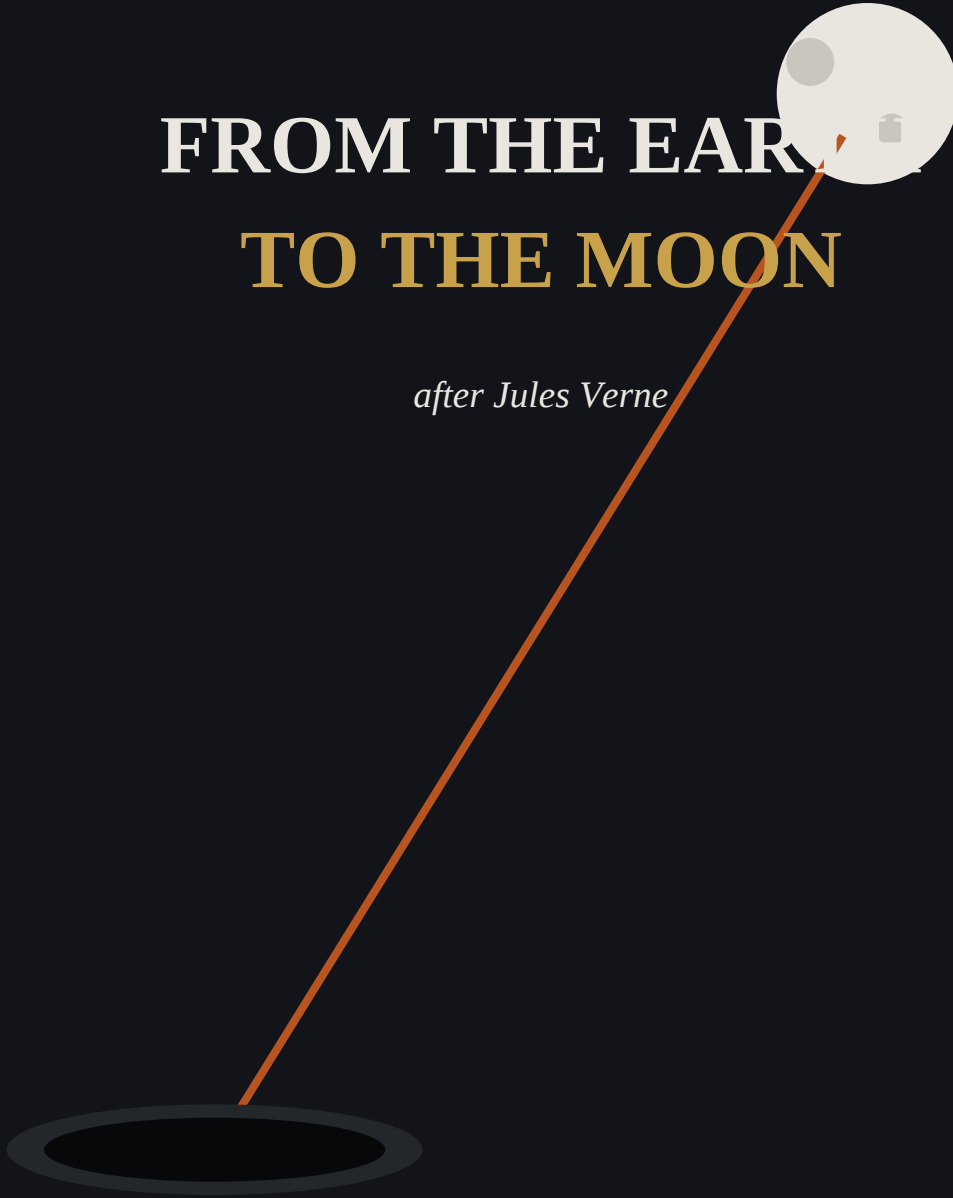

TRONSOFT GAMES

FROM THE EARTH TO THE MOON

after Jules Verne



PLAYER AND DEVELOPER MANUAL

Version 1.0.0 · TIFE Core 2.3.0 · Package Specification v1.4

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This manual is generated from the shipped game data. Every count, table, and route in it was read out of the files in this package rather than typed by hand, so if the story is ever changed and the manual is not rebuilt, the package's own validator will say so.

Rooms	20	Regions	5	Objects	73
Characters	8	Quests	9	Achievements	14
Rules	68	Hint ladders	26	Journal entries	32
Story verbs	8	Exits	40	Gated exits	13
Maximum score	150	Par	84 moves	Complete route	81 moves

SECTION 1

The Baltimore Gun Club

It is October 1865. The war has been over for six months, and the Baltimore Gun Club — one thousand eight hundred and thirty-three members, a fair number of them short an arm or a leg by their own workmanship — has nothing left to shoot at. Membership is falling. The workshops are quiet. There is, as the secretary puts it, one target left in the sky and nobody has ever tried for it.

You are Impey Barbicane, president of the club. You have called a meeting on Union Square and you intend to propose that the club cast the largest gun in the history of the world, sink it into the ground in Florida, and fire a shot at the moon.

Everything after that is engineering and persuasion, in Verne's own order. Cambridge Observatory has to be made to answer six questions in writing. Five and a half million dollars has to be raised from a world that thinks you are mad, and England has to be allowed to subscribe nothing. Florida has to be chosen over Texas without the Texans burning the camp down. A nine-hundred-foot mould has to be sunk into sand, and sixty-eight thousand and forty tons of cast iron poured into it in one sequence, from twelve hundred furnaces, without stopping. Then a cable arrives from a Frenchman who has read about the solid shot and wants to know why nobody thought of sitting in it, and the whole project has to be built again as a carriage.

And Captain Nicholl, who has spent twenty years building armour plate that no shot of yours has ever got through, will want to shoot you. Stopping that is one of the nine pieces of work, and there is only one argument he will accept.

What is true and what is not

The engineering figures in this game are Verne's, quoted without correction: a Columbiad nine hundred feet long with a nine-foot bore and six feet of metal, an aluminium projectile nine feet across and 19,250 pounds, four hundred thousand pounds of gun-cotton in eight hundred bags, an initial velocity of twelve thousand yards a second, a firing at 10:46:40 on the evening of the first of December, and Stones Hill at 27°7' north. Some of it is sound. Rather more of it would kill the three men in the projectile at the moment of firing, which is a thing Verne worked out later and preferred not to dwell on. The game does not correct him, because correcting him is not the game.

What the game is not

There is no combat, no timer, no move limit, no hunger, no light source to run out, no maze, and no inventory puzzle in the bad sense. Nothing can be destroyed and nothing can be permanently missed. There is no dead end: a save made at any point in the story can be finished. Three places will kill you and all three are described before you can reach them.

SECTION 2

How to play

Type what you want to do and press Enter. Every command is also a button beneath the text, so the whole game can be played by touch. The up and down arrows walk back through what you have typed.

The ordinary verbs

COMMAND	WHAT IT DOES
LOOK	Describe the room again in full. Free.
EXAMINE <i>thing</i>	Look closely. Almost everything named in a room description can be examined, and a good many of them repay it.
READ <i>thing</i>	Read what is written on it: ledgers, notices, telegrams, placards, the warning board.
SEARCH <i>thing</i>	Look inside, under, or behind.
TAKE / DROP <i>thing</i>	Pick it up or put it down. Nothing is ever lost by being dropped.
OPEN / CLOSE <i>thing</i>	Works on the room's containers and on your own pockets.
USE <i>thing</i>	Do the obvious thing with it. The workhorse verb: the desk, the ledger, the great map, the windlass cage, the reflector, the padding, the air apparatus, the reservoirs, the provisions and the screw plug are all operated with USE.
TALK <i>person</i>	Talk. Then talk again. Everyone has more to say the second and third time, and several will not say the useful thing until something else has happened.
WAIT	Let time pass. Twice in the story this is the right and only thing to do.
INVENTORY	What you are carrying. I works. Free.

The eight verbs that belong to this story

Each of these is the right thing to do in one or two places in the whole game, and each has a written answer for everywhere else. Trying one in the wrong place costs a turn and tells you something.

VERB	ALSO ACCEPTED	WHEN IT IS THE RIGHT THING
PROPOSE	offer, put	Put a proposition to a room, or to a man. You will use it twice, on very different occasions, and the second is the answer to the duel.
CABLE	telegraph, wire, despatch, dispatch	Send a telegram, from the telegraph office. Three subjects matter.
SURVEY	sight, triangulate	Fix a position on the ground. You need the theodolite in hand.
BORE	sink, dig, excavate	Sink the mould, once the ground is chosen and staked.
CAST	pour, found, tap	Pour metal. Twice: sixty-eight thousand tons of iron at Stones Hill, and rather less aluminium at Goldspring.
CHARGE	load, prime	Put the powder in the gun. Once, and not with a light in your hand.
LIGHT	strike, kindle, ignite	Strike a light. Consider first where you are standing.
BOARD	enter, embark	Get in. The last thing you do before the last thing you do.

Progress, help, and the session

COMMAND	WHAT IT DOES
SCORE	Points so far, out of 150.
QUESTS	The nine pieces of work and where each stands.
JOURNAL	What you have learned, in the order you learned it. 32 entries in all.
ACHIEVEMENTS	Fourteen. Some are jokes.
MAP	The chart of the ground you have walked.
STATS	Moves, score, rooms visited, conversations held. Quote this if you report a problem.
HINT	Three levels of help for whatever you are actually stuck on, from a nudge to the exact command. 26 ladders. Costs nothing.
HELP	The command list, inside the game.
TRANSCRIPT	Everything printed so far, for copying out.
SAVE <i>name</i>	Save into a named slot. Any number of slots.
RESTORE <i>name</i>	Load a slot back: score, position, inventory, flags, journal and conversation counters all return exactly.
RESTART	Begin again. Asks first.

None of the commands in this table consumes a turn, and neither does LOOK or INVENTORY. Look at everything as often as you like.

Turn order

The game is strictly turn-based and will wait for you indefinitely. Nothing moves while you think. Each command resolves in a fixed order, which is worth knowing because it is the order the text appears in:

#	STAGE	WHAT YOU SEE
1	Echo	The command you typed, so a transcript reads as a conversation.
2	Attempt	If you were moving, the attempt resolves here. A refusal is a sentence explaining why, not a locked door.
3	Action	You move, take, read, talk, or work.
4	Place	The new room is described, if you have arrived somewhere.
5	Consequence	Everything your action caused: what somebody says about it, quests completing, points, journal entries, achievements.

Consequences always come last, so a quest completing appears at the foot of the turn that completed it.

Movement

Twelve directions: NORTH, SOUTH, EAST, WEST, NORTHEAST, NORTHWEST, SOUTHEAST, SOUTHWEST, UP, DOWN, IN, OUT. The short forms N S E W NE NW SE SW U D all work. There are 40 ways between the 20 rooms, of which 13 are shut until the story opens them — and when a way is shut the game says why, which is usually the hint you need. No door in this game is locked behind an object you have to find; the story opens its own doors as the work gets done.

The chart

The chart panel draws each of the five regions as its own grid, filling in as you walk. Rooms you have not reached show as dots, and the line between two rooms is only drawn once you have stood in one of them. The current room is in square brackets.

Sound

Five region beds, cross-fading at the boundaries: the Gun Club's room tone and wall clock, the thinner air and intermittent hammer of the north, the furnace drone at Stones Hill that rises as the pour begins, wind through Florida pine, and five million people heard from a long way off. All of it is synthesised in the browser; the package ships no audio files. Nothing in the game requires hearing anything.

SECTION 3

The nine pieces of work

Eight of these have to happen. The ninth does not, and changes the last page if it does. They are listed in the order the story presents them, which is also the order Verne wrote them in.

#	PIECE OF WORK	PTS	REQUIRE D	WHAT IT COMES DOWN TO
1	Put the Question	15	yes	Take the rostrum and say it out loud. PROPOSE, in the hall, on the first turn.
2	Consult Cambridge	15	yes	Six questions, sent by wire and answered in writing. Belfast will not answer a man who has only asked once.
3	Raise the Subscription	15	yes	Five million dollars and change, from twenty nations and a good deal of ridicule.
4	Choose the Ground	15	yes	Twenty-eight degrees or better, firm ground, and no Texan within earshot.
5	Found the Columbiad	15	yes	Nine hundred feet down, and sixty-eight thousand tons of iron poured in one sequence.
6	Fit Out the Projectile	15	yes	A solid shot has to become a room: padding, air, water, and provisions.
7	End the Quarrel	15	yes	Nicholl means it. There is exactly one thing you can offer him instead.
8	The First of December	15	yes	Powder, plug, and the first of December.
9	The Eye on Long's Peak	10	no	Optional. Sixteen feet of speculum metal on a mountain in Colorado, in time for someone to watch.
Total		130		

A win with the eight required pieces done and nothing else is a complete and honest ending at 120 points. The last 30 points are the reflector and the four things worth carrying away.

SECTION 4

The country

Twenty rooms in five regions, four rooms each. The table for each region gives the room, its position on the chart, and every way out of it. A way marked **gated** is shut until the story opens it, and says why when you try it.

I — I. The Gun Club

ROOM	ON THE CHART	WAYS OUT
Gun Club Hall	Gun Club Hall	north → Study; east → Telegraph Office; down → Treasury (<i>gated</i>); south → Tampa Town (<i>gated</i>)
Barbican's Study	Study	south → Gun Club Hall
Baltimore Telegraph Office	Telegraph Office	west → Gun Club Hall; north → Cambridge (<i>gated</i>)
Gun Club Treasury	Treasury	up → Gun Club Hall; north → Nicholl's Forge (<i>gated</i>)

Sound bed: hall

II — II. The Answer and the Rival

ROOM	ON THE CHART	WAYS OUT
Cambridge Observatory	Cambridge	south → Telegraph Office
Nicholl's Forge, Philadelphia	Nicholl's Forge	south → Treasury; north → Goldspring Works (<i>gated</i>)
Goldspring Works, New York	Goldspring Works	south → Nicholl's Forge
Tampa Town	Tampa Town	north → Gun Club Hall; east → Stones Hill Camp; west → Long's Peak (<i>gated</i>)

Sound bed: north

III — III. Stones Hill

ROOM	ON THE CHART	WAYS OUT
Encampment at Stones Hill	Stones Hill Camp	west → Tampa Town; north → The Shaft; east → Furnace Ring (<i>gated</i>); south → Projectile Shed (<i>gated</i>); in → Ardan's Tent (<i>gated</i>); northwest → Magazine (<i>gated</i>); southwest → Pine Woods (<i>gated</i>); up → Firing Platform (<i>gated</i>)
Mouth of the Shaft	The Shaft	south → Stones Hill Camp; down → The Mould
Bottom of the Mould	The Mould	up → The Shaft; out → Furnace Ring
The Ring of Furnaces	Furnace Ring	west → Stones Hill Camp; in → The Mould

Sound bed: works

IV — IV. The Projectile and the Duel

ROOM	ON THE CHART	WAYS OUT
The Powder Magazine	Magazine	southeast → Stones Hill Camp
The Pine Woods	Pine Woods	northeast → Stones Hill Camp
Ardan's Tent	Ardan's Tent	out → Stones Hill Camp
The Projectile Shed	Projectile Shed	north → Stones Hill Camp

Sound bed: pines

V — V. December First

ROOM	ON THE CHART	WAYS OUT
Long's Peak Station	Long's Peak	east → Tampa Town
The Firing Platform	Firing Platform	down → Stones Hill Camp; in → The Muzzle
The Lip of the Bore	The Muzzle	out → Firing Platform; down → The Projectile (<i>gated</i>)
Inside the Projectile	The Projectile	up → The Muzzle

Sound bed: crowd

SECTION 5

The people

Eight of them, one of whom is a Newfoundland dog. Everybody in this list has more than one thing to say, and several of them will not say the thing you need until you have done something else first. If a conversation seems to have run dry, go and do a day's work and come back.

NAME	FIRST FOUND	LINE S	WHO THEY ARE
J. T. Maston	Gun Club Hall	4	Secretary of the club, gutta-percha skull, iron hook for a hand, and no doubt whatever about any of it. He is on your side before you have finished speaking.
General Morgan	Gun Club Hall	3	General, committee man, and the only person present who does arithmetic before he cheers.
Major Elphinstone	Gun Club Hall	3	Major, ordnance, and the man who will tell you what your gun weighs before you have decided to cast it.
J. M. Belfast	Cambridge Observatory	3	Director at Cambridge. Will not be hurried, will not be flattered, and will answer the six questions properly if you ask three times.
Captain Nicholl	Nicholl's Forge, Philadelphia	3	Armour plate. Twenty years of proving that nothing you can fire will get through anything he can build, and he has a notice nailed up in his own forge saying so. Read it before you talk to him.
Michel Ardan	removed	3	Michel Ardan of Paris, who read about a solid projectile and cabled to ask why nobody thought of sitting in it. He arrives with the whole thing already rebuilt in his head.
Murchison the engineer	Encampment at Stones Hill	3	Foreman of the works. He does not care whose idea it was; he cares whether the launders are clear.
Diana	removed	1	A Newfoundland. Comes down in a sling and is not pleased.

SECTION 6

Things worth carrying

Four objects, one in each of the first four regions, worth five points each. None of them is needed to finish the story and none of them is hidden unfairly; each is in plain sight in a room you have to visit anyway, and each is worth reading before you pocket it. Seventeen objects in the game can be carried; these are the four that are worth points.

OBJECT	WHERE	PTS
model Rodman columbiad	Gun Club Hall	5
Mappa Selenographica	Cambridge Observatory	5
slag medallion	removed	5
Ardan's sketch	Ardan's Tent	5
Total		20

Points for an object are awarded the first time you pick it up and are never taken away again. Dropping it does not lose them, and picking it up a second time does not gain them twice.

SECTION 7

Three ways to die

You cannot lose this story by playing it badly. There is no timer, no move limit, nothing that runs out, and no dead end. You can, however, get yourself killed, in exactly three places.

Every one of them is described in the room text before you can reach it, usually more than once and usually by somebody who works there. Every one of them is fatal in one direction or with one command only: every other direction in those rooms is safe, and the same command anywhere else in the game does nothing worse than pass a turn. The package's validator proves this by walking all twelve directions in each of the two lethal rooms on every build.

WHERE	WHAT KILLS YOU	THE WARNING YOU WERE GIVEN
Mouth of the Shaft	Going DOWN before the windlass cage is rigged	A warning board is lashed to the nearest derrick, and the room says the cage hangs on a slack cable.
The Furnace Ring	Going IN while the launders are running	Murchison says it in as many words, and the room describes sixty-eight thousand tons of iron moving.
Powder Magazine	Striking a LIGHT	Four hundred thousand pounds of gun-cotton in eight hundred bags, and a notice on the door.

Boarding the projectile before it is fitted out, or before Nicholl has taken the third seat, is *refused* rather than fatal — Ardan takes hold of the crane chain and will not let it move. There is no state in this game where you are alive and cannot finish.

SECTION 8

Scoring

SOURCE	COUNT	EACH	TOTAL
Required pieces of work	8	15	120
Optional piece of work (the reflector)	1	10	10
Things worth carrying away	4	5	20
Maximum			150

ROUTE	SCORE	MOVES	ROOMS SEEN
Everything	150	81	20
Only the required work	120	69	18
Declared par	—	84	—

Both routes are run in full on every build, in a headless engine and again in a real browser, and the numbers in this table are the numbers those runs produced. Points are never deducted, and using HINT costs nothing.

SECTION 9

Achievements

ACHIEVEMENT	WHERE IT IS UNLOCKED
The Question Put	Gun Club Hall
The Figures Verified	Cambridge Observatory
The World Subscribes	Gun Club Treasury
Ground Sighted and Staked	Encampment at Stones Hill
Nine Hundred Feet	Mouth of the Shaft
Sixty-Eight Thousand Tons	The Ring of Furnaces
The Silver of Clay	Goldspring Works, New York
A Habitable Bullet	The Projectile Shed
Four Hundred Thousand Pounds	The Powder Magazine
A Truce Among the Pines	The Pine Woods
The Great Eye	Long's Peak Station
The Club Collection	—
Good Dog	—
Fired at the Moon	Inside the Projectile

All fourteen are unlocked by the complete route in Section 10.

SECTION 10

The complete walkthrough

Spoilers from here to the end of the section. This is the route the build harness runs: 81 moves, 150 points, every room, every quest, every achievement. It is not the only route and it is not the intended first experience — HINT exists so that you never have to come here.

#	COMMAND	WHY
1	PROPOSE	The whole club is waiting. Say it.
2	TAKE MODEL	Five points, and Maston will never stop talking about it.
3	NORTH	
4	USE DESK	Barbicane's own desk. The six questions write themselves.
5	SOUTH	
6	EAST	
7	CABLE QUERY	Cambridge, by wire.
8	NORTH	
9	TALK BELFAST	Belfast is a professor. Ask again.
10	TALK BELFAST	
11	TALK BELFAST	
12	TAKE MAPPA	Five points, and the best map of the moon in America.
13	SOUTH	
14	CABLE APPEAL	The subscription: twenty nations and England's magnificent nothing.
15	CABLE REFLECTOR	Optional, and it must be sent before the gun is charged.
16	WEST	
17	DOWN	
18	READ LEDGER	Read the ledger before you close it.
19	USE LEDGER	
20	NORTH	
21	READ PLACARD	Nicholl's own notice, nailed up in his own forge. Read it first.
22	TALK NICHOLL	
23	TALK NICHOLL	
24	SOUTH	
25	UP	
26	USE GREAT MAP	Florida beats Texas by four degrees of latitude and one of temper.
27	SOUTH	
28	TAKE THEODOLITE	You cannot survey without it.
29	WEST	

#	COMMAND	WHY
30	USE REFLECTOR	Ten points, and somebody on a mountain in Colorado to watch.
31	EAST	
32	EAST	
33	SURVEY	Two days on the knoll with the theodolite.
34	NORTH	
35	BORE	Nine hundred feet, straight down, into sand.
36	USE CAGE	Rig the cage before you go anywhere near the lip.
37	DOWN	
38	SEARCH PIPES	The vents have to be proved before a drop of iron is poured.
39	OUT	
40	CAST	Twelve hundred furnaces, tapped in sequence.
41	WAIT	Nothing to do now but stand well back.
42	TAKE MEDALLION	Five points, struck from the first slag.
43	WEST	
44	READ CABLE	Ardan's cable. This is where the story changes shape.
45	WEST	
46	NORTH	
47	DOWN	
48	NORTH	
49	NORTH	
50	CAST	Aluminium, at Goldspring. A shell becomes a room.
51	SOUTH	
52	SOUTH	
53	UP	
54	SOUTH	He has crossed the Atlantic and has the whole thing rebuilt in his head.
55	TALK ARDAN	
56	TALK ARDAN	
57	TALK ARDAN	
58	EAST	
59	SOUTH	Padding, air, water, food: four uses, in any order.
60	USE PADDING	
61	USE APPARATUS	
62	USE RESERVOIR	
63	USE PROVISIONS	
64	NORTH	

#	COMMAND	WHY
65	SOUTHWEST	Five points, in the pine woods, and the duel is an hour off.
66	EXAMINE NEST	
67	TALK NICHOLL	The only argument he will take.
68	PROPOSE NICHOLL	
69	NORTHEAST	
70	IN	Five points. Diana is under the table.
71	TAKE SKETCH	
72	TALK DIANA	
73	OUT	
74	NORTHWEST	Four hundred thousand pounds of gun-cotton. Do not strike a light.
75	CHARGE	
76	SOUTHEAST	
77	UP	
78	IN	Ardan first, then Nicholl, then you.
79	BOARD	Four minutes to bring it home on the thread.
80	USE PLUG	10:46:40, the first of December.
81	WAIT	

The shorter route — the eight required pieces of work and nothing else — is the same list with the twelve optional commands removed, and comes to 69 moves for 120 points.

SECTION 11

How the package is built

This section and the two that follow are for whoever has to maintain the thing. If you only want to play it, you finished at Section 10.

Engine purity

The package runs on TIFE Core 2.3.0, shipped byte-identical. Eleven files come straight out of the engine distribution and are not touched; their SHA-256 digests are recorded in `docs/engine-purity.json` and recomputed by `validate.js`, which fails if any of them has moved. Everything the story needs is added from the game side by patching prototypes after the core has loaded and before the shell runs.

FILE	SHA-256
<code>js/core/accessibility-service.js</code>	35135c7a095638c85680deb5babbe3ea78e571e0ce9b134594452d406ac9640a
<code>js/core/audio-service.js</code>	37a1f64f2800758d3aa668855a27c2eb58810caee91930700d48061b3304ae61
<code>js/core/event-bus.js</code>	c09e488fa6cfd89fa2af7c92f853b90fb9cec5820338fccba6b8103a92b318bb
<code>js/core/parser-service.js</code>	ac7462180e220e53983387882361d4bec59159859c98fed6b9c0fcd595a6426
<code>js/core/rule-service.js</code>	ada0a5ca8b4d3484722d5642f0bfe09d99aaabe88f1e9f7de63995da64f6ec80
<code>js/core/save-service.js</code>	5c1399bd9264d8a4fedff9fe05975750e8e69045a63f5ec2d8dfacdb2fec7748
<code>js/core/state-machine.js</code>	1fc58be4dacd30dc8e8a21ca1e499516c947c6a9cf32249a5926aa8e25246d1c
<code>js/core/tife-core.js</code>	876e983fc5c5daebb6f1d422ceb1429bb649a3df675bdd4c1094748041411132
<code>js/core/world-service.js</code>	fe8011075e5228a2b1e6502aace52623be80c9c2d78552a4121c05e17c74bf66
<code>js/game.js</code>	528f6cff214560bf2f2fce0b5cc289b3377cb987af4bc4fe40b1ed75f9874a56
<code>css/game.css</code>	47dc7e0eb7a03c54bb1ef033fbfd9de2228db9ec3b10eef613b60e6da9344e3a

What is ours

FILE	WHAT IT DOES
<code>games/from-the-earth-to-the-moon/game.js</code>	The story: rooms, objects, characters, quests, journal, achievements, hints, and the 68 rules.
<code>js/interface.js</code>	The patch layer. Adds 25 rule conditions and 26 rule actions, buffers rule narration into reading order, adds a <code>move.attempt</code> trigger, reimplements movement so followers arrive with you, adds presence checks to <code>USE</code> , <code>SEARCH</code> , <code>READ</code> and <code>OPEN</code> , counts conversations and saves them, dispatches the eight story verbs, derives the save key from the package slug, and fixes the core's <code>RESTART</code> crash.
<code>js/map.js</code>	The region-aware text chart, written into the panel through a <code>MutationObserver</code> because the shell's own renderer is <code>closure-local</code> .

FILE	WHAT IT DOES
js/sound.js	Five procedural region beds and the cross-fade between them. Replaces the core's ambient starter rather than layering on it.
css/theme.css	The cast-iron and brass skin, including the cover art, laid over the engine stylesheet without editing it.
index.html	The entry file. Nine core scripts, then the story data, then the three patch files, then the shell — all deferred, in that order.
validate.js	The in-package validator. Node built-ins only.

Three faults in the core, worked around

FAULT	WORKAROUND
RESTART crashed: the dispatcher read <code>this.lastAction.type</code> after <code>reset()</code> had nulled it.	The dispatcher is wrapped so the read happens before the reset. The story is proved winnable after a restart on every build.
SaveService assigns its key inside the class body, so a prototype accessor that defines only a getter throws under strict mode.	The accessor defines both halves; the setter swallows the core's default and the getter returns the slug-derived key.
READ and SEARCH do not check that the thing is in the room, and OPEN ignores the player's own inventory.	All four verbs are presence-checked from the patch layer.

SECTION 12

The rule set

68 rules, each a trigger, a set of conditions, and a list of actions. The core supplies eight conditions and ten actions; the patch layer takes that to 25 and 26, which is what lets the story talk about the direction you were walking, the people in the room, and the region you are in.

Conditions in use

CONDITION	USES	CONDITION	USES	CONDITION	USES
room	64	notFlag	44	action	24
target	24	flag	17	npcTalked	5
flags	3	direction	2	hasItem	2
npcHere	2	hasAll	1	notFlags	1
notHasItem	1				

Actions in use

ACTION	USES	ACTION	USES	ACTION	USES
message	67	setFlag	36	journal	32
quest	20	achievement	14	moveNPC	14
unlockExit	13	score	9	moveItem	5
revealItem	5	gameOver	3	endGame	1
lockExit	1	setFlagValue	1	setNpcProp	1
teleport	1				

Every rule

Rules marked **once** write their guard before their actions run, not after — the core does it the other way round, which lets a rule that ends the game fire twice.

ID	TRIGGER	1 ×	CONDITIONS	ACTIONS
r-ardan-meeting	npc.talked	✓	room, npcTalked, notFlag	message, setFlag, setFlag, moveNPC, moveNPC, unlockExit, journal
r-belfast-answers	npc.talked	✓	room, npcTalked, notFlag	message, setFlag, revealItem, moveItem, quest, score, achievement, journal
r-board	verb.board	✓	room, flags, notFlag	message, setFlag, teleport, unlockExit, moveNPC, moveNPC, moveNPC, journal
r-board-refused-fit	verb.board		room, notFlag	message
r-board-refused-nicholl	verb.board		room, flag, notFlag	message
r-bore	verb.bore	✓	room, flag, notFlag	message, setFlag, unlockExit, quest, achievement, journal

ID	TRIGGER	1 ×	CONDITIONS	ACTIONS
r-bore-not-surveyed	verb.bored		room, notFlag	message
r-cable-appeal	verb.cable	✓	room, flag, notFlag, target	message, setFlag, unlockExit, quest, journal
r-cable-query	verb.cable	✓	room, hasItem, notFlag, target	message, setFlag, unlockExit, quest, journal
r-cable-reflector	verb.cable	✓	room, flag, notFlag, target	message, setFlag, unlockExit, quest, journal
r-cage-before-bore	item.used		room, action, target, notFlag	message
r-cast-columbiad	verb.cast	✓	room, flag, notFlags	message, setFlag, moveNPC, quest
r-cast-complete	action.after	✓	room, action, flag, notFlag	message, setFlag, setFlagValue, quest, score, achievement, revealItem, moveItem, unlockExit, moveNPC, revealItem, moveItem, setFlag, message, journal
r-cast-not-ready	verb.cast		room, notFlag	message
r-cast-shell	verb.cast	✓	room, flag, notFlag	message, setFlag, revealItem, moveItem, setFlag, unlockExit, quest, achievement, journal
r-charge-gun	verb.charge	✓	room, flag, notFlag	message, setFlag, quest, achievement, unlockExit, journal
r-charge-not-ready	verb.charge		room, notFlag	message
r-choose-site	item.used	✓	room, action, target, flag, notFlag	message, setFlag, unlockExit, quest, journal
r-close-subscription	item.used	✓	room, action, target, flag, notFlag	message, setFlag, unlockExit, quest, score, achievement, journal
r-collector	inventory.changed	✓	hasAll	achievement, message
r-death-lamp	verb.light		room	gameOver
r-death-launders	move.attempt		room, direction, flag	gameOver
r-death-shaft	move.attempt		room, direction, notFlag	gameOver
r-desk-too-early	item.used		room, action, target, notFlag	message
r-enter-cambridge	room.enter	✓	room	message
r-enter-camp	room.enter	✓	room	message, journal
r-enter-forest	room.enter	✓	room	message
r-enter-forge	room.enter	✓	room	message
r-enter-goldspring	room.enter	✓	room	message
r-enter-longspeak	room.enter	✓	room	message, moveNPC, moveNPC
r-enter-magazine	room.enter	✓	room	message, journal
r-enter-mould	room.enter	✓	room	message, journal
r-enter-muzzle	room.enter	✓	room	message, journal
r-enter-platform	room.enter	✓	room	message, moveNPC, quest, journal

ID	TRIGGER	1 x	CONDITIONS	ACTIONS
r-enter-projectile	room.enter	✓	room	message
r-enter-shed	room.enter	✓	room	message
r-enter-tampa	room.enter	✓	room	message, journal
r-epilogue-reflector	action.after	✓	room, action, flags, notFlag	message
r-examine-nest	action.after	✓	room, action, target	message, journal
r-fire	action.after	✓	room, action, flag, notFlag	message, setFlag, quest, score, achievement, journal, endGame
r-fit-air	item.used	✓	room, action, target, notFlag	message, setFlag
r-fit-padding	item.used	✓	room, action, target, notFlag	message, setFlag
r-fit-stores	item.used	✓	room, action, target, notFlag	message, setFlag
r-fit-water	item.used	✓	room, action, target, notFlag	message, setFlag
r-fitted-complete	action.after	✓	room, flags, notFlag	message, setFlag, quest, score, achievement, journal, message, setFlag, unlockExit, moveNPC, moveNPC
r-forest-parley	npc.talked	✓	room, npcTalked, notFlag	message, setFlag
r-magazine-talk	npc.talked	✓	room	message
r-map-too-early	item.used		room, action, target, notFlag	message
r-mould-vents	item.searched	✓	room, action, target, notFlag	message, setFlag, quest, journal
r-nicholl-met	npc.talked	✓	room, npcTalked, flag, notFlag	message, setFlag, journal
r-offer-seat	verb.propose	✓	room, flag, notFlag, npcHere	message, setFlag, quest, score, achievement, moveNPC, setNpcProp, journal
r-offer-too-early	verb.propose		room, notFlag, npcHere	message
r-open	game.start	✓	—	message
r-open-cigars	item.opened	✓	room, action, target	message
r-propose-again	verb.propose		room, flag	message
r-propose-club	verb.propose	✓	room, notFlag	message, setFlag, quest, score, achievement, journal
r-read-ardan-cable	action.after	✓	action, target, notFlag	message, setFlag, unlockExit, quest, moveNPC, journal
r-read-ledger	action.after	✓	room, action, target, notFlag	message, setFlag
r-read-wagers	action.after	✓	room, action, target, notFlag	message, setFlag, journal
r-reflector-used	item.used	✓	room, action, target, notFlag	message, setFlag, quest, score, achievement, journal
r-rig-cage	item.used	✓	room, action, target, flag, notFlag	message, setFlag
r-seal	item.used	✓	room, action, target, notFlag	message, setFlag, lockExit, journal
r-search-packing	item.searched	✓	room, action, target	message, journal

ID	TRIGGER	1 x	CONDITIONS	ACTIONS
r-survey	verb.survey	✓	room, hasItem, notFlag	message, setFlag, quest, score, achievement, journal
r-survey-no-instrument	verb.survey		room, notHasItem, notFlag	message
r-talk-diana	npc.talked	✓	npcTalked	achievement, message
r-use-ledger-early	item.used		room, action, target, notFlag	message
r-write-query	item.used	✓	room, action, target, flag, notFlag	message, revealItem, moveItem, setFlag, journal

SECTION 13

Verification

Nothing in this package is asserted to work because it looked right. Three things run on every build, and all three have to pass before the archive is made.

1. The in-package validator

`node validate.js`, run from the package root. Node built-ins only — no install step, no network, nothing to go stale. It checks this package against Package Specification v1.4 section by section: the manifest and its news object, the layout and file naming, the entry file's script order and defer attributes, self-containment (no remote scheme, no fetch, no eval, no blocking dialog, every CSS `url()` resolving inside the archive), the engine digests, the documentation set field by field, the image dimensions read out of the PNG and JPEG headers themselves, and accessibility.

It then boots the real engine, the real story data and the real patch layer in a vm sandbox with a stub DOM, and plays the game: both routes end to end, every quest, every achievement, the save key, save and restore mid-story, restart, the parser's refusals, the chart, the sound beds, and a dead-end sweep that restarts the complete route from every fourth move and proves it still reaches 150. It walks all twelve directions in each lethal room to prove the death rules are guarded, and audits every room for two things answering to the same word. Several thousand assertions; any failure is a non-zero exit.

2. A real browser

A headless Chromium loads `index.html` from disk, presses START, types the complete route into the actual command box one command at a time, and captures the four storefront screenshots along the way. The run fails on any console error, any page exception, any failed request, or any score other than 150. The screenshots in this package are frames from that run; none of them is staged.

3. The archive

A separate checker, deliberately kept *outside* the archive so that it cannot be fooled by anything inside it, opens the finished ZIP and verifies the filename against the manifest version, a flat root with no wrapper directory, no symlinks, no path traversal, no absolute paths, no OS or tooling noise, sane compression ratios, and every CRC. It then extracts the archive to a clean directory and runs the validator again from the extracted copy, so what is proved correct is the thing that ships and not the working tree.

CHECK	WHERE IT LIVES	WHEN IT RUNS
Package validator	<code>validate.js</code> , inside the package	Before and after zipping
Browser playthrough	Build tree, outside the package	Before zipping
Archive checker	Build tree, outside the package	After zipping

SECTION 14

Colophon

Source

De la Terre à la Lune, Jules Verne, Paris, 1865, and its nineteenth-century English translations. Both are in the public domain worldwide. The characters, the place names and the engineering figures are Verne's; the prose of this adventure

is not his and is not drawn from any translation of his book. It was written for this package. Tronsoft Games claims no ownership of Verne's novel, and anyone who wants to make their own adaptation of it is free to do so.

Tools

TIFE Core 2.3.0 for the engine. Node.js for the build harness and the validator. Chromium, driven headlessly, for the browser run and the screenshots. Pillow for the storefront artwork and ReportLab for this manual, which is generated from a JSON dump of the shipped game data so that no number in it is typed twice. None of those tools is included in the package, which has no dependencies at all.

AI-assisted development

This package was developed with AI assistance; the arrangement is set out in `docs/credits.txt`. It was directed, reviewed and published by Tronsoft Games, which is responsible for the result.

Licence

Copyright © 2026 Tronsoft Games. All rights reserved. See `LICENSE.txt`. The package contains no third-party assets: no fonts, no images from elsewhere, no audio files, and no third-party JavaScript. It loads nothing over the network.

From the Earth to the Moon, version 1.0.0. Manual generated 2026-07-25 from the shipped game data. 20 rooms, 73 objects, 8 characters, 68 rules, 150 points.