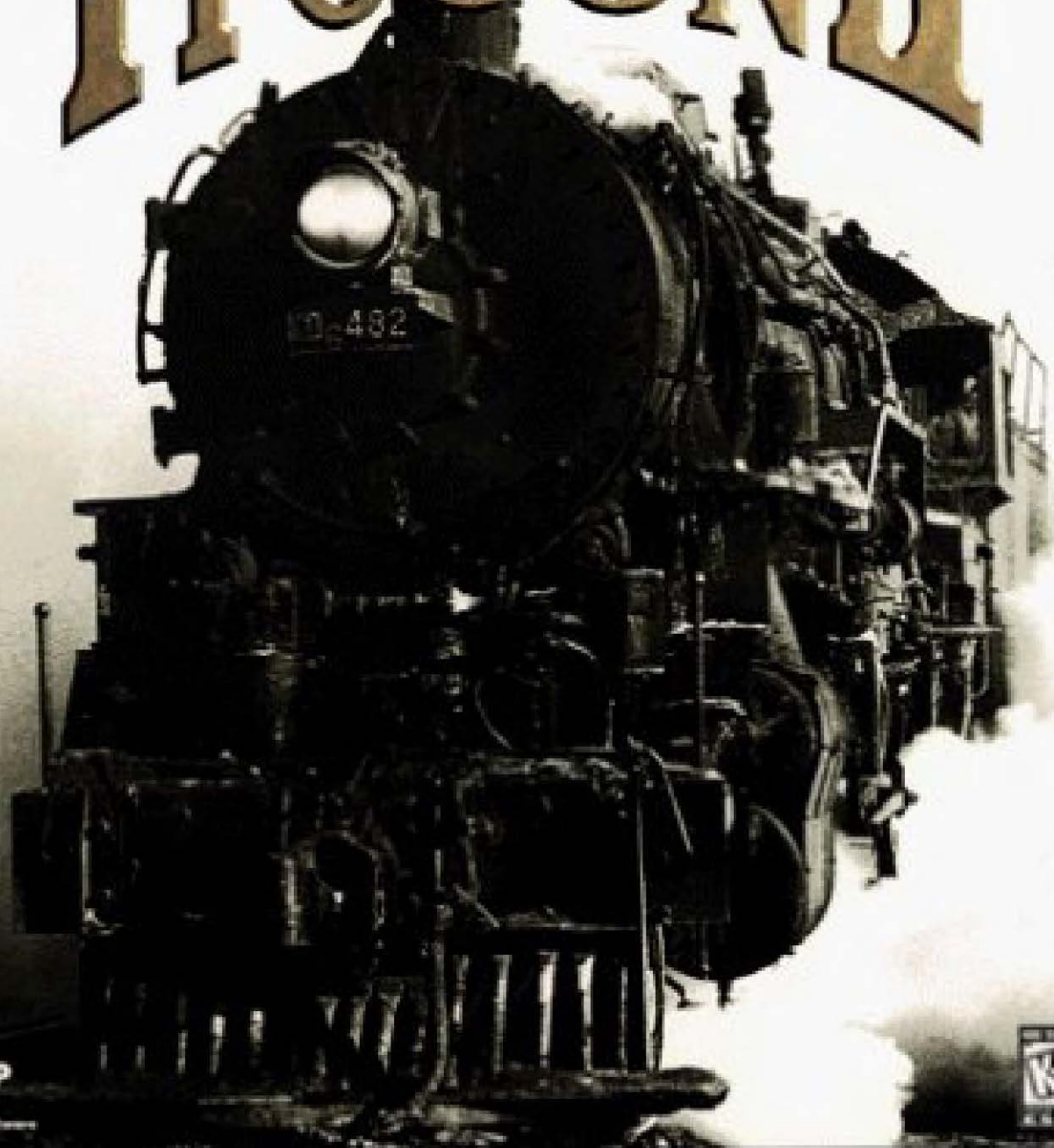


RAILROAD TYCOON II



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Empire Interactive



A STRATEGY GAME THAT RUNS ON A TOTALLY DIFFERENT KIND OF ENGINE.

RAILROAD TYCOON II

User Manual



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Historical railroad chronology courtesy of Randy Houk, San Diego Railroad Museum

User manual produced by After Hours Productions

Published by Take 2 Interactive Software. Product of United Kingdom.

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IN THIS CHAPTER:

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- EXPLORING THE MAIN INTERFACE
- STARTING A COMPANY
- LAYING YOUR FIRST TRACK
- BUILDING STATIONS
- BUYING A TRAIN
- ENTERING THE WORLD OF HIGH FINANCE
- CONTROLLING YOUR RAILROAD EMPIRE

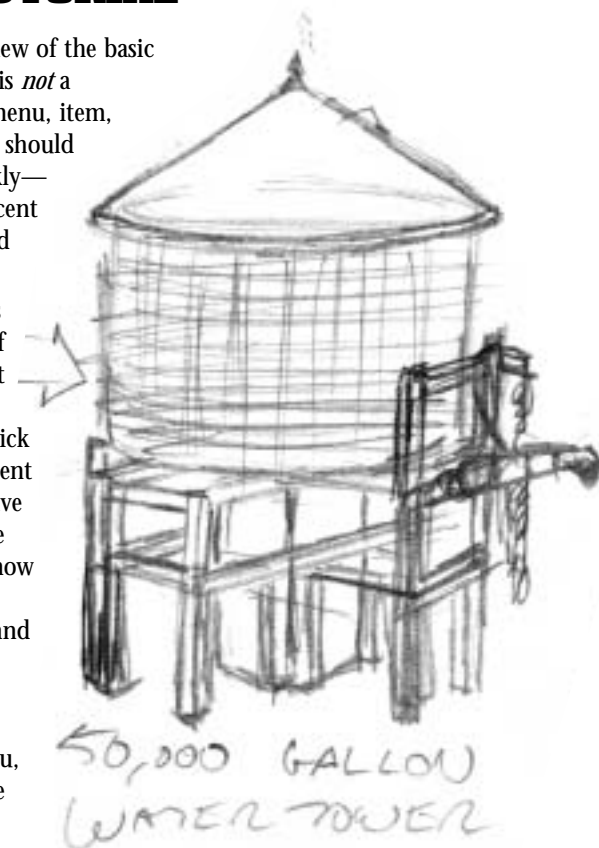
Tutorial



ABOUT THIS TUTORIAL

This section provides a brief overview of the basic elements of Railroad Tycoon II. It is *not* a comprehensive overview of every menu, item, and function within the game, but should get you up and playing fairly quickly—provided you belong to the 10 percent of the public that actually does read manuals.

You don't have to complete this tutorial to play the game. In fact, if you're one of those people who just likes to dive right in, you can refer to the brief in-game tutorial and click around in the game to your impatient heart's content. However, if you have a few minutes to spare, we can save you a lot of time by showing you how to do the things you need to do to keep your trains running on time and turn a profit. For a comprehensive overview of every menu, item, and function within the game, please refer to Chapter 3, The Main Menu, and Chapter 4, The Main Interface (pages 23 and 29, respectively).



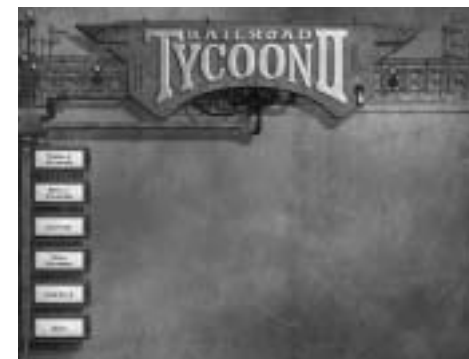
1804: RICHARD TREVITHICK OF CORNWALL BUILDS A 40 PSI STEAM LOCOMOTIVE FOR THE WELSH PENYDARRAN RAILROAD.

1808: TREVITHICK BUILDS A CIRCULAR RAILWAY IN LONDON'S TORRINGTON SQUARE. THE STEAM CARRIAGE *CATCH ME WHO CAN* WEIGHS 10 TONS AND RUNS 15 MPH.

SETTING UP A GAME

Upon launching the game, you will find yourself in the main menu screen. This is your launching pad for starting new games, loading saved games, starting multi-player games, etc. The tutorial is based on a saved single-player scenario. Let's dive into it...

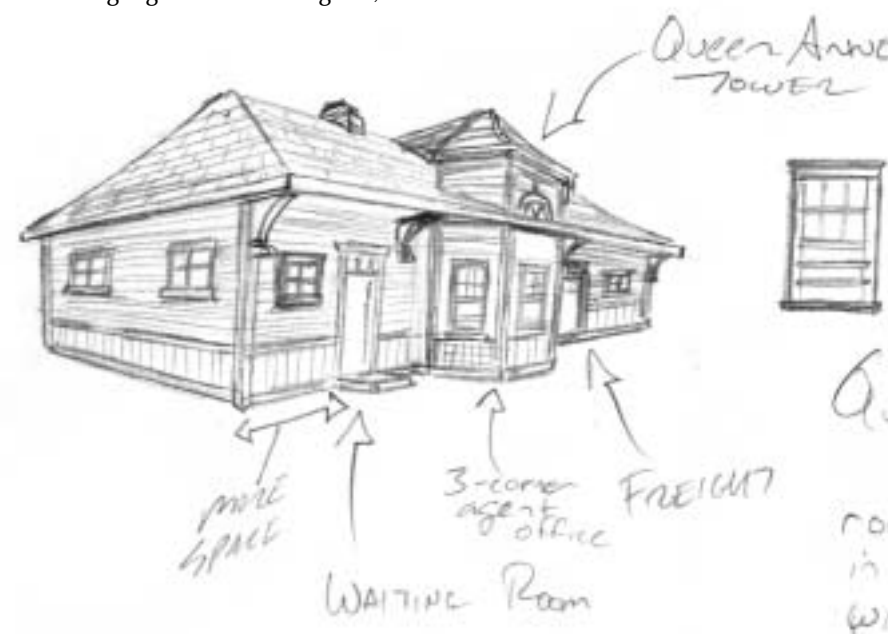
RAILROAD TYCOON II ALSO CONTAINS IN-GAME TUTORIAL TEXT FOR FOLKS WHO REFUSE TO CRACK A MANUAL OPEN. THAT TEXT IS A LESS DETAILED VERSION OF THIS CHAPTER. SINCE YOU'VE DEMONSTRATED YOUR WILLINGNESS TO READ THE MANUAL BY GETTING THIS FAR, YOU CAN DISABLE THE IN-GAME TEXT IF YOU WANT.



- 1 From the main menu, select SINGLE PLAYER, then LOAD SCENARIO. A panel will open to the right, allowing you to select the game you wish to load.



- 2 Highlight the **Tutorial** game, then click OK.



1812: THE FIRST COMMERCIAL SUCCESSFUL STEAM LOCOMOTIVES, USING THE BLINKINSOP RACK AND PINION DRIVE, COMMENCE OPERATION ON THE MIDDLETON RAILWAY. THIS WAS THE WORLD'S FIRST REGULAR REVENUE-EARNING USE OF STEAM TRACTION, AS DISTINCT FROM EXPERIMENTAL OPERATION.

EXPLORING THE MAIN INTERFACE

As you enter the main game, you'll be greeted by a popup window explaining the goal of this game. Please read it carefully. As a recap, your goal is to reach \$10 million dollars in personal net worth by the year 1900. That means you must accumulate a combined total of cash and stocks with a value of at least \$10 million dollars by the year 1900. If you can reach \$25 or \$50 million by the year 1900, you will receive a greater victory. Click the OK button to close the window.

Next, press the **PAUSE** key twice. You'll see that this toggles the game between paused mode and a game speed of "3". For now you'll want to leave the game paused, so you can look around and set up your railroad without time pressure. When everything is set up, you can resume the game by pressing the **PAUSE** key again or by pressing the **PLUS (+)** and **MINUS (-)** keys.



There are four sections to the main interface:

- **MAIN WINDOW (A)**—This is where the actual game play takes place. Consider this your window on the world. The four oval-shaped icons in the lower right corner of the window enable you to change your view by rotating it, or zooming in and out.
- **RADAR AREA (B)**—In the lower left corner, there is a radar view that enables you to move around the map without scrolling.
- **CENTER LIST BOX (C)**—The rectangular box to the right of the RADAR AREA is the **LIST BOX**—the nerve center of your empire. Use the four tabs to view summaries for **STATIONS**, **TRAINS**, **PLAYERS**, and **COMPANIES**. This area also shows cash-on-hand for your company, and, to the left of the tabs, the current date.
- **ACTIVITY BOX (D)**—The area in the lower right-hand corner is the Message window. You'll receive various messages throughout the game, and can access them here.

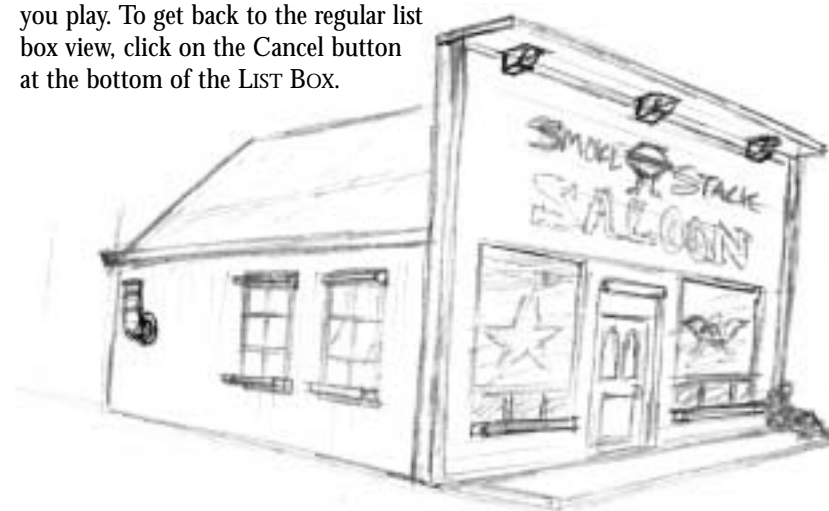
1812: AMERICAN COLONEL JOHN STEVENS PUBLISHES A PAMPHLET CONTAINING: "DOCUMENTS TENDING TO PROVE THE SUPERIOR ADVANTAGES OF RAILWAYS AND STEAM CARRIAGES OVER CANAL NAVIGATION." HE ALSO STATES, "I CAN SEE NOTHING TO HINDER A STEAM CARRIAGE MOVING ON ITS WAYS WITH A VELOCITY OF 100 MILES AN HOUR."

THE MAP OVERVIEW

With the game paused, the first thing you need to do is look around a bit. The **MAP OVERVIEW** icon enables you to view resources on the map—a crucial part of planning your first route.



- 1 Click the **MAP OVERVIEW** icon—the fourth one down on the left side of the screen that has a picture of a globe on it. In the **LIST BOX**, you'll see a graphical representation of all the resources (cargo) available in the game.
- 2 Pass the mouse cursor over any resource to temporarily highlight it on the map. Clicking any resource toggles the view of that resource on or off. You can select multiple resources, or overlay all resources on the map at the same time by clicking the **ALL** button. A supply of a resource is shown in white; a demand for it is shown in yellow.
- 3 Move the mouse cursor to the edges of the screen to scroll the map in the direction you want. If you want to move to another area of the map quickly, click on that area in the **RADAR AREA**.
- 4 Experiment with the overview. Your goal is to locate areas where there are concentrations of resources and industry (supply and demand) that need one another. Resource locations are randomized, and will change each time you play. To get back to the regular list box view, click on the **Cancel** button at the bottom of the **LIST BOX**.



1813: ENGLISHMAN WILLIAM HEDLEY BUILDS AND PATENTS A 50 PSI RAILROAD LOCOMOTIVE THAT CAN HAUL 10 COAL WAGONS AT 5 MPH—EQUAL TO 10 HORSES.

1814: ENGLISHMAN GEORGE STEPHENSON BUILDS BLUCHER, HIS FIRST RAILWAY ENGINE. THE ENGINE PULLS 30 TONS AT 4 MPH, BUT IS NOT EFFICIENT.

STARTING A COMPANY

Before you can start laying track to connect the resources you've located, you need to own a company.



1815: STEPHENSON'S
SECOND ENGINE

FEATURES SIX WHEELS
AND A MULTITUBULAR
BOILER.

1821: ENGLISHMAN
JULIUS GRIFFITHS
PATENTS A PASSENGER
ROAD LOCOMOTIVE.

- 1 Click the **COMPANY** tab in the LIST BOX (it's the rightmost tab.) Double-click **START A NEW COMPANY**. When you start a new company, you decide how much of your own money you put into the company, as well as how much you will accept from investors. In general, you should accept little from investors if you plan to pursue complete ownership of the company, but you may choose to accept more to give yourself plenty of operating cash.
- 2 For this tutorial, slide the **PLAYER INVESTMENT** and **OUTSIDE INVESTMENT** sliders all the way to the right. This will give you a whopping \$1,650,000 total cash to spend.
- 3 Type in a name for your company in the **COMPANY NAME** box, or use the default name. Once in the **COMPANY NAME** box, press **ESC** if you want to leave the box without making changes, or **ENTER** if you want to keep the name you've typed in.
- 4 Select a **COMPANY LOGO** by using the up or down arrow, or use the one provided for you. Click **OK** to accept your selections and start your company.
- 5 Back at the main interface, you'll see the logo and name of your company, your available cash, and your profits (which are \$0K at this point) in the LIST BOX.



LAYING YOUR FIRST TRACK

Now that you've started a company, it's time to get down to business. The first thing you need to do is find a suitable route. You'll find the city of Slough ideally situated to be the center of your new empire. Slough is near the far south central part of the map and just west of the city of London.

- 1 With the game paused, click the **LAY TRACK** icon—the top icon on the left side of the main interface that looks like railroad tracks—to start laying track. Your mouse cursor will change to a track icon.
- 2 The LIST BOX gives you two track options, **SINGLE TRACK** or **DOUBLE TRACK**. Select **SINGLE TRACK** for now. The third option is bridge type, which is chosen by clicking one of the two icons on the right side of the LIST BOX. Select **WOODEN BRIDGES** (the top image).



- 3 To lay track, place the cursor between the sheep farm and the cattle ranch just to the east of Slough, then click and hold the left mouse button down. As long as you keep the mouse button down, you can move the mouse cursor around the screen, dragging your track around with it. Drag the cursor towards Oxford (further west), the next destination. You'll notice that there are white, green, and yellow numbers all along the track. The white numbers are the costs for each piece of track. The green and yellow numbers are the grade (steepness) of that section of track. Yellow numbers are steep (red are the steepest), which will slow your trains down. You don't want a steep grade, so *before* you release the cursor, press the **ESC** key to clear the proposed track. Now, click and drag smaller sections of track, releasing the left mouse button at the end of each short section. Trace your track around the hill.
- 4 When you think your track route looks good, click on the track button again (top left) to exit out of track-laying mode.

1824: CONSTRUCTION
BEGINS ON THE FIRST
LOCOMOTIVE WORKSHOP
IN NEW CASTLE,
ENGLAND.

1824: ENGLISHMAN
DAVID GORDON PATENTS
A STEAM-DRIVEN
MACHINE WITH LEGS
THAT IMITATES THE
ACTION OF A HORSE'S
LEGS AND FEET. NOT
SUCCESSFUL.

BUILDING STATIONS

Laying track is only the beginning. Next, you need to set up stations in order to make resources available to your trains.



- 1 Click the **BUILD A NEW STATION** button (Top left, second from the top).
- 2 There are three station sizes, **SMALL**, **MEDIUM**, and **LARGE**. You can choose to place any of them at each destination on your track. The difference between them is the area they pull resources from, which is represented by a gold circle around them on the map. To see an example, click the **MEDIUM STATION**, then move your cursor, which now looks like a medium station, to a point along your track just south of Slough. You'll notice the station automatically line up with your track.



- 2 Once the station is placed, any resources within the gold circle will be available at that station. **MEDIUM** and **LARGE** stations have larger circles around them. Just be sure that its gold circle covers the resources you want to access. In this case all of the houses, the sheep ranch and cattle ranch should be in the golden circle. When you've got the station covering the right resources and lined up to the track right, it will turn green. Now click the left mouse button and your station will be placed.

1825: STEPHENSON'S BUILDS THE 8-TON LOCOMOTION NO. 1 FOR THE STOCKTON & DARLINGTON RAILROAD. THE ENGINE IS CAPABLE OF PULLING 90 TONS OF COAL AT 15 MPH. STEPHENSON PLANS ALL DETAILS OF THE LINE, AND EVEN DESIGNS THE BRIDGES, MACHINERY, ENGINES, TURNTABLES, SWITCHES, AND CROSSINGS. HE IS ALSO RESPONSIBLE FOR EVERY PART OF THEIR CONSTRUCTION. (THE PASSENGER COACHES OF THIS TIME WERE ALL DRAWN BY HORSES.)

- 3 When you place a station, you'll be shown a 3D representation of it. This is called the **STATION DETAIL SCREEN**. Click the **BUY** button in this view to see the improvements you can add to the station. Purchase a water tower, a sanding tower, and a roundhouse for the station to improve train performance and maintenance. When you are done, click the **EXIT** button in the bottom right.
- 4 Repeat this procedure at Oxford. However, you probably won't need the three building improvements, as your trains will be able to carry enough water, sand, and oil until they return to Slough. Once you have two stations connected by track, you're almost ready to start shipping cargo between them.

THE TABS AT THE BOTTOM OF THE **CENTER LIST BOX** WILL TAKE YOU TO THE DETAIL SCREENS FOR TRAINS, PLAYERS, AND COMPANIES, BY DOUBLE-CLICKING ON AN ITEM IN THE **LIST BOX**. CLICKING THE LEFT OR RIGHT ARROWS AT THE BOTTOM OF THIS VIEW MOVES YOU FROM STATION-TO-STATION, TRAIN-TO-TRAIN, PLAYER-TO-PLAYER, OR COMPANY-TO-COMPANY. THESE VIEWS ARE VERY USEFUL FOR FAST MANAGEMENT OF EVERYTHING.

BUYING A TRAIN

Once you've laid track and placed stations, you'll need to purchase a locomotive to get things rolling. Once you've done that, the next step is setting up its destinations and cargo, also called its consist, for each of your stations.

SELECTING A LOCOMOTIVE

Based upon the time period and geographic location, various locomotives will become available as the game progresses. There are three locomotives available as you start this tutorial.

- 1 Select the **PURCHASE A NEW TRAIN** icon (the one that looks like a train) from the icons along the left side of the main window.

1825: COLONEL JOHN STEVENS BUILDS A SMALL LOCOMOTIVE THAT HE PLACES ON A CIRCULAR RAILWAY BEFORE HIS HOUSE—NOW HUDSON TERRACE—AT HOBOKEN.

1826: THE FIRST LINE OF RAILS IN THE NEW ENGLAND STATES IS SAID TO HAVE BEEN LAID DOWN AT QUINCY, MASS.; IT'S THREE MILES IN LENGTH AND PULLED BY HORSES.

- Next, select the 4-4-0 Eight-Wheeler from the list on the left. You did build a mostly level track, right? Notice that each locomotive's stats appear on the right as you select one from the list. Click **PURCHASE** to complete the transaction.



SELECTING DESTINATIONS AND CARS

Now that you've purchased a locomotive, you need to decide which cargo to haul between your two destinations. The routing screen is where you choose destinations, select cars, and check the supply and demand at each station.

- After you purchase a locomotive, the next screen you see is the TRAIN DETAIL SCREEN. It will show the new train you just purchased, already set to go to your two destinations. The map on the right shows all available destinations—if you had more than two, you would select the destinations you want for this train on the map, and they would appear in the list on the left.



1827: THE BALTIMORE AND OHIO RAILROAD IS CHARTERED TO RUN FROM BALTIMORE TO THE OHIO RIVER IN VIRGINIA. IT IS THE FIRST WESTWARD-BOUND RAILROAD IN AMERICA. WIND POWER (SAIL ON CARRIAGE) WAS TRIED, FOLLOWED BY HORSE POWER, WITH THE HORSE WALKING ON A TREADMILL THAT DROVE THE CARRIAGE WHEELS!

- Double-click Slough in the LIST BOX on the left, and the right side of the screen will switch from the planning map to a CAR LIST panel. At the very top of this panel you will see two passenger cars—the default consist. Clicking a car will move it off your consist, or list of cars. Clicking a car from the list below will add it to your consist.



- At the very bottom of your screen, you will see a list of what the selected station supplies on the left side and what it demands on the right.
- Cars available at this station will show up near the top of the CAR LIST. Select one wool car and one passenger car. Check the demand at the other station to make sure you are hauling cargo that is in demand (we know you are but it's a good practice). When you're finished setting up the consist at this station, click OK to confirm it, then double-click the Oxford station listed on your consist list on the left side and select one passenger and one goods car. The wool you've delivered will be converted into fine goods to be transported back to the hard-working people of Slough.
- You have one more decision to make here. Take a look at the two stations in the list on the left. The traffic signal will have the green light showing. Clicking this signal will change the light. This signal is what you use to dictate the behavior of this train in that station. Your choices are:

GREEN—Don't wait for cargo, proceed with whatever is already available at the station.

YELLOW—Wait until at least half the cargo cars are full before proceeding.

RED—Wait until all of the cargo cars are full before proceeding.

For now, set the stoplight in Slough to yellow and the stoplight in Oxford to green. When you've made all your changes, press the EXIT button to return to the main interface.

That's it—you're all set! Set the game speed to "3" by pressing the PLUS key three times—you can set this faster as you get more comfortable with the game, but "3" or "4" are the best speeds for now.

1828: THE DELAWARE & HUDSON CANAL CO. BUILDS A RAILROAD FROM THE COMPANY'S MINES TO THE TERMINATION OF THE CANAL AT HONESDALE. THIS RAILROAD IS ALSO PULLED BY HORSES.

Here are a few tips for keeping an eye on things from the main interface, now that your railroad career is underway:

- **Set your train classes**—From the list of trains in the LIST BOX, click the icon to the left of each train to set it to EXPRESS, NORMAL, SLOW, or HALTED. These are the settings that dictate how this train will react when it meets another train on the same track, and they also allow you to change a train's status on the fly.
- **Manage your consists**—Right-clicking each train's consist in the LIST BOX will show you its current destination, speed, cargo value, and weight. As you build more trains, you can view a bit more detail on all of them by using the LIST button, located in the bottom right corner of the LIST BOX—it looks like a bulleted list.
- **Use the LIST BOX and DETAIL SCREENS to keep track of everything**—The LIST BOX and the DETAIL SCREENS (accessed by double-clicking an item in the LIST BOX) are very important interfaces. In each view, use the four tabs—STATIONS, TRAINS, PLAYERS, and COMPANIES—and the LIST button to view statistics about each. Think of it as a hierarchy—the LIST BOX shows you general information, while the DETAIL SCREENS show you in-depth information.
- **Scout the map for opportunities**—Once you've established a money-earning route, start looking over the map for other opportunities. A variety of approaches can be used to plan your railway's path to glory. In this case however, look for ways to improve your production and improve the use of your existing assets. No need to spend investors' money unwisely. Connect to London to haul cattle to the meatpacking plant there (unless you're a vegetarian). The grain farm just south of Slough could increase the production rate of your wool and cattle farms by 50 percent!
- **Buy lucrative industries**—You can buy up cash-producing industries along your routes, or even along your competitors' routes. Click a resource to view its profitability rating. The more loads that are carried to and from it, the more profitable it will be.

ENTERING THE WORLD OF HIGH FINANCE

So far, this tutorial has focused on getting your railroad up and running. Now it's time to take a quick look at the other aspects of Railroad Tycoon II—company management and the stock market.

COMPANY MANAGEMENT

Managing your operation requires more than just adding and working with stations, trains, routes, and consists. Remember when you set up your company, and you chose to have outside

1829: THE FIRST STEAM LOCOMOTIVE USED IN AMERICA, THE ENGLISH-BUILT STOURBRIDGE LION, IS PUT TO WORK ON THE DELAWARE & HUDSON. IT IS TOO HEAVY FOR THE TRACK (TWICE AS HEAVY AS HAD BEEN PROMISED BY THE BUILDERS), AND IS LAID UP NEXT TO THE TRACKS AS A STATIONARY BOILER.

investment as part of your initial funding? Well, those investors have expectations for your operation, and they'll hold you accountable for how well things are going. To see what they are looking at, we'll be working in the COMPANY DETAIL SCREEN.

- 1 To reach the **COMPANY DETAIL SCREEN**, click the **Company** tab at the bottom of the LIST BOX, and then double-click your company.



- 2 The COMPANY DETAIL SCREEN shows your ledger—click on the different tabs and look around to get a feel for what information is present here.



1829: PETER COOPER OF NEW YORK IN 6 WEEKS TIME BUILDS THE TOM THUMB, A VERTICAL BOILER 1.4 HP LOCOMOTIVE, FOR THE BALTIMORE & OHIO RAILROAD. IT HAULS 36 PASSENGERS AT 18 MPH IN AUGUST 1830, AND HAS A REVOLVING FAN FOR DRAUGHT, USES GUN BARRELS FOR BOILER TUBES, AND WEIGHS LESS THAN ONE TON.

- 3 Click the **FINANCES** tab. You could issue some bonds to raise more money, but for the moment, stay debt free and issue some more stock. Your current **SHARE PRICE** is listed on the left page. Click **ISSUE STOCK** and a window will appear giving details of the transaction. Click **OK** in that window if everything is fine. Note the change to your current **SHARE PRICE**.
- 4 Feeling fickle? **BUY BACK STOCK** and take a look at its effect on your Stock Value. Investors are very particular about **SHARE PRICE**—they want it to go up. Period. Don't disappoint them, or you'll be out on your ear. Remember that chairmen are appointed, not born.
- 5 Experiment with the other options here (except **DECLARING BANKRUPTCY** unless you're ready to bail) and familiarize yourself with their effects.

THE STOCK MARKET AND PERSONAL FINANCES

Your personal wealth is, of course, directly tied to your company's performance. In addition to your excellent management ability contributing to your company's success, you can accumulate personal wealth by savvy investment in the Stock Market.

- 1 From the main interface, click the **STOCK MARKET** icon along the left side of the main window.

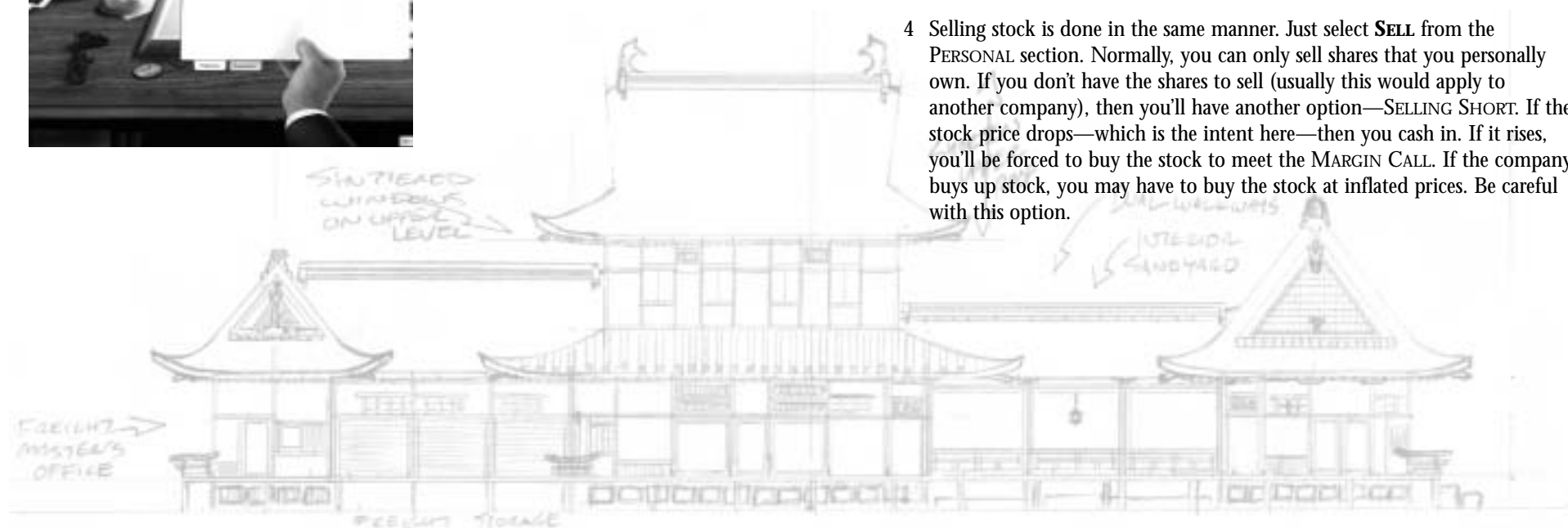


1829: JAMES WRIGHT OF COLUMBIA, PA., INVENTS THE CONE "TREAD" OF THE WHEEL, WHICH PREVENTS WEAR OF FLANGES AND REDUCES RESISTANCE.

- 2 You'll be greeted with the **STOCK MARKET DETAIL** view. There are two tabs here:
 - PERSONAL**—This tab enables you to view your current stock portfolio, as well as buy or sell stock.
 - CORPORATE**—This tab gives details about your company's financials, including a list of major shareholders and a five-year weighted return among other things.
- 3 In the **PERSONAL** section, you'll usually see the option to **BUY** or **SELL** a particular stock. Unfortunately, you've used up all your cash to start your company, so you probably won't see the **BUY** option yet. After a year or two, the accumulation of your salary and dividends may give you enough cash to buy some more stock.

IF YOU DON'T HAVE ENOUGH CASH TO MAKE A PURCHASE, YOU MIGHT STILL BE ABLE TO BUY STOCK ON MARGIN—ESSENTIALLY BORROWING MONEY TO BUY THE STOCK. IF YOU BUY ON MARGIN, AND THE STOCK VALUE GOES UP, YOU'RE IN GOOD SHAPE. HOWEVER, IF IT FALLS, YOU'LL BE FORCED TO SELL STOCK TO COVER THE MARGIN CALL, EVEN IF IT BANKRUPTS YOU PERSONALLY.

- 4 Selling stock is done in the same manner. Just select **SELL** from the **PERSONAL** section. Normally, you can only sell shares that you personally own. If you don't have the shares to sell (usually this would apply to another company), then you'll have another option—**SELLING SHORT**. If the stock price drops—which is the intent here—then you cash in. If it rises, you'll be forced to buy the stock to meet the **MARGIN CALL**. If the company buys up stock, you may have to buy the stock at inflated prices. Be careful with this option.



1829: STEPHENSON'S ROCKET WINS A COMPETITION FOR LOCOMOTIVE POWER AT THE RAINHILL TRIALS ON THE MANCHESTER & LIVERPOOL RAILWAY. THE ENGINE IS CAPABLE OF RUNNING 30 MPH WITH 30 PASSENGERS.

Controlling Your Railroad Empire

1830: THE BEST FRIEND IS BUILT AT THE WEST POINT FOUNDRY IN NEW YORK FOR THE CHARLSTON & HAMBURG RAILROAD. IT IS THE FIRST COMPLETELY AMERICAN-BUILT STEAM ENGINE TO GO INTO SCHEDULED PASSENGER SERVICE. IT DID EXCELLENT WORK UNTIL 1831 WHEN THE BOILER EXPLODED DUE TO A RECKLESS FIREMAN, UNEXPECTEDLY ENDING ITS (AS WELL AS HIS) CAREER.

That about does it for this tutorial. You've seen all the important game elements, and had the chance to experiment a bit. If you're a quick study, maybe you have a decent start. After experimenting a little, you might want to start a new game to use your knowledge. Also, don't be afraid to jump right into the campaign—the first few scenarios are geared toward a novice player, and you can learn as you go.

As a summary, keep a close eye on the following:

- **Routes**—Find profitable ones and exploit them.
- **Locomotives**—Maintain them well, and upgrade whenever possible.
- **Stations**—Improve them to increase revenues and route performance.
- **Industries**—Buy them to pad company coffers and increase your holdings.
- **Finances**—Be a smart manager and run a solid, profitable business by maximizing revenue and return on investment.
- **Personal Wealth**—Increase it by good management and mastering the Stock Market.
- **Competitors**—Bury them by doing all of the above.

For more detailed information about any of the topics covered in this tutorial, read the rest of the manual (Oh come on, you've read this far already!)

A FEW OPTIONS YOU'VE SEEN IN THIS TUTORIAL, SUCH AS BUYING INDUSTRIES, BUYING STOCK ON MARGIN, AND SHORT SELLING, ARE ONLY AVAILABLE IF YOU SET UP A GAME ON THE EXPERT FINANCIAL AND INDUSTRIAL MODELS IN THE OPTIONS PANEL. IF YOU'RE PLAYING THE CAMPAIGN, THEY AREN'T AVAILABLE UNTIL A FEW SCENARIOS INTO IT. WE'VE GIVEN YOU A TASTE OF EVERYTHING HERE, THOUGH YOU WON'T BE ABLE TO USE EVERY OPTION IN EVERY SCENARIO.



IN THIS CHAPTER:

3

- NAVIGATIONAL AID
- MAIN MENU OPTIONS
- SINGLE PLAYER
- MULTIPLAYER
- HIGH SCORES
- CREDITS
- QUIT

The Main Menu



NAVIGATIONAL AID

MAIN MENU

SINGLE PLAYER

NEW CAMPAIGN

LOAD CAMPAIGN

NEW SCENARIO

LOAD SCENARIO

MULTIPLAYER

HIGH SCORES

CREDITS

QUIT

MAP

OPTIONS

SKILL LEVELS

COMPUTER
PLAYERS

SANDBOX MODE

FINANCIAL MODEL

INDUSTRIAL MODEL

REVENUE MODIFIER

EASY

MEDIUM

HARD

EXPERT

1831: THE 3.5 TON DE WITT CLINTON HAULS 5 STAGE COACH BODIES ON RAILROAD WHEELS AT 25 MPH ON THE MOHAWK & HUDSON RAILROAD BETWEEN ALBANY AND SCHENECTADY. THIS ENGINE WAS LIGHTLY BUILT, AND WAS RETIRED LESS THAN TWO YEARS AFTER GOING INTO SERVICE.

1831: THE SOUTH CAROLINA IS THE FIRST EIGHT-WHEELED ENGINE.

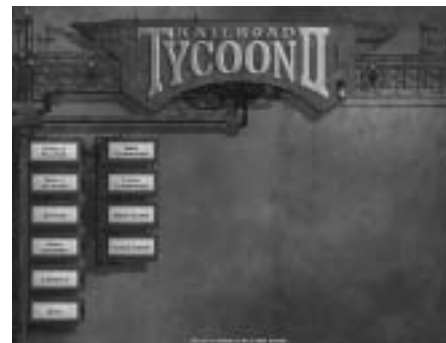
MAIN MENU OPTIONS

THE MAIN MENU SCREEN IN RAILROAD TYCOON II GIVES YOU FIVE OPTIONS:

- **SINGLE PLAYER**—Select this option to start a single-player campaign or scenario.
- **MULTIPLAYER**—This option enables you to play with multiple human opponents. The multiplayer option is discussed in detail in Chapter 9, Multiplayer (page 65).
- **EDITOR**—The Railroad Tycoon II map editor enables users to customize or build their own maps for the game. Click here to access it. This option is covered in Chapter 10, Using the Map Editor (page 71).
- **HIGH SCORES**—Click here to view the high scores for the game.
- **CREDITS**—Take a look at the hard-working folks that brought you this game.
- **QUIT**—Selecting this option will immediately return you to Windows.



SINGLE PLAYER



To start a single-player game, click **SINGLE PLAYER** on the main menu screen. The next menu will appear, giving you four options to choose from: **NEW CAMPAIGN**, **LOAD CAMPAIGN**, **NEW SCENARIO**, and **LOAD SCENARIO**.

NEW CAMPAIGN

Railroad Tycoon II's campaign mode enables you to play through 18 individual scenarios, designed to be played consecutively. The first few scenarios start off fairly simple, then escalate in difficulty. To start a new campaign:

- 1 Click **New Campaign** on the **SINGLE PLAYER** menu.
- 2 Choose a difficulty. We suggest **NORMAL DIFFICULTY** if you're experienced with strategy games, or **EASY DIFFICULTY** if you're not. Stay away from **HARD DIFFICULTY** until you've played at least one campaign all the way through. Note: You can't change campaign difficulty after you've started, so choose carefully.
- 3 You'll start with the first scenario, "The Iron Seed." Choose one of the available bonuses from the list below. The bonuses available will change from scenario to scenario throughout the campaign, and can be key strategic choices.
- 4 Click **PLAY THIS SCENARIO** to launch the game and start the campaign. Skip to Chapter 5, The Main Interface (page 41), before you begin play.



LOAD CAMPAIGN

If you've already started a campaign and saved it in progress, click **LOAD CAMPAIGN** to bring up a dialog box with a list of currently saved campaigns in it. Select the campaign you wish to load, then click **OK**. The game will be launched, returning you to the point where you previously saved your campaign.

1831: ROBERT STEVENS, SON OF COLONEL JOHN STEVENS, GOES TO ENGLAND AND SHIPS BACK (**UNASSEMBLED**) THE JOHN BULL FOR THE CAMDEN & AMBOY RAILROAD IN NEW JERSEY. THE MECHANIC ISAAC DRIPPS, WHO HAD NEVER SEEN A STEAM LOCOMOTIVE, ERECTS IT WITHOUT THE AID OF AN ASSEMBLY MANUAL. DRIPPS MAKES THIS THE **FIRST LOCOMOTIVE FITTED WITH A BELL, HEADLIGHT, AND COWCATCHER**. THE JOHN BULL REMAINS IN SERVICE UNTIL 1866. DRIPPS GOES ON TO BECOME SUPERINTENDENT OF MOTIVE POWER FOR THE PENNSYLVANIA RAILROAD AT ALTOONA.

NEW SCENARIO

When you select NEW SCENARIO from the SINGLE PLAYER menu, a dialog box will pop up with the following elements: MAP, OPTIONS, SKILL LEVELS, and COMPUTER PLAYERS.

MAP

Click this button to select the map your game will be played on and the MAP dialog box will appear. Click on a map name to see the map and its description below. If the map is set up to allow it, you can also change the starting DATE for the map by clicking the up or down arrow below the map. Once you're satisfied with your selection, click OK in the map dialog box.

OPTIONS

Once you've selected your map, click the OPTIONS button. You should now see another dialog box to the left of the NEW SCENARIO dialog. These two dialog boxes contain all the options you'll need to set before starting your game. The OPTIONS dialog contains the following settings:

- **SANDBOX MODE**—In this mode, you simply build and run trains. Money and competition are non-factors—all FINANCIAL and INDUSTRIAL settings are toggled off—so build to your heart's content.
- **FINANCIAL MODEL**—This setting controls the financial aspects of the game. Set this option to BASIC, ADVANCED, or EXPERT. The effects of these settings are as follows:

BASIC—STOCK MARKET importance is minimized. You may buy or sell your own company's stock, but you can't take over another company, or be taken over.

ADVANCED—SHORT SELLING and BUYING STOCK ON MARGIN are disabled, but all other aspects of the STOCK MARKET are enabled.

EXPERT—The gloves are off. All aspects of the STOCK MARKET are enabled, which makes for some fairly vicious financial plays; consider yourself warned.



- **INDUSTRIAL MODEL**—This setting configures the industrial side of the game. Set it to BASIC, ADVANCED, or EXPERT. The effects of each setting are as follows:
 - BASIC**—Stations will accept any cargo, paying only slightly less for cargo they don't demand. All industries produce cargo, even if they aren't supplied with their industrial demands.
 - ADVANCED**—Stations still accept any cargo, but at half price if the cargo isn't demanded by a station. Industries only produce cargo if supplied with their industrial demands.
 - EXPERT**—Stations pay very little for any cargo they don't demand. Price levels affect what stations will pay for a cargo, even if the station demands them. Your company can buy up any industries it finds appealing.
- **REVENUE MODIFIER**—The two sliders in the revenue modifier section of the OPTIONS menu can be used to increase or decrease the amount of revenue received for hauling cargo. You can set this for both HUMAN and COMPUTER players. When lowered for HUMAN players, this results in less revenue per load, making the game significantly harder.



SKILL LEVELS

In the GAME SETUP menu—the right-hand dialog box when the OPTIONS menu is open—you can change your skill level by clicking any of the horses to the right of the OPTIONS button with the following effects:

- **EASY**—BASIC FINANCIAL and INDUSTRIAL models are selected. Human player receives a +20% REVENUE MODIFIER, while the computer receives a 10% REVENUE MODIFIER.
- **MEDIUM**—ADVANCED FINANCIAL and INDUSTRIAL models are selected. No REVENUE MODIFIERS for either computer or human players.
- **HARD**—EXPERT FINANCIAL and INDUSTRIAL models are selected. Human player receives a -10% REVENUE MODIFIER, while the computer receives a +10% REVENUE MODIFIER.
- **EXPERT**—EXPERT FINANCIAL and INDUSTRIAL models are selected. Human player receives a -20% REVENUE MODIFIER, while the computer receives a +20% REVENUE MODIFIER.

As you change the skill level, or any of the other OPTIONS settings, notice that the DIFFICULTY RATING shown below the computer players changes to reflect the changes you make. Changes you make outside these skill settings fall under the CUSTOM skill level.

1832: THE AMERICAN NO. 1 IS THE FIRST 4-4-0 OF ITS CLASS. IT IS CAPABLE OF REGULAR SPEEDS OF 60 MPH WITH ITS 9.5" BY 16" CYLINDERS. THE ENGINE WAS DESIGNED BY JOHN B. JERVIS, CHIEF ENGINEER FOR THE MOHAWK & HUDSON.

1832: THE BROTHER JONATHON IS THE FIRST LOCOMOTIVE IN THE WORLD TO HAVE A FOUR-WHEEL LEADING TRUCK. IT WAS DESIGNED BY JOHN B. JERVIS FOR THE MOHAWK & HUDSON RAILROAD.

1832: THE ATLANTIC ON THE BALTIMORE AND OHIO RAILROAD HAULS 50 TONS FROM BALTIMORE OVER A DISTANCE OF 40 MILE AT 12 TO 15 MPH. THIS ENGINE WEIGHS 6.5 TONS, CARRIES 50 POUNDS OF STEAM, AND BURNS A TON OF ANTHRACITE COAL ON THE ROUND TRIP (ENGLISH LOCOMOTIVES BURNED BITUMINOUS COAL). THE ROUND TRIP COSTS \$16, DOING THE WORK OF 42 HORSES, WHICH HAD COST \$33 PER TRIP. THE ENGINE COST \$4,500, AND WAS DESIGNED BY PHINEAS DAVIS, ASSISTED BY ROSS WINANS.

COMPUTER PLAYERS

The last OPTIONS setting you need to work with is the COMPUTER PLAYERS option. In the text box below the SKILL settings, you'll see yourself (the human player) listed, as well as any computer players already in the game. Adding more computer players by clicking the up arrow drives the DIFFICULTY RATING higher. You can't decide which players to add, and in some scenarios, you won't be able to remove all of them either.

Once you've set all the OPTIONS, clicking OK in both dialog boxes will start the game.

LOAD SCENARIO

If you've already started a game and saved it in progress, click LOAD SCENARIO from the SINGLE PLAYER menu, then select the game you wish to load from the listing that appears. Once you've selected it, click OK to launch the game and return to the point at which you saved your position.

MULTIPLAYER

Railroad Tycoon II enables you to match wits with, and test your financial prowess against human opponents in any of four modes: TCP/IP, IPX, MODEM, or SERIAL. For information on setting up a multiplayer game, see Chapter 9, Multiplayer (page 65).

HIGH SCORES

Click the HIGH SCORES button to see the current high scores for the game.

CREDITS

Click the CREDITS button to view a list of everyone involved in bringing Railroad Tycoon II to you.

QUIT

Clicking QUIT on the main menu takes you out of the game and back to Windows.



IN THIS CHAPTER:

- NAVIGATIONAL AID
- THE FOUR PARTS OF THE MAIN INTERFACE
- NAVIGATING THE MAP
- THE PRIMARY ACTION ICONS
- THE CENTER LIST BOX

The Main Interface



Navigation Aid

MAIN MENU

MAP VIEW

MAP NAVIGATOR

ZOOM MAP

ROTATE MAP

VIEWING BUILDINGS

VIEWING TERRAIN

PRIMARY ACTION ICONS

DETAIL SCREEN

LAY TRACK

BUILD A NEW STATION

BULLDOZE OBJECTS

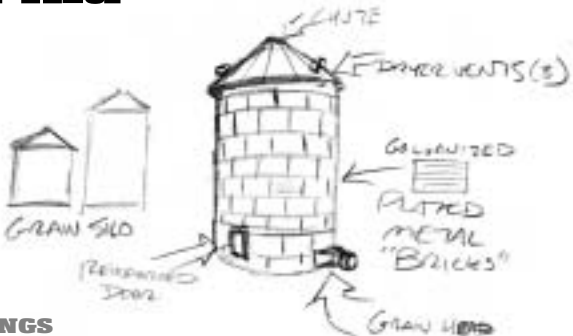
MAP OVERVIEW

TRAINS

STOCK MARKET

CONTROL PANELS

FILE OPTIONS



1833: GEORGE STEPHENSON APPLIES A SMALL STEAM BRAKE CYLINDER TO OPERATE BRAKE SHOES ON THE DRIVING WHEELS OF LOCOMOTIVES.

RADAR AREA

LIST BOX

STATIONS

DETAIL SCREEN

TRAINS

DETAIL SCREEN

PLAYERS

DETAIL SCREEN

COMPANIES

DETAIL SCREEN

PURCHASE IMPROVEMENTS

MAP WINDOW/CAR LIST

CONSISTS WINDOW

TRAIN DETAIL/STATION DETAIL

OVERVIEW

INCOME

BALANCE

TERRITORIES

FINANCES

The Four Parts of the Main Interface

Once the game is launched you will interact with the world through the main interface, which consists of four parts:



- **MAIN WINDOW (A)**—This is where actual game play takes place. Consider this your window on the world. This area contains the icons you will use to interact with the world.
- **RADAR AREA (B)**—Located in the lower left corner of your screen, the RADAR AREA is useful for moving quickly around the map. Click on the RADAR AREA, and the MAIN WINDOW will center on that location.
- **CENTER LIST BOX (C)**—To the right of the RADAR AREA is the LIST BOX—the nerve center of your empire. You can use the four tabs to view summary information about STATIONS, TRAINS, PLAYERS, and COMPANIES in the game. Double-clicking any item shown in the LIST BOX will take you to that item's DETAIL VIEW.
- **ACTIVITY BOX (D)**—Think of this box as your home entertainment theater and your mail box rolled into one. Here, you can view in-game videos of various selected processes (for example laying track and building stations) and read special messages that will be delivered to you throughout the game.

1860: NEHEMIAH HODGE, A CONNECTICUT RAILWAY MECHANIC, PATENTS A LOCOMOTIVE VACUUM BRAKE. PRESSURE IS LIMITED TO ATMOSPHERIC (14.7 PSI), BUT PRACTICAL CONSIDERATIONS LIMIT PRESSURE TO 7 TO 8 PSI. THUS, AVAILABLE BRAKING POWER IS LOW, ESPECIALLY ABOVE 3,000 FEET ALTITUDE.

Navigating the Map

There are four icons located above the ACTIVITY BOX (D). From left to right, the first two enable you to rotate the map as necessary, and the other two enable you to zoom in and out of the map. The small COMPASS in the upper left corner of the main window can also be used to rotate the map.

VIEWING BUILDINGS AND TERRAIN

Railroad Tycoon II comes with a neat feature that alerts you to the properties and industry type of each building. If you move and hold your cursor over a building, you can see the industry type below the tabs of the LIST BOX, near the edge of the screen. Clicking the building will bring up an interactive dialog box that includes this information:

- **OWNERSHIP**—This entry shows which railroad owns the building.
- **PROFITABILITY**—Based upon the number of loads hauled from the building, profitability will go up (or down). More loads translate to greater profitability. Levels range from Gushing Cash, all the way down to Poor.
- **PURCHASE PRICE**—The cost of buying the facility.
- **PRODUCTION**—This entry shows what the plant demands (if anything) and produces.



When you're playing with the ADVANCED INDUSTRIAL model active, this dialog is where you will be given the option to buy the building. Right-clicking on any building gives you the same information, but doesn't give you the buying option you get when you left-click.

Right-clicking on any unimproved terrain will tell you:

- **TYPE OF TERRAIN**—This is the terrain represented by the specific point you click on the map.
- **TERRITORY**—This entry shows you which territory this piece of land belongs to.
- **YOUR ACCESS RIGHTS**—This entry tells you if you have access rights for this particular area, based upon which Territory it's in.
- **X,Y**—These are the coordinates of this point on the map.

CHECKING YOUR RADAR

The map in the RADAR AREA can be used to refocus the main window view quickly to other areas. Click on the map in the RADAR AREA and drag to scroll across the map at top speed. Cities are pinpointed in white on the map.

1862: PRESIDENT ABRAHAM LINCOLN SIGNS THE PACIFIC RAILROAD ACT, WHICH AUTHORIZES THE CONSTRUCTION OF THE FIRST TRANSCONTINENTAL RAILROAD.

The Primary Action Buttons

The series of eight buttons along the left side of the main window represent the primary actions you can perform within the game. The first four buttons are special modes you can use to LAY TRACK, BUILD A NEW STATION, BULLDOZE OBJECTS, or see the MAP OVERVIEW. For all four of these, pressing the button once will put you into that mode, pressing it again will take you out of that mode. The next two buttons let you perform important game play actions such as PURCHASE A NEW TRAIN and GO TO THE STOCK MARKET. Finally, the last two buttons are more global in nature, letting you access the CONTROL PANEL and FILE OPTIONS dialogs.

LAY TRACK



The first icon is used to place track on the map. Click on the icon, and your cursor turns into a representation of section of railroad track. Click at one endpoint of your track, hold the left mouse button down, then drag the mouse cursor to your destination, and release the button when you have the layout you want.

Track can be laid between any two points, but can't be laid over oceans or through buildings. It also will not be laid if you can't afford it—as you lay track, the current cost of it is displayed below the LIST BOX tabs.

There are a few choices to make when laying track:

- **Type of Track**—Select your preference from the LIST BOX before laying your track. Lay SINGLE track on short routes that only one train is likely to use. DOUBLE track is a must for busy routes, especially those connected to large stations. In later scenarios, you may choose to lay electrified track, which costs more, but allows the use of fast, efficient electric engines.
- **Bridge Type**—WOODEN, STONE, and IRON bridges will become available as the game progresses. Select the type you prefer from the icons in the right side of the LIST BOX before laying your track. Go with WOODEN bridges to start with, then upgrade them later as you upgrade your track. Wooden bridges are cheap to build, but can only support single wide track, and force trains to slow down greatly as they pass over. Avoid building bridges whenever possible—they can be as much as ten times as expensive as regular track.
- **Cost**—When you begin laying track, you will see a set of cost numbers displayed in white along the track as you lay it. In addition, the total cost of the track segment will appear below the LIST BOX tabs. Keep your track cost down so you can spend money on more routes. Track cost is increased by steep grades, heavy forests, deserts, and other hostile terrain.



1868: MAJOR ELI JANNEY, A CONFEDERATE VETERAN OF THE CIVIL WAR, INVENTS THE KNUCKLE COUPLER. THIS SEMI-AUTOMATIC DEVICE LOCKS UPON THE CARS CLOSING TOGETHER WITHOUT THE RAIL WORKER GETTING BETWEEN THE CARS. THIS REPLACES THE "LINK-AND-PIN" COUPLER, WHICH WAS A MAJOR CAUSE OF INJURIES TO RAILROAD WORKERS. A "CUT" LEVER AT THE CORNER OF THE CAR RELEASES THE COUPLER KNUCKLE, MAKING UNCOUPLING SAFER.

1869: GEORGE WESTINGHOUSE, AN INVENTIVE CIVIL WAR VETERAN, DEVELOPS THE STRAIGHT AIR BRAKE. A PENNSY 4-4-0 AND A COUPLE OF PASSENGER CARS ARE FITTED WITH THE SYSTEM AND SUCCESSFULLY DEMONSTRATED ON APRIL 13.

- **Grade**—In addition to cost figures, track grade will be shown along the track as you lay it. Ideally, these numbers should be green, which translates to a flat grade. Yellow numbers can be all right if there's no other way to get where you're going, but red numbers are big trouble. A grade greater than 4.0 is considered steep, and should only occur if the obstacle is unavoidable. Anything higher than 4.0 will kill most routes, in the early 1800's, when locomotives aren't very powerful, but can be acceptable later as locomotive power increases.

BUILD A NEW STATION



Clicking this icon changes the cursor to a set of builders tools. In addition, the default station size is selected, and the cursor drags a color-coded representation of that station across the map. You may choose to place your station on existing track or out in the open (where you can connect to it later).

If the station is colored **green**, it is in a valid location, with a valid connection to existing track. If it's colored **yellow**, it is in a valid location, but has no track connection. If it's colored **red**, the station is in an invalid location (such as over water, or overlapping an existing building). Move the station around until you find a satisfactory location for it.

Surrounding the station cursor you'll notice a gold circle. This is the station's collection area, and it varies with the size of the station. A collection area graphically represents the area that a particular station will collect resources from. Make sure to place stations so that their collection areas cover desirable resources.

Available station sizes are shown in the LIST BOX, along with their associated cost:

- **SMALL STATION (\$50K)**—Use these for single resources, or areas where resources are very close together.
- **MEDIUM STATION (\$100K)**—These are good for small cities, since you'll want to include as much housing as possible in the collection circle.
- **LARGE STATION (\$200K)**—Use these for hubs or large cities.

In addition to these choices, you can also select a station's architecture from the six selections in the right side of the LIST BOX. Your choices here are **DEFAULT**, **VICTORIAN**, **COLONIAL**, **MISSION REVIVAL**, **TUDOR**, or **KYOTO REVIVAL**. Default will automatically choose the architecture best matching the geography. The different architectures are visual only—there is no impact on the gameplay from the different architectures.

Below the station architectures, you can choose the station's facing. The center square is the **DEFAULT**, which attempts to auto-rotate the station to best fit its surroundings. The eight surrounding boxes force the station to a particular facing (useful when you're trying to fit the station into a tight spot).

BULLDOZE OBJECTS



Things won't always go the way you planned, so it's a good thing you can do something about it. Bulldozing is done by clicking the **BULLDOZE OBJECTS** icon, selecting a brush size (area of effect) from the LIST BOX, and then clicking on the object you want to demolish. You can bulldoze almost any object, including resources, so be very careful how you use this tool. You'll have to have enough cash on hand to pay for the demolition.

MAP OVERVIEW



Clicking the **MAP OVERVIEW** icon brings up a list of five different overlays you can view on the map. From the LIST BOX, you can select:

- **RESOURCE MAP**—When you select this overview, all the resources in the game appear in the LIST BOX. Passing the cursor over each one in the LIST BOX will highlight them on the map. White text indicates a supply of the resource, and yellow text indicates a demand for it. You can toggle resources to stay on by clicking on them, or if you want them all to overlay on the map, select **ALL**. You can clear your selections by clicking **CLEAR**.
- **STATION STATUSES**—When this overlay is selected, a small box appears near each station on the map. This box displays the current supply at that station, enabling you to see at a glance where additional trains or resources are needed.
- **TRACK GRADE MAP**—This overview toggles the track grade map on or off. This is the same grade map you see when you lay track without the cost numbers to clutter it up.
- * **TRAFFIC DENSITY**—This overview helps you avoid high-traffic routes by showing traffic density on the tracks.
- **TRACK BY COMPANY**—This overlay shows how much track is owned by highlighting the track in the main window for the company selected in the LIST BOX. This helps when planning routes that will have to use competitor's track.

PURCHASE A NEW TRAIN



Once you've started a company, laid track, and built at least two stations, you're ready to start buying trains and hauling cargo. Clicking the **TRAINS** icon brings up the **PURCHASE TRAIN** dialog box. If you buy a train, you'll then be taken to the **TRAIN DETAIL** screen, where you can set up the train. For more information on purchasing and setting up trains, see Chapter 6: Trains (page 46).

1869: THE CENTRAL PACIFIC AND UNION PACIFIC MEET AT **PROMONTORY SUMMIT**, UTAH, FOR THE DRIVING OF THE GOLDEN SPIKE ON MAY 10.

STOCK MARKET



The STOCK MARKET is a crucial piece of the game, since it's the primary mechanism by which you can enrich yourself, as opposed to your company. See Chapter 8, The Stock Market (page 61), for more information on using (and abusing) the stock market.

CONTROL PANEL



The CONTROL PANEL icon takes you to the CONTROL PANEL screen, where you set the global game settings. There are three sections to the CONTROL PANEL: GENERAL settings, GRAPHICS settings, and GAME PLAY.

GENERAL

The following options appear in the GENERAL section of the CONTROL PANEL, and are simple to set:

- **GAME SPEED**—In most cases, you should set this to “3” or “4”. The year flies by as it is, but if you go above these settings, things move at a very fast pace. There are two other methods of controlling game speed. You can use the PLUS (+), MINUS (-), and PAUSE keys to increase, decrease, or pause the game speed, respectively. You can use the small slider on the lower right side of the main screen to adjust speed, as well.
- **SOUND VOLUME**—This control sets the overall sound effects volume for the game, from 0 to 100%.
- **MUSIC VOLUME**—This control sets the music volume from 0 to 100%.
- **COLOR DEPTH**—You have the option of 16-bit or 8-bit color depth. 16-bit color looks much better, but is about 10 percent slower than using 8-bit color. Experiment to see which you prefer.
- **MEMORY USAGE**—High memory usage means that water will be animated, and directional information and other data will be stored in memory rather than on disk. Toggle this on if you have 32MB of RAM or more. Use low memory usage if you have less than 32MB of RAM.
- **FULL SCREEN**—Unless your desktop resolution is set to 1152 x 864 or higher, you will be playing in full screen. Toggle this off if your resolution is high enough, and you want to play in a window.
- **GRID LINES**—This control shows the border of each cell on the map. This is useful for debugging your own maps, or for more clearly seeing changes in elevation.
- **COLOR MOUSE CURSORS**—These cursors look better, but they can slow down performance. Experiment to see which you prefer.



1872: GEORGE WESTINGHOUSE PATENTS THE FIRST AUTOMATIC AIR BRAKE. THIS IS BASICALLY THE SAME SYSTEM AS IS USED BY TODAY'S RAILROADS.

1876: ALL SOUTHERN PACIFIC AND CENTRAL PACIFIC PASSENGER CARS ARE CONVERTED TO AIR BRAKES.

GRAPHICS

The GRAPHICS portion of the CONTROL PANEL is used to fine tune your graphics preferences. In most cases, you can set the OVERALL DETAIL for best results. This setting incorporates five automatic settings—from VERY LOW to VERY HIGH—that you can experiment with to see if any of them work for you. Obviously, you get better looking graphics the higher you can set this option, but might have slower performance.

If you can't find a setting that works for you, customize your settings by moving the sliders below the OVERALL DETAIL setting. Each item can be turned off at various zoom levels. There are six levels of zoom, so start turning things off when you get above a certain level. The highest levels are bird's-eye views, so turn most items off for them. Below that, it's up to your own preferences and performance.

The BORDER setting shrinks the visible map. This can greatly speed up performance, even at VERY HIGH graphics levels.



GAME PLAY

The following options appear in the GAME PLAY section of the CONTROL PANEL:

- **ARRIVAL BELL**—This setting controls the frequency and volume with which the train arrival bell is played.
- **NEWS FREQUENCY**—This setting enables you to reduce the number of pop-up dialogs that appear (specifically, the annual report and the economic changes newspaper announcements).
- **TRAIN LOGOS**—This setting places a company logo above ALL trains, FOREIGN trains, or no trains (NONE).
- **KEEP GAME GOING IN DIALOGS**—By default, time stops when a dialog pops up. If you'd rather it keep rolling, then check this box.
- **DIALOGS DISAPPEAR IF LEFT ALONE**—By default, you have to get rid of dialogs that appear during the game. Check this, and they'll automatically go away after a few seconds.
- **GAME TIPS**—This enables or disables the game tips that appear upon starting a new game.
- **TUTORIAL**—This enables or disables the mini-tutorial for the game. By toggling it on and off, you also reset the tutorial to its starting point. (This is useful if you're introducing the



1883: THE NORTHERN PACIFIC IS COMPLETED AT GOLD CREEK, MONTANA.

1883: THE SOUTHERN PACIFIC IS COMPLETED.

1885: THE SANTA FE IS COMPLETED.

game to somebody new.)



FILE OPTIONS

From the FILE OPTIONS menu, you can LOAD, SAVE, go to the MAIN MENU, or QUIT a game. When you click LOAD game without saving your current one, you will lose the current game. SAVE your game periodically to be sure you can come back to it later. If you just want to bail and start over, then go to the MAIN MENU. If you click QUIT, you'll be asked if you're sure. If so, click YES to return to Windows.



The CENTER LIST BOX

The CENTER LIST BOX is one of the most useful features of the main interface. Using the four tabs—STATIONS, TRAINS, PLAYERS, and COMPANIES—you

can access information quickly. Here's how it works.

When you click one of the four tabs below the LIST BOX, the item in question is shown in summary form in the LIST BOX. STATIONS and TRAINS are only shown for your company, but PLAYERS and COMPANIES will show all in the current game. Here's the summary information for each respective tab:

- **STATIONS**—For stations you own, the list of stations shows the current SUPPLY of cargos available at each station and the amount of revenue generated on hauls FROM and TO that station in the current year.
- **TRAINS**—You can manage your trains from the LIST BOX quite easily. From left to right, you can set the train's class:

EXPRESS—The train will pass any other non-EXPRESS train.

NORMAL—The train yields to EXPRESS trains.

SLOW—The train yields to NORMAL priority trains. Useful for trains carrying heavy freight, such as coal, where long delays don't matter much.

HALTED—You can stop a train completely, and it won't move until you un-halt it. Useful for resolving traffic jams.

You can also view a current image of the train's consist. If a cargo car is dimmed out, it is carrying no load. Further right is a speedometer, showing the trains speed, in absolute terms. Along the bottom of the train's list entry, a colored line will mark it's progress toward its destination. As the train approaches its destination, the line will extend to the left, touching the left side when it reaches its destination. The color of the line indicates the train's current speed relative to its maximum speed:

RED LINE—The train is stopped or running slowly.

YELLOW LINE—The train is running at about half its maximum speed.

GREEN LINE—The train is running at top speed.

There are also some graphical and text clues to the train's performance. Trains can run out of OIL, WATER OR SAND. They can also BREAKDOWN, WRECK, or be ROBBED. These things are indicated by text in the train's list entry, and by an appropriate graphical icon. Finally, the row of gold coins in the upper right corner of the train's list entry represents the current value of its cargo, at a rate of \$10,000 per coin. As time passes, the number of coins will shrink. Time is money! Some cargos, such as mail, are more time sensitive than others, such as coal. You can right-click any list entry to view details about each train as well.

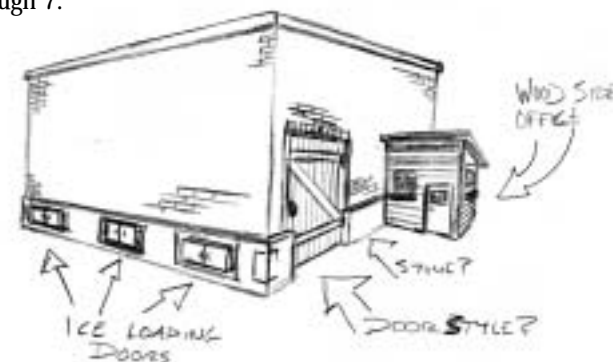
PLAYERS—This LIST BOX tab shows the CASH, STOCK, and PURCHASING POWER (P.P.) for each of the players in the game.

COMPANIES—This LIST BOX tab shows the CASH on hand, and PROFITS for each company in the game.

For any of the lists, you can click the LIST SCREEN button—it's in the lower right corner of the LIST BOX, and resembles a bulleted list—to view a more detailed listing. Once you're there, you can use the tabs to navigate between STATIONS, TRAINS, PLAYERS, and COMPANIES.



You can also reach the DETAIL SCREENS for stations, trains, players and companies from here. Double click on any item in the CENTER LIST BOX, and you'll be taken to its detail screen. From there you can use the tabs to navigate to the other detail screens. For more information on the DETAIL SCREENS, see Chapters 5 through 7.



1893: ON MAY 10, LOCOMOTIVE #999 OF THE NEW YORK CENTRAL & HUDSON RIVER RAILROAD HAULS FOUR HEAVY WAGNER CARS OF THE EMPIRE STATE EXPRESS DOWN A 0.28 PERCENT GRADE AT RECORD-BRAKING SPEED. ALTHOUGH UNVERIFIED, THE CONDUCTOR TIMED THE SPEED AT **112.5 MPH** OVER 1 MILE, AND AT 102.8 MPH OVER 5 MILES. THIS 4-4-0 HAD 86-INCH DRIVERS FOR THIS RUN, AND WAS LATER FITTED WITH MORE NORMAL 78-INCH WHEELS AS IT NOW HAS ON MUSEUM DISPLAY.

1893: THE GREAT NORTHERN IS COMPLETED IN THE CASCADE MOUNTAINS OF WASHINGTON.

1893: FEDERAL STATUE REQUIRES THE USE OF AUTOMATIC AIR BRAKES AND AUTOMATIC COUPLERS.

1893: THE FIRST**MAINLINE****ELECTRIFICATION IN**

BALTIMORE, MD.

A RIGID OVERHEAD

CONDUCTOR SUPPLIES

675 VDC VIA ONE-SIDED

TILTED PANTOGRAPH TO

THE 96-TON, 4-AXLE,

4-MOTOR LOCOMOTIVES.

THESE WERE VERY

SUCCESSFUL, HAULING

1,800 TON TRAINS UP

THE 0.8 PERCENT GRADE

IN THE 1.25 MILE

HOWARD STREET TUNNEL,

WHERE STEAM WAS NOT

ALLOWED TO OPERATE.

CASH DISPLAY

Just to the left of the tabs, you'll see a box showing your currently available company cash. If you control no company, it'll be blank. Click here to toggle a display of your PERSONAL CASH. If you have enough personal cash, it might be time to go shopping at the local stock market.

DATE

To the right of the CASH display is the DATE display. Pay attention to the date! Many scenarios require you to fulfill certain objectives by a specific date to win. Many engines and buildings don't become available until a specific date. Some things happen in certain months (for example, dividend are paid at the end of each quarter—March, June, September, and December).

Time is abstracted in Railroad Tycoon II. Trains travel about as far in one game year as they would in one day of real life. Trust us—you wouldn't want to play this game in true real time, where it would take you 30 real-life years to build your empire. (Will any computer available 30 years from now even run this game?) So sit back and enjoy it, and when your broken-down train takes 6 game months to fix, realize that only represents about a half a day—if only it were so easy to get your car repaired in half a day!

That's it for this chapter. If you want a chance to practice these commands go to Chapter 2, Tutorial (page 7), or dive right into your own game.

IN THIS CHAPTER:

- THE ECONOMY
- THE ROLE OF STATIONS
- STATION DETAIL SCREEN

5

Stations



Well-planned and well-placed stations are the backbone of any successful railroad. They're one of the three major expenditures for railroads (along with track and trains). Having the right stations in the right places will go a long way towards ensuring the success of your venture.

The first step in building your railroad is determining where to place your stations, and what types of stations to place. Be conservative as you place stations or you'll burn through your money in a hurry. It's best to start a line with only two or three stations, then expand gradually. Where you place your stations is dependent on the economy of the scenario you're playing. A quick overview of the economic model of the game is in order...

THE ECONOMY

The economy in Railroad Tycoon II is a microcosm of the real world economy. Only the elements that directly affect the railroad business are shown on the map. Other methods of transportation (such as shipping, trucking, and so on) and other industries that don't rely on the rail system are assumed to exist, but only factor in as background elements, mitigating major fluctuations in rail service.

The industries in the game are some of the most important to the rail industry, but also serve as proxies for smaller industries (for example, iron, coal, and bauxite serve as proxies for all other mined minerals, such as tin, lead, copper, and so on).

While you can often make a modest profit simply hauling passengers and mail between the major cities, the biggest profits are to be had by supporting the industries on the map, supplying them with the cargos they need, and delivering the cargos they produce to other areas that need them.

The REFERENCE CARD shows all the industry flows. For example, sheep farms produce wool, which must be delivered to a textile mill, which will turn the wool into goods, which must be delivered to a town (a cluster of four or more houses all within one station's radius). You can also right-click any industry to see what it supplies and demands.

While you can always deliver cargos to locations that don't demand them, you'll receive much less money for doing so. The amount by which the price is reduced depends on the INDUSTRY MODEL. On the EASY industry model you'll receive a decent price, not quite as much as if the station demanded it, but a solid price nonetheless. On the ADVANCED industry model, you'll receive much less. On the EXPERT industry model, you'll barely receive anything.

The EASY industry model also simplifies one other piece of the industry puzzle. With that model, all industries produce cargos all the time. A steel mill will always produce steel. On ADVANCED and EXPERT industry model, a steel mill will not produce steel unless it is supplied with both iron and coal.

1903: NEW YORK STATE ENACTS LEGISLATION PROHIBITING THE OPERATION OF STEAM LOCOMOTIVES ON MANHATTAN ISLAND IN NEW YORK CITY SOUTH OF THE HARLEM RIVER AFTER JUNE 30, 1908. THIS SPURRED THE ELECTRIFICATION OF NEW YORK CITY'S TRACKAGE.

1907: SAN DIEGO MAYOR JOHN F. FORWARD BREAKS GROUND ON SEPTEMBER 7 BY DEDICATING THE START OF **JOHN D. SPRECKELS'** (REALLY **SOUTHERN PACIFIC'S**) **SAN DIEGO & ARIZONA RAILWAY.**

The EXPERT industry model introduces two additional features INDUSTRY BUYING and PRICE LEVELS:

- **INDUSTRY BUYING**—On the EXPERT industry model, you also have the opportunity to diversify your business interests by purchasing industries. Click any industry building on the map to see its price. Bigger buildings cost more, but can also earn a bigger profit. Profits are determined by how well that building is being serviced by your railroad and/or other railroads. If it is being properly supplied with all it needs, and all its cargos are being taken to stations that demand them, then the building will be profitable.
- **PRICE LEVELS**—On the two lower industry models, demand for goods is constant. A station either has demand for a particular cargo, or it doesn't. On the EXPERT model, the level of demand, called the PRICE LEVEL, can vary from 0 to 9. If you deliver a large quantity of a cargo to a station in a short time period, the Price Level will fall. Over time it will rise again. If a station has not received any of a particular type of cargo for a while, the price level will rise, and a nice premium will be paid for the cargo.

VERSUCHEN SIE, IHRE LIEFERUNGEN ÜBER EINE VIELZAHL VON STATIONEN ZU VERTEILEN. WENN SIE MEHRERE SCHAFZUCHTEN HABEN, DIE WOLLE PRODUZIEREN, VERTEILEN SIE DIE WOLLE AUF MEHRERE TEXTILFABRIKEN, UM DAS PREISNIVEAU BEI JEDER BAHNSTATION HOCH ZU HALTEN.

Häuser sind gewissermaßen eine spezielle Form der Industrie. Einzelne Häuser sorgen für kleine Mengen von Passagieren und Post. Wirklich wichtig werden die Häuser, wenn mehrere an einem Ort sind. Wenn eine Station mindestens vier Häuser in ihrem Einzugsbereich hat, bilden die Häuser ein Dorf, in der Nachfrage nach Gütern, Holz, Nahrung und Milch besteht. Acht Häuser bilden eine Stadt. Die Nachfrage entspricht der eines Dorfes, hinzu kommen jedoch Autos, Zement, Papier, Öl und Kohle. Beachten Sie, daß Häuser die einzige Industrie sind, die Sie nicht kaufen können.

1913: GENERAL ELECTRIC BUILDS THE **FIRST COMMERCIAL SUCCESSFUL** INTERNAL COMBUSTION ENGINE LOCOMOTIVE IN THE UNITED STATES FOR THE **DAN PATCH LINE** IN MINNESOTA. LOCOMOTIVE #100 HAS TWO MODEL GM16 GASOLINE-ELECTRIC 8" x 10" V8'S RATED AT 175 HP AT 550 RPM EACH. IT WEIGHS 57 TONS AND RIDES ON TWO FOUR-WHEEL TRUCKS (B-B).

1915: THE SANTA FE DEPOT IS DEDICATED IN SAN DIEGO ON MARCH 7.

THE ROLE OF STATIONS

Stations serve as your anchors within the economy. They enable you to pick up and deliver cargo from buildings located near them, and they service and maintain your trains, keeping your entire operation running efficiently.

CARGO PICKUP AND DELIVERY

Both the stations and the buildings they service are somewhat representative. In the case of buildings, one factory on the game map might represent the entire Detroit area auto industry. One large station represents not only a station and accompanying facilities, but also a small network of feeder lines and sidings snaking out through the city to pick up cargos from the major industries.

It's entirely possible to build multiple stations with overlapping service zones. If a building sits within the zones of two different stations, it will ship out through whichever station has a train ready to accept it. Thus if an opponent puts down a big station in New York or London, you can outfox him by putting your own station nearby and doing a better (and faster) job of picking up cargos.

If a railroad does a particularly good job of servicing the industries around a particular station, the surrounding area will grow, adding new buildings and increasing in size.

SERVICING TRAINS

Like any other complex mechanical device, trains need a lot of care to perform optimally. In Railroad Tycoon II, train servicing consists of three elements: water, sand, and oil (a proxy for general maintenance), provided, respectively, by water towers, sanding towers, and roundhouses. For more information on the uses and effects of these items, see Chapter 6: Trains. All of these structures can only be built at stations.

You will generally want to have at least one of each type of service building somewhere on your lines, unless you're running all diesel and electric trains, in which case water towers are unnecessary. However the buildings are expensive, and you'll want to use them efficiently. Roundhouses, in particular, are the most expensive, but a train only needs to visit one occasionally (usually once every two to three years), so you can probably get away with one of them on a small line.

There is one important difference between how trains use stations for pickup/delivery, and how they use them for servicing. A train must actually stop at a station to pick up or deliver cargo. However, a train only needs to pass through a station to be serviced by it—a full stop is not necessary.

The STATION DETAIL SCREEN is the primary screen used for planning and monitoring pickups and deliveries, and for building service buildings and other support structures.

When you purchase improvements, you can purchase one improvement at a time, or multiple improvements. Clicking an improvement and selecting PURCHASE will only purchase the improvement you clicked. To purchase more

1917: GENERAL ELECTRIC BUILDS A PROTOTYPE FOR THE **FIRST DIESEL-ELECTRIC LOCOMOTIVE** IN THE UNITED STATES. NUMBER 4 HAS ONE MODEL GM50 AIR INJECTION TWO-STROKE V8 RATED AT 225 HP AT 550 RPM, POWERING ONE OF TWO TRUCKS. THE CYLINDERS HAVE THE SAME 8" X 10" DIMENSIONS AS THE GM16. IT WAS NEVER SOLD, SERVING ONLY AS A LABORATORY MODEL AT THE ERIE WORKS.

than one improvement, click the checkboxes to the left of several improvements, then click PURCHASE to purchase more than one.

STATION DETAIL SCREEN

The STATION DETAIL SCREEN is accessed every time you add a new station, or when you double-click a station on the main screen CENTER LIST BOX. Here you can see a 3D representation of your station as it grows. You can also buy improvements for your stations, as well as see current cargo SUPPLY/DEMAND information.



STRUCTURAL IMPROVEMENTS

The 3D view shows which structural improvements are currently built for the station. You can purchase more structures by clicking on the BUY button. This will bring up a list of currently available structures. Clicking a structure and selecting PURCHASE will only purchase the structure you clicked on. Click the check boxes to the left of several structures, then click PURCHASE to purchase more than one.

In addition to the train-servicing structures, several other structures increase passenger revenue, decrease turnaround time, or decrease the effect of delays upon certain cargos. (If you store the cargo well, your customers will be less upset with a slow delivery.) Some improvements are not available until later dates.

CARGO SUPPLY/DEMAND

At the bottom of the screen is a list of cargos supplied and demanded by the station.

On the left are cargos supplied. Each car shown represents one carload available for pick-up. If there are more than four cargo types available, the additional types will be shown as text only. If a cargo type name is shown with no cargos above it or a zero quantity, it means that the cargo type can be available there, but none currently are. In some cases, you only have to wait a while for the cargo to show up. In other cases, you must supply certain raw materials to the station in order for the cargo type to be produced.

To the right are shown the cargos demanded by this station. This is an aggregate of the demand of the individual buildings around the station. Certain types of demand only occur when enough houses are within the area of effect of a single station. Four houses near one station constitutes a town, demanding food and goods, among other things. Eight houses constitutes a city, demanding everything a town demands, plus autos, paper, and other products.

If you chose the EXPERT INDUSTRIAL MODEL option when you started the game, then a number of cars or a simple textual number will be shown next to each cargo type demanded. This is the demand level, which ranges from 0 to 9. The higher it is, the greater the price the station will pay for that item. If a station

1918: JAY STREET CONNECTING RR #4 IS THE **FIRST DIESEL-ELECTRIC LOCOMOTIVE TO BE BUILT AND SOLD** COMMERCIALY. GENERAL ELECTRIC SLIGHTLY REVISED ITS STANDARD STEEPLE CAB STRAIGHT ELECTRIC LOCOMOTIVE CAR BODY AND INSTALLED A SINGLE GM50. THIS UNIT WAS **NOT** SUCCESSFUL. AFTER 6 MONTHS, IT WAS RETURNED TO G.E., WHERE IT WAS USED AS A LABORATORY UNIT IN DEVELOPING IMPROVED CONTROL AND PROPULSION SYSTEMS.

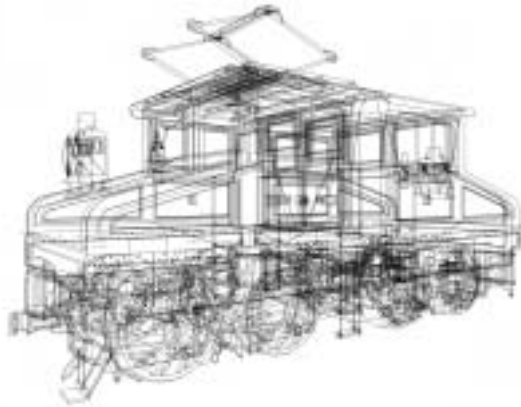
1919: THE GOLDEN SPIKE IS DRIVEN IN THE CARRIZO GORGE, MARKING THE COMPLETION OF THE **SAN DIEGO & ARIZONA RAILWAY.**

1923: THE ELECTRO-MOTIVE ENGINEERING CORPORATION, HEADED BY H.L. HAMILTON, BEGINS BUILDING GAS-ELECTRIC RAILCARS IN CLEVELAND, OHIO.

is oversupplied with an item, the demand level will fall, and the price will fall along with it.

To the right of the DEMAND section is a FROM/TO section, with coins representing the total value of cargos hauled from and to this station during the current year.

To make those coins really pile up, you'll need well-run trains to use your well-planned station.



IN THIS CHAPTER:

- LOCOMOTIVES
- CARGO
- GET YOUR TRAINS ROLLING
- TRAIN PURCHASE WINDOW
- TRAIN DETAIL SCREEN

6

Trains



1923: INGERSOLL RAND AND GENERAL ELECTRIC COMBINE TO BUILD THE 60-TON BOXCAB #8835. IT USED A MODEL PR 6-CYLINDER IN-LINE 10"x12" SOLID INJECTION ENGINE RATED 300HP AT 550 RPM. THEY USE THE EXCITATION CONTROL SYSTEM DESIGNED BY DR. HERMANN LEMP, AND PRESENT THE ENGINE ON 13 DIFFERENT RAILROADS OVER A 13-MONTH PERIOD. ITS PERFORMANCE IN TERMS OF RELIABILITY AND ECONOMY OF OPERATION DID MUCH TO ADVANCE THE ACCEPTANCE OF THE DIESEL LOCOMOTIVE AS A REPLACEMENT FOR THE STEAM LOCOMOTIVE. HOWEVER, IT WAS NEVER SOLD.

Now we get to the best part—the choo-choos.

Aside from looking neat chugging around and putting out steam, trains are actually the key component that makes everything else work. Railroad Tycoon II enables you to build trains from the earliest puny experimental steamers up through the latest electric bullet trains. You can create express trains to haul mail and passengers, or slow freight trains to haul coal and iron out of the mountains.

LOCOMOTIVES

Train locomotives are the engines that provide motive force, to pull your cargo cars along the track toward their destination. From the beginning of the nineteenth century through the present day, locomotives (or engines) have seen tremendous improvements in pulling power, top speed, and reliability. There are three principal types of engines—steam engines, diesels, and electrics. A few other hybrids have been tried over the years, but none achieved widespread success.

- **STEAM**—Steam engines burn coal, wood, or oil to heat a boiler. Steam pressure from the boiler drives pistons which power the train. Steam engines were the only engines widely used from the beginning of the rail era through the middle of the twentieth century. Eventually, diesels and electrics replaced steam engines, for a variety of factors including their generally lower fuel and maintenance costs
- **DIESEL**—Diesel engines are actually diesel-electric engines, using an on-board diesel engine to generate electricity, which then powers the wheels. This type of engine is more commonly known simply as a diesel. Diesels first entered widespread usage after World War II and (along with electrics) had almost completely replaced steam engines by the mid-fifties. Almost all engines in commercial use in North America today are diesels.
- **ELECTRIC**—Electric engines draw electricity from an external source and apply it to the drive wheels (as opposed to diesels, which generate their own electricity). While the first electrics appeared in the late nineteenth century, they weren't widely used until the 1930's. Electric engines are generally more efficient than diesels, but they require an expensive infrastructure of electrified track. Throughout Europe, most major lines are electrified, and electric engines are in heavy use. In North America, Electric engines are only used in a few places, most notably the Northeastern U.S.

CARGO

Locomotives are used to haul cargo cars. Hauling cargo by rail is considerably more efficient and cheaper than hauling by truck, and is still the primary method by which a vast array of products (especially heavy, bulk goods) is transported. Railroad Tycoon II has 32 basic types of cargo cars, plus two special cars. Not all cargo is available on every map. You'll find coffee in South America, but not in Scandinavia. You'll find more wool in Australia than in Canada.

Your railroad is not buying and selling the cargo, but rather, being paid to transport it. So, even though a load of finished steel is a lot more valuable than a

load of raw iron ore, you won't necessarily get paid more to haul the steel. Other factors, such as timeliness of delivery and distance hauled affect the rate as well. In general, four major factors affect prices paid:

- **DEMAND**—If a station has demand for a cargo, a much higher price will be paid. The exact difference depends on which industry model was selected from the options panel when the game was started. With the expert industrial model, there is a specific price level for each cargo at each station that rises and falls depending on how many of those cargos are arriving at the station. If the station is being flooded with a particular type of cargo, the price level will fall.
- **DISTANCE**—Longer hauls pay a higher fee. Some cargos (such as mail and passengers) are particularly distance sensitive.
- **SPEED**—A faster delivery will pay more. Again, some cargos are more sensitive to this (such as mail, produce, and milk)
- **CARGO TYPE**—More valuable types of cargo generally pay somewhat more than less valuable types. Processed steel pays more than raw iron ore.

Some small railroads make 90 percent (or more) of their revenue hauling a single commodity, such as coal. To find out more about the pricing and timeliness of a cargo, right-click on any car carrying that cargo.

There are two special car types that aren't used to haul cargo. The dining car increases passenger revenues by 20 percent. Use this on a train with three or four passenger cars to really make some money. The caboose increases train safety (which reduces breakdown and crashes), and train security (which reduces robberies).

GET YOUR TRAINS ROLLING

The basics of train usage are as follows:

- Scout out a new route that needs a train.
- Purchase an engine reasonably well suited for the route.
- Use the TRAIN DETAIL SCREEN to set up the train's route and consist.
- Keep an eye on the train to make sure it receives adequate service and that its route is still useful.

The first step is to scout out a promising route. If you've just laid your track and stations, you probably had a route in mind. If your railroad is an ongoing venture, keep an eye on your stations, and whenever you see cargo pile up for a while at a station, you've found a likely spot to add a new train. Be careful not to add too many trains, or your lines will be choked with traffic congestion.



1925: THE AMERICAN LOCOMOTIVE COMPANY (ALCO), ALONG WITH GENERAL ELECTRIC AND INGERSOLL RAND, BUILDS ITS FIRST DIESEL ELECTRIC LOCOMOTIVE. IT WAS DELIVERED UNDER ITS OWN POWER TO THE CENTRAL RAILROAD OF NEW JERSEY AND ASSIGNED AS CNJ #1000. IT WAS BASICALLY THE SAME AS #8835, WITH THE SAME WHEEL ARRANGEMENT AND ENGINE, BUT WITH MANY IMPROVEMENTS. IT OPERATED AS A SWITCHER IN THE BRONX UNTIL 1957, AND IS NOW IN THE B&O MUSEUM IN BALTIMORE, MARYLAND.

TRAIN PURCHASE WINDOW



Next, you'll need to purchase an engine. Click on the PURCHASE ENGINE button on the main interface (left side, fifth from the top). You'll be presented with TRAIN PURCHASE window. In this window, you'll see a list of available locomotives—you'll be notified periodically when new ones are available. On the right side are the stats of the locomotive currently selected. There are five statistics tracked, as well as a top speed matrix:

- **COST**—The price to purchase the locomotive.
- **MAINTENANCE**—Estimated annual maintenance costs.
- **FUEL**—Estimated annual cost of keeping the locomotive rolling. Note: this can vary considerably depending on how far the train actually travels.
- **ACCELERATION**—A measure of how fast a particular locomotive can get to full speed.
- **RELIABILITY**—A measure of the reliability of an engine.
- **TOP SPEED MATRIX**—A matrix that shows the locomotive's performance on various grades with various numbers of cars. Since car weight varies, you can change the assumed weight per car, to see how the engine does pulling something heavy (such as coal), as against something light (such as passengers).

In general, you won't find any train that's ideal in all categories. Cheap trains are often unreliable. The fastest trains also tend to have less hauling capacity, and so on. You'll notice that there is often a considerable difference between a train's top speed and its performance hauling a significant load. Think of a Ferrari versus a pickup truck. The Ferrari can go a lot faster, but you wouldn't want to hook a trailer up to it. The pickup truck may not accelerate very well or go very fast, but it can haul a big load, and probably has a lower maintenance bill than the Ferrari as well.

Once you've purchased a train, the next screen you'll see is the TRAIN DETAIL SCREEN. This is where you'll select destination and cargo for your train.

1926: HAMILTON OF **EMC** HIRES RICHARD DILWORTH AS CHIEF ENGINEER. DILWORTH WAS A SELF-TAUGHT MECHANICAL AND ELECTRICAL ENGINEER WHO HAD HELPED PUT TOGETHER G.E.'S EARLY RAIL CARS BACK IN 1910.

TRAIN DETAIL SCREEN



The TRAIN DETAIL SCREEN is the nerve center for controlling your trains. It's divided into four windows, one has a double function:

- **INSTRUMENT PANEL**—The area at the top left of the screen may look like a background graphic, but it also shows some valuable information.
- **ROUTE/CONSIST LIST BOX**—The list box on the middle left side of the screen displays your route and consist.
- **TRAIN/STATION INFO**—The bottom panel shows information on your train, sometimes toggling to information on a station you are working with.
- **MAP ROUTER/CAR LIST**—The right side of the screen is a dual purpose window that can be toggled between a map of the main world from which you can choose your route, and a car list of available cars used to set up your consist at each route stop.

INSTRUMENT PANEL

The instrument panel on the upper left part of the screen shows several important gauges (oil, sand, and sometimes water) and has one important control (the throttle). The layout of the instrument panel changes a bit depending on whether the engine is a steam, diesel, or electric engine, but the gauges themselves look the same.

- **OIL**—The oil gauge is a round gauge with an oil can on it. Oil is used as a proxy for overall train maintenance. As your oil level drops, your chance of a breakdown increases. If your train runs completely out of oil, its chance for a breakdown increases greatly, and its maintenance costs go up significantly (parts break faster if they are not maintained, requiring replacement, rather than repair.)
- **SAND**—Sand is used by engines for traction in areas with steep grades. Your engine will use very little sand if it is running over primarily flat areas, but will run out frequently in the mountains. There is no impact until your engine is completely out of sand, at which point its ability to climb grades is halved (a 2% grade acts like a 4% grade).

1928: THE FIRST **DIESEL-ELECTRIC PASSENGER LOCOMOTIVE BUILT IN NORTH AMERICA** WAS A TWO-UNIT 2-D-1-1-D-2. IT REPRESENTED A JOINT EFFORT BETWEEN **WESTINGHOUSE, CANADIAN LOCOMOTIVE Co., BALDWIN, AND COMMONWEALTH STEEL Co.** IT WAS NUMBERED **CANADIAN NATIONAL #9000**, AND EACH UNIT HAD A SCOTTISH-BUILT BEARDMORE V12 12" X 12" ENGINE RATED 1,330HP AT 800 RPM. MAX. SAFE SPEED WAS 63 MPH.

- **WATER**—Water is only required by steam engines. A steam engine that runs out of water travels at a greatly reduced speed (using reserves and water found along the line).

Oil, sand, and water are replenished when a train passes through a station with a roundhouse, sanding tower, or water tower respectively. You'll generally need a lot of water towers, significantly fewer roundhouses, and a varied number of sanding towers depending on the grades in the area where you're building. If any of these items run out, an appropriate icon will appear next to the train in the CENTER LIST BOX on the main interface.

Also on the instrument panel is the THROTTLE, a lever that enables you to increase or decrease the speed of your engine. It is normally set to a default level of 85 percent of maximum capacity—the highest value that is reasonably safe. All rated speeds for an engine are based on this throttle setting. For severe cases, when a little extra boost is needed, you can push the throttle into the red zone, but at a greatly increased risk of breakdown or crash. If the throttle is fully engaged, breakdown risks are four times normal. Conversely, you can lower the throttle for a bit more safety, though the effects are far less dramatic. A throttle setting of half normal reduces breakdown chances for the equivalent distance traveled by half.

ROUTE/CONSIST LIST BOX

Below the instrument panel is a list box showing all currently scheduled station stopoffs for the train, along with the list of cars that the train should haul from that point on (the consist).

Normally your train will start at the top station on the list, travel to the next station down, and so on until it reaches the last station, then it will go back to the first station. You can redirect a train by clicking in the small area to the left of a station's name. The NEXT STATION marker should change to reflect this.

You can remove a station from the route by clicking on the DELETE button at the right side of each station. (Adding stations is explained in the section "Map Window/Car List.")

Just above the DELETE button is a stoplight icon. Click it to change its color. The color determines whether or not the train waits for cargo at this station before proceeding:

- **GREEN**—Don't wait for cargo. This causes the train to grab whatever is ready to go when it reaches the station. Use this when the cargo you plan to pick up at the station isn't that important, perhaps for the back end of a long route.
- **YELLOW**—Wait until at least half (rounded up) of the cargo cars are full. This is a good compromise between speed and efficiency.
- **RED**—Wait until all cargo cars are full. Be careful with this option, if you overuse it, you might find that your trains spend most of their time waiting around in stations, rather than hauling goods and making money.

1930: GENERAL MOTORS ACQUIRES THE WINTON COMPANY ON JUNE 20, AND ELECTRO-MOTIVE ON DECEMBER 31.

TRAIN/STATION INFO

The bottom panel normally shows train info, but sometimes shows station info for the currently selected station, depending on what action you're taking. For more info on the station info panel, see Chapter 5, Stations.

The train information is a capsule summary of the train's current state and recent history. At the top is a side view of the full train. If a cargo car is dimmed out, it is empty. Train engines are never dimmed out. At the lower left is the train's heading and speed, its cargo value and weight (heavier cargo loads require more powerful locomotives), the engine's age, and chance of a breakdown.

As engines age, several things happen:

- **SLOWER SPEED**—They lose about a half percent off their top speed every year—a 20-year-old engine is about 10 percent slower than a new engine of the same type.
- **HIGHER MAINTENANCE**—A 20-year-old engine costs about three times as much in annual maintenance.
- **HIGHER BREAKDOWN RISK**—A new engine has virtually no breakdown risk; a 20-year-old engine has about a 60 percent higher risk than a 5-year-old engine.

For best results, you may want to look at replacing engines as they reach 15 to 25 years of age.

The breakdown chance can be a critical issue. Poor reliability doomed many otherwise promising engine designs to a short life span. Breakdowns are based on distance traveled, not time elapsed, so, all other things being equal, a faster engine is going to go further each year and have a higher chance of a breakdown. Other factors affecting the risk of breakdown include:

- **ENGINE RELIABILITY**—Each level of engine reliability is about a third less likely to breakdown than the one below it; an "above average"-rated engine is about a third less likely to break down than an "average"-rated engine.
- **ENGINE AGE**—As mentioned above, older engines are less reliable.
- **OIL LEVEL**—Keeping an engine's oil gauge nearly full significantly reduces breakdown risk. Running out of oil altogether is the worst possibility, tripling breakdown chances over an engine fully topped off with oil.
- **HEAVY LOADS/STEEP GRADES**—The greater the stress on the engine, the greater the breakdown chance.
- **THROTTLE SETTING**—Full red-zone throttle quadruples breakdown chances.
- **CABOOSE**—Adding a caboose decreases the breakdown chance by 25 percent.
- **MANAGER EFFECTS**—Certain managers provide a safety bonus to the railroads they supervise.

1934: THE UNION PACIFIC **M-10000** IS DEDICATED IN FEBRUARY. THIS PULLMAN-BUILT 3-CAR ALL-ALUMINUM ARTICULATED TRAIN WAS THE **FIRST STREAMLINER IN THE UNITED STATES**. IT IS POWERED BY A WINTON V12 600 HP DISTILLATE ENGINE, AND IS CAPABLE OF 110 MPH. IT MADE A 12,625 MILE COAST-TO-COAST EXHIBITION TRIP, AND WAS SEEN BY ALMOST 1.2 MILLION PEOPLE AT VARIOUS STOPS. IT WENT INTO SERVICE AS THE **CITY OF SALINA** ON JANUARY 31, 1935. THE POWER CAR WAS DESIGNED BY RICHARD DILWORTH.

1934: THE BURLINGTON ZEPHYR IS DEDICATED ON APRIL 18. ON MAY 26, THIS BUDD-BUILT 3-CAR ARTICULATED TRAIN OF STAINLESS STEEL MADE A RECORD-BREAKING DAWN-TO-DUSK RUN FROM DENVER TO CHICAGO, 1016 MILES, AT AN AVERAGE SPEED OF 77.6 MPH AND A TOP SPEED OF 112.5 MPH. IT WAS THE **FIRST DIESEL-ELECTRIC STREAMLINER IN THE UNITED STATES**, EMPLOYING A WINTON INLINE 8-CYLINDER 600 HP 201A TWO-STROKE ENGINE. THE POWER CAR WAS DESIGNED BY RICHARD DILWORTH.

MAP ROUTER/CAR LIST

The right side of the TRAIN DETAIL SCREEN contains a dual purpose panel. It toggles between the MAP ROUTER, in which you set up a train's route, and the CAR LIST, in which you pick which cars to include in the train's consist at each station. You can toggle between them by using the lever above the panel. Also, double-clicking on a station in the ROUTE/CONSIST LIST BOX will automatically open the CAR LIST.



- **MAP ROUTER**—The green stars are your stations. Yellow stars are your opponent's stations. Black track is yours, belongs to your opponent. Click on any station to add it to the bottom of your route list. For more precise placement, drag the station to a specific spot on the route list.
- **CAR LIST**—The top section of this panel shows the current consist at the selected station. Click on a car to remove it from the consist, or click on clear to clear out the current consist completely. Click on any car at the bottom to add it. Cargos available at the current station are shown in the top group—normally you'll want to confine your selection to them. Select OK when you're done.

MORE ON TRAIN ROUTING

Proper train routing can have a great impact on the speed and profitability of your trains.

For the most part you can let the trains go about their way without much supervision—track switching, use of sidings, and other operational details are automatically handled for you.

Once told to travel between two stations, trains will automatically select the best route, if more than one are available. Trains will generally follow the shortest route.

Trains can use the opponents' track, if they need to. However, you will have to pay the owner of the track a portion of the revenue received equal to the portion of the total distance traveled which was on his track. However, the opponent does not absorb any of the train's operating cost. So if a train travels 50 squares from Chicago to Detroit, including 8 squares over your opponent's track, and generates \$100,000 in revenue, you'd have to give up 20 percent (8/50) of the revenue. Try to use as little of your opponents' track as possible.

You can also pick up and deliver cargos from and to your opponents' stations, at a cost of \$2,000 per car load picked up or delivered. Again, use with caution.

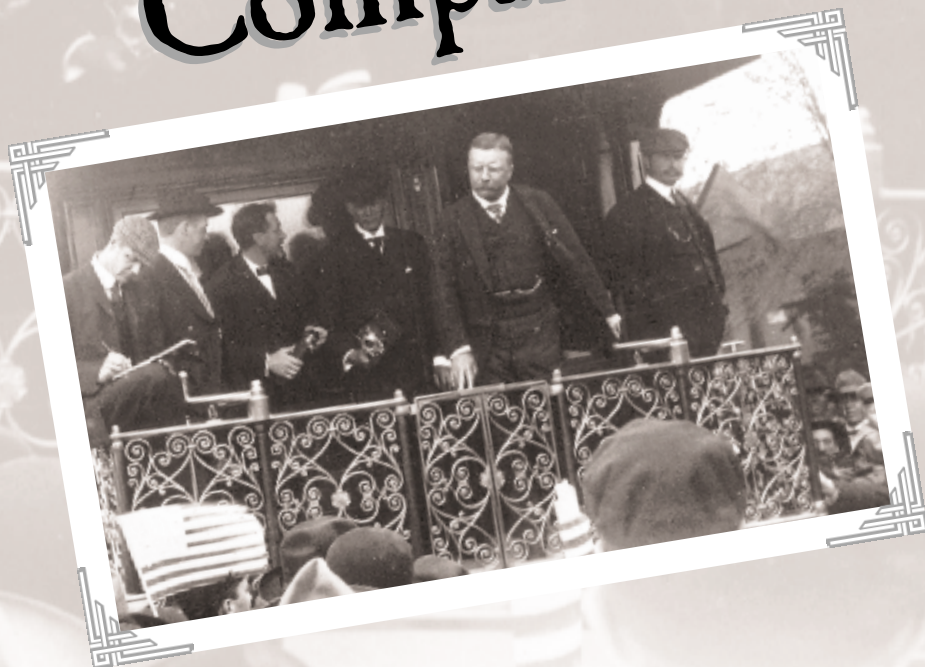
If you have an electric engine, an entire route from station to station must be electrified, or the engine will not move. You don't have to electrify all your track, just whatever routes you want your electric engines to use.

IN THIS CHAPTER:

- PLAYER DETAIL
- COMPANY DETAIL

7

Players and Companies



1934: CONSTRUCTION OF THE FIRST **STREAMLINED ELECTRIC LOCOMOTIVES** BEGINS. THESE WERE THE PENNSY **GG-1**'S, WHICH PULLED HIGH-SPEED PASSENGER TRAINS BETWEEN NEW YORK CITY AND WASHINGTON, DC. THEY DEVELOPED 8,500 HP AND COST \$250,000. PRODUCTION CONTINUED UNTIL 1943, AND THE ENGINES WERE USED INTO THE EARLY 1980'S BY AMTRAK.

The great railroads were built by great companies led by a handful of great men (sorry to be politically incorrect, but there were no significant women railroad tycoons—trust us, we looked hard.)

In Railroad Tycoon II, both the players of the age and the companies they built are the mechanisms for railroad development. You play a railroad tycoon who is interested not just in building a great railroad, but in personal enrichment as well—sometimes at his railroad's expense.

Sometimes in a game you might control several companies in succession, either because you see new investment opportunities that beckon you to leave behind your original companies, or because the board of directors of your original company, ahem, "invites" you to seek employment elsewhere. You don't always have to start a company from scratch—sometimes you'll start as head of an established company, and sometimes you'll have the opportunity to grab control of a company from some poor sap...err...I mean, from the underperforming current chairman.

PLAYER DETAIL

The player you play is usually predetermined for the scenario you've chosen. Forty great tycoons are available. North American tycoons tended to be ambitious private businessmen, sometimes more eager to enrich themselves than build a lasting successful company. European tycoons and tycoons from elsewhere throughout the world are sometimes private businessmen, and sometimes political figures, leading national railroad-building efforts. Political figures tended to be more concerned with building a large railroad, even at the expense of profitability or personal gain.

You can choose to play however you want, although the goals of a particular scenario may encourage certain types of play. However, your computer-controlled opponents will tend to act in the manner they acted historically—Jay Gould will speculate relentlessly in the stock market, while Cecil Rhodes will focus on company expansion, even to the point of bankrupting his railroad.

To get a closer view of yourself and your opponents, and to check out everyone's financial situation, double-click on a player on the main interface **CENTER LIST BOX**.

You'll see a close-up of the handsome and not so handsome faces of the different players, a description of their historical activities (which gives an indication of their likely activities within the game), and a breakdown of their finances.



COMPANY DETAIL



Most players will soon start a company, for it is through companies that all building activities occur. For more information on starting a company, see Chapter 4, The Main Interface (page 29).

Once your company is underway, the principle means for controlling and monitoring your company is the **COMPANY DETAIL SCREEN**. This screen shows your company ledger, and it has five tabs you can use to manage your operation:

- **OVERVIEW**—This tab has information related to you and your current manager, and gives you a quick look at your operation. You can choose to **RESIGN AS CHAIRMAN** if you plan to pursue other interests, **VIEW/HIRE OTHER MANAGERS**, or **CHANGE COMPANY NAME/LOGO** from this tab:

RESIGN AS CHAIRMAN—This option enables you to hand over the reigns to another leader. You can resign as chairman, and still hold onto all your stock and wealth, then start another company.

VIEW/HIRE OTHER MANAGERS—Different managers give different bonuses. The better managers demand a higher salary, and won't even apply for the job until your company is thriving and successful. Click here to view, and perhaps hire, from the two current applicants.

CHANGE COMPANY NAME/LOGO—Click here to change the company's name and/or logo. You can do this as many times as you like.

- **INCOME**—This is just what it sounds like. This is your **INCOME STATEMENT** that shows revenues (the good stuff) and expenses (the necessary evils of running a business) for the life of your business, and the past three years. For the financially challenged, the idea here is to have greater revenues than expenses.
- **BALANCE**—The next tab is your **BALANCE** sheet. Here's where heavy borrowing, in the form of bonds or tons of stock offerings can come back to bite you.
- **TERRITORIES**—Not everyone loves you. The **TERRITORIES** tab enables you to access your railroad's **POLITICAL VIEW**, **ACCESS RIGHTS VIEW**, and **GOODWILL** by territory:

1935: EMC BUILDS #511 AND #512, THE **FIRST SELF-CONTAINED DIESEL PASSENGER LOCOMOTIVES IN THE UNITED STATES**. THE BOXCAR-LIKE BODIES HOUSED TWO WINTON V12 900 HP 201A ENGINES, AND WERE DESIGNED BY DICK DILWORTH AND TWO DRAFTSMEN. THE FIRST UNIT SOLD WENT TO THE **B&O** AS #50 TO PULL THE ROYAL BLUE. THE ENGINES WERE RETIRED IN 1956. YOU CAN SEE THEM AT THE NATIONAL MUSEUM OF TRANSPORTATION IN ST. LOUIS.

POLITICAL VIEW—THIS SHOWS THE POLITICAL DIVISIONS ON THE CURRENT MAP. SOME MAPS HAVE NO POLITICAL DIVISIONS AT ALL—AHH LIFE IS EASY. UNFORTUNATELY, MANY MAPS ARE DIVIDED INTO DOZENS OF SMALL COUNTRIES AND TERRITORIES. FROM THIS VIEW, YOU CAN CONSULT THE GOVERNMENTS OF THESE TERRITORIES AND TRY TO GAIN ACCESS TO THOSE PLACES WHERE YOU DON'T ALREADY HAVE IT.

ACCESS RIGHTS VIEW—THIS VIEW SHOWS THE TERRITORIES THAT YOU CURRENTLY HAVE ACCESS RIGHTS IN, AS WELL AS THOSE YOU DON'T. YOU WON'T BE ABLE TO LAY TRACK OR RUN TRAINS IN TERRITORIES WHERE YOU DON'T HAVE ACCESS RIGHTS.

GOODWILL—THIS VIEW SHOWS YOUR CURRENT GOODWILL RATINGS BY TERRITORY. RUN YOUR OPERATIONS EFFICIENTLY, AND YOUR GOODWILL WILL IMPROVE. IF A FEW TOO MANY OF YOUR TRAINS GO BOOM! YOU MIGHT SEE YOUR GOODWILL TAKE A DIVE. MAKE NICE WITH YOUR NEIGHBORS—IT PAYS.

O FINANCES—THIS IS THE TAB YOU'LL PROBABLY VISIT THE MOST. HERE IS WHERE YOU CAN ISSUE BONDS, ISSUE STOCK, BUY BACK STOCK, CHANGE DIVIDENDS, ATTEMPT MERGER, AND IF YOU'VE HAD ENOUGH, DECLARE BANKRUPTCY.

ISSUE BONDS—YOU WON'T BE ABLE TO ISSUE BONDS UNLESS YOU HAVE A SOLID CREDIT RATING OF AT LEAST B OR BETTER. THE BETTER YOUR CREDIT RATING, THE LOWER THE INTEREST RATE CHARGED (THE PRIME RATE ALSO AFFECTS INTEREST RATES). IMPROVE YOUR CREDIT RATING BY REDUCING DEBT, SHOWING A SOLID PROFIT FOR SEVERAL YEARS, AND HAVING A HIGH LEVEL OF ASSETS RELATIVE TO YOUR TOTAL DEBT. CLICK HERE TO ISSUE BONDS AND CLICK **OK** ON THE NEXT SCREEN TO FINISH THE TRANSACTION.

ISSUE STOCK—CLICK THIS OPTION TO ISSUE COMPANY STOCK. A WINDOW WILL APPEAR GIVING DETAILS OF THE TRANSACTION. CLICK **OK** IN THAT WINDOW IF EVERYTHING IS FINE. NOTE THE CHANGE TO YOUR CURRENT **STOCK VALUE** ON THE OPPOSITE PAGE.

BUY BACK STOCK—USE THIS OPTION TO BUY UP COMPANY STOCK FROM THE MARKET. TAKE A LOOK AT ITS EFFECT ON YOUR STOCK VALUE. INVESTORS ARE VERY PARTICULAR ABOUT STOCK VALUE—THEY WANT IT TO GO UP. PERIOD. DON'T DISAPPOINT THEM, OR YOU'LL BE OUT ON YOUR EAR. REMEMBER THAT CHAIRMEN ARE APPOINTED, NOT BORN.

IF YOU BUY BACK ENOUGH STOCK, THEN YOU WILL HAVE SOLE CONTROL OF YOUR RAILROAD. THIS IS AN EXTREMELY GOOD THING, IF THINGS ARE GOING WELL. HOWEVER, IT CAN USE UP ALL YOUR COMPANY'S SPARE CASH AND LEAVE YOU IN CONTROL OF A TINY SHELL WHILE OTHER COMPANY'S GROW.

CHANGE DIVIDENDS—CHANGE YOUR COMPANY'S DIVIDEND PAYOUT TO SHAREHOLDERS HERE. THE BOARD OF DIRECTORS MAY NOT LET YOU SET THIS TOO HIGH, SINCE IT WILL DRAIN YOUR COMPANY'S CASH. IF YOU OWN A LOT OF STOCK IN YOUR COMPANY, A HIGH DIVIDEND RATE IS A GOOD WAY TO FUNNEL CASH FROM YOUR COMPANY TO YOURSELF.

ATTEMPT MERGER—CLICKING HERE WILL DO NOTHING IF THERE ARE NO OTHER COMPANIES IN THE GAME. IF THERE ARE, SELECT THE COMPANY YOU WANT TO MERGE WITH, THEN SET THE OFFERING PRICE. YOU'LL SEE THE RESULTING SHAREHOLDER VOTE, AND YOUR COMPANIES WILL MERGE UPON A POSITIVE RESULT. YOU CAN ONLY ATTEMPT A MERGER ONCE A YEAR. YOU'LL GET MORE VOTES IF YOU OFFER A HIGHER PRICE. IF YOU CONTROL STOCK IN THE TARGET COMPANY, YOU CAN USE THOSE SHARES TO VOTE IN FAVOR OF THE MERGER AND INCREASE THE CHANCE OF SUCCESS.

DECLARE BANKRUPTCY—WHEN YOU'RE CARRYING TOO MUCH DEBT, AND HAVE NO HOPE OF PAYING IT BACK, OR WHEN THINGS ARE JUST GOING HORRIBLY, CLICK HERE AND SELECT **OK** FROM THE NEXT SCREEN. HALF YOUR DEBT WILL DISAPPEAR, BUT THIS HAS CONSEQUENCES: YOU WON'T BE ABLE TO BORROW MONEY, YOU'LL HAVE TO FORFEIT ALL COMPANY CASH, YOU WON'T BE ABLE TO ISSUE BONDS FOR AWHILE, AND YOU'LL HAVE A HARD TIME ISSUING STOCK ONCE YOU DECLARE BANKRUPTCY.

1970: CONGRESS PASSES THE RAIL PASSENGER SERVICE ACT CREATING AMTRAK, WHICH TODAY SERVES MORE THAN 20 MILLION CUSTOMERS ANNUALLY ON ITS NATIONAL NETWORK OF INTERCITY TRAINS AND EMPLOYS SOME 23,000 PEOPLE.

IN THIS CHAPTER:

- STOCKS 101
- THE STOCK MARKET

8

The Stock Market



Many of the great fortunes of the railroad age were built not through efficient railway building, but through merciless exploitation of the stock market. The nineteenth century saw a largely unregulated stock market used as a personal piggy bank by many of the tycoons of the day. Here's your chance to take all those stock market gambles your accountant brother keeps shooting down.

Stocks 101

Few individuals have enough wealth to build a railroad all by themselves. In real life and in Railroad Tycoon II, the most common practice is for one principal investor to put up as large a sum as he can afford, then solicit investors to invest money in the company, with all investors receiving shares in the company proportionate to their investment. If the company is profitable, it pays a portion of its earnings to its investors in small quarterly sums called dividends. The company will usually retain a portion of the earnings to use for growth. A profitable stock will both pay its owner a continuing sum in dividends, and rise in price to reflect the company's earnings.

Investors can buy and sell their stock. In general, if several blocks of shares are sold soon after one another, the stock price will fall. If the company is still financially sound, the low share price might be a bargain waiting for a watchful investor to snap up.

In Railroad Tycoon II, all companies in the game have tradable shares. Sometimes, all the shares may be owned by one or more players, in which case none will be available on the open market. More commonly, players hold a portion of the shares in their companies, and other investors (the public at large) hold the remainder, creating a market of people always willing to make a trade with you, if you've got the money.

The Stock Market Screen



The STOCK MARKET SCREEN is where you can keep an eye on the share prices of your company and your opponents' companies, and make investments as you see opportunities. There are two tabs on the STOCK MARKET SCREEN: PERSONAL and CORPORATE. The PERSONAL section lets you see the current holdings of yourself and others, and change your holdings by buying or selling stocks. The CORPORATE section lets you view more details on the key financial data for each company in the game.

IN 200 BC, A GREEK MATHEMATICIAN AND PHYSICIST DESCRIBED THE FIRST PROTOTYPE STEAM ENGINE IN THE BOOK *SPIRITUALIA SEU PNEUMATICA*

THE STOURBRIDGE LION INTRODUCED PRACTICAL STEAM LOCOMOTIVES TO NORTH AMERICA IN 1829. IT WAS PURCHASED IN ENGLAND FOR THE DELAWARE AND HUDSON COMPANY.

PERSONAL

The PERSONAL tab on the STOCK MARKET DETAIL SCREEN shows your personal holdings. Most of your stock, at least initially, will be in your own company. From this screen you can BUY, SELL, or VIEW corporate information (this is the same as the CORPORATE tab).



Buying stock in a company will usually drive up the share price, at least temporarily. Selling stock will usually lower the price.

There are two wrinkles added when you play with the EXPERT FINANCIAL MODEL active—BUYING ON MARGIN and SHORT SELLING:

- **BUYING ON MARGIN**—When you buy stock on MARGIN, you are in effect borrowing money to buy the stock. You use your existing stock as collateral for the loan. You may borrow up to half of the value of your stock holdings. The purchasing power figure you see on this screen is the sum of your cash, plus half your stock (which you can borrow against.) As you go deeper into margin, your purchasing power will decrease to zero (0), at which point you can't buy any more stock on margin. Beware: if the value of your stocks fall, they are less valuable as collateral. If they fall far enough to drive your purchasing power below zero, you'll get a margin call from your broker, requiring you to sell off enough stock to restore your purchasing power. Unfortunately, selling off part off your stock can drive the price down, creating an even bigger hole for you to dig yourself out of. You can lose a lot of money quickly if you're heavily margined.
- **SHORT SELLING**—This refers to the practice of selling stock you don't actually own. The shares are implicitly borrowed from a broker, and eventually you must repurchase the shares you short sell to pay the broker back. You hope to repurchase the shares for less than you originally sold them (basically—sell high, buy low). Short sell a stock when you think it is overpriced and due for a fall. But beware, if the stock price goes up instead of down, you could lose your shirt.

Outside the STOCK MARKET, we call practices like these gambling. Be very sure you know what you're doing before attempting to SHORT SELL or BUY ON MARGIN. Also, be aware that if you allow the computer players to do this by setting their FINANCIAL MODEL to EXPERT, they know *exactly* what they are doing, and can bankrupt you if you get in over your head with borrowed money or borrowed stock.

THE FIRST UNDERGROUND RAILROAD OPERATED BY STEAM OPENS IN LONDON IN 1863.

THE GENERAL SHERMAN WAS THE FIRST LOCOMOTIVE PURCHASED BY THE UNION PACIFIC RAILROAD. IT WAS SHIPPED BY BOAT FROM ST. LOUIS IN 1865.

CORPORATE

The CORPORATE tab shows details about the currently selected company. You can view graphs of the company's performance over the last few years. All numbers are adjusted to account for stock splits. Categories of information available are:



CENTRAL PACIFIC'S FIRST
LOCOMOTIVE WAS THE
GOVERNOR STANFORD. IT
IS ONE OF TWO ENGINES
FROM THE FIRST
TRANSCONTINENTAL
RAILROAD THAT STILL
EXISTS TODAY.

- **Share Price**—The stock price at the end of the year. Share price is determined by a number of factors, including all of the other financial categories on this page, but most especially EARNINGS PER SHARE and BOOK VALUE PER SHARE. Recent sales and purchases of the stock will also temporarily drive it up or down.
- **BOOK VALUE PER SHARE**—The book value (equity) of the company, divided by the shares outstanding. Book value is the total value of all the company's assets minus its debt. This can be negative for a company heavily in debt.
- **REVENUE PER SHARE**—Total company revenue divided by shares outstanding. This can increase or decrease even if the company's revenue is flat, if the company is increasing or decreasing the shares outstanding by issuing or buying back stock.
- **EARNINGS PER SHARE**—Profits divided by shares outstanding.
- **DIVIDEND PER SHARE**—The dividend rate per share.
- **5 YEAR WEIGHTED RETURN**—The total return that investors receive for buying a share of stock is equal to the sum of all dividends they receive, plus any increase or decrease in the stock's price. This figure shows the average annual return in cash dividends paid and price appreciation for the last five years, weighted more heavily for the more recent years. Investors like to make money—either through dividends or share price increases. Keeping this return up is a key factor in how happy investors are with a chairman's performance. If the stock price declines for long enough, investors may fire the chairman. The easiest way to keep this figure high is to steadily increase your profits. An alternative is to at least maintain your profits while steadily buying back shares, driving up the share price.

IN THIS CHAPTER:

- UNDERSTANDING YOUR MULTIPLAYER OPTIONS
- CONNECTING YOUR GAME
- SETTING UP A MULTIPLAYER GAME
- PLAYING THE GAME

9

Multiplayer



UNDERSTANDING YOUR MULTIPLAYER OPTIONS



Railroad Tycoon II enables you to play a game against multiple different human opponents on any of the maps in the game. To reach the multiplayer menu from the main menu, click the MULTIPLAYER option.

The MULTIPLAYER MENU has four options that correspond to the types of connections available:

- **TCP/IP**—This mode of play is used for playing games over the Internet, or on Local Area Networks (LANs) running the TCP/IP protocol.
- **IPX**—The IPX protocol is a LAN protocol. If your network is running IPX, then you can use this protocol to play Railroad Tycoon II locally.
- **MODEM**—This mode enables play between two players connected directly by modem, without using the Internet. It is usually faster than an Internet connection.
- **SERIAL**—This mode enables two users to connect their computers with serial cables for multiplayer games.

Click on one of the available connection types to start setting up your game. For more details on these connection types see the next section, “Connecting Your Game.”

CONNECTING YOUR GAME

The four modes of play consist of two modes that support more than two players (TCP/IP and IPX), and two modes that only support one-on-one competition (Modem and Serial). Game play is the same under any connection type, the primary difference is the method of connecting, and the aforementioned player count limitations for MODEM and SERIAL play.

THE 1866–1867 WINTER WAS SO BAD IN THE SIERRA NEVADA, THE WORKFORCES CLEARING THE 40 MILES ABOVE DONNER LAKE, PROTECTED THEMSELVES BY TUNNELING INTO 60-FOOT SNOWDRIFTS. IT OFTEN TOOK WEEKS JUST TO CLEAR CUTS OF ICE SOMETIMES 15 FEET THICK OVER TRACK.

TCP/IP

TCP/IP is the networking protocol used on the Internet. It is also popular on Local Area Networks (LANs). With this connection type, you can set up either type of game, local or Internet, in exactly the same way.

To start a TCP/IP multiplayer game:

- 1 Select TCP/IP from the multiplayer menu. The game will automatically search for available servers on your LAN. Servers are machines that are currently set up to host a multiplayer game. In this case, the game searches for servers connected via TCP/IP.
- 2 There are five commands you can use from the dialog box that appears once the server search is complete:

CHANGE—Click this button to select the portrait, name, and description for your in-game persona. Click in the text boxes in the dialog that appears and press ENTER to accept and leave the fields, or ESC to skip to another field without saving changes. Click OK in the dialog box when you are satisfied with your player setup.

SERVER IP—If you're connecting over a LAN, you can usually leave this field blank. To connect to someone over the Internet, you'll need to know the IP address of the host computer. If you're the host, you'll need to tell everyone your IP address (displayed right above the server's IP).

JOIN—Click this button to join an available game. Before attempting to join a game, conduct a server search by clicking REFRESH. If no servers appear in the SERVERS window, you won't be able to join a game. Once a server is available, click on it in the SERVERS window, then click JOIN to enter the game.

CREATE—Click this button to create a game as the server. Other players will have to connect to you.

REFRESH—This button is used to conduct a server search. Click it if there are no servers shown in the SERVERS window. This will refresh the window with any servers that have appeared since the last search.

- 3 Once the game has been created, or you've joined an existing server, you're connected and ready to set up your game. For more details, see the section “Setting Up a Multiplayer Game” in this chapter.



IN NOVEMBER 1870, ONLY 18 MONTHS AFTER THE COMPLETION OF THE TRANSCONTINENTAL RAILWAY, THE CENTRAL PACIFIC RAILWAY WAS ROBBED. IN LESS THAN 24 HOURS IT WOULD BE ROBBED AGAIN. THIS SET THE TONE OF THE WILD WEST RAILWAYS FOR THE CENTURY TO COME.

THE FIRST CHINESE RAILWAY WAS OPENED IN 1876 IN THE EASTERN PROVINCE OF KIANGSU.

IPX

IPX is a networking protocol common on most LANs. If you aren't sure if your network is running IPX, ask your network administrator.

To set up an IPX multiplayer game:

- 1 Select IPX from the multiplayer menu. The game will automatically search for available servers on your LAN. Servers are machines that are currently set up to host a multiplayer game. In this case, the game searches for servers connected via IPX.
- 2 There are four commands you can use from the dialog box that appears once the server search is complete:

CHANGE—Click to select the portrait, name, and description for your in-game persona. Click in the text boxes in the dialog that appears and press ENTER to accept and leave the fields, or ESC to skip to another field without saving changes. Click OK in the dialog box when you are satisfied with your player setup.

JOIN—Click this button to join an available game. Before attempting to join a game, conduct a server search by clicking REFRESH. If no servers appear in the SERVERS window, you won't be able to join a game. Once a server is available, click on it in the servers window, then click JOIN to enter the game.

CREATE—Click this button to create a game as the server. Other players will have to connect to you.

REFRESH—This button is used to conduct a server search. Click it if there are no servers shown in the Servers window. This will refresh the window with any servers that have appeared since the last search.

- 3 Once the game has been created, or you've joined an existing server, you're connected and ready to set up your game. For more details, see the section "Setting Up a Multiplayer Game" in this chapter.

MODEM

A modem connection enables head-to-head play between two players. This type of connection requires that you already have a modem installed and configured to work with your system.

To start a MODEM multiplayer game:

- 1 Select MODEM from the multiplayer menu.
- 2 There are three commands you need to choose from to set up your game:

CHANGE—Click to select the portrait, name, and description for your in-game persona. Click in the text boxes in the dialog that appears and press ENTER to accept and leave the fields, or ESC to skip to another field without saving changes. Click OK in the dialog box when you are satisfied with your player setup.

HOST—Select this button if you will be the one hosting the game. The other player will dial your phone number to get into the game. Clicking this button brings up a WINDOWS dialog box that prompts you to check your modem configuration if necessary.

GUEST—Click this button if you will be the one dialing the other player. Clicking this button brings up a WINDOWS dialog that prompts you to enter the phone number to dial, and gives you the opportunity to change your modem settings.

- 3 Once you've chosen your settings, the guest's computer will dial the host. When the computers connect you're ready to set up your game. For more details, see the section "Setting Up a Multiplayer Game" in this chapter.

SERIAL

A serial connection requires that both computers be connected by a null modem (a special kind of serial cable). This is essentially a cheap, relatively easy way of connecting two computers that are physically located within a few feet of each other, but aren't set up on any kind of LAN.

To start a SERIAL multiplayer game:

1. Select SERIAL from the multiplayer menu.
2. There are three commands you need to choose from to set up your game:

CHANGE—Click to select the portrait, name, and description for your in-game persona. Click in the text boxes in the dialog that appears and press ENTER to accept and leave the fields, or ESC to skip to another field without saving changes. Click OK in the dialog box when you are satisfied with your player setup.

HOST—Select this button if you will be the one hosting the game. Clicking this button brings up a WINDOWS dialog box that prompts you to check your serial port configuration if necessary.

GUEST—Click this button if you will be the Guest for this session. Clicking this button brings up a WINDOWS dialog that prompts you to enter check your serial port configuration if necessary.

- 3 Once you've chosen your settings, the computers will connect. When the computers connect you're ready to set up your game. For more details, see the section "Setting Up a Multiplayer Game" in this chapter.

ERNST SIEMENS CREATED THE FIRST PUBLIC ELECTRIC RAILROAD IN GERMANY. IT OPENED IN 1881 NEAR BERLIN, GERMANY.

THE FIRST TRAIN ARRIVED IN EL PASO IN 1881.

THE LAST SPIKE ON THE GREAT SOUTHERN PACIFIC RAILROAD WAS DRIVEN ON JANUARY 12, 1883.

IN 1883, THE PARIS TO CONSTANTINOPLE RUN OF THE ORIENT EXPRESS TOOK ONLY 67.5 HOURS AND COVERED 1,853 MILES.

I. K. BRUNEL DESIGNED THE BOX HILL TUNNEL NEAR LONDON, ENGLAND, SO THAT EACH YEAR THE SUN WOULD SHINE THROUGH THE TUNNEL END TO END ON HIS BIRTHDAY.

SETTING UP A MULTIPLAYER GAME

Setting up a multiplayer game is essentially similar to setting up a single-player game. You choose a map, game play options, then start. You can also reload a saved multiplayer game. If not all players have the same version of a game or map, it will be automatically transmitted when you launch the game, though this will slow things down a bit. Only the host computer can choose the map or saved game.

Before launching the game, all players must approve of the current settings by clicking on the light that appears next to their name. If any option is changed after a player clicks his or her approval, the light turns off, and all players get a chance to approve the change, or use the chat window to complain to the player who made the change.

One key element shown next to each player's name is their ping time. This measures how long a message takes to be sent and replied to on his or her computer, in milliseconds. The higher this number, the less responsive the game will be. For best results, let the player with the fastest computer and/or the fastest internet connection be the host.

PLAYING THE GAME

Once you're connected and in the game, play is identical to the SINGLE PLAYER mode. The only difference is that you can communicate with other players by pressing the TAB key, typing in your text and pressing ENTER. This will cause your text to appear on screen, along with your player name.

You might also want to save the game with reasonable frequency. Internet connections in particular are notoriously poor, and a freshly saved game will enable you to reconnect and reload if someone loses his or her connection.

That's it! Be aware that if you think the computer players are tough, human opponents are downright brutal. Make sure you know what you're doing by playing plenty of single-player games before jumping into a multiplayer game, or you'll live to regret it.

THE LETHBRIDGE
VIADUCT IS THE TALLEST
BRIDGE IN CANADA. THE
5,327-FOOT LONG BRIDGE
STANDS 314 FEET ABOVE
THE VALLEY.

THE UNION FORCES HAD
22,000 MILES OF
OPERATING RAILROAD,
WHILE THE SOUTH HAD
ONLY 9,000 MILES OF
MIXED-GAUGE RAILROAD.

IN THIS CHAPTER:

- STARTING A NEW MAP
- LOADING A MAP
- EDITOR BASICS

10

Using the Map Editor



STARTING A NEW MAP

Using the map editor that ships with Railroad Tycoon II is fairly straightforward, but there are many tools and options that you'll need to use. This chapter will cover the basics, which should be enough to get you started.

There are two ways to start editing a map—from scratch, and from an image. If you don't have an image to use, don't worry about it. Working from scratch will give you good experience with the editor. If you do plan to use an existing image, pay close attention to the requirements for imported images below. Start the game, and select EDITOR from the main menu.

STARTING FROM SCRATCH

If you don't have a map to import into the editor, but you have an idea what you'd like to design, then starting from scratch is the way to go:

- 1 Select NEW MAP from the EDITOR menu. You can also click LOAD MAP to select a map from the game itself to edit. Loading a map takes you directly into the editor, so skip the next step if you decide to load one.
- 2 If you chose NEW MAP, set the WIDTH and HEIGHT of your map to your preference, then click FROM SCRATCH to enter the editor. (If you want to use an existing image from outside the program, skip to the next section, "Importing an Image.")



IMPORTING AN IMAGE

If you want to import a map image rather than make a map from scratch or from a game map, then click FROM IMAGE when you reach Step 2 above. In order to import an image into the game, it *must* be an indexed, grayscale image. Nothing else will work, so convert the image in your favorite image editor before trying to import it. A sample image, the North American continent, is included with the game—we'll use it for this demonstration.

A 500 x 500 MAP IS HUGE—STICK TO SOMETHING SMALLER FOR YOUR FIRST EDITING ATTEMPT. IF YOU ONLY HAVE 16 MB OF RAM, THEN KEEP YOUR DIMENSION TOTAL EQUAL TO 125,000 SQUARES OR LESS, FOR EXAMPLE 500 x 250 = 125,000.

THE IRON DUKE, A 4-2-2 OF THE DUKE CLASS, WAS NAMED AFTER ARTHUR WELLESLEY, THE FIRST DUKE OF WELLINGTON.

IN 1938, THE MALLARD SETS THE WORLD STEAM SPEED RECORD WHEN IT TRAVELS AT 202.7 KPH (126 MPH).

Railroad Tycoon II imports absolute black as the lowest points, and absolute white as the highest. Remember this when importing an image that doesn't fit this standard—you'll need to convert it first. To import an image:

- 1 Select NEW MAP, then set your WIDTH and HEIGHT just as you would for a from-scratch map. Instead of FROM SCRATCH, click FROM IMAGE.



- 2 The file import dialog will appear. You'll see that the sample file, EXAMPLE.PCX, is shown in the FILE TO BE IMPORTED box. Unless you're importing your own image, click OK to import this image. If you're importing your own image, then type the path to it in the box and click OK.
- 3 The next dialog that appears allows you to set the HEIGHT SCALE of the imported image. A higher number will result in deeper valleys and taller mountains. For this example, leave this setting at the default 100 and click OK to enter the editor.

LOADING A MAP

To load a map from one of the game's existing map files, or to load a map you have already been working on, click LOAD MAP on the EDITOR menu. From the dialog box that appears, scroll down the list and click the map you want to load. If you're choosing a map that's already in the game, you'll see the text description of the map as well as an overhead view of it. Be careful—if you select one of the game's existing maps, edit it, then save it, it won't play correctly in the game.

Once you've selected your map, click OK in the LOAD MAP dialog box to enter the editor.

IN 1941, ALCO CREATES THE BIG BOY—THE LARGEST STEAM LOCOMOTIVE EVER BUILT.

THE "HEAVY GUSTAV" ("SCHWERE GUSTAV") WAS THE LARGEST RAILROAD GUN EVER BUILT. COMPLETED IN 1941, THE GUSTAV RAN ON SPECIAL DOUBLE TRACKS, HAD A TOTAL WEIGHT OF 1,349,970 KG, AND HAD A GUN BARREL LENGTH OF 29 M (95FT).

EDITOR BASICS

The main editor screen should look very familiar to you—it's virtually the same as the main game interface. All the game views—RADAR AREA, LIST BOX, DETAIL VIEW, ACTIVITY BOX, and the MAIN WINDOW—are here. The main difference is in the editing tools surrounding the MAIN WINDOW. The same buttons you use within the game are here, but there are several additional tools you'll need to use in editing the map. In all, there are 19 buttons—four just above the ACTIVITY BOX, nine down the left side of the screen, and six more along the right edge of the screen.

NAVIGATING THE MAP

The four buttons just above the ACTIVITY BOX are still used to navigate the map. You can rotate the map left or right, or zoom in and out using these oval-shaped buttons. The RADAR AREA in the lower left corner of the editor screen allows you to click on it to center the Main Window view. In large maps, it's much easier to click and drag in the RADAR AREA than scroll around in the Main Window.

When you select an editing tool, the LIST BOX will change to give you the options for that tool. Another important tool is the UNDO tool. This is the double-arrow icon on the right side of the screen. Click it to UNDO the last action you performed.

MAP EDITING TOOLS

In the tools surrounding the editor screen, there are six map editing tools—a MAP OPTIONS tool, and seven game play buttons (you can't use these, even in the editor, until you control a company). For our purposes, we'll skip all the game play icons—LAY TRACK, BULLDOZE OBJECTS, BUILD A NEW STATION, PURCHASE A NEW TRAIN, STOCK MARKET, CONTROL PANEL, and FILE OPTIONS—since they are all covered in Chapter 2, Tutorial and in Chapter 3, The Main Window.

RAISE/LOWER GROUND
PAINT TERRAIN
FILL TERRAIN
ADD TREES
TERRITORIES
LAY TRACK
BULLDOZE OBJECTS
BUILD A NEW STATION
BUILD NEW BUILDING



UNDO
MAP OPTIONS
BUY TRAIN
STOCK MARKET
CONTROL PANEL
FILE OPTIONS

"PASSENGER SERVICE IS
LIKE A MALE TEAT—
NEITHER FUNCTIONAL
NOR ORNAMENTAL."
JAMES J. HILL

IN 1946, ANDRÉ
CHAPELON, "THE
GENIUS OF FRENCH
STEAM," CONVERTED
A 20-YEAR-OLD 4-8-2
LOCOMOTIVE INTO
THE MOST POWERFUL
LOCOMOTIVE IN
EUROPE. CALLED THE
4-8-4 A1, IT REACHED
8,000 HP IN TRIALS
IN 1952.

The six map editing tools are:

RAISE/LOWER GROUND



This tool enables you to raise or lower the terrain under the cursor. There are three options in the LIST BOX when you select this tool, as well as a brush size selection panel on the right side of the LIST BOX. The three options are:

- **RAISE OR LOWER GROUND**—Click and hold as you move your mouse up or down to alternately raise or lower the terrain.
- **SMOOTH OUT AN AREA**—This takes sharp cliff edges and rough terrain features and smooths them into more gentle curves without sacrificing height.
- **LOWER AN AREA TO SEA LEVEL**—This world-changing option will bring mountains to their knees. Use it to radically modify your map.

Use the brush size selector to choose the area for any of these three effects.

PAINT TERRAIN



This is the tool you use to paint various types of terrain on your map. Everything from dry, desolate deserts to lush, green grasslands are available to customize your maps. When you click this button, the LIST BOX becomes a palette, allowing you to choose your terrain. In addition to the palette, there's a brush size selection tool on the far right side of the LIST BOX, and two more tools as well:

- **SOLID**—This paints the terrain solid with the texture you choose from the LIST BOX.
- **MIX**—Clicking this tool changes the palette in the LIST BOX to mixtures of terrain, rather than solid types. Consider using this tool when you want to cover large areas without making it look too uniform.

FILL TERRAIN



The FILL TERRAIN tool works much like the PAINT TERRAIN tool, with one important difference—it completely fills the selected area, based upon the choices you make from the right side of the LIST BOX when this tool is selected. There are five options to choose from. You must first toggle the ALL or ADJ buttons on, before selecting MATCH, ABOVE, or BELOW.

In the LIST BOX, select one of these two:

- **ALL**—When toggled on, this button fills terrain across the entire map. Useful for covering an all-land map with one texture.
- **ADJ**—This toggle sets the FILL TERRAIN tool to fill terrain adjacent to the selected square.

IN THE 1950S,
CANADIAN NATIONAL
AND CANADIAN PACIFIC
BEGAN ACQUIRING
PASSENGER-DIESELS.
BOTH RAILROADS USED
CANADIAN-BUILT
GENERAL MOTORS
DIESEL (GMD)
FP7s. FP9s.

Then select from these three options:

- **MATCH**—Use this tool to fill terrain that matches the type (such as desert) of the selected square. This is useful for quick replacement of a terrain you want to change across the entire map.
- **ABOVE**—Use this tool to fill terrain at or above the selected square. This is an elevation-based fill tool that works best for filling small areas that vary in height.
- **BELOW**—Use this tool to fill terrain at or below the selected square. This is the opposite of the ABOVE tool. Use this tool to fill in your oceans quickly.

ADD TREES



Trees are optional, but they definitely give your creations a finished look. Everything from pines, to jungle vegetation, and even desert cacti are available from the LIST BOX when you select this tool. Use the tools on the right side of the LIST BOX to either ADD TREES, or CUT TREES DOWN if you change your mind. Use the brush size menu to select an area to fill with trees.

TERRITORIES



You can set up territories by using this tool. Click the tool, then double-click the UNNAMED territory in the LIST BOX. The TERRITORY SETUP box will appear. You can set the following options for each territory:

- **NAME**—Here you can enter the name of this territory.
- **DEFAULT GOODWILL**—Set this level from 1 to 100 to determine the territory's overall goodwill tendency toward players: 1 is horrible, 100 is good.
- **BORDER VISIBLE**—This toggles border visibility on the map (your first territory must have a visible border). Invisible territories can be used to trigger events.
- **ALLOW SEPARATE RIGHTS PURCHASES**—Clicking this check box means that for this territory, RUN TRAINS and LAY TRACK require separate access rights. Leaving a box empty means that both access rights are always granted for that action.
- **BUYABLE**—Click this box to set a price for access rights in the territory. Leave this setting unchecked to never allow the rights to be purchased.

Once you're done with your first one, you can add multiple territories by clicking **ADD A NEW TERRITORY** in the LIST BOX.

BUILD A NEW BUILDING



This tool enables you to do several things. When you click it, the LIST BOX contains a list of all available buildings in the game, along with five SPECIAL commands:

- **ADD CITY**—Cities are a quick way to add industry to your map. The game will place all the industry buildings within a city for you, based upon your choices. Clicking the map after clicking this command brings up the ADD CITY dialog box. There are two tabs here: GENERAL and INDUSTRY.

GENERAL—Use this tab to set the city TYPE, NAME, SIZE, and ARCHITECTURE for its buildings.

INDUSTRY—This is the tab where you set the likelihood of an industry appearing in the city with the INDUSTRY WEIGHTING sliders. When you do this, you don't have to place all the industry buildings yourself—the game will randomly place them based upon these weights. This saves time when editing a map. A weight of 0 means that the industry has no chance of appearing in the city, while a weight of 200 means that it has twice the normal chance. For instance, you might give Detroit a 200 percent weighting for having an AUTO PLANT appear in it during the game.



- **ADD REGION**—A region is a larger area than a city that can be set up in the same way. Fill in the info on the GENERAL tab, then set the INDUSTRY weights just as you would for a city. Regions work well for incorporating a certain type of industry with a region of terrain. For example, set up a region in the mountains and give the region 200% weights for coal and iron mines with a very low building density to keep them spread out.
- **ADD LABEL**—Labels are any text you want to add to the map. You might use labels for landmarks, rivers, or at territory borders.
- **LAY RIVER**—Use this tool to place a river on the map. If a body of water is not laid down with this tool, players won't be able to bridge it. Only use the PAINT TERRAIN water set for areas you don't want bridged.
- **RESERVE CELLS**—Because the game will randomly place industry buildings, you may want to reserve certain cells so that nothing is placed on them. Add a few of these to any city to provide an open spot for players to build stations.

THE ICONS THAT APPEAR ON THE MAP WHEN YOU USE THE ADD CITY, ADD REGION, AND ADD LABEL COMMANDS WILL NOT SHOW IN THE GAME. WHAT YOU'LL SEE IN THE GAME IS THE FULLY GENERATED CITY OR REGION, OR THE TEXT LABEL LOCATED WHERE YOU PLACED IT.

Aside from using the special commands above, you can build a new building by selecting one from the LIST BOX, then placing it on the map.

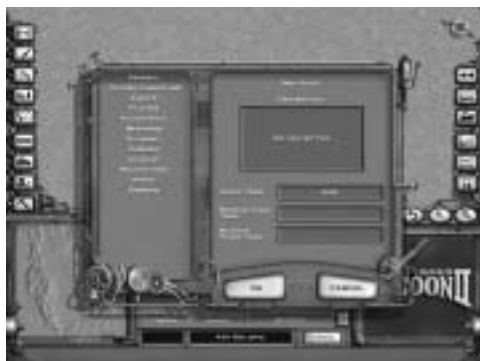
THE LONGEST TUNNEL IN NORTH AMERICA IS THE SECOND CASCADE TUNNEL; IT MEASURES 12.5KM (7.7 MILES) IN LENGTH.

THE DEVELOPMENT OF THE TELEPHONE IN THE 1880'S DID NOT REPLACE THE TELEGRAPH IN DEPOT OPERATIONS UNTIL THE 1980'S.

MAP OPTIONS

Located just below the UNDO tool, the MAP OPTIONS tool is extremely important. Here is where you'll set the properties of your map, by clicking on each of these items:

- **GENERAL**—Once you have MAP OPTIONS open, GENERAL is the first section you need to fill in. The map's DESCRIPTION, which is the text that appears when a player selects this map for play, can be filled in here. In addition, you can set the START YEAR, or a range of years starting with a MINIMUM START YEAR, and ending with a MAXIMUM START YEAR.



- **EVENTS**—To add an EVENT to your map, you first click ADD on the EVENTS screen. The list of settings on the left—TRIGGER, MESSAGE TEXT, FREQUENCY, EFFECT, and COMMENTS—all inter-relate. A change you make to one of them directly effects another, so take your time here in order to get things right. Here's a summary listing of the events:

TRIGGER—This set of options enables you to choose what sort of event you are setting up, as well as setting up the trigger formula itself. Since trigger creation is a fairly complex task that most users won't want to delve into, a full documentation of trigger usage is included in a separate file—**EDITOR.TXT**—on the Railroad Tycoon II CD.

MESSAGE TEXT—This set of options enables you input the text that will be displayed when the event happens. It can be displayed as a DIALOG, NEWSPAPER headline, or as a CHOICE. If you select CHOICE, you will then have to code two effects, one for each choice.

FREQUENCY—How often do you want your trigger tested to see if the event occurs? Set it up from here.

EFFECT—When the event is triggered, the settings you make here will dictate what happens in the game. You can make these effects PERMANENT or TEMPORARY. Scroll through the list of EFFECTS, click the ones you want, then move their sliders to left or right to engage them. Each slider has different settings, so experiment to find the exact settings you want.

COMMENTS—Here you can include comments about this event. These are for your reference only—your comments will not be seen in the game.

DIGGING ON THE EUROTUNNEL ACTUALLY STARTED IN 1881 IN ENGLAND. HOWEVER, THE AUTHORITIES HALTED THE WORK DUE TO FEARS OF A FRENCH INVASION.

PLAYERS—The PLAYERS tab is where you set the number and identities of all players in the map. In the grid at the top of this screen, ADD the number of player slots you want. They will all show as UNASSIGNED for now. Highlight one of the UNASSIGNED slots, then, in the area below the grid, click the up or down arrows to select players for each slot. You can set players to be MANDATORY or OPTIONAL, HUMAN, COMPUTER, or EITHER. . The CASH box is where you enter the amount of cash each player will start the game with.



PLAYER POOL—The PLAYER POOL screen is where you dictate the players that can be chosen for the map. Player positions that are UNASSIGNED are drawn from this pool, which can be set to a North American, European, or World player set.

MANAGERS—Select the MANAGERS you want allowed in the game from this screen. If they are not checked here, they won't be in the game except in special circumstances such as for an EVENT, or if the game runs out of allowed managers to use.

ECONOMY—In the ECONOMY screen, you can set the STARTING ECONOMIC LEVEL, as well as the ANNUAL GROWTH RATE for the economy. Follow the recommended settings, unless you want some very interesting—and unrealistic—results.

ENGINES—You may want to limit the ENGINES that can be in the game. Any ENGINES left un-checked on this screen will not appear in the game for this map, unless you have set up an EVENT that allows them.

INDUSTRIES—This screen enables you to select only those INDUSTRIES you want on your map. This won't effect any you have placed directly, but it will effect the random placement done for cities and regions.

RESTRICTIONS—The RESTRICTIONS screen contains a list of game actions that you can disallow. RESTRICTIONS are things that can't be done in this map. Checking them keeps your selections from happening.

PORTS—This section screen is where you set up what each port supplies and demands. Note that PORTS are global in nature, so you don't set these settings for individual ports. If you set a demand and a supply for an entry, the demand must be delivered to generate the supply.

BEFORE THE EUROTUNNEL, THE SIMPLON TUNNEL BETWEEN ISELLE, ITALY AND BRIG, SWITZERLAND WAS THE WORLD'S LONGEST AT 20 KM (12 MILES 537 YARDS)

THE WORLD'S LONGEST STRETCH OF STRAIGHT TRACK IS 456 KM (285 MILES) IN THE NULLARBOR PLAINS OF AUSTRALIA.

ROBBERS—Unless you want to reflect a crime-ridden society that even Superman would be hard-pressed to keep in line, don't set the **OVERALL ROBBERY LEVEL** at the upper end of the scale. The Jesse James era, circa 1875, would be about 200 on this scale, while a more crime-free period would be around 30.

You're done! If you've followed this manual in order, you've seen all the commands **Railroad Tycoon II** and the map editor have to offer. However, the commands are just a means to an end—as you play the game, you'll discover that **Railroad Tycoon II** satisfies your urge to plan, create, and manage a high-profile business like nothing else around. Good luck!

IN 1990, THE FRENCH
TGV ATLANTIQUE SETS
A WORLD RECORD SPEED
WHEN IT TRAVELS AT
A SPEED OF 319 MPH
(515 KPH) BETWEEN
PARIS AND LYON.



IN THIS APPENDIX:

- THE MEN OF IRON
- THE IRON HORSES
- THE INDUSTRIES
- TECH SUPPORT AND TROUBLESHOOTING
- CREDITS
- LIMITED SOFTWARE WARRANTY AND LICENSE AGREEMENT

Appendix



A. THE MEN OF IRON

Some of the great entrepreneurs of the last 100 years—J. P. Morgan, James Hill, Cornelius Vanderbilt to name but a few—made their fortunes (or enhanced them) by running massive railroad empires, or supporting those of others. In addition to this larger-than-life group of chairmen, Railroad Tycoon II also enables you to hire managers that effect your railroad in various ways.

The following section gives each influential man's name and description. From this information, you can get a good idea of which chairmen are most likely to give you a run for your money, and which managers would be good to have on your team.

THE CHAIRMEN

OTTO VON BISMARCK

The Iron Chancellor of Germany, Bismarck had invested heavily in railroads before he instituted state ownership. He also had the government buy up all private railways for a tidy sum.

GERSON VON BLEICHRODER

Financial adviser to Bismarck and one of the richest men in Europe in the 1880's, he organized the financing for many Imperial German railroads both at home and abroad.

ISAMBARD KINGDOM BRUNEL

An inventive and excellent engineer in his time with an eye for the grandiose, Brunel founded the Great Western, South Wales, and Great Eastern Railways in England.

JAY COOKE

A well-trusted banker and financier, Cooke handled the federal loans that financed the North during the American Civil War.

CHARLES CROCKER

Crocker was the bullwhip of the "Big Four" for the Central Pacific Railroad. He did the dirty work of overseeing the installation of CPR's part of the American Transcontinental Railroad. He's considered a bully by most.

COUNT HENCKEL VON DONNERSMARCK

A skillful German aristocrat in the 1880's, Donnersmarck invested heavily in early German industry.

DANIEL DREW

Along with Fisk and Gould, Drew issued "watered" stocks in a successful bid to stop C. Vanderbilt from taking control of the Erie Railroad. Later his two "partners" undermined him financially and left him bankrupt.

HENRY FARNAM

Farnam and T. Durant co-owned the Chicago & Rock Island Railroad, which built the first railroad bridge across the Mississippi River from Rock Island, Ill., to Davenport, Iowa.

JAMES FISK

"Big Jim" lived his life without regard to his reputation. Along with J. Gould, Fisk attempted to corner the gold market. The ensuing panic cause the "Black Friday" market crash of 1869 in the United States.

SIR SANFORD FLEMING

He surveyed the route of the Canadian Pacific Railway. Sir Fleming was considered a good engineer and tireless worker.

JOHN C. FREMONT

Fremont made his fortune when gold was discovered on his land in California. The 5'2" Fremont was an explorer and the champion of a central path to the Pacific along the Santa Fe Trail.

JAY GOULD

Gould started speculating on railroads at the age of 21. Along with Fisk, he tried to corner the gold market which sparked the market crash of 1869 also known as Black Friday. Gould is best-/worst-known for his ruthless financial attacks.

ADOLPH VON HANSEMAN

Von Hanseman co-founded the Romanian Railway Company, the reorganization of which saved the fortunes of many European aristocrats in the late 1800's.

EDWARD HENRY HARRIMAN

An aggressive railroad magnate condemned by the 1907 Interstate Commerce Commission for his business practices, Harriman was James Hill's arch rival.

JAMES HILL

A friend of J. P. Morgan, Hill was considered a shrewd businessman and idealist amongst his mogul friends. His battle for control of the Chicago, Burlington & Quincy Railroad set off the U.S. market panic of 1901.

SIR FRANCIS HINCK

Hincks helped create the Nova Scotia Railway and was active in Canadian politics in the 1880's.

CYRUS HOLLIDAY

Holliday worked as a railroad contractor before starting the Santa Fe Railway in 1860. He also helped found the city of Topeka, Kansas.



OTTO VON BISMARCK



GERSON VON BLEICHRODER

ISAMBARD KINGDOM
BRUNEL

JAY COOKE

MARK HOPKINS

A member of the Central Pacific RR's "Big Four," Hopkins was a financial miser and often referred to as "the most stubborn man alive."

COLLIS HUNTINGTON

Another of the Central Pacific RR's "Big Four," Huntington was known as the "Great Persuader," limiting competition and squeezing funds from the U.S. government.

J. P. MORGAN

Morgan specialized in the creation of enormous business consolidations, often putting many out of work but improving company performance. He created the giant U.S. Steel Corporation.

GEORGE PLATNER

Platner created the first German railway, running between Nürnberg and Fürth, in 1833. The Englishman William Wilson became quite the celebrity as the first locomotive engineer of this line.

CECIL RHODES

Born the son of an English preacher, Rhodes made his fortune in early South African diamond mines. Later he attempted to build a railroad from Cape Town, South Africa, to Cairo, Egypt. Rhodes died in 1902 and the railway has yet to be completed.

THOMAS SCOTT

Although a seasoned owner of the Pennsylvania Railroad, Scott lost a right of way battle to C. Huntington for a southern transcontinental railway through political trickery.

LELAND STANFORD

Stanford started as a lawyer in Wisconsin and ended up a senator and governor of the state of California. Stanford was the political muscle of the Central Pacific RR's "Big Four."

SIR GEORGE STEPHEN

Sir Stephen helped construct the Canadian Pacific Railway. Stephen worked as a clerk in a woolen manufacturing company and within ten years became its majority stockholder.

LORD STRATHCONDA

A.K.A. Donald Smith, Strathconda was a transplant to Canada from Scotland. Smith's first career was with the Hudson Bay Co. Late in life, he worked with Hill and Stephen to take over a bankrupt Minnesota line that later became known as the Great Northern.



CHARLES CROCKER

COUNT HENCKEL VON
DONNERSMARCK**GEORGE F. TRAIN**

Trains was seen as a wild investor with a Midas touch. During a delay in construction of the Union Pacific, Train built a hotel in Omaha because he didn't like the one that was there. A passionate man, people enjoyed listening to his speeches.

CORNELIUS VANDERBILT

Vanderbilt began with the creation of a Staten Island ferry. He was an aggressive corporate builder. Founder of the New York Central Railroad, Vanderbilt made an enormous profit on the first New York to Chicago rail service.

EMPEROR MEIJI

Meiji opened Japan to industrialization and introduced steam locomotives to Japan. Meiji, not wanting to depend on westerners for skilled work, also sent many people abroad to study and bring back technology important to Japan.

GEORGE HUDSON

Hudson made his money the old-fashioned way—he inherited it. Hudson's passion to control all British railways lead Britain in a scandalous dance in worthless railway financing. Hudson could have been the earliest poster-boy for future railroad barons.

NAPOLÉON III

Emperor of France in the mid to late 1800's, Napoleon III was credited with greatly expanding the French railway. He's also credited with being incompetent—an example that you can't have everything.

PHILIP THOMAS

Originally involved with the early canal enterprises in New England, Thomas gave up his position as the commissioner of the Chesapeake & Ohio Canal system to become the president of the first fully operational steam railway in the United States, the Baltimore & Ohio Railroad Company.

THOMAS DURANT

A number crunching geek with dreams of grandeur, Durant organized the Credit Mobilier of America in order to bilk the American government out of millions to pay for inflated railroad construction prices. The operation was so successful that he lost control of it to corrupt American politician Oakes Ames.

JAWAHARLAL NEHRU

Nehru was the first Prime Minister of India in 1947. Upon his election, he immediately began major improvements to India's industrial infrastructure.



DANIEL DREW



HENRY FARNAM

CLEMENT ATTLEE

As Prime Minister of the United Kingdom in 1945, Attlee began the nationalization of British railroads amongst many other sweeping changes.

GENERAL GENTARO

During Japan's imperialistic expansion in the late 1800's, Gentaro governed Taiwan. Though the rule was harsh, it also brought an industrial infrastructure that was sorely needed.

MAO ZEDONG

Mao lead the Chinese Communist Party to victory in civil war and unified China. He began a major reorganization of China's industries and social structure—naturally not all his decisions were necessarily good.

CHIANG KAI-SHEK

Chiang Kai-Shek united China under one government in the mid-1930's. The outbreak of war with Japan and a civil war cut short Chiang's designs for an industrialized China.

WILLIAM WHEELWRIGHT

Born in the United States, Wheelwright sought his fortune in South America. He built the first railroad in South America in 1848 and began the Grand Central Argentine Railway.

MINOR KEITH

Keith created the International Railways of Central America. Being ever vigilant, Keith realized an opportunity in the growing of bananas along his railroads and made a fortune in fruit production.

THE MANAGERS**AMES OAKES**

Oakes was a congressman from the state of Massachusetts. He was condemned for his part in the Credit Mobilier Scandal and the Union Pacific Railroad.

FREDERICK BILLINGS

A competent manager of the Northern Pacific Railroad from 1875–81, Billings lost control of the Northern Pacific Railroad to Henry Villard, who put it into bankruptcy two years later.



JAMES FISK



SIR SANFORD FLEMING

EUGENE V. DEBS

Debs founded the American Railway Union in 1893. He was also the founder of the U.S. Socialist Party. Debs was a true anti-hero in the U.S. railroad annals. He might be nice to have on your side.

JOHN WORK GARRETT

Turned the poorly run Baltimore & Ohio Railroad Company into a powerhouse. Ran the B&O for 26 years after a successful stockholder take-over in 1858.

ROBERT GERWIG

A German construction engineer, Gerwig was in charge of the construction of the Blackforest Railroad. Gerwig proved to be an excellent track and tunnel builder.

DANIEL GOOCH

Gooch helped introduce broad-gauge rail in England as the Superintendent of the Great Western Railway in 1845.

CHARLES MELVILLE HAYS

An American brought in to reorganize the Canadian Grand Trunk Railway in 1895, Hays was noted for his ruthless efficiency.

JOHNS HOPKINS

A successful merchant in Baltimore, Hopkins was well remembered as a philanthropist. He also bailed out the Baltimore & Ohio Railroad Company in 1847.

THEODORE D. JUDAH

"Crazy Ted Judah" was a railroad visionary. He also championed the transcontinental railroad cause. Judah had an agreement to buy out the Central Pacific Railroad; however while on route from Nicaragua to New York to close the deal, Judah contracted yellow fever and died.

CHARLES F. MAYER

Mayer had a tendency for expansion when running railroads. Luckily, he was good at it.

OSCAR G. MURRAY

Murray was considered one of the best traffic directors of his time. He ran the Baltimore & Ohio Railroad from 1904–1910.

GEORGE NAGELMACHER

A Belgian version of George Pullman, Nagelmacher founded the Wagons-Lits company and created passenger cars used all over Europe. His cars were often featured on the Orient Express.



JOHN C. FREMONT



JAY GOULD

WILLIAM J. PALMER

Palmer micromanaged several successful coal runs for the Denver and Rio Grande Railroad.

GEORGE STEPHENSON

A major contributor to early steam locomotives and railroading, Stephenson taught himself how to read and write. He built his first steam locomotive in 1814.

WILLIAM STRONG

Well regarded for his ability to surround himself with the best people in the industry, Strong was a stern and successful director of the ATSF railway.

THOMAS SWANN

Swann ran the Baltimore & Ohio Railroad from 1848–53. An early right-of-way specialist, he received concessions from Virginia to expand B&O operations in 1848.

RICHARD TREVITHICK

Trevithick created the first locomotive for a rail system at Coalbrookdale (United Kingdom) in 1804.

GINERY TWITCHELL

Politically well-connected, Twitchell ran the Boston & Worcester Railroad and ATSF Railroad as well as becoming a member of the U.S. Congress in 1867–73.

WILLIAM C. VANHORNE

VanHorne is credited with the expert general management of the construction of the Canadian Pacific Railway Co.

GEORGE WESTINGHOUSE

An inventive genius, Westinghouse created a variety of locomotive safety devices, not the least of which were the safety signals and the air break

ROY B. WHITE

White took over the operations of the Baltimore & Ohio Railroad during the crisis of WWII. Demand on railroads around the world were taxed to their limits during this time.

DANIEL WILLARD

Noted for being diligent and creative, Williard was nothing if not dependable.

ALBERT A. ROBINSON

Robinson was responsible for the laying of over 5,000 miles of track while in charge of the ATSF Railway. He had a reputation for honesty and integrity.

PHILIP RANDOLPH

Randolph founded the Brotherhood of Sleeping Car Porters Union in 1935. Later he became a Vice President of the AFL-CIO in 1957.

ANDREW CARNEGIE

Born in Scotland, Carnegie managed the Pittsburgh section of the Pennsylvania Railway and latter became one of the first steel railway bridge manufactures. Carnegie is best remembered as a great philanthropist.

RUDOLPH DIESEL

Diesel invented the oil burning engine that would later bear his name. Unfortunately for Diesel, bad financial dealings and unscrupulous businessmen ensured Diesel's financial failure.

BEN HOLLADAY

Holladay was one of the most successful early stagecoach operators in the western United States. Holladay bought the Pony Express and made a fortune in carrying mail and freight across the west. Later, poor investments in Oregon railroads and the panic of 1873 cost him his fortune.

BAT MASTERSON

Scout, Indian fighter, Buffalo hunter, and railroad worker, Masterson was a study in Western U.S. legends. As deputy sheriff of Dodge City and security man, Masterson became a legendary gunfighter.

HENRY BOOTH

Manager of the Liverpool & Manchester Railway in 1829, Booth helped develop the earliest operation procedures for railways.

ANDRE CHAPELON

This Frenchman's work was to revolutionize steam engine design. His conversion of existing steam engines produced enormous increases in power. Many of his designs were adopted worldwide.

THOMAS CRAMPTON

Crampton's engine designs, though not popular in his home country of Britain, were very popular in France and Germany, and they influenced designs in mainland Europe for centuries.

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DR. ROBERT GARBE

A prominent railway engineer for the Prussian State Railways from 1895–1917. His locomotive design P8 4-6-0 was distributed worldwide.

HERBERT GARRATT

Patented a unique articulated locomotive that was ideal for sharp curves and efficient power generation. Unfortunately these designs never gained popularity in the United States or Europe, but found strong use in many other countries.

HENRI GIFFARD

Giffard invented a water injector that increased steam production; steam was power.

ALLEN MACNAB

Director of the Great Western Railway and a Canadian legislator from 1830–62.

GEORGE PULLMAN

Pullman created the Pullman Palace Car Company. His parlor and sleeping car designs revolutionized passenger service on railroads around the globe.

DR. WILHELM SCHMIDT

While working for the Prussian State Railways, Dr. Schmidt introduced the super heater to the world of steam locomotives. This was a major overall improvement to steam power.

ERNST SIEMENS

A brilliant German inventor, Siemens created the first practical electric vehicle in 1879. He also created the first public street railway.

ROBERT STEVENS

A ferry and steamboat designer of some notoriety, Stevens invented the “T” rail, railroad spike, and improved railroad bed-laying techniques.

JOHN WOOTTEN

Wootten designed the “Wootten Firebox” which would burn bituminous coal. The ability to burn this low-quality coal produced great savings for steam engines with this device.



CYRUS HOLLIDAY



MARK HOPKINS

B. THE IRON HORSES

Few man-made things are as impressive as locomotives, and Railroad Tycoon II includes over 60 of them. These massive machines were the marvel of their time, and it’s still awe-inspiring that they were constructed in an age when assembly line production was unheard of, or at best only in its infancy. Crafted might be a better word than built or constructed for these historical machines, and it’s that very craftsmanship that is reflected in their models in the game.

Table 4-1 lists brief descriptions of each locomotive in the game that include the name of the engine, the year they were produced, type of engine (steam, diesel, or electric), their initial cost, fuel cost, annual maintenance cost, speed, and weight. Use this table as a quick reference when you’re deciding which locomotives to use.

TABLE 4-1. THE IRON HORSES AT A GLANCE

NAME	YEAR	TYPE	INIT. COST (\$)	MAINT. COST	FUEL COST	SPEED (MPH/KPH)
Trevithick 0-4-0	1804	Steam	10,000	6,000	330	5/8
Rocket 0-2-2	1829	Steam	16,000	6,000	330	26/42
John Bull 2-4-0	1831	Steam	13,000	5,000	340	18/29
DeWitt Clinton 0-4-0	1833	Steam	12,000	5,000	340	15/24
The Prussia 4-2-0	1837	Steam	14,000	5,000	350	27/43
American 4-4-0 Class C	1848	Steam	46,000	5,000	12,606	42/68
Iron Duke 4-2-2	1855	Steam	78,000	9,000	30,736	54/86
8-Wheeler 4-4-0	1863	Steam	59,000	5,000	17,808	48/77
Vulcan 2-4-0	1872	Steam	29,000	4,000	370	30/48
Consolidation 2-8-0	1877	Steam	51,000	8,000	19,512	45/72
3-Truck Shay	1882	Steam	43,000	17,000	18,227	12/19
Mastodon 4-8-0	1890	Steam	60,000	13,000	22,995	45/72
Ten Wheeler 4-6-0	1892	Steam	66,000	11,000	21,727	50/80
1-3 BoBo	1895	Electric	85,000	6,000	33,116	60/97
Mogul 2-6-0	1895	Steam	83,000	12,000	25,131	50/80
Atlantic 4-4-2	1902	Steam	93,000	18,000	43,556	80/129
Camelback 2-6-0	1905	Steam	75,000	9,000	15,000	30/48
Pacific 4-6-2	1908	Steam	119,000	21,000	62,516	95/153
Class G10 0-10-0	1910	Steam	98,000	38,000	50,521	50/80
Prairie 2-6-2	1912	Steam	85,000	9,000	34,157	60/97
American 4-4-0	1914	Steam	65,000	10,000	21,024	45/72
Class XIII H 2-10-0	1917	Steam	102,000	36,000	46,289	40/65
USRA 0-6-0	1918	Steam	90,000	13,000	29,993	40/64
Mikado 2-8-2	1919	Steam	133,000	32,000	51,072	55/89
Class Be 4/6 II	1920	Electric	61,000	11,000	14,701	32/52



COLLIS HUNTINGTON



J. P. MORGAN

TABLE 4-1. THE IRON HORSES AT A GLANCE (continued)

NAME	YEAR	TYPE	INIT. COST (\$)	MAINT. COST	FUEL COST	SPEED (MPH/KPH)
Class B12 4-6-0	1923	Steam	146,000	14,000	32,407	71/114
Ee 3/3	1923	Electric	47,000	7,000	11,880	31/50
Class 1045	1927	Electric	95,000	6,000	11,636	40/60
0-8-0	1930	Steam	98,000	20,000	32,236	45/72
Mallard 4-6-2 Class A4	1935	Steam	200,000	19,000	55,136	126/202
GG1	1935	Electric	285,000	19,000	42,721	100/160
Class E18	1936	Electric	97,000	16,000	27,493	93/150
Daylight 4-8-4	1937	Steam	230,000	30,000	63,611	80/129
Hudson 4-6-4	1937	Steam	210,000	21,000	54,017	90/145
Class J3a 4-6-4	1938	Steam	255,000	23,000	28,000	103/166
Class Ae 8/14 Landi-Lok	1939	Electric	210,000	37,000	47,906	68/110
Big Boy 4-8-8-4	1941	Steam	375,000	70,000	88,040	68/110
Class 1020 Co-Co	1941	Electric	119,000	23,000	21,545	56/90
Penn. T1 4-4-4-4	1945	Steam	284,00	30,000	78,213	80/129
F3, F3B	1945	Diesel	265,00	16,000	52,150	85/137
PA-1	1946	Diesel	210,000	16,000	52,800	100/160
F7A-(F9 game +)	1949	Diesel	337,000	15,000	63,000	120/164
GP9	1954	Diesel	165,000	15,000	48,028	71/114
E 69 02	1955	Electric	86,000	10,000	12,837	31/50
GP18	1958	Diesel	245,000	15,000	53,878	83/134
Class V200 (1953 orig.)	1959	Diesel	160,000	19,000	53,878	87/140
E44	1960	Electric	370,000	22,000	37,971	70/113
Class 55 Deltic	1961	Diesel	480,000	15,000	52,155	100/160
Shinkansen Bullet Train	1966	Electric	650,000	66,000	66,680	130/210
FP45(p87, red book)	1968	Diesel	366,000	22,000	65,740	103/166
SD45	1972	Diesel	360,000	22,000	36,009	65/105
E60CP	1973	Electric	260,000	19,000	38,043	85/137
SDP40	1973	Diesel	292,000	18,000	61,966	103/166
Class E111	1974	Electric	390,000	17,000	38,016	85/137
E656 Camino-FS	1975	Electric	226,000	17,000	37,734	93/150
Dash-9	1993	Diesel	478,000	32,000	68,410	70/113
AMD-103	1993	Diesel	425,000	25,000	88,068	103/166
Thalys	1994	Electric	1,000 K	40,000	111,756	186/300
Class 232	1997	Diesel	492,000	35,000	72,625	75/120
Mag-Lev TBX-1	2008	Electric	2,500K	200,000	274,139	280/448



GEORGE PLATNER



CECIL RHODES

C. THE INDUSTRIES

The men and machines of railroad history wouldn't be noteworthy if it weren't for the industries they directly and indirectly created, supplied, and profited from. The following section contains information about the various industry types/buildings in Railroad Tycoon II. The columns are self-explanatory for the most part: **Name** = the name of the building, **Purchase \$** = Purchase Price, **Demands** = what the building needs for production, **Produces** = what the building produces, **Qty. Annually** = the number of cars filled annually, and **Bonuses** = production bonuses.

If there is nothing in the **Demands** column, then that building produces without need of outside materials. Note that in the **Demands** column, items separated by a comma indicate non-dependent items, which means the building produces two different things, or two types of the same thing (Goods, for example) from the items. Items separated by a plus (+) symbol indicate that both items are required for production. A few buildings have nothing listed in the **Produces** column because they either produce things that aren't transportable (Electric power) or they are the end point for materials that reach it (Landfill). If the **Produces** column has "N/A" in it, this means that the building's amount of annual production is directly dependent upon how much demanded material is supplied.

ALUMINUM MILL



Produces aluminum, which is used in canning and other manufacturing processes. Tool and die factories can use a steady supply of aluminum.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$500,000	Bauxite	Aluminum	N/A	—



AUTO PLANT

Send this plant steel and tires, and it will spit out autos. Autos will be demanded by any city; the larger the city, the greater the demand will be.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$600,000	Steel + Tires	Autos	N/A	—

BAKERY



Properly supplied with grain and/or sugar, a bakery can become quite profitable and a decent revenue-producer. Send the food of bakeries to cities and towns.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$300,000	Grain, Sugar	Food	N/A	—



THOMAS SCOTT



LELAND STANFORD



BAUXITE MINE

Bauxite is sent to the aluminum plant. It is only used in the process of manufacturing aluminum.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$150,000	—	Bauxite	2	—

CANNERY



Canneries take bulk coffee or produce, and combine it with steel or aluminum cans to export as canned food. Send a cannery's output to any city or town.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$250,000	Coffee or Produce + Steel	Food (canned)	N/A	—

CATTLE YARD



Moo! Cattle yard's raise cattle for slaughter at your local meatpacking plant. If you ship grain to a cattle yard, your production increases by 50 percent.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$150,000	—	Cattle	3	Grain (Prod. + 50%)



CEMENT PLANT

The cement plant takes gravel and produces cement from it. Cement is demanded by most cities, especially larger ones such as New York City.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$400,000	Gravel	Cement	N/A	—

CHEMICAL PLANT



Chemical plants produce the chemicals that are used in the production of fertilizer. This is a very lucrative industry, since fertilizer is used for all farms, produce, and plantations.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$300,000	—	Chemicals	2	—



SIR GEORGE STEPHEN



LORD STRATHCONDA



COAL MINE

Coal mines are one of the first industries that produce a steady stream of a highly demanded resource. Coal is sent to steel mills, cities, and eventually electric plants.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$300,000	—	Coal	2	—

COFFEE FARM



Coffee is heavily demanded in towns and cities, but after 1876 it has to go through a cannery to be packaged before it can be hauled to a town or city.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$150,000	—	Coffee	2	Fertilizer (Prod. + 50%)

COTTON FARM



Cotton is demanded by textile mills, and is also one of the earliest industries that exists in the game.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$200,000	—	Cotton	2	Fertilizer (Prod. + 50%)

DAIRY FARM



Dairy Farms produce milk early in the game which is accepted by towns and cities directly. Later, they won't accept milk directly unless it has gone through a dairy processor.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$200,000	—	Milk	2	Grain (Prod. + 50%)



DAIRY PROCESSOR

This industry doesn't exist until around 1880, but once it exists, towns and cities won't accept milk that hasn't been through a dairy processor.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$300,000	Milk	Food	N/A	—



CORNELIUS VANDERBILT



EMPEROR MEIJI



ELECTRIC PLANT

Coal and diesel fuel are combined to produce electric power in this structure, which doesn't appear in the game until 1890.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$400,000	Coal, Diesel	Waste	N/A	—



FERTILIZER PLANT

Chemicals are demanded by fertilizer plants to produce fertilizer, that is then sent to every farm or plantation in the game. Fertilizer plants become available in 1905.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$300,000	Chemicals	Fertilizer	N/A	—



GRAIN SILO

Grain silos store and ship grain to bakeries, as well as all animal farms (cattle, sheep, and dairy). Needless to say, this is a very lucrative cargo if routes are managed properly.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$300,000	—	Grain	2	—



GRAVEL PIT

Gravel pits produce gravel that is sent to cement plants to produce cement. This industry becomes available in 1884.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$200,000	—	Gravel	2	—



HOUSING

Housing is unique. As cities grow, more houses crop up. Each one “produces” a certain amount of passengers and mail annually. Both services can be very lucrative between high-demand destinations.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
N/A	—	Passengers/Mail	0.5/0.2	—



IRON ORE MINE

Iron ore is the key ingredient in steel. Unfortunately, you'll have to haul the ore a long way, since most iron ore mines are located in mountainous areas, and steel plants are near cities.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$200,000	—	Iron	2	—



LANDFILL

This is one of the last industries available. Landfills accept waste from electric plants and nuclear power plants.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$300,000	Waste	—	N/A	—



LOGGING CAMP

Found in heavily forested areas, logging camps produce logs and pulpwood. Both products are shipped to lumber mills and paper mills respectively.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$150,000	—	Logs/Pulpwood	2/1	—



LUMBER MILL

Lumber mills demand logs and produce lumber, which is then demanded by cities. Lumber mills are generally located close to cities.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$200,000	Logs	Lumber	N/A	—



MEATPACKING PLANT

Unfortunately for cattle, the meatpacking plant is where they are turned in to food, which is then demanded by cities.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$400,000	Cattle	Food	N/A	—



GEORGE F. TRAIN



GEORGE HUDSON



NAPOLÉON III



PHILIP THOMAS



NUCLEAR PLANT

This industry is not available until 1950, and it produces electric power and waste as a by-product. Nuclear waste is sent to landfills.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$1,000,000	Uranium	Waste	N/A	—

OIL REFINERY



Oil Refineries process oil and turn it into diesel fuel, a hugely important commodity that is heavily demanded by electric plants.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$500,000	Oil	Diesel	N/A	—

OIL WELL



Oil wells pump oil out of the ground, which is then hauled to oil refineries, or directly to cities after 1890.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$200,000	—	Oil	3	—

PAPER MILL



Paper mills produce paper, which is demanded by cities. This industry is available in 1800, very early in the game.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$300,000	Pulpwood	Paper	N/A	—



PORT

Ports are special cases. Their demands and production are set within the map options when a map for the game is created. Up to four different sets of demands/production can be specified for each map. Customs houses are essential additions to your stations that are near ports.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$300,000	Varies	Varies	N/A	—



PRODUCE ORCHARD

Available in 1800, produce orchards ship their produce to towns and cities up until 1876. After that, they must ship to canneries, which in turn send canned fruit to cities for consumption.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$200,000	—	Produce	2	Fertilizer (Prod. + 50%)

RUBBER FARM



Rubber farms are usually not found in North America—at least not in the real world—but you will find them here. However, you won't find any until 1900. They produce rubber that is demanded by tire factories.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$150,000	—	Rubber	2	Fertilizer (Prod.+ 50%)

SHEEP FARM



Cotton plants demand wool and then process it for shipment to textile mills. This industry is available in 1800. Shipping grain to a sheep farm will increase production 50 percent.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$200,000	—	Wool	2	Grain (Prod. + 50%)

STEEL MILL



Steel mills produce steel from coal and iron. Steel is demanded by canneries and tool and die factories.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$800,000	Coal + Iron	Steel	N/A	—



SUGAR FARM

Sugar is produced here, and is then sent to bakeries for conversion into food. This is another industry that's available in 1800.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$200,000	—	Sugar	3	Fertilizer (Prod. + 50%)



THOMAS DURANT



JAWAHARLAL NEHRU



CLEMENT ATTLEE



GENERAL GENTARO



TEXTILE MILL

Textile mills convert raw cotton into goods (garments) that are then consumed in towns and cities. This industry is available in 1800.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$400,000	Cotton, Wool	Goods	N/A	—

TIRE FACTORY



Available in 1900, tire factories produce tires, which are demanded by auto plants in the production of automobiles.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$300,000	Rubber	Tires	N/A	—



TOOL AND DIE FACTORY

All metals produced in the game can be sent to a tool and die factory, which then converts them into various goods. This industry is available in 1800.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$200,000	Iron, Steel, Aluminum	Goods	N/A	—

URANIUM MINE



A uranium mine produces the fuel that nuclear power plants use to make electric power. This industry is unavailable until 1950.

PURCHASE \$	DEMANDS	PRODUCES	QTY. ANNUALLY	BONUSES
\$600,000	—	Uranium	2	—



MAO ZEDONG



CHIANG KAI-SHEK

TECH SUPPORT AND TROUBLESHOOTING

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N. AMERICAN DISTRIBUTION Alliance Inventory Management (AIM)	PACKAGING/ PRINT ADVERTISING PYRO	DOCUMENTATION After Hours Productions Original Railroad Tycoon design by Sid Meier and Bruce Shelley
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