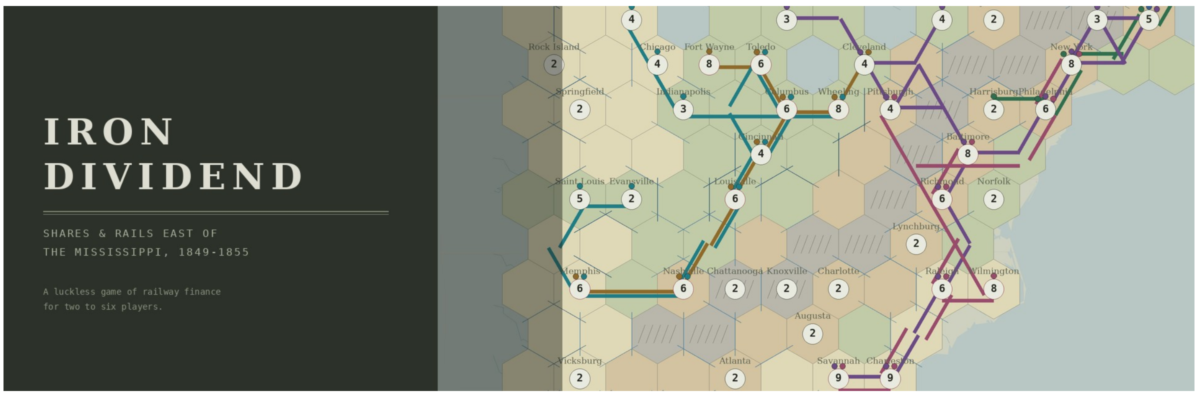
IRON DIVIDEND

SHARES & RAILS EAST OF THE MISSISSIPPI · 1849–1855



Player and developer manual · version 1.0.0

Tronsoft Games

1. The game in one page

You are a capitalist in the years the American trunk lines were built. You never own a railway — you own paper. Six companies are chartered on the board; you buy their shares at auction, and the money you pay goes into the company's treasury rather than to the bank. The company spends that treasury on track. Track reaches cities, cities pay a dividend at the end of each year, and the dividend is split between the shares. The house holding the most cash when the books close in 1855 wins. Shares are worth nothing at the end: a share is only ever worth the dividends it drew.

Nothing in the game is random once the books open. There are no dice and no cards. The set-up is shuffled — which six of the 10 lines are chartered, how many shares each is authorised, which towns are booming, who sits where — and after that every outcome is somebody's decision.

The one idea worth holding on to before you start: **every city is worth less to everyone the moment a second line reaches it**. Expansion is therefore always two things at once, an income and an attack, and the best move on the board is often the one that costs a rival more than it earns you.

2. The board

The map is not drawn by hand. It is generated from real geography: GSHHS shoreline data for the coast and the Great Lakes, the Basemap river net for the rivers, and the Appalachian crest traced from real coordinates for the relief. The frame runs from 92.6° to 68.6° west and 28.9° to 45.7° north, laid out as a pointy-top odd-r hex grid 14 columns by 14 rows at 150 kilometres to the hex. 123 of those hexes are land, in one connected mass, and 44 of them carry real cities.

Ground	Hexes	Build cost	Lines it holds
Open country	46	$3	2
Woodland	35	$4	2
Hills	26	$6	2
Mountains	16	$9	1
City hex	44	by ground	3

A river hexside adds $3 to the cost of crossing it, and the Mississippi and the Ohio add $5: there are 72 ordinary river crossings on the board and 23 great ones. Because the mountains hold only one line, an Appalachian gap taken early is closed to everybody else for the rest of the game — the single most under-priced move on the board.

3. Set-up

Six lines are drawn from a pool of 10, with a rule that keeps them spread across the map: at least 2 in the north-east, 2 in the midwest and 1 in the south. The six share counts 5 / 4 / 4 / 3 / 3 / 2 are shuffled between whichever lines were drawn, which matters more than anything else in the opening — a share of a two-share line is half the company, a share of a five-share line is a fifth of it.

Line	Chartered at	Region
Atlantic & Erie	New York	NE
Keystone Trunk	Philadelphia	NE

Bay State & Western	Boston	NE
Chesapeake Union	Baltimore	MA
Lakeshore Consolidated	Cleveland	MW
Prairie Central	Chicago	MW
Ohio Valley Line	Cincinnati	MW
Mississippi Trunk	Saint Louis	W
Gulf & Southern	New Orleans	S
Piedmont & Seaboard	Charleston	S

3 towns are seeded as booming and start a dollar above their printed value. Each house is dealt its capital, and because sitting late in the opening order is worth real money — you watch everybody else commit before you do — the earlier seats are paid an allowance for it. Both figures were set by measurement, not by feel.

Houses	Capital	First seat	Last seat
2	$170	$215	$170
3	$116	$146	$116
4	$88	$101	$88
5	$70	$81	$70
6	$58	$64	$58

4. A turn

On your turn you take one of three actions, or you stand down for the year. You may take at most 4 actions in a year. When every house has stood down, the year ends and dividends are drawn.

Call a share to auction

Name any line that still has an unissued share and open the bidding at $1 or more. Every house may raise, in order, until only one is left; a house that passes is out of that auction. The winner pays into the *company treasury*. A line's first share charters it and places its track in its home city.

This is where the game lives. Because the price goes into the company rather than to the bank, what a share costs you depends on how much of the company you already hold. Pay $20 for a share of a line where that leaves you holding two of three, and roughly two thirds of the money you just spent is still working for you; pay the same for a share of a rival's line and you have handed him most of it. Two houses can rationally value the same share very differently, and that asymmetry is the whole auction.

Calling a meeting costs you the turn only if you leave with the stock. If you are outbid, the action is refunded and you act again — so opening the bidding to make a rival pay is a legitimate move, not a wasted one.

Lay track

Any shareholder of a chartered line may spend that line's treasury to extend it, up to 3 hexes in one action. Each new hex must adjoin track the line already holds, including track laid earlier in the same action, and there must be room in it. You spend the company's money, not your own.

Develop

Pay $2 of your own money to raise a city one of the lines on the board already reaches by $3, permanently. A city takes at most 2 such subscriptions. Development is worth most where you hold a large share of the only line serving the city, and worth nothing at all where you are subsidising three rivals.

Stand down

You are finished for the year. The order in which the houses stand down is the order they act in next year, first to stand down leading. A fourth action this year is paid for with last place next year, and in a tight game that is usually a bad trade.

5. The dividend

At the end of each year every chartered line totals its income. From each city it serves it takes that city's value divided by the number of lines serving it, rounded down, never less than 1. That total is divided by the shares **authorised** — not the shares issued — and each issued share pays its holder that much. Everything left over stays in the treasury.

That last sentence is the engine of the game. A line that has sold two of its four shares keeps half of every dividend for itself and spends it on more track, which is why a half-sold company can grow faster than its shareholders expect — and why buying its remaining shares later is often a poor deal, since you are paying for growth the company was going to fund anyway.

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Worked example. A line serves New York (value 8) alone and Philadelphia (value 6) alongside one rival. Its income is 8 + 3 = 11. It is authorised 4 shares and has issued 3, so each share pays $2 and the three holders draw $6 between them; the remaining $5 stays in the treasury. Now a second line reaches New York: the income falls to 4 + 3 = 7, each share pays $1, and every holder has lost $1 a year for the rest of the game — from one hex of track laid by somebody else.
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6. Winning

When the dividend for 1855 is drawn the books close and the house with the most cash wins; ties are broken by shares held. There is no elimination and no bankruptcy — you can never bid or spend money you do not have. You lose by finishing behind, which in practice means one of three mistakes: paying over the odds for stock in the first two years, buying shares in the last two years that cannot draw enough dividends to repay themselves, or letting a rival walk into a city you had to yourself.

7. The machine houses

There are three levels, and they differ in what they can see rather than in how hard they push. All three bid to the same rule — the most they can pay and still be better off than not buying — so none of them wins by simply outspending you.

Level	What it can see
Cadet	Prices a share off this year’s dividend only; cannot see that a treasury compounds into more track. Builds one hex at a time and ignores dilution.
Veteran	Runs the full projection of a line’s remaining life, including the shares it has yet to issue. Plans two links ahead and weighs dilution.
Ace	As veteran, and plans three links ahead, dilutes rivals deliberately, and judges when to stand down early.

Measured over automated play at four houses, with seats rotated so that no result is a seating effect: an ace against three cadets wins essentially every game; a veteran against three cadets very nearly as often; an ace against three veterans wins about 37 per cent of the time against a 25 per cent baseline. Any of the three beats random play every time, which is the floor the game is measured against.

8. What a game looks like

These are measured averages from automated play at veteran level, not design targets. They are here so you can tell whether your own games are running normally.

Houses	Lines	Shares	Track	Cities	Shared	Devs	Winner
2	6	21	50	29	9	10	$217
3	6	21	67	33	15	11	$222
4	6	21	79	35	20	16	$226
5	6	21	79	34	21	12	$189
6	6	21	74	32	19	14	$194

“Lines” is how many of the six get chartered, “shares” how many of the 21 authorised are issued, “track” hexes occupied out of 123, “cities” how many of the 44 are reached at all, and “shared” how many of those end up serving two or more lines.

9. Notes for developers

The package is flat-rooted to Tronsoft Games Package Specification v1.4 and makes no network requests of any kind. The scripts are plain browser JavaScript, each wrapped in a closure at source — separate script tags share one global scope, so an unwrapped top-level declaration in one file will collide with another.

File	Responsibility
js/mapdata.js	Generated board: hexes, cities, river crossings and

	the coastline vectors. Rebuilt by the generator, not
	edited by hand.
js/data.js	Constants, the company pool, and map helpers.
js/game.js	The rules engine. Holds no interface state.
js/ai.js	The machine houses.
js/save.js	The only file that touches browser storage.
js/interface.js	Board rendering, the ledger and the slip.

Saved games use the single key `tronsoft_iron_dividend_save`, derived from the package slug as Section 23 requires. Every access is guarded: a page with an opaque origin throws merely on naming `window.localStorage`, and the game degrades to playing without a resume rather than failing. The game autosaves after every action and clears the key when the books close.

The engine is deterministic: `new Game({seed})` reproduces a board and an opening exactly, and `serialize()` / `Game.restore()` round-trip without loss, which is what the in-package validator uses to replay whole campaigns and check the board after every step.

Audio is declared false in the manifest, so the package ships no sounds/ folder and no js/sound.js, per Section 5.