepting an invitation into a Pbem match, you should verify that your email system is compatible. To verify, perform the Email Self-Test described near the start of this topic.

We recommend that participants who are going to be away or otherwise unable to take turns for a longer-than-usual period post a message about it into the banter box. Something like, "Taking a long weekend... will resume the match Tuesday" is a polite notice to your opponents. To add banter, click on the banter box.

By using EBP's Pbem feature you agree to accept all responsibility for that use: it is a form of email and is subject to rules and regulations regarding such. Use of the Pbem feature other than as described herein will subject your EBP registration to cancellation. If someone abuses the Pbem feature, and refuses to stop, we recommend you report the problem to that person's Email Service Provider.

## NOTES

Unexpected differences in match operation from one participant to another might be due to different EBP versions. Though closely-numbered versions are highly compatible, for optimal performance all participants should employ the same EBP version.

If you have established in Windows an .ebz file association to EBP.EXE, you can open the email attachment directly with EBP, take your turn, and close EBP quickly, often in less than a minute total.

If you want to receive Pbem at multiple email addresses (such as both work and home), edit your email info via the Pbem Control Window and enter those addresses separated by a comma. For each given round of the match, after you take your turn upon receipt of the match at one email address, be sure not to take it again when you check your email at your other address.

For a match involving more than one person at the same device, for clarity we recommend you use different email addresses for each such participant. If multiple people need to share the same email address, EBP allows it (just enter the same email address for more than one player), but you must then watch to ensure the proper person takes their turn. Incoming Pbem messages state the name of the player whose turn it is.

Before the Pbem match is emailed, EBP compresses it to reduce size. The file sizes are generally small (typically less than 20K) and therefore suitable even for users with Internet access via relatively slow dialup. If the sender's computer lacks file compression ability, EBP will automatically email the saved game as an .ebg file rather than .ebz.

For Remail and Nudge purposes, EBP preserves a copy of each Pbem match in a cache. To erase all such files more than a week old, in the Pbem Control Window use the Options, Clear cache pull-down menu.

Depending on your operating system settings, for Pbem to work you may need to run EBP in your operating system's Administrator mode. How to engage Administrator mode for an application can vary, so if you need details, please do a search online.

During a Pbem match, to reopen the Pbem Control Window, click the Pbem icon. To move the icon to a different corner, right click on it and drag it to the desired corner; EBP remembers your choice separately for each map.

For time stamps of Pbem matches, EBP employs Universal Time, also called Greenwich Mean Time. Such time stamps are suffixed with the letters UT. Universal Time provides a consistent time reference for the match in case participants are located in different time zones. To convert UT to United States Eastern Standard Time, subtract 5 hours.

Pbem cannot be used in the same match as EBP's live Web Play features.

Blitz Play cannot be used in Pbem matches.

If you prefer to play simultaneously in real time, use EBP's live Web Play feature.

## **Printing - [[EBP Help Contents](#)]**

EBP can output assorted items to a printer for match recordkeeping. EBP uses the default printer you have selected via the Windows Control Panel; for best results select the desired printer before running EBP.

Please note: This printed output is for your personal, non-commercial use only and may not be redistributed.

### **MAP**

To print the current map display, with any player tracks that have been drawn, use the File, Print Map pull-down menu. Unzoom the display before using this feature, unless you want only a portion of the map to print.

EBP employs landscape orientation unless before printing you resize the map display area to be taller than wide by dragging the arrow at the lower-left corner of the map. The output quality is roughly 600 dpi on 8.5" x 11" size paper subject to the limits of your printer and free memory in your computer. For more output flexibility and higher resolutions, print via the EBPEdit map editor.

Windows printer drivers can be quirky. Error 480 is often resolved by shutting down Windows, restarting it, then running EBP and attempting the print again. Error 482 is often resolved by toggling the map background on/off via the Show, Bgnd Image pull-down menu, then reprinting. These problems are in third-party software, and we cannot guarantee such software will work properly with EBP.

Updating your printer drivers might resolve problems. Sometimes when we encounter printing trouble, we have installed a PDF printer driver such as CutePDF Writer (which makes PDF files from what you print, and of this writing can be found on the Web as a free download), then printed to it, and next sent that PDF file to the physical printer for printing.

### **HISTORY**

To print the step-by-step turn history of the currently loaded match, select the Game, History, Print pull-down menu.

### **STATISTICS**

To print statistics of the currently loaded match, use the Game, Status pull-down menu. In the Status window, choose the Display, Max Info pull-down menu, followed by the Options, Print pull-down menu.

## **Registering - [[EBP Help Contents](#)]**

You are welcome to try Empire Builder Pronto (EBP) at no charge for up to 30 days. If you enjoy EBP, and wish to join the thousands already playing, we ask you to support our efforts by registering your copy. By registering you'll be able to:

- 1) use EBP past the 30-day initial period,
- 2) play on alternate game maps,
- 3) get a bonus map: a copy of the EB7 USA+Mexico alternate map (described below),
- 4) receive discounts on other EBP items (see below) obtained at the same time,

### **REGISTRATION SETUP PROBLEMS**

When you first use EBP, the program prepares itself for possible registration. "Is your operating system Windows Vista, or newer?" may appear if at this time you do not run EBP as an administrator. It is not enough to run Windows as administrator, you must tell Windows to run EBP that way. Exit the program, find its desktop icon or the EBP.EXE program where you installed it, right-click upon it, and choose "Run as Administrator". Other setup problems are rare but if you are unable to resolve one, email tech support at [intersys@insystem.com](mailto:intersys@insystem.com)

### **HOW TO REGISTER**

Registration is easy: we recommend using the Help, Purchase Online pull-down menu in the game for payment processing via Paypal. Instead you can mail a check/money order via the printable order-by-mail form at [RailGameFans.com](http://RailGameFans.com).

Be sure to include your pre-registration number with your order; it can be obtained from the Help, Registration Numbers pull-down menu in the game. If you order via Paypal, your registration passcode will be included with your payment receipt.

Each registered copy of EBP entitles you to execute the program on one device (you may not install and execute a given registered copy on more than one device). When you register, submit the pre-registration number from the primary device on which you want to use that EBP registration. To preserve your registration, after entering your registration passcode, make a backup copy of the directory in which you installed EBP.

If you'd like to register EBP on more than one device of yours, list the additional copies on the "secondary EBP registrations" line of the registration form. During your free trial period before registering, all EBP features (including [Web Play](#)) are active and available to try. By registering EBP you are agreeing that you are satisfied with how it operates on your device, and agree to abide by the license terms herein and as elucidated at our Web site.

The EBP Web site is at <http://www.railgamefans.com>.

### **REGISTRATION BONUSES**

Registering enables play on alternate maps, including the "EB7" registration bonus map. The Empire Builder EB7 map is similar to USA but includes Mexico. When you register, we'll tell you how you can download a copy of the EB7 map from our Web site. If you don't wish to download it, we can send it to you on CD for a shipping/handling fee. On your registration form you do not need to list that you want the EB7 game map because it comes as your free bonus.

## SUPPORT PLAN

As of this writing registration includes a product Support Plan, the terms and period of which are elucidated at RailGameFans.com.

## MORE GAME MAPS

At the time you register you can get additional fun alternate maps for EBP at discounted prices via a map package. Prices and availability are subject to change, so check RailGameFans.com to confirm.

As you probably realize, these maps are not board games, but rather computer versions that work within EBP. Choose from:

ebAOC - Agent of Change, aka West Virginia Rails. The small print run of the board game makes it a much sought-after collectible. AOC's unique feature: Coal is demanded on every contract, but to generate a load of Coal to pick up you must first build to a mine. Mountainous terrain that limits rail corridors adds to the challenge. Recommended for up to 4 players.

ebAUS or ebAU2 - Australian Rails - Crayon rails in the land down under. Unusual topography, such as deserts and dry rivers gives Australia a unique feel. After riding the ferry to Tasmania, should you build along the coast or cross-continent? Lots of fun with 45 cities and 27 load types. ebAU2 corresponds to the second edition of Australian Rails.

ebCHN - China Rails - play in China. Container ferries and the Party Congress event introduce new fun.

ebEUR or ebEU4 - Eurorails - gives the game a European flavor as it spans the continent from Spain to Russia. The British Isles are connected via ferries. Should you build to Spain for oranges, Italy for tobacco, or Warsaw for ham? Lots of fun with 60 cities and 30 load types. ebEU4 corresponds to the updated edition of Eurorails released in 2009.

ebGB1 or ebGB3 - British Rails - covers England, Wales and Scotland. Lots of hilly terrain makes this a race to lock up the best rights of way. ebGB3 corresponds to the third edition of British Rails.

ebIND - India Rails - sweeps across the Indian subcontinent from Pakistan to Bangladesh; trains can carry pilgrims to major cities. Note that some events differ slightly from those in the board game.

ebJPN or ebJP2 - Nippon Rails - depicts Japan; its narrow corridors make it a good map for 2 or 3 players.

ebMAR - Martian Rails - science fiction literature inspires you to build on the ruddy surface of the planet Mars. Note that a few mileposts and events differ slightly from those of the board game.

ebMOO - Lunar Rails - portrays the mountainous lunar surface in two halves, with teleports to connect around the edges. Note that a few mileposts and events differ slightly from those of the board game.

ebNYC - New York City - depicts the New York City metro area. Track building costs are high, but the payoffs are large and there are many load types to monopolize. The quickest map, takes only about half the play time of most other maps: you can win in under 30 rounds.

ebRUS - Russian Rails - illustrates Russia during the period of the fall of communism and introduces Special Demands. Note that some events differ slightly from those in the board game.

ebUMA - Empire Express - play the Expanded Rules in the Middle Atlantic and surrounding states.

Maps can be purchased individually (on the form, list the "ebXXX" names of the ones you want) or as part of various discounted packages described below. Check our Web site to learn about other new maps as well. A map's size is typically about 250K each in ZIP form. If you order via Paypal, you will be directed to where to download the maps after your payment is processed. Note that a few of these maps have slight play differences (typically events or milepost locations) from their board game counterparts.

### EBPEDIT MAP EDITOR

Ever wanted to change a game map a bit? Add a mountain here, adjust the coastline there, add a ferry? That's where EBPEdit, our visual map editor program, comes in. If you know how to drag and drop with your mouse, you can create your own game maps. You can edit all EBP map items visually (except for images like the background and icons, or sound effects). This program is a must if you want to easily edit existing maps, or are serious about making your own from scratch. To download a free trial, in EBP use the File, Edit Map pull-down menu.

Those who register both EBP and EBPEdit can obtain upon request a free copy of EBPHP, our high performance version of EBP that is intended for testing maps via [Continuous Play](#). It operates about twice as fast as standard EBP (the exact speed boost depends on your device and the map in use).

### PACKAGE DEALS

You can get your EBP registration as part of a discounted map package. *Note these maps are not the board games themselves, but rather counterparts that work with EBP.* The **Express** contains the Eurorails and Australian Rails maps. The **SuperExpress** contains the Eurorails, Australian Rails, Nippon Rails, New York City, British Rails maps. The **Boardgamer Special** consists of 10 popular maps from the Empire Builder series: Agent of Change, Australian Rails, British Rails, China Rails, Eurorails, India Rails, Lunar Rails, Martian Rails, Nippon Rails and Russian Rails. Some maps exist in multiple forms that correspond to multiple editions of the board games; the packages above give you the most recent version of the most recent edition available. If you wish to know specifically which edition map is included in a package, check [RailGameFans.com](http://RailGameFans.com).

For the serious Empire Builder fan, the **Ultra Package** provides all the maps listed above (11 board game maps, and New York City), plus 5 maps corresponding to older board game editions (ebEB5, ebEUR, ebAUS, ebGB1, ebJPN) and 3 more free (ebEB7, Colorado, Canada). That's 20 maps in all at our best price, one much less than acquiring all those games in board game form. Note that if sent as an email attachment, the Ultra Package is roughly 6 megabytes in size.



## LOST REGISTRATION

After you enter the passcode with which we reply, to preserve your registration be sure to back up the directory containing EBP. It can be lost if your hard drive fails, you reload your operating system, etc.

If you lose your registered copy of EBP or get a new device, contact us to re-register. Users covered by a Support Plan are entitled to one free passcode for their registered version per 12 months per full-price registration. If less than 12 months have elapsed, or if the version of the program is newer than one you last paid to register, or you do not have Support Plan coverage for EBP, you can get a new passcode for a small fee: order a recovery copy. Install and run EBP on the device, choose the Help, Registration Numbers pull-down menu, and include the pre-registration number shown. See details in the FAQs at RailGameFans.com.

## NEW VERSIONS / UPGRADING

Check for the availability of upgrades via the File, Download Update feature. This feature requires that your device is Internet-ready. In the window that opens, click the Check For Upgrade button to check our Web site for the current version.

You'll be told if your version is the most recent, as well as if a newer version exists and how much (if any) it will cost to upgrade (outside the USA there may be a surcharge). You will then be given a choice to automatically download and install the upgrade. In case there is a problem, your old version will be kept, automatically renamed to contain a version number (for example, the old program may be renamed to EBP158.EXE).

If there is a fee for upgrading, after the download you will need to contact us to pay and obtain a new passcode. Upgrades are available only to registered users of a prior version; the upgrade takes the place of the prior version. People with registrations for their multiple devices should order upgrades simultaneously for all registrations for which they wish to maintain registration benefits. For example, if someone who has registered 3 copies of prior versions orders upgrades for just 2 of those 3, all registration benefits for the third copy will be lost.

Note that during 2020 Microsoft/Windows Defender was known to falsely report a virus in EBP, and to sequester your download. If you encounter that Defender bug, we recommend searching online for the steps to rectify the situation. If problems persist, consider turning Defender off until Microsoft fixes it, and use a modern virus checker instead. We perform many virus checks here, so any report of an issue is likely a false positive. Search online or ask the product vendor how to report false positives.

If you do not wish to use the automated upgrade, or if there are other problems, visit our Web site to download manually. If you get no response upon choosing File, Download Update, or get runtime error 372 or 339, your version of the Windows internet drivers is likely outdated or missing. Refer to the driver information in the [Hardware](#) topic.

## NOTES

Except where prohibited by applicable law, by using EBP and EBPEdit software you agree that it is provided "as is", without warranty of any kind, express or implied, including but not limited to the warranties of merchantability, fitness for a particular purpose and noninfringement of third-party rights. You may not reverse engineer, decompile, or disassemble the Software. Where "as

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See the FAQs at [RailGameFans.com](http://RailGameFans.com) for additional terms and details.

## Rules - [[EBP Help Contents](#)]

A summary of standard Empire Builder rules is given below. For specific details and special notes pertaining to individual maps, please consult the rules that come with copies of the board games.

*Tip: To learn how to start playing on the computer, see the [Introduction](#). Other tips about computer game features are shown in italics below.*

### OVERVIEW

This is a strategy game of building railroad networks. Upon the game's map, players attempt to connect mileposts into an efficient network of track to facilitate swift deliveries of demanded goods, called "loads". Players earn cash by picking up loads from a city at which they are supplied, using their train to transport the loads along track, and delivering the loads to where demanded to collect a payment. The winner is the first player who can accumulate \$250 million or more in cash while interconnecting the required minimum number of big (hexagonal) cities with his track network. Commonly, this required minimum is one less than number of big cities present on the map.

### START

Each player starts the match with a certain amount of cash, usually \$40 to \$60 million depending on the map, three load demand contracts, a Freight engine that has room to carry 2 loads, and no track. *Tip: EBP shows your cash level in the box at the lower-left corner of the map.* Each of the three contracts lists three different cities, each of which demands a particular type of load and offers a particular cash payoff amount. The player may choose to satisfy (deliver the demanded load) any one, and only one, of the three demands on a contract. Players observe which loads are demanded by their contracts, and where load supplying cities are on the map. Most game maps depict loads via small, representative icons. *Tip: click or hover your mouse over a contract's load name and EBP will blink the cities that supply it, plus list their names above the map.*

In order to deliver a load and collect the payoff, players need railroad track that connects the supply and demand cities; during the build phase of a turn a player can build this track. In many cases, it is best to build track to connect the demand city with the closest supply city. When a player satisfies a contract by delivering to one of the three listed cities the load that city demands, he collects a payment, and discards that contract for a new one.

### BUILDING TRACK

Play begins with two "build-only" rounds during each of which each player may build up to \$20 million worth of track. The cost of track varies with the terrain: building to clear mileposts (plain dots) costs \$1 million, to mountains (triangles) \$2m, across rivers an additional \$2m, into small (red circle) or medium (red square) cities an additional \$2m, etc. Players may only build track from either their existing track, or from big cities (red hexagons). Note that building into a big city costs \$5m but building out from it (to a normal milepost) costs only \$1m. Such inexpensive build outs are limited to 2 per turn. *Tip: to draw track, zoom into the map, point to a milepost, click and hold the left mouse button, and drag the mouse to adjacent milepost(s). EBP will display the total build cost. Undo by pressing Backspace or sliding the Swipe bar (found near the top-right of the map) to the right. When satisfied, click the OK (done) button.*

## MOVEMENT

After the initial build-only rounds, during his turn, the player starts his train at any city on the map, picks up loads, and then moves. Typically this movement proceeds from the supply cities to the demand cities. He may travel (move his train milepost-to-milepost along previously constructed track on the map) from one location to another up to the maximum amount allowed by the speed of his engine. A Freight engine moves 9 mileposts per turn. A player does not need to consume his entire allowed distance: he may stop early.

For travel, a player may use any track desired, provided that he does not reverse direction of movement except at a city or ferry port. If during a turn the player rides upon any track of an opponent, he must pay that opponent \$4 million, and must have that money available prior to moving. There is no fee for moving upon one's own track.

*Tip: to move your train its maximum distance, click one of the vertically shaded ovals.*

## PICKING UP LOADS

When his train is at a city, a player may pick up at no charge one or more loads supplied by that city, up to the carrying capacity of his train (2 or 3). If he no longer wants to carry a particular load, he may toss it at any time. The total quantity of each type of load in the game is limited (usually 3 or 4), and if all available are already aboard trains, the player may not pick up another of that type. Though any player can pick up any type of load, generally players pick up loads that are listed on their contracts and then travel to the delivery city to collect the payoff indicated.

*Tip: EBP automatically opens the Loads window when you move to a city that supplies a load you need, or you can open it manually via the Turn, Loads pull-down menu.*

Each train is limited as to the maximum number of loads it can carry. The train with which each player begins can carry two loads. Certain upgraded trains can carry three loads.

## BUILDING/UPGRADING

After a player has moved, he may construct up to \$20m more track if he has sufficient money. His track establishes a "right-of-way" between the mileposts the segment connects, and no other player may build parallel track directly between the same two mileposts.

Instead of building, a player may exchange his Freight engine for a Fast Freight (\$20m) which moves 12, or a Heavy Freight (\$20m) which moves 9 but has room to carry 3 loads. From either of those engines, a player may later exchange for a Super Freight (moves 12, carries 3) for \$20m.

*Tip: to upgrade your engine, use the Turn, Upgrade Engine pull-down menu.*

## DELIVERING LOADS

When a player moves to a city that, according to a player's own contracts, demands a load type aboard the player's train, the player can pause movement, make the delivery (removing the load from his train in the process and discarding that contract) and collect the payoff indicated. He then obtains a new contract, can pick up loads, and can move any of his allowed distance remaining. Payoffs are fixed amounts, and are generally proportional to the length plus build cost of the shortest possible route between the closest load supply city and delivery city. *Tip: details of how to make a delivery are in the Loads topic.*

## EVENTS

The deck of contracts also contains events. When a player gets a fresh contract upon delivery, it may instead turn out to be an event. Events include storms, derailments, labor strikes, etc. that temporarily impact play and track in various ways. Follow the instructions of the event. If an event is drawn, keep drawing until the player gets a contract to replace the one discarded as part of the delivery he just made. *Tip: EBP handles this process for you, and on the map displays event areas in an amber color; events can be turned off (prevented from occurring) via EBP's Game Options window.*

## DISCARDING CONTRACTS

Instead of taking his turn, a player may choose to discard all of the contracts in his hand and draw new ones. This is typically done when the set of contracts does not offer lucrative payoffs or efficient trips; experienced players discard about 1 to 4 times per match. A player may not selectively discard just one contract unless a variant rule permitting it is in effect.

## USE FEES

Typically, most train movement is done on the player's own track, but players can choose to move their trains along the track of opponents. At completion of a turn during which an opponent's track was rented, the player pays that opponent \$4m. *Tip: EBP automatically tracks and processes rental fees.*

## FERRIES

Some maps have ferries. To access a ferry, a player builds track to one of its ports, and then out from its opposite port. The cost of building to the ferry is displayed within the circle along the ferry's route. To use a ferry, the player moves his train to the port, and loses the remainder of his movement. On his next turn, he "jumps" his train to the connected port, where he begins counting his movement, but only moves half the normal amount (rounding up). Each ferry can be built to by up to two players.

## BUILD LIMITS

A maximum of two players can build into a small (circular) city. A maximum of three players can build into a medium (square) city. All players must be able to build into big (hexagon) cities and interconnect them with all other big cities. No track may be built that would prevent another player from building into a big city, or other city to which he is otherwise entitled.

## WINNING

Play continues until completion of the round in which a player reaches \$250 million or more in cash, and has connected via his track the required number of big cities (usually one less than the total number of big cities on the map). That player is the winner. If more than one player reaches these goals during the same round, the one with the most cash wins. If there is a tie for cash, the game continues with the new winning cash requirement increased by \$50m.

## STRATEGY

Efficiency is the key to crayon rails. You want to maximize your payoffs by moving via direct, short routes while not overbuilding track. Try to make long distance trips (i.e. one map edge to the opposite) while carrying multiple loads you can deliver either along way or near other delivery cities. On many maps, routes that directly connect the big cities are helpful because they are often the most frequently traveled rail corridors.

## VARIANTS

Perhaps more than with most games, this game lends itself to special house rules or variants. Please consult the Crayon Rail Fanatics Web site for even more information about fun variants.

## **Saving a Game - [\[EBP Help Contents\]](#)**

EBP lets you save a match during your turn so you can open it later. You can name your saved games as you wish. EBP automatically appends an .EBZ file name extension.

By default, EBP saves games on your local device, but you can also save games to the cloud.

### LOCAL vs. ONLINE

Use the Save window's pull-down menus to switch between saving your games locally (on your device's hard drive or other storage device) or online (cloud storage). To employ online storage you need File Transfer Protocol (FTP) access to an online storage site of your preference. Online storage is useful if you want to access your saved games from any of multiple devices on which you play EBP.

When you choose Switch to Online for the first time, EBP will prompt you to enter FTP specifics: site, username, password, etc. If you need to know the proper information for your site, contact your FTP service provider. The information you enter is preserved across sessions in a simple encrypted form via the EBP.INI file. If you leave the password field blank, EBP will not save it into EBP.INI but instead will prompt you to enter it each session.

When entering a name under which to save your game, avoid including spaces since some FTP sites are not equipped to handle file names that contain spaces. Many people substitute an underscore character \_ for a space.

As part of the FTP transfer process, EBP employs a temporary file saved in the AutoSave location you specify via the Game Options window.

### AUTOMATIC SAVES

If you want, via the Game Options window, you can tell EBP to automatically save the game before each player's turn. This feature is handy if you are encountering odd problems, and want to save the game just before the problem occurs. Automatically saved games have names such as ebpASxxxxy, where xxx is the round number and y is a letter representing the player's turn (a=player 1, b=player 2, etc.).

### CONTINUOUS SAVES

It is also possible to save games played solely by the AI; see the continuous play information.

### FILE ASSOCIATION

If you wish, within Windows create a file association between the .EBZ saved game extension and EBP.EXE, and then in Windows when you double-click on a saved game, EBP will start and open that game. Use File, Create File Association to have EBP set this up for you. In some situations, you may need to clear or establish a file association manually; to learn how to do so in your version of Windows, do a web search for **create file association**.

### UNCOMPRESSED SAVES

By default, EBP saves games in a zip compressed format with file extension .EBZ. To save a game without such compression, manually append ".ebg" to the game name you enter. Uncompressed games are saved with file extension .EBG.



## **Show - [[EBP Help Contents](#)]**

The Show pull-down menu of the main game window displays information about the map and other elements.

### **EVENTS**

Choose this to toggle display of active event areas on the map.

### **BGND IMAGE**

Choose this to toggle display of the map's background image.

### **EVENT INFO**

Choose this to open the Event Info window.

### **MAP BASICS**

This displays basic information about the map, such as name, version, copyright, etc.

### **MAP DETAILS**

Choose this to open the Map Details window, where the pull-down menus provide a wide variety of statistics about the map. For example, the City, Value Report lists map cities in approximately the order of frequency with which they are served/connected by the game winner's rail network.

### **FIND BEST TRIP**

Choose this to have EBP calculate what it deems to be the best sequence of pick up and delivery trips for a given group of contracts. This calculation is the same that EBP's AI players employ.

### **FIND**

Use this and enter a milepost, city or load name to highlight it on the map.

### **FIND CITY**

Displays an alphabetized list of cities; click one to highlight it on the map.

### **FIND LOADS**

Displays an alphabetized list of loads; click one to highlight on the map the cities that supply it.

### **RAIL CORRIDORS**

Choose this to ask EBP to calculate the most popular routes on the map. These corridors are determined by the contract set, location of supplied loads, build costs, and geographic map features. The most popular corridors are displayed via the thickest lines. They are usually good places to build mainline track.

## SPANNING TREE

The Spanning Tree depicts on the map a way to connect all cities with the minimum (or close to the minimum) length of track. It is for information purposes only.

## **Starting a Game - [\[EBP Help Contents\]](#)**

To play a match, from the Game pull-down menu, choose Start. When the [Game Setup](#) window appears, select the number and [types](#) of players you want. Additional features and popular variants are available via the pull-down menus and [Game Options](#) button.

Note that while you may change most of these settings once a game is in progress, doing so is considered cheating, and will have a negative effect on your [score](#).

To play an opponent via a network or the Internet, see the [Web Play](#) topic.

## Status - [[EBP Help Contents](#)]

To monitor the status of a game, use the Game Status window (found on the Game pull-down menu, or by pressing F2). You can leave the Game Status window open while a game is in progress.

The Continuous pull-down menu options are described in the [Continuous Play](#) topic.

Via the Display pull-down menu in the Game Status window, you can select any of the following displays:

Cash - graphs the cash holdings of each player over the course of the game

Net Worth - graphs each player's net worth over the course of a game

Summary - displays assorted information in numeric form, suitable for printing

City Deliveries - lists the number of times each city has been a delivered a load

Load Deliveries - lists the number of times each load type has been a delivered

AI Stats - shows cumulative statistics for continuous play games

Max Info - similar to Summary, but with additional information

The data of the text displays can be printed or copied to the clipboard via options on the pull-down menus.

## DESCRIPTIONS

Here are descriptions of some of the information the status pages display:

Status/Place - upon completion of the game, this shows the Winner and the finish order of the other players. The finish rank is determined by cash, less a penalty of StartCash \*

NumberofBigCitiesConnectedFewerThanMinimumNeededToWin

\*Speculative - loads delivered that had been onboard when the player received a contract demanding them; such loads are marked with an asterisk in the list of deliveries

Discarded - number of contracts discarded by the player, such as via the Turn, Discard Hand pull-down menu. Each time a player discards all 3 contracts, this value increases by 3. A variant allows players to selectively discard individual contracts.

Game Score - EBP's rating of each player's success in the game. The score is described in the [Hall of Fame](#) topic.

Spent/TrackSeg - the average amount spent by the player per segment of track between mileposts

Corridor Avg - the average corridor value of the track built by each player; higher values mean more track in the map's busiest rail corridors

Win% - winning percentage (Wins/Starts)

DI/S - deliveries per start

Mov/R - distance moved per round

$\$/\text{Mov}$  - payoffs collected divided by distance moved

$\$/\text{Rnd}$  - payoffs collected divided by number of rounds

$\$/\text{Bd/S}$  - amount spent building track per start

$\text{Rnd/W}$  - number of rounds played per win

$\text{Pch/S}$  - number of contracts discarded per start

$\text{Fee/S}$  - amount spent on opponent track use fees per start

$\text{Csh/S}$  - average cash on hand at game end

$\text{Scr/S}$  - average Game Score

## Symbols - [EBP Help Contents]

Below is a list and description of symbols that can appear on game maps. Note that color can vary based both on your color preference settings in Windows and if you customize EBP's [Display Settings](#).

SYMBOL.....	COLOR....	DESCRIPTION
dot.....	black....	clear (normal) milepost
dot, larger.....	brown....	desert
dot, larger.....	dark cyan....	water or snow
triangle, filled.....	black....	mountain or hill
triangle, empty.....	black....	alpine
triangles, small pair.....	black+red....	volcano
triangle, downward.....	red....	point (varies by map)
v-shape.....	black....	swamp
J-shape.....	black....	jungle
3 dots atop sticks.....	black....	forest
x.....	black....	<u>xspot</u> (such as a mine)
x.....	brown....	xspot type 2
x.....	dark cyan....	xspot type 3
any above.....	orange....	event impact area
overhang.....	black....	tunnel
circle, filled.....	red....	small city
square, filled.....	red....	medium city
hexagon, large.....	red lines....	big city
hexagon, small.....	red lines....	small/medium city that allows build out
star, tiny.....	white....	noted location, such as a capital
star, large.....	white....	special type of event active at location
box at city mp.....	inverse....	warehoused <u>load</u>
/ at city.....	red....	load pickup disallowed at city
\ at city.....	red....	load delivery disallowed at city
double / at city.....	red....	load pickup disallowed at city for remainder of match
double \ at city.....	red....	load delivery disallowed at city for remainder of match
outline at city.....	orange....	Special Demand of load at city
line.....	cyan....	ocean coastline
line.....	blue....	river
line, thicker.....	blue....	lake
line.....	brown....	dry river
line.....	yellow....	border, usually country
line.....	green....	border, miscellaneous
line.....	dark gray....	barrier (no building across)
lines.....	orange....	event impact area
lines in a row.....	player....	player's track under construction (the ties)
lines, paired.....	player....	player's track (the rails)
line.....	gray+black....	<u>ferry</u> line
circle.....	gray....	ferry port or wrap/teleport milepost
C shape.....	gray....	container ferry port

circle with number.....	white....	ferry build cost
circle, filled.....	red....	small city
oval, lined.....	player....	maximum distance for movement
rectangular shapes.....	player....	players' <u>engines</u>
> .....	player....	destination of player <u>automove</u>
icons.....	various....	<u>loads</u> supplied by city
padlock icon.....	red/white....	marks a delivery that must be performed

Some of these symbols are illustrated in the game's Help, Symbol Legend window.

## **Technical Support - [\[EBP Help Contents\]](#)**

With an EBP Support Plan, registered users can obtain free EBP technical support via e-mail: contact Intersystem Concepts at [intersys@insystem.com](mailto:intersys@insystem.com). We cannot guarantee a reply within a particular time frame. Live support via telephone is available for a fee, as is email support for those without a Support Plan; see [RailGameFans.com](http://RailGameFans.com) for information.

### **LATEST INFORMATION**

The EBP FAQs online may already answer your question. For the most up-to-date information visit the Crayon Rail Fanatics Web site at <http://www.railgamefans.com>.

### **SAVED GAMES**

To investigate a problem, we usually need a saved game that demonstrates the problem. In most cases, bugs cannot be fixed without such a saved game. Send us a saved game by attaching the appropriate .EBZ file to your e-mail message.

### **SUGGESTIONS**

Suggestions for improved or new features in EBP are always welcome. Please e-mail them to [intersys@insystem.com](mailto:intersys@insystem.com). Legal disclaimer: note that suggestions become the property of Intersystem Concepts, Inc.



## **Turn - [[EBP Help Contents](#)]**

The Turn pull-down menu offers various game-play features for the human player.

### **LOADS**

The Loads window opens automatically when you move your train to a city that supplies or demands a load on your contracts. If you close the Loads window and later need to reopen it manually, use the Turn, Loads menu item.

### **SUGGEST PLAN**

Use the Turn, Suggest Plan menu to ask EBP to display what one of its AI bot players would do in your situation. Use does not lower your game score, but some may consider it cheating, and therefore it is noted in the History Box.

### **UNDO MOVE**

Use this to undo train movement before you have performed any other action (such as delivering a load, building track, etc.).

### **ERASE SEGMENT**

While building, use this to erase the last segment of track you are planning to build. Works the same as the Backspace key.

### **UNDO BUILDING**

While building, use this to undo all building and engine upgrades this turn.

### **GO TO (AUTOMOVE)**

Use this to select a city to which to engage EBP's "Automove without building" feature. Cities served by your track will be listed; choose one from the list, and EBP will move your train to it via your track's shortest route. Automove is handy when your next planned destination is distant, and you have no other actions (such as load pickups) to perform along the way.

### **AUTOMOVE DISENGAGE**

Use this to disengage automove before your train reaches the automove destination. If you are unable to access the menus (because EBP is busy), press Ctrl+A instead.

### **AUTOMOVE REENGAGE**

The reengage automove feature is most useful after EBP has automatically disengaged it due to an event.

### **UPGRADE ENGINE**

Use this to change your train's locomotive to a different type, such as a faster one. You'll be asked to confirm.

## DISCARD HAND

Use this to discard / pitch / dump / exchange all your contracts for new ones. This can be done only as the first action of your turn. It cannot be done if you have an unfulfilled, locked delivery (honeymoon variant). Some of the best players report they discard their hand about 1 to 4 times per match on average, but that the rate varies based on the map in use.

## DISCARD 1 CONTRACT

Use this to discard one of your contracts and receive a new one (a variant option). You will be prompted to choose the contract to discard. This can be done only once per turn. You cannot discard a contract with an unfulfilled, locked delivery (honeymoon variant).

## LOSE TURN

Use this to forcibly skip your turn; it can be done only as the first action of your turn. If the backtracking variant is enabled, players can use this feature when their train is located outside a city but they wish to reverse their train's direction of travel.

## RESTART

Use Restart to escape from an untenable game position, such as being unable to make any delivery, even after repeatedly discarding contracts. Restart restores your game position to that at the start: no track, the starting engine, and the starting amount of cash. (Track of a restarting player is erased, except for portions EBP automatically deems needed by an opponent to connect back to their own track.) Restart is rarely needed by the best players because they avoid getting themselves into a stuck game position. For example, spending all your cash, such that you cannot afford to repair an event's bridge washout, puts you at risk of having no alternative except restart.

## Web Play - [\[EBP Help Contents\]](#)

You can play EBP versus human opponents live online via the Internet, as well as via your multiple home computers that share a router (even if they don't otherwise have networking enabled). To use this feature, each participant's computer must either be on a network, connected to the same router, or be capable of connecting to the Web; plus all participants must have the same version of EBP. If you want to find new opponents, visit the Crayon Rail Fanatics Web site at <http://www.railgamefans.com> for links to player groups.

### QUICK START

If you don't care about details, and just want to play via the Web, here's what to do:

- 1) Decide in advance who will be the GameMaster (any one person will do).
- 2) Make sure your local network or Internet connection is active/ready.
- 3) Run EBP and choose the Game, Start menu.
- 4) Put your information (name, etc.) in slot 1. **Every** person uses slot 1 to get started.
- 5) Use the Web pull-down menu, and choose GM or player. The Web window will open; if it does not, some drivers on your computer likely need updating (see below).
- 6) If you are a player, when prompted, enter the GM's dot address.
- 7) When everyone is ready to start play, in the Web window, the GM should choose the Match, Begin/Resume pull-down menu.

That's it! Can't figure something out? Details are found below.

### THREE WAYS TO PARTICIPATE

In EBP, you can participate in a Web game in any of three ways:

**GameMaster (GM)** - The GM's computer is the "master" and controls the pace of the match. If your match includes AI players, the GM's computer will operate them. Any person can be GM, and the GM always plays in the match. There is exactly one GM per match.

**Player** - Like the GM, a player participates in the match, but his computer does little more than communicate with the GM's. Up to five Players can participate in the match at once.

**Spectator** - A Spectator can watch the match, but not play in it. EBP allows for up to 60 Spectators to watch the match at once.

### DETAILS OF WEB PLAY

Up to six human players can compete in the same EBP match. The AI players can fill any slots not occupied by a human. Before starting EBP, use external means (telephone, email, instant message, etc.) to decide who will participate and what time the match will begin. Also, choose exactly one person to act as GameMaster (GM). The GM's computer will be the controlling, master computer.

### DETAILS FOR THE GM

- 1) The GM should run EBP and start a new game. On the Game Setup/Configuration, the GM should select the total number of participants (i.e. the total human participants plus any desired

AI players). The GM *must* specify his personal information (name, color, etc.) in the area for *player 1*. Always set the "Type/Style" to Human (do not select Human, Remote).

2) Next, the GM should choose the Web, Make me GameMaster pull-down menu. The Web window will appear (it is an "always on top" type window). If the GM's computer is already connected to the Internet, his IP dot address will appear as the caption of the window. (A dot address resembles "200.123.45.182".) If the dot address does not appear automatically, the GM will be asked if he wishes to connect.

3) Now, the GM must tell his dot address to each of the participants (via telephone, email, instant message, etc.). The participants must know this address in order to connect to the GM's computer. If EBP displays both a local and external dot addresses, the one to use depends on where your opponents are located. If they are on your local network (such as connected via the same router) use the local address, otherwise use the external. EBP determines your external address by performing a Web query to a site that echoes it back; if needed, you can change the site employed by entering its URL in the IPLookup parameter stored in the EBP.INI file.

4) The GM should wait for all participants to connect. The status of the connection(s) will be shown in the lower box of the Web window. As participants connect, EBP will update the Game Setup/Configuration window with the name and chosen color. EBP will automatically assign each player a slot (starting with slot 2 because the GM's info is in slot 1). *If more than one participant chooses the same color, EBP will attempt to swap or substitute colors; it is the responsibility of the GM to override any unreasonable substitutions.* If necessary, the GM can send a message to the participants to help resolve the matter (use the Message menu).

5) Unfilled player slots can be occupied by AI players, as selected by the GM. After everyone connects and is ready to play, the GM should choose the Match, Begin/Resume menu item.

#### DETAILS FOR THE PLAYER(S)

1) The non-GM players should run EBP and start a new game. On the Game Setup/Configuration window, each non-GM *must* specify his personal information (name, color, etc.) in the area for *player 1*. Always set the "Type/Style" to Human (do not select Human, Remote). The slots for other players should be ignored. Only one human may participate per computer.

2) Next, choose the Web, Make me a Player pull-down menu. The Web window will appear (it is an "always on top" type window); it must remain open for the duration of the match. You will be prompted to enter the GM's dot address. Obtain the GM's dot address (via telephone, email, instant message, etc.).

3) Enter the dot address the GM provided. EBP will then attempt to establish a connection with the GM. The status of this connection will be displayed in the lower box of the Web Play window. If you have trouble connecting, see the Connection Difficulties topic below.

4) Non-GMs should wait while all opponents connect. The GM will start the game when everyone is ready. While waiting, you can send messages via the Message menu. An easy way to reply to a particular individual is to double click his message in the message box.

5) The match will begin automatically when the GM designates.

The match should play very much like a normal game, however note that to keep the match moving along, some information boxes do not wait for you to click OK to close them. If you'd like an audible notice of when it is your turn, choose File, Game Options, and in the Variants/Misc box scroll to the My-turn sound checkbox. When you enable My-turn sound, a window will open listing WAV sound files. You can navigate to any folder on your computer and choose the WAV sound effect you want as your turn notifier.

If you as a non-GM should become disconnected from the GM during the game, attempt to reconnect via the Connect, Connect me to GM menu. EBP should automatically reload a copy of the game from the GM. If it does not, after the connection has been re-established, choose the Match, Reload pull-down menu.

## DETAILS FOR SPECTATORS

You can observe a game being played without actually participating in it. To do so, you need to know the GM's IP dot address. Choose the Web, Make me a Spectator menu option. EBP supports up to 60 simultaneous spectators, or the limits of Windows (whichever comes first).

## CONNECTION DIFFICULTIES

Due to the complexities of the Internet, we cannot guarantee that you will always be able to establish and maintain a suitable connection for the purposes of playing EBP. However, if you are experiencing trouble connecting (such as "Connection Refused" or "error 10060" messages), try any or all of the following.

- 1) Try establishing your connection to the Internet *before* you run EBP. That is, connect normally, such as via your browser, then start EBP.
- 2) Sometimes firewalls or other security measures prevent either inbound or outbound player-to-player connections, but not both. Therefore, try swapping roles: choose a different person to act as GM, then try connecting again.
- 3) If playing via the Web, your router may need to have certain ports opened or redirected; this is sometimes called port range forwarding. By default, EBP employs port numbers 1103 and 1104 for communication. For example, on many Linksys brand routers, go to the router's admin page, select Applications and Gaming tab, then in the Application field enter `ebp.exe`, in Start enter 1103, in End enter 1104, set Protocol to Both, and IP Address to match the value EBP displays as your local dot address. The value must match otherwise you will not be able to connect! Usually this value is something like 192.168.1.100 or 192.168.1.101; careful: it can change from one day to the next. See the software FAQ at the EBP Web site for more info.
- 4) If playing via the Web or your home network, you may need to adjust your firewall to allow incoming connections. Consult the firewall's documentation to determine the steps necessary. For example, in Windows do the following: go to your Control Panel, look in the Security area, click "Allow a program through Windows Firewall", "Allow an app or feature through Windows Firewall" or similar wording. This opens the Windows Firewall Settings window, Exceptions tab. In the list of programs, look for Empire Builder Pronto or EBP (if it is not already in the list, use the "Add program" feature). Enable an exception by clicking EBP's check box. Some Windows versions let you set exceptions separately for Private and Public networks; choose the one that applies to your situation.

5) By default, EBP employs port numbers 1103 and 1104 for communication. For special purposes (such as an attempt to rectify connection difficulties), this can be changed by editing the Port entry in the EBP.INI file. All players in the match must employ the same port number. Contact your ISP or Webmaster to learn which ports are available for a "standard peer-to-peer IP socket connection". Rarely should you need to change this.

6) If you get no response upon choosing a Web play option, or get run-time error 372 or 339, your version of the Windows internet drivers is likely outdated or missing. Refer to the driver information in the [Hardware](#) topic.

Gamers who have been unable to connect due to routers or firewalls report success by instead running their EBP Web match on a virtual network. Software such as LogMeIn Hamachi can help you set up a virtual network.

For the latest info, see the FAQs and RailGameFans.com. If problems persist, consider trying [Play by Email](#) instead. Since it operates via email, it may not be blocked by a firewall or other problems.

#### POOR CONNECTION QUALITY

EBP monitors the status of the network connection between players and the GM. That connection is established and maintained by your hardware and operating system. A wireless network is the type most prone to failure due to poor signal quality. If EBP detects a dropped connection, it will notify the player and ask he wants to reconnect. Before agreeing to reconnect, check any network cabling or reposition/relocate your computer so as to regain a good signal. Frequent "lost connection" messages are a sign your signal quality, or that of the GM, is not stable enough to support EBP. Since problems in connection are outside of EBP, to fix them you need to reference tech support for your hardware and operating system.

#### HOW TO VERIFY EBP IS WORKING

To determine whether the cause of Web play trouble is within EBP or outside it, run two instances of EBP on the same computer and connect the two for a network match by using the local dot address 127.0.0.1

Detailed steps:

- 1) run EBP
- 2) use Game, Start then the Web, Make Me GameMaster pull-down menus
- 3) start another instance of EBP on the same computer
- 4) use Game, Start then the Web, Make Me a Player pull-down menus
- 5) as the dot address to which to connect enter 127.0.0.1

This links the two instances of EBP together such that in the GM instance you can use the Web window's Match, Begin/Resume menu to get things going. When you build track in one instance of EBP, it will also instantly show up on the map of the other, just as if you were playing over the Web or your local network. Note having the two or more EBP game windows open and running simultaneously on the same display monitor can get confusing in a hurry.

This test isolates all network play connection and communication to within your computer. Internally EBP is processing the match just like it would if the players were at different physical

locations. If a failure persists during this test, the trouble likely is in EBP; please tell us the steps needed to recreate the failure here so we can fix it.

Conversely, success of this test (i.e. no trouble) proves the problem you are experiencing lies outside of EBP. Next, if you return to the typical multi-player setup, but the problem recurs, by these steps you have isolated the trouble to the configuration of your router, firewalls, other items that control/permit access to your computer, or the interference/malfunction of third-party software. There exist too many brands and versions for us to know the details of all of them and be able to competently help you, so for assistance, consult online references and the corresponding third-party manufacturers.

## SUSPENDING AND RESUMING A GAME

If you need to temporarily stop playing a Web match and resume later, here are the steps:

- 1) Play until a human player is either just starting his turn, or has just completed it.
- 2) The GM should save the match to disk (via the File, Save Game menu).
- 3) The players should disconnect.
- 4) To resume later, the GM should reload the saved game (via the File, Open Game menu). Next, the GM should use the Game, Edit Setup pull-down menu and in the window that opens choose the Web, Make me GameMaster pull-down menu.
- 5) The remote players should connect to the GM in the usual fashion (Game, Start; enter name in slot 1; click Web, Make me a Player; etc.). After the connection has been established, EBP will automatically obtain a copy of the match from the GM. If there are multiple remote human players in the match, EBP will ask which player slot you wish to occupy. Wait for the GM to resume the match.
- 6) When everyone has connected, the GM should choose the Match, Begin/Resume menu item.

## ASSORTED NOTES

Strive to have the same version of the EBP.EXE program as the GM. The Help, About menu item shows the creation date of your copy of the EBP.EXE. If you encounter inexplicable communications problems, compare your EBP.EXE version date and time with that of the GM. You can download the latest version from our Web site.

At the GM's computer only, additional human players can participate in hotseat fashion. They should be added to the bottom of the player list after all remote human players have connected.

If a player becomes disconnected, and appears to be unable to reconnect, the GM can continue the match by substituting an AI player. To do so: 1) use the Game, Edit Setup pull-down menu, and 2) change the player's Type/Style setting from "Human, Remote" to one of the AI players. Upon returning to the map window, the GM may need to click the "OK (done)" button to prod the AI to proceed.

If a human player attempts to join a match already in progress, EBP will alert the GM. The GM can then decide if the person should be allowed to join (and take the place of one of the AI players).

The message "CAUTION: this game appears to have been started with a different version of the map" can occur if the program you employed to unzip/install a file containing an EBP game map does not preserve the last editing date of the .ebm map file; this is a known problem in some versions of Windows. In such cases you can safely ignore the caution message and proceed.

EBP supports IPv6 addresses, but whether the Windows drivers it employs do as well has not been tested as of this writing.



## What's New - [\[EBP Help Contents\]](#)

This topic lists significant changes and new features as they are introduced. Details of minor changes can be found at the version history page at the Crayon Rail Fanatics web site at <http://www.RailGameFans.com>

What's new in EBP 2.0:

- \* the best-playing [AI](#) bots to date, on average winning 1 to 5 rounds sooner than in ver 1.7.x (amount varies with map and [Game Options](#))
- \* if you find the improved [AI](#) often too difficult to beat, you can reduce its skill level in the [Game Setup](#) window
- \* 20% to 50% AI speed boost compared to version 1.7.29, 35% to 80% faster compared to 1.7.23 (amount varies with map and [Game Options](#))
- \* the [Loads](#) window now displays EBP's rating of each load's speculative value to you
- \* if more types of loads are available for pickup than fit across the [Loads](#) window, EBP will instead display the load names in a drop down list
- \* you can scroll the player contracts (left of map) via the keyboard if you wish: first press the numeric keypad's Ins key, then any of that keypad's directional keys
- \* you can scroll the [map](#) via the keyboard if you wish: first press the numeric keypad's Del key, then any of that keypad's directional keys
- \* adjusts Revolution [event](#) so it expires all dual-events (events that have alternate events), rather than expiring all Special Demands
- \* for more precise [game replays](#), when a player drops and/or picks up a load, the history window now records the number of the "train car" (onboard load slot) involved
- \* new [event](#) effect: no movement allowed at intersections with opponent track
- \* enabling the "Bots: sum data" [option](#) now asks if you wish to automatically spawn additional game instances for "Bots: game repeat" stat collection purposes; this handy feature obviates manual start of additional EBP instances on devices that have multi-core processors
- \* the "Verify connectability" [Game Option](#) has been redesigned to run much more quickly than before
- \* the [Event](#) Info window permits events to be toggled on/off one by one; now all but one can be toggled by holding down the Shift key while clicking Toggle; use this to test one event at a time
- \* if "Bots: game repeat" and "Bots: halt on error" are both enabled in [Game Option](#), if an error occurs EBP now attempts to save the match; saved games are placed in the AutoSave directory with names starting with "ebperr"

- \* if "Bots: halt on error" is enabled, if an error occurs, EBP automatically unminimizes the map window to call attention to the problem
- \* if "Bots: halt on error" is enabled, if an error occurs. EBP displays error info in the main and Game Status window captions to make that info visible in case the error causes the program to hang
- \* if "Bots: halt on error" is enabled, if the game history exceeds 32000 text lines, EBP treats it as an error and stops play
- \* new reports in Map Details window: each city's total distance to every other, and each city's total build cost to every other
- \* now disallows discarding of an extra starting contract if that contract has a locked demand (Honeymoon option)
- \* games can be saved in uncompressed form by suffixing their file name with .ebg in the File, Save Game window
- \* for play-by-email, 2.0 is cross-version compatible with opponents using version 1.7.x, though such mixed-version play will hinder AI play improvement
- \* for live web and local play, new features render this version incompatible with prior ones, so all participants should upgrade to the same version
- \* upward compatibility with maps and saved games from all prior versions

#### What's new in EBP 1.7:

- \* different art displayed for each engine type, or custom art (if any) supplied with map
- \* engine upgrades roll (animate) into place (can be turned off via Display Settings)
- \* upon load delivery, your new contract is visually wiped into place
- \* AI can now play the "Connect-only" variant (connect big cities), to try it set WinCash to \$0
- \* extra contracts tossed at start become Open Contracts, if that variant is enabled
- \* option to toggle text drop shadows off/on via Display Settings
- \* map display no longer drags/scrolls when unzoomed -- easier track building on large monitors
- \* displays unique symbol at city where loads cannot be picked up or delivered during match remainder
- \* performance improvements throughout UI and AI, this is the fastest EBP yet
- \* adds new Event effects to support game maps in development

- \* you can toggle specific events off/on via the Event Info window
- \* adds a new Help system (rgfhelp.exe) that displays help topics without the need for a browser
- \* the new Help offers topic-spanning text search and keyword list features
- \* the new Help can appear as your choice of separate app, intergrated within EBP, or via browser
- \* auto-halts then saves continuous play matches that have stalled (assists map development)
- \* "Bots: halt on error" checkbox stops a continuous play match if a trappable error occurs so as to assist map debugging
- \* minor cosmetic changes and bug fixes
- \* cross-version compatible for Play by Email with opponents using version 1.6.x
- \* upward compatibility with maps and saved games from all prior versions