LOST CABIN CONSULTING

GAMING MATHEMATICS & PRODUCT INTELLIGENCE

COMPANION KEY SLOT INTELLIGENCE SERIES · REEL LAYOUTS & PAYLINE MAPS

Payline Layout Key

Reel layouts and payline maps from the three-reel 3×3 to the 5×3 at 100 lines, the 5×4 at 40, 50 and 100, the 4×4 and the 6×3 — every line drawn on its grid and written out row by row, the 100-line 5×3 set read off the machine's own help screens, and the ways, Megaways and cluster layouts counted

ABOUT THIS KEY. A companion to the Slot Intelligence Series. It maps the line sets a player meets on the floor and online, one grid per line, so any line can be traced by eye and checked against a machine. Each set names its source and its tier. No line set is called standard unless the record shows it: the makers agree on five lines and no further, and this key says so where it matters.

Coverage	19 line sets on five grids, 5 lines to 100, with 40 and 50 on the 5×3; ways from 27 to 117,649; both-ways, cluster and pay-anywhere games; reel volumes I to XXIV placed
The 5×3 at 100 Lines	Aristocrat's Inca Diamonds, read cell by cell from the machine's two WIN LINES screens[1]
Primary Sources	The machine's own help screens[1,2]; Aristocrat's 1994 multi-line patent, Tables 5 and 6 checked against FIGS. 7 and 8[3]
Maker Line Tables	Novomatic, IGT, NetEnt, Playtech, AGT and CT Interactive tables from an open-source reconstruction (Tier 3)[4]; each set says which games use it
Notation	One digit per reel, reel 1 first; each digit is the row the line uses, counted from the top. 1-2-3-2-1 is the V.
Verification	Every line has exactly one row on every reel; no line repeats within a set; every set's cell counts sum to lines × reels (634 lines, all passed, Appendix B)
Prepared By	Lost Cabin Consulting · October 2026

100
LINES ON A 5×3, READ OFF THE MACHINE

243
POSSIBLE LINES ON A 5×3 GRID (3^5)

5
LINES EVERY MAKER TABLE SHARES, IN ORDER

31–37
OF 100 LINES THROUGH EACH 5×3 POSITION

SUMMARY

A payline is one position on each reel, read left to right. On a 5×3 screen it is five digits, one per reel, each giving the row: 2-2-2-2-2 is the middle row, 1-2-3-2-1 the V. Five reels of three rows hold $3^5 = 243$ such paths; a game picks some of them, numbers them, and prints them on a WIN LINES screen. Wins start on the leftmost reel and run right across adjacent reels, and only the best win on each line pays, in the rules of the machine read here: "ALL WINS BEGIN WITH LEFTMOST REEL AND PAY LEFT TO RIGHT ON ADJACENT REELS, EXCEPT SCATTERS." and "HIGHEST WIN ONLY ON EACH LINE."[1,2]

There is no industry-standard line set past line 5. The eight maker tables on the 5×3 grid in this key agree on lines 1 to 5 — middle, top, bottom, V and inverted V — and part company at line 6. Even one maker keeps two 20-line tables: Novomatic's split at line 6. Aristocrat's own 1994 multi-line patent numbers a nine-line set that leaves the common order at line 4.[3,4] The line number in a win message means something only against that machine's own WIN LINES screen.

The 5×3 at 100 lines is mapped from the machine itself. Aristocrat's Inca Diamonds, a Thunder Empire title filmed for Volume XIX, plays "50 LINES OR 100 LINES" on five reels of three rows, and its two WIN LINES screens draw all 100.[1,2] Read cell by cell, the 100 are distinct, each has one row on every reel, and every line but one has its upside-down twin in the set — line 1, the middle row, is its own. Each of the 15 positions lies on 31 to 37 of the 100 lines. Every line of Novomatic's 10-, 20- and 25-line tables and of IGT's 20 appears somewhere among the 100, under a different number after line 5.

At 100 lines on 5×4, makers differ completely. AGT's and CT Interactive's 100-line tables share 30 of their lines and give none of them the same number.[4] Ways games drop numbered lines: 243, 720, 1,024, 3,125 and 4,096 ways are products of the rows on each reel, a Megaways spin multiplies whatever heights the reels land on, up to $7^6 = 117{,}649$,[5] and cluster pays drop the left-to-right rule altogether.[6]

Fewer lines and the series. Fifty and forty lines on the 5×3 read as the first lines of the 100 (Section 4.2), and Section 9 places reel-game volumes I to XXIV on this key.[7]

1 — HOW TO READ A PAYLINE MAP

1.1 Reels, Rows and the Notation

A reel is a column; a row is a horizontal band across the reels. A line uses exactly one position on each reel, so a 5-reel line is five digits. This key writes every line that way, reel 1 first, rows counted from the top: on a 5×3, row 1 is the top, row 2 the middle, row 3 the bottom; on a 5×4, row 4 is the bottom. The numbers above each small grid are the line's number in its maker's table; the digits under it are the line itself.

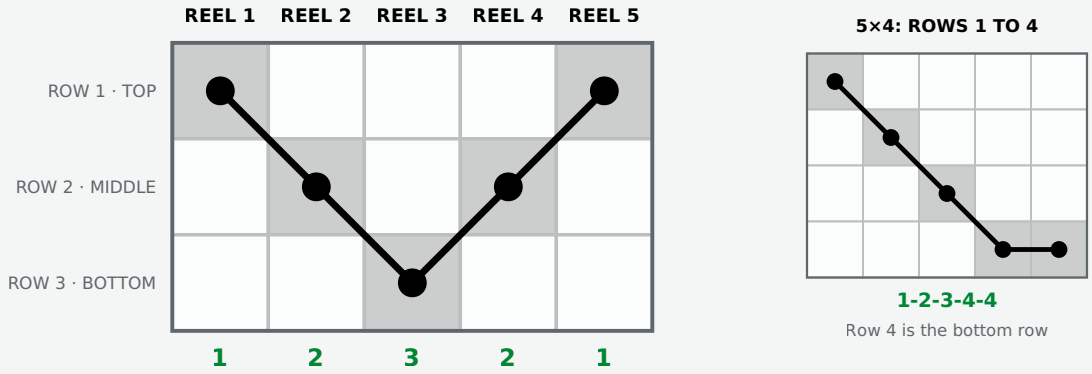


Figure 1 — Reading a line. The V on a 5×3 is row 1 on reel 1, row 2 on reel 2, row 3 on reel 3, and back up: 1-2-3-2-1. The same notation runs to four rows on a 5×4.

Table 1.1 — Possible lines on each grid: rows to the power of reels

GRID (REELS × ROWS)	POSITIONS	FORMULA	POSSIBLE LINES	WHERE IT APPEARS
3×3	9	3^3	27	Three-reel video and reel games; Huff N' Puff's Xtra Puff pays 27 ways
4×4	16	4^4	256	Four-reel grids
5×3	15	3^5	243	The common video slot; 243 ways is every line at once (Reel Power)
6×3	18	3^6	729	Six-reel, three-row
5×4	20	4^5	1,024	Taller screens; 1,024 ways is every line at once (Xtra Reel Power, Buffalo)
5×5	25	5^5	3,125	Aristocrat's Super Reel Power as a ways game
6×4	24	4^6	4,096	Six reels of four rows; Raging Rhino's ways
5×6	30	6^5	7,776	Huff N' Puff's Super features; Buffalo Stampede fully grown
5×7	35	7^5	16,807	Rakin' Bacon!'s PowerXStream at its largest
6×6	36	6^6	46,656	Buffalo Gold Max Power at its largest

Possible lines and ways are the same number: a ways game pays every possible line at once. The 5×6, 5×7 and 6×6 rows are ways counts the series records, 5×6 is written "6×5" in Volume IV, which names rows first; 16,807 is 7^5, five reels of seven.[7]

A grid of r rows and n reels holds r^n lines, because each reel offers r choices independently. A 100-line 5×3 game uses 100 of 243 (41.2%); a 100-line 5×4 game uses 100 of 1,024 (9.8%).

1.2 How a Line Pays

The machine read for this key prints the rules most line games share. Wins run from the left: "ALL WINS BEGIN WITH LEFTMOST REEL AND PAY LEFT TO RIGHT ON ADJACENT REELS, EXCEPT SCATTERS." One win per line: "HIGHEST WIN ONLY ON EACH LINE." Lines add: "WINS ON DIFFERENT LINES ARE ADDED." Only lines that are bet count: "ALL WINS ON LIT LINES ONLY EXCEPT SCATTERED" symbols, cash prizes and jackpots. The bet is lines times a multiplier: "TOTAL BET IS THE LINE COST MULTIPLIED BY THE BET MULTIPLIER.", and "LINE WINS MULTIPLIED BY THE BET MULTIPLIER."[1,2] A five-of-a-kind on reels 2 to 6 of a six-reel game, or a run that skips a reel, pays nothing on a left-to-right line; scatters pay anywhere and ignore lines entirely. Other machines may print other rules, and the help screen governs.

1.3 The Shapes

Makers do not name their lines; they number them. The names below are this key's, for talking about shapes. Every shape shown is a line in the Inca Diamonds 100-line set, with its number there.

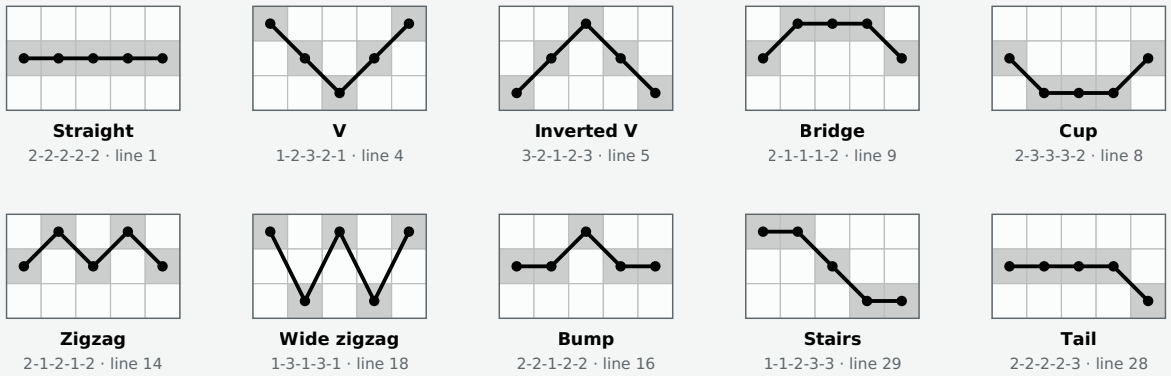


Figure 2 — Ten shapes, named for this key. Straight lines cross on one row; V shapes reach the far row at reel 3; bridges and cups hold an outer row across reels 2–4; zigzags alternate rows; bumps leave the row for one reel; stairs walk across the grid; tails change row only at the last reel.

> **Tracing a line on a machine.** Open the help, page to WIN LINES, and find the number the win message names. Put a finger on reel 1 at the row the diagram shows and step one reel right at a time. If the screen's line differs from this key, the screen is right: tables differ by maker, by game and by build.

2 — THREE-REEL LAYOUTS (3×3)

A three-reel, three-row window began with one line through the center. Aristocrat's 1994 patent describes the progression: machines "paid a prize only on a center row combination," then on "horizontal lines above and below the center row line, and later on diagonal lines (typically on 3 reel machines)."[3] The same filing notes that a 3×3 matrix of independently spun positions could also pay three verticals, "making 8 possible lines"; those columns are not left-to-right lines and are not drawn here.[3]

3×3 · 5 lines · Novomatic Ultra Hot

T3

Games: Ultra Hot, Ultra Hot Deluxe, Hot Chance. **Source:** open-source reconstruction[4]. **Checked:** 5 lines, 5 distinct, one row on each of 3 reels, 5 of 27 possible. The order follows the progression the 1994 patent describes: the center row, then the rows above and below, then the diagonals.

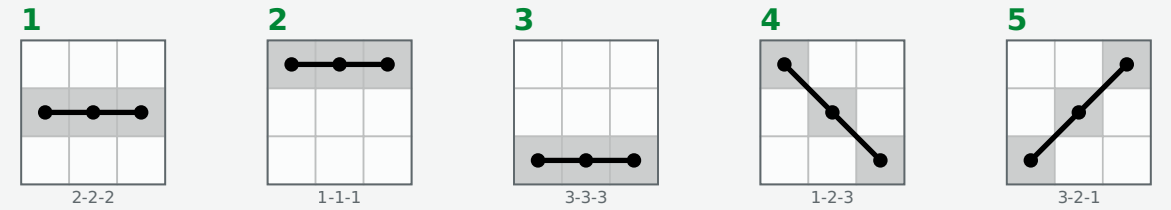


Figure 3 — 3×3 · 5 lines · Novomatic Ultra Hot. Rows count from the top; the digits under each grid give the row on reels 1 to 3.

3×3 · 9 lines · Aristocrat patent, FIG. 8

T1

Games: US 5,580,053, FIG. 8 and Table 6. **Source:** Aristocrat patent[3]. **Checked:** 9 lines, 9 distinct, one row on each of 3 reels, 9 of 27 possible. The patent's first nine-line arrangement for a 3×3 machine: three rows, four lines that step one row between two reels, and the two diagonals as lines 8 and 9.

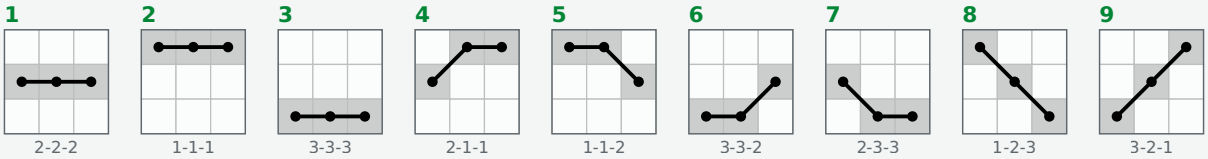


Figure 4 — 3×3 · 9 lines · Aristocrat patent, FIG. 8. Rows count from the top; the digits under each grid give the row on reels 1 to 3.

3×3 · 9 lines · IGT Triple Diamond (online)

T3

Games: Triple Diamond (online build). **Source:** open-source reconstruction[4]. **Checked:** 9 lines, 9 distinct, one row on each of 3 reels, 9 of 27 possible. Rows, diagonals, then four V shapes over the middle reel.

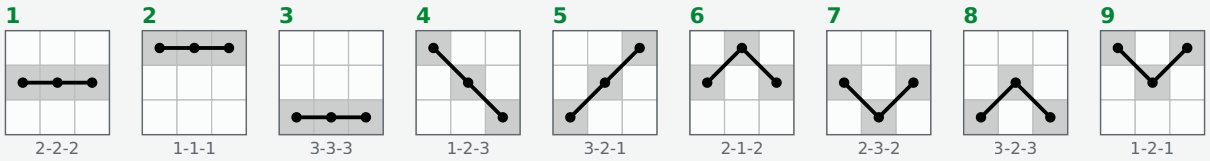


Figure 5 — 3×3 · 9 lines · IGT Triple Diamond (online). Rows count from the top; the digits under each grid give the row on reels 1 to 3.

3×3 · 27 lines · every combination

—

Games: 3 × 3 × 3 = 27; numbered here in counting order, not any maker's order. **Source:** arithmetic. **Checked:** 27 lines, 27 distinct, one row on each of 3 reels, 27 of 27 possible. Twenty-seven lines is every path a 3×3 grid holds; a 27-line game has no choice of shapes, only of numbering.

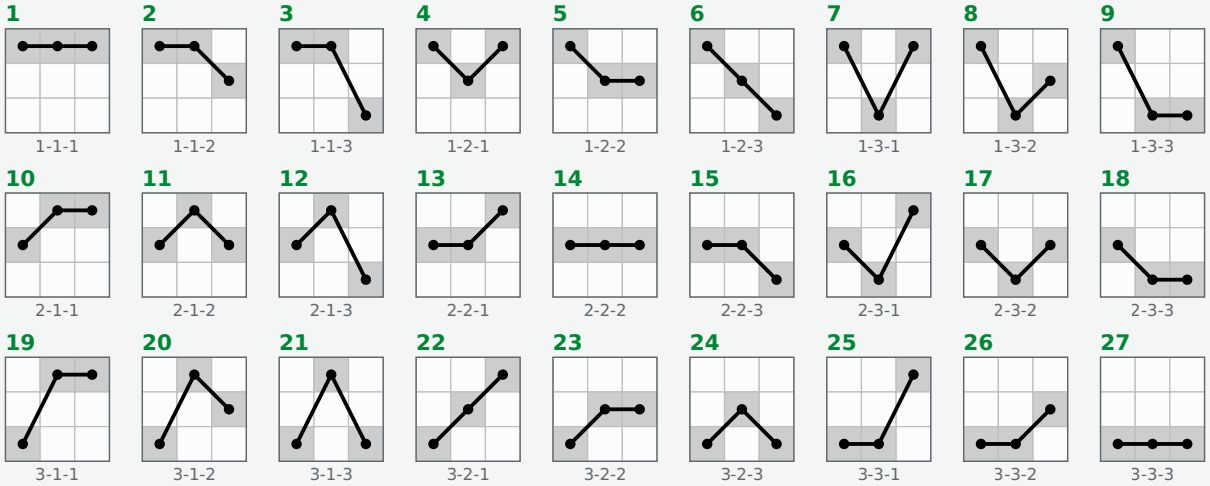


Figure 6 — 3×3 · 27 lines · every combination. Rows count from the top; the digits under each grid give the row on reels 1 to 3.

3 — FIVE-REEL, THREE-ROW LINE SETS: 9 TO 30 LINES

The 5×3 is the common video grid, and its line tables are where makers differ most. Table 3.1 sets each table in this section against the 100 lines read from the Inca Diamonds machine (Section 4): how many of its lines appear there at all, how many carry the same number, and the first line whose number differs.[1,4]

Table 3.1 — Each 5×3 table against the Inca Diamonds 100

TABLE	LINES	FOUND IN THE 100	SAME NUMBER	FIRST NUMBER THAT DIFFERS
Aristocrat patent, 9	9	9 of 9	3	Line 4
Novomatic, 10	10	10 of 10	5	Line 6
IGT, 20	20	20 of 20	5	Line 6
Novomatic, 20 (first)	20	20 of 20	5	Line 6
Novomatic, 20 (second)	20	20 of 20	7	Line 6
Novomatic, 25	25	25 of 25	11	Line 6
NetEnt, 30	30	25 of 30	11	Line 10
Playtech, 30	30	27 of 30	7	Line 6

Every Novomatic and IGT line in this section is one of the 100; NetEnt's and Playtech's 30-line tables each add lines the 100 do not hold. The patent's line 4, 2-1-1-1-2, is Inca's line 9. Same shapes, different numbers: a "line 12" win means a different path on each machine. Forty and fifty lines on the 5×3 are in Section 4.2, as the first lines of the 100-line table.

5×3 · 9 lines · Aristocrat patent, FIG. 7

T1

Games: US 5,580,053, FIG. 7 and Table 5. **Source:** Aristocrat patent[3]. **Checked:** 9 lines, 9 distinct, one row on each of 5 reels, 9 of 243 possible. Table 5 prints line 7 as AY, BZ, CZ, EZ, EY, naming reel E twice; FIG. 7 draws the line through DZ, and the drawing is used here.

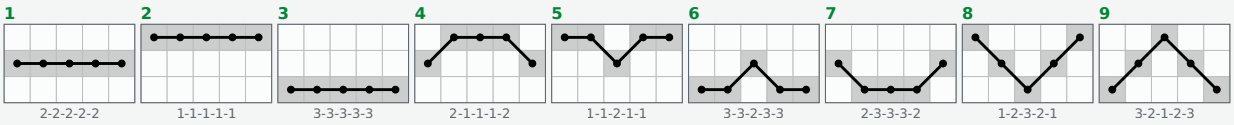


Figure 7 — 5×3 · 9 lines · Aristocrat patent, FIG. 7. Rows count from the top; the digits under each grid give the row on reels 1 to 5.

5×3 · 10 lines · Novomatic classic

T3

Games: Book of Ra Deluxe, Lord of the Ocean (10); Book of Ra (lines 1–9); Sizzling Hot (lines 1–5). **Source:** open-source reconstruction[4]. **Checked:** 10 lines, 10 distinct, one row on each of 5 reels, 10 of 243 possible. The same ten lines open Novomatic's first 20-line table below.

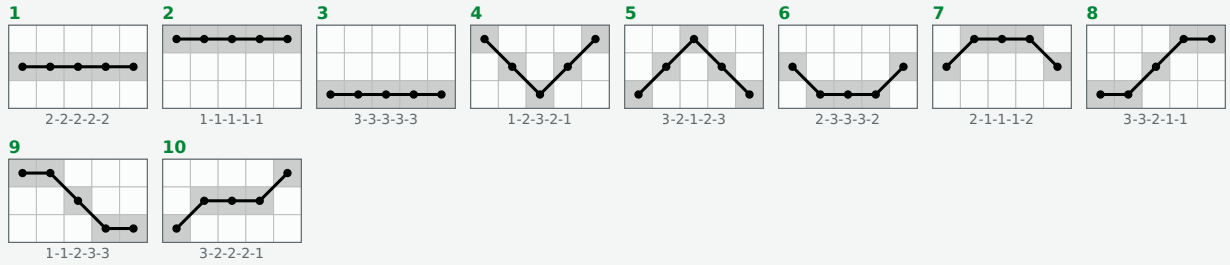


Figure 8 — 5×3 · 10 lines · Novomatic classic. Rows count from the top; the digits under each grid give the row on reels 1 to 5.

5×3 · 20 lines · IGT

T3

Games: Cleopatra (20); Rich Girl (lines 1–9). **Source:** open-source reconstruction[4]. **Checked:** 20 lines, 20 distinct, one row on each of 5 reels, 20 of 243 possible. Lines 1–5 are the common opening; from line 6 the order is IGT's own.

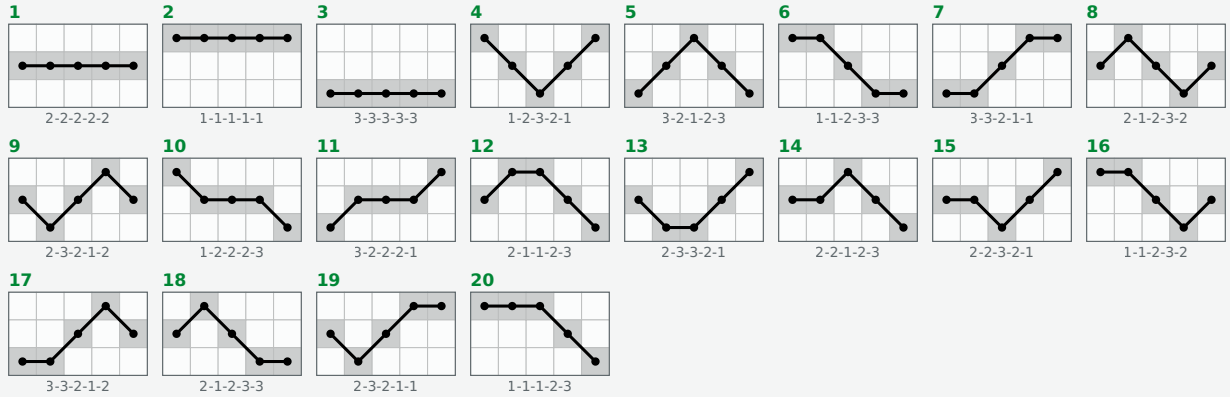


Figure 9 — 5×3 · 20 lines · IGT. Rows count from the top; the digits under each grid give the row on reels 1 to 5.

5×3 · 20 lines · Novomatic, first table

T3

Games: Royal Dynasty, Flame Dancer, Plenty of Jewels 20 hot. **Source:** open-source reconstruction[4]. **Checked:** 20 lines, 20 distinct, one row on each of 5 reels, 20 of 243 possible. Lines 1–10 are the classic ten.

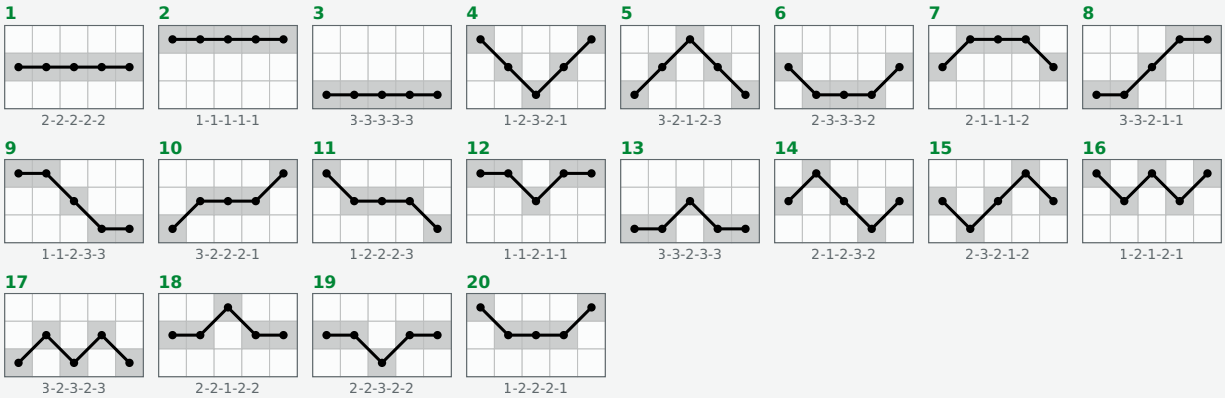


Figure 10 — 5×3 · 20 lines · Novomatic, first table. Rows count from the top; the digits under each grid give the row on reels 1 to 5.

5×3 · 20 lines · Novomatic, second table

T3

Games: Katana, Chicago, Plenty on Twenty. **Source:** open-source reconstruction[4]. **Checked:** 20 lines, 20 distinct, one row on each of 5 reels, 20 of 243 possible. The same maker, the same line count and a different table from line 6 on.

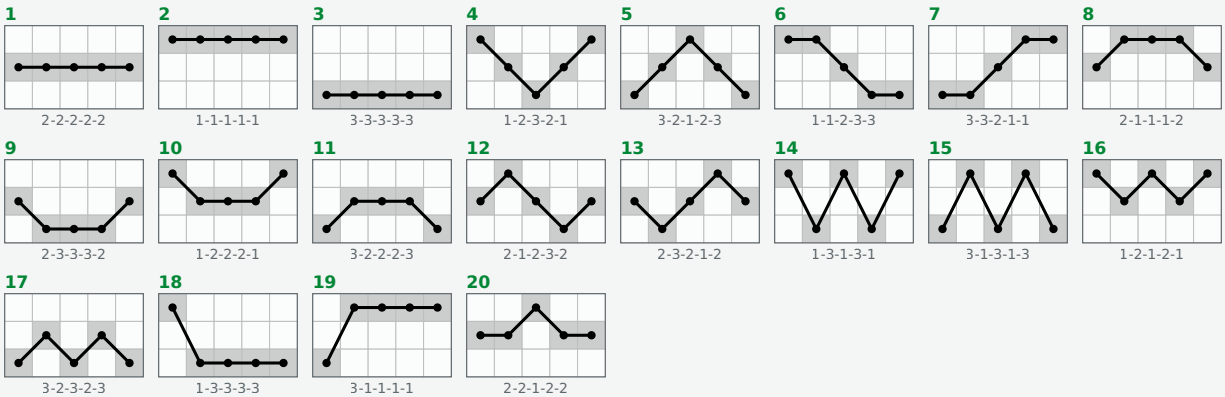


Figure 11 — 5×3 · 20 lines · Novomatic, second table. Rows count from the top; the digits under each grid give the row on reels 1 to 5.

5×3 · 25 lines · Novomatic

T3

Games: Cash Farm, Dragon's Deep. **Source:** open-source reconstruction[4]. **Checked:** 25 lines, 25 distinct, one row on each of 5 reels, 25 of 243 possible.

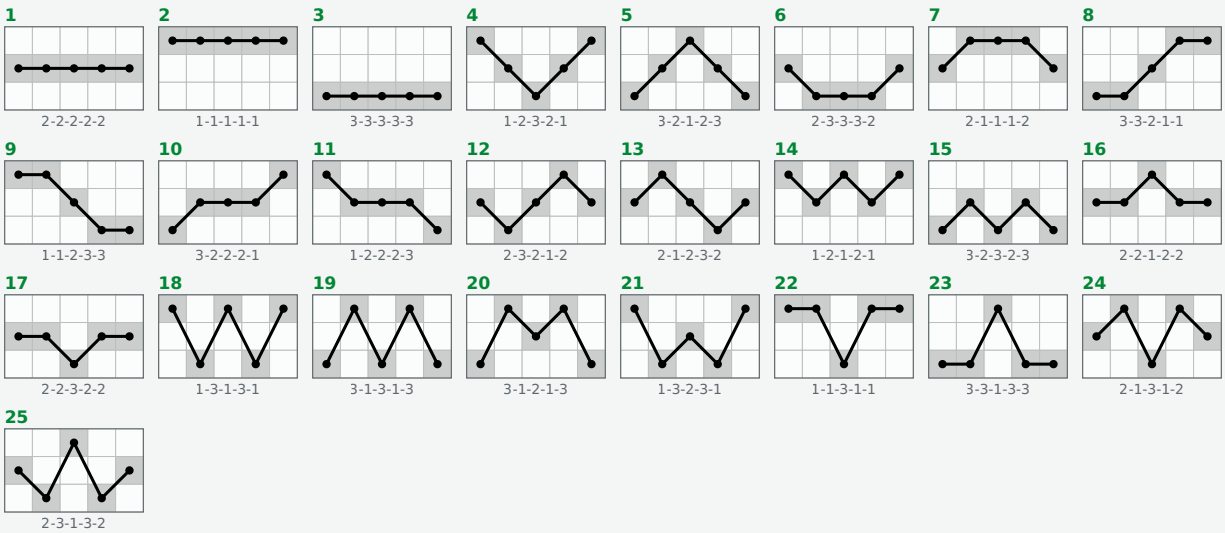


Figure 12 — 5×3 · 25 lines · Novomatic. Rows count from the top; the digits under each grid give the row on reels 1 to 5.

5×3 · 30 lines · NetEnt table

T3

Games: Arabian Nights (lines 1–10), Fruit Shop (1–15), Gonzo's Quest and Trolls (1–20). **Source:** open-source reconstruction[4]. **Checked:** 30 lines, 30 distinct, one row on each of 5 reels, 30 of 243 possible.

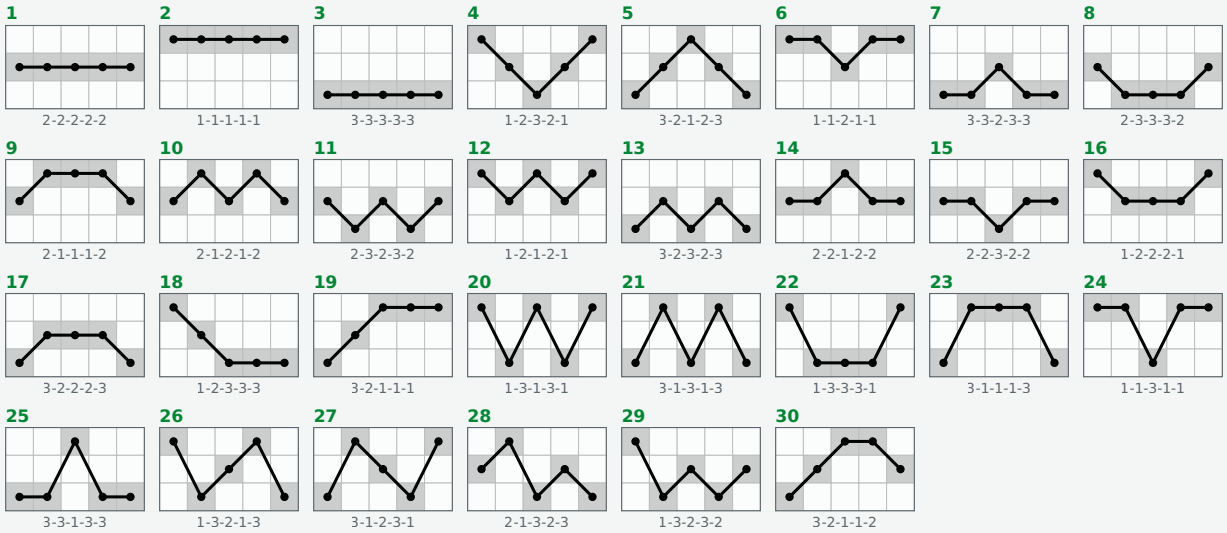


Figure 13 — 5×3 · 30 lines · NetEnt table. Rows count from the top; the digits under each grid give the row on reels 1 to 5.

5×3 · 30 lines · Playtech table

T3

Games: Panther Moon (lines 1–15), Dolphin Reef (1–20), Great Blue (1–25), Irish Luck (30). **Source:** open-source reconstruction[4]. **Checked:** 30 lines, 30 distinct, one row on each of 5 reels, 30 of 243 possible.

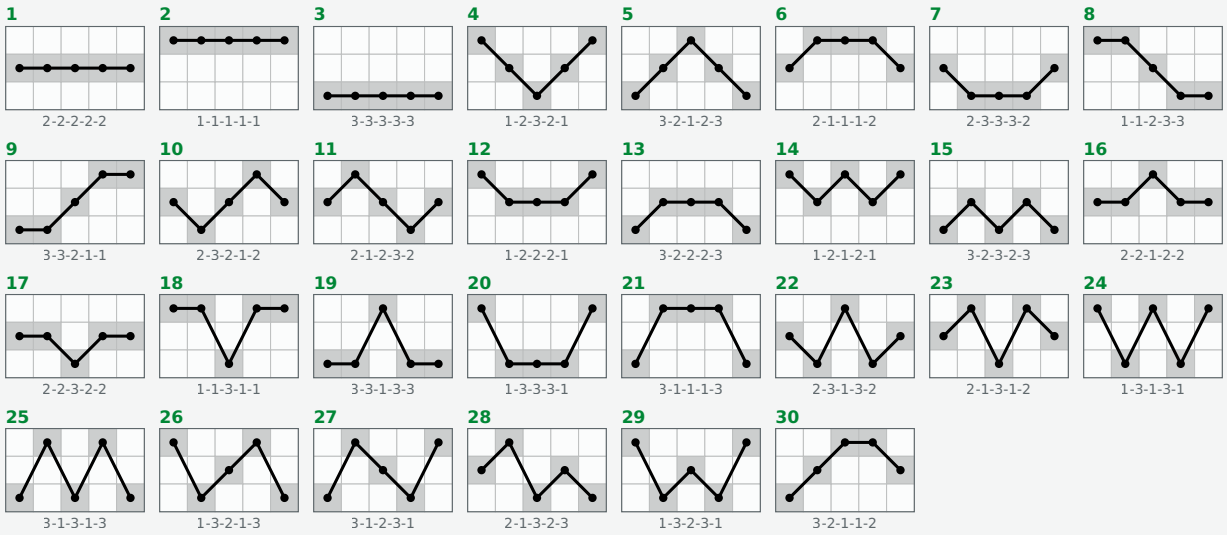


Figure 14 — 5×3 · 30 lines · Playtech table. Rows count from the top; the digits under each grid give the row on reels 1 to 5.

4 — THE 5×3 AT 100 LINES

The set comes off the machine. Inca Diamonds is a Thunder Empire title from Aristocrat, filmed help screen by help screen for Volume XIX. Its rules read "CHOOSE YOUR NUMBER OF LINES TO PLAY. 50 LINES OR 100 LINES ARE PLAYED." and "MINIMUM BET IS 50 CREDITS.", and two WIN LINES screens draw lines 1–50 and 51–100 as fifty small 5×3 grids each, the line's cells colored.[1,2] Each of the 1,500 cells was read from the film at full resolution; where glare from the cabinet lighting covered a grid, a second frame of the same screen was read. Figure 15 redraws all 100 in the machine's own order, ten to a row as on the screens. Which fifty are lit when 50 lines are played is not printed on the screens read; Section 4.2 gives this key's reading.

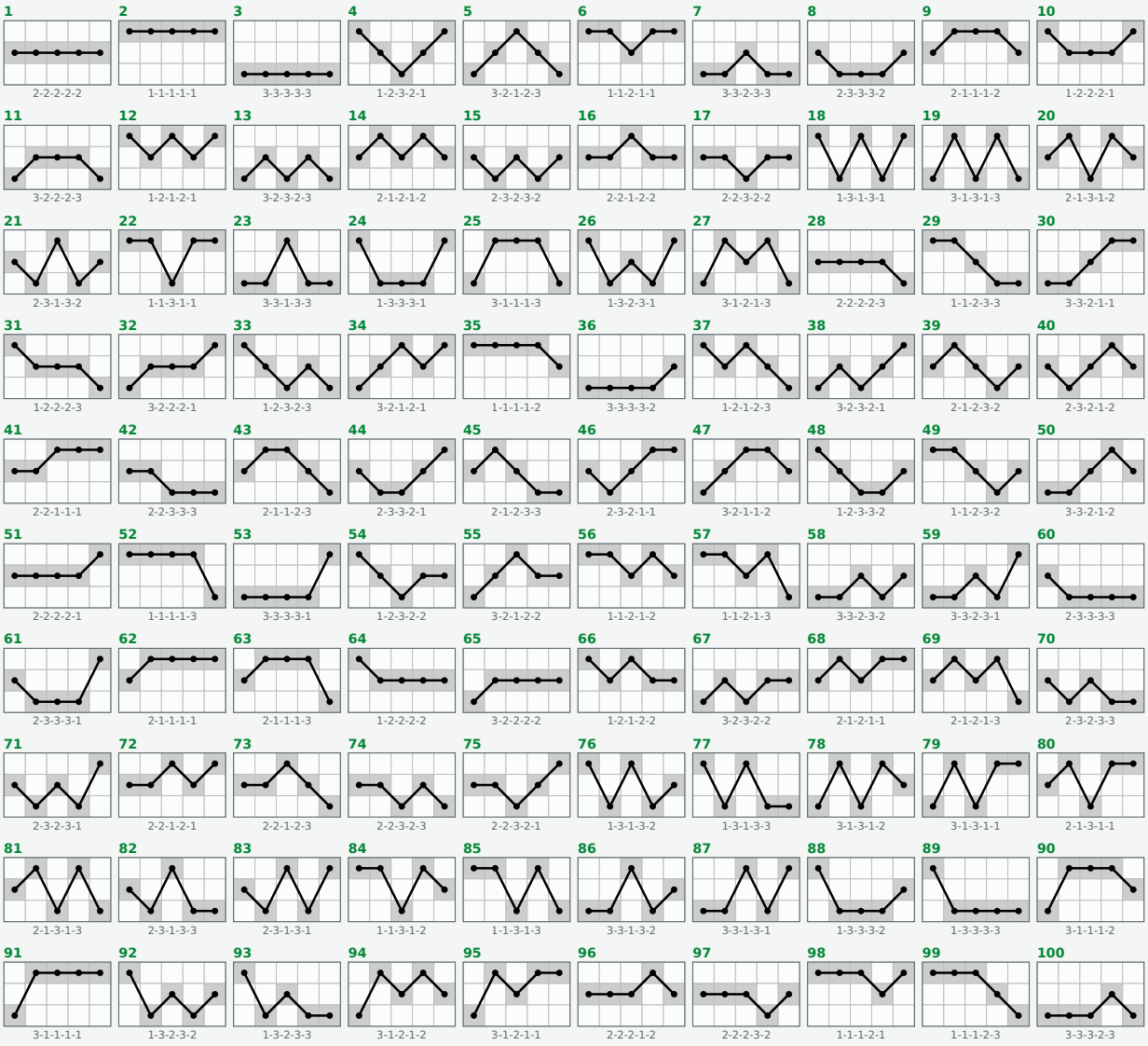
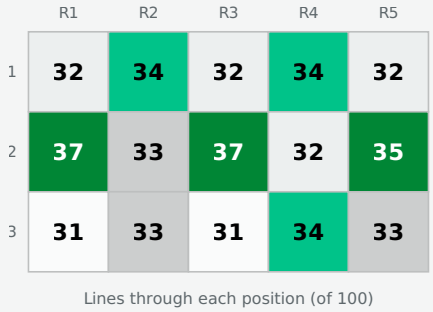


Figure 15 — Aristocrat Inca Diamonds, 5×3, lines 1–100. Redrawn from the machine's two WIN LINES screens[1]; the digits under each grid give the row on reels 1 to 5, counted from the top. Lines 1–50 are the first screen, 51–100 the second.

4.1 What the 100 Lines Show

Built in mirror pairs. Flip a line top to bottom — row 1 to row 3 and back, row 2 unchanged — and its mirror is in the set for every line but line 99 (1-1-1-2-3, whose mirror 3-3-3-2-1 is not among the 100). Line 1, 2-2-2-2-2, is its own mirror. With 99 lines besides the middle row, an odd number, at least one line had to go unpaired. In 29 of the 49 pairs the two lines carry consecutive numbers, as 2 and 3 do; the rest sit apart, as 28 (2-2-2-2-3) and 51 (2-2-2-2-1) do. The pairing doubled as a check on the reading: a misread cell would break a pair.

Every position works about equally hard. The 100 lines times 5 reels make 500 line-positions over 15 positions, 33.3 on average; the actual counts run from 31 to 37 (Figure 16). The middle row of reels 1 and 3 is on the most lines, 37 each; the bottom row of reels 1 and 3 is on the fewest, 31 each. A symbol in the middle of reel 1 starts 37 of the 100 line evaluations.



Each reel column sums to 100, since every line uses one position on every reel: reel 1, 32 + 37 + 31 = 100; reel 3, 32 + 37 + 31 = 100. The grid as a whole sums to 500.

Figure 16 — How many of the 100 lines pass through each 5×3 position, Inca Diamonds. Counted from Figure 15.

What the 100 contain. Three of the 100 stay on one row, 48 use two rows and 49 use all three. 38 of them jump straight between the top and bottom rows somewhere, as line 18, 1-3-1-3-1, does at every reel. Every Novomatic and IGT line in Section 3 is among them (Table 3.1). The machine prints the 100 it pays and states no rule for choosing them from the 243, and this key does not supply one.

4.2 Fewer Lines on the Same Table: 50, 40, 25 and Below

A count of lines is read from line 1 up. The screens do not say which fifty are lit at 50 lines. Two records point the same way. In the line-count panel of Aristocrat's patent, a button steps "the count of lines selected" up by one, and grouped selection runs "1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27 or 29 lines": the player picks how many lines, not which.[3] The open-source reconstruction, wherever a game plays fewer lines than its table holds, plays the lowest-numbered.[4] This key therefore reads the 50-line game as lines 1–50, the first WIN LINES screen and the top five rows of Figure 15, and 40 lines as lines 1–40. That is a reading, not a printed rule.

The other Aristocrat counts in the series. The series records Aristocrat 5×3 line games sold at 50, 25 or 5 lines by denomination (Dragon Link, Grand Legends), at 50 or 25 (Lightning Link) and at 100, 50, 25, 15 or 5 (Dollar Storm).[7] No WIN LINES screen of those titles has been read, so whether they share Inca Diamonds' table is not on the record. If they do, each count is the first lines of Figure 15, and Table 4.1 gives what each count covers.

Table 4.1 — The first lines of the Inca Diamonds table, by count

LINES LIT	LINES THROUGH EACH POSITION	POSITIONS ON NO LINE	LINES WHOSE MIRROR IS ALSO LIT
Lines 1–5	1–3	0	5 of 5
Lines 1–9	3	0	9 of 9
Lines 1–15	4–7	0	15 of 15
Lines 1–20	5–9	0	19 of 20
Lines 1–25	7–9	0	25 of 25
Lines 1–30	9–12	0	29 of 30
Lines 1–40	12–16	0	39 of 40
Lines 1–50	15–20	0	49 of 50
Lines 1–100	31–37	0	99 of 100

The first nine lines put every position on exactly three lines, and the first 25 are closed under the top-to-bottom flip. Konami's Bomberman is the series' 5×3 game at 40 lines (20 or 40 by denomination);[7] its own table has not been read, and the 40-line row here is the Inca table's first 40, not Bomberman's.

> **Reading the screens yourself.** On the machine, the win message names the line; the WIN LINES screen shows it as colored cells. The coordinates in Appendix C, Table C.13, give the same 100 lines as digits, ten to a block, to check a screen against a photograph.

5 — FIVE-REEL, FOUR-ROW LINE SETS: 40 TO 100 LINES

Adding a fourth row takes the possible lines from 243 to 1,024, and the tables spread out. Novomatic's and NetEnt's 40-line tables do not share even a first line: Novomatic starts on the top row, NetEnt on the second.[4] AGT's and CT Interactive's 100-line tables share 30 lines, numbered differently every time. AGT's 100 lines put exactly 25 lines through each of the 20 positions; CT Interactive's run from 20 to 30.

5×4 · 40 and 50 lines · Novomatic

T3

Games: Roaring Forties, Mega Joker, Ultra Sevens (lines 1–40); Wild Horses (50). **Source:** open-source reconstruction[4]. **Checked:** 50 lines, 50 distinct, one row on each of 5 reels, 50 of 1,024 possible.

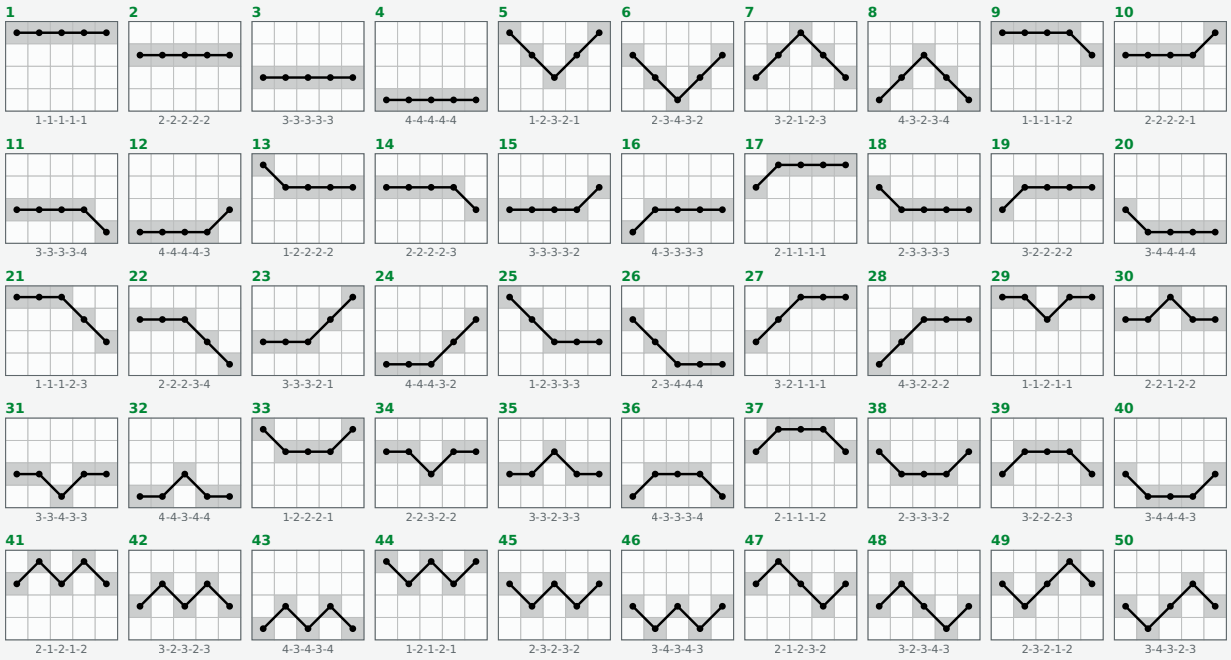


Figure 17 — 5×4 · 40 and 50 lines · Novomatic. Rows count from the top; the digits under each grid give the row on reels 1 to 5.

5×4 · 40 lines · NetEnt

T3

Games: Groovy Sixties, Funky Seventies, Super Eighties. **Source:** open-source reconstruction[4]. **Checked:** 40 lines, 40 distinct, one row on each of 5 reels, 40 of 1,024 possible.

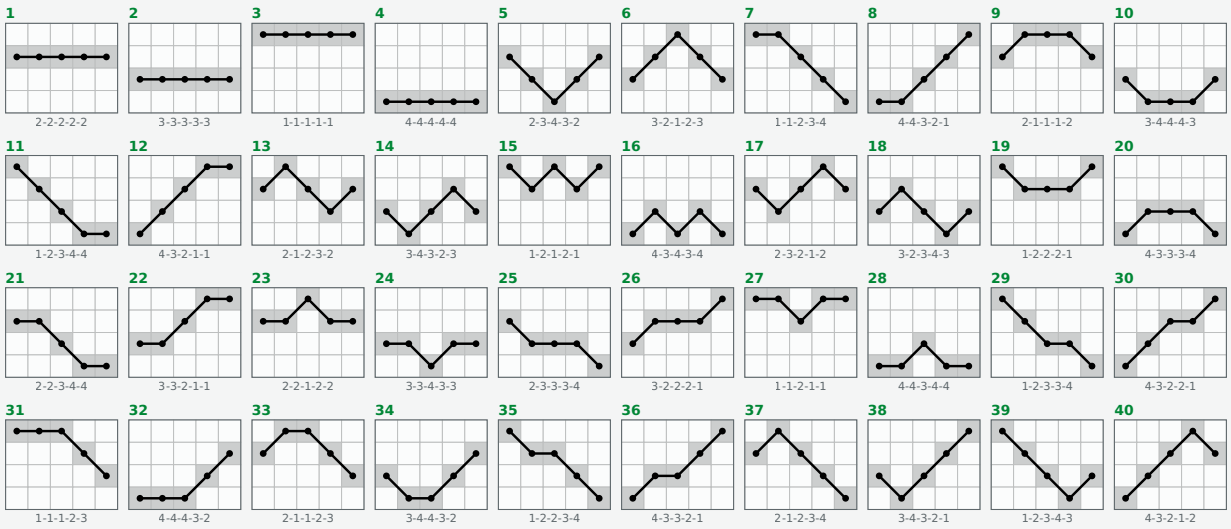


Figure 18 — 5×4 · 40 lines · NetEnt. Rows count from the top; the digits under each grid give the row on reels 1 to 5.

5×4 · 100 lines · AGT

T3

Games: 100 Jokers, 100 Shining Stars, Red Crown (100); 50 Happy Santa (1–50); 40 Bigfoot (1–40). **Source:** open-source reconstruction[4]. **Checked:** 100 lines, 100 distinct, one row on each of 5 reels, 100 of 1,024 possible.

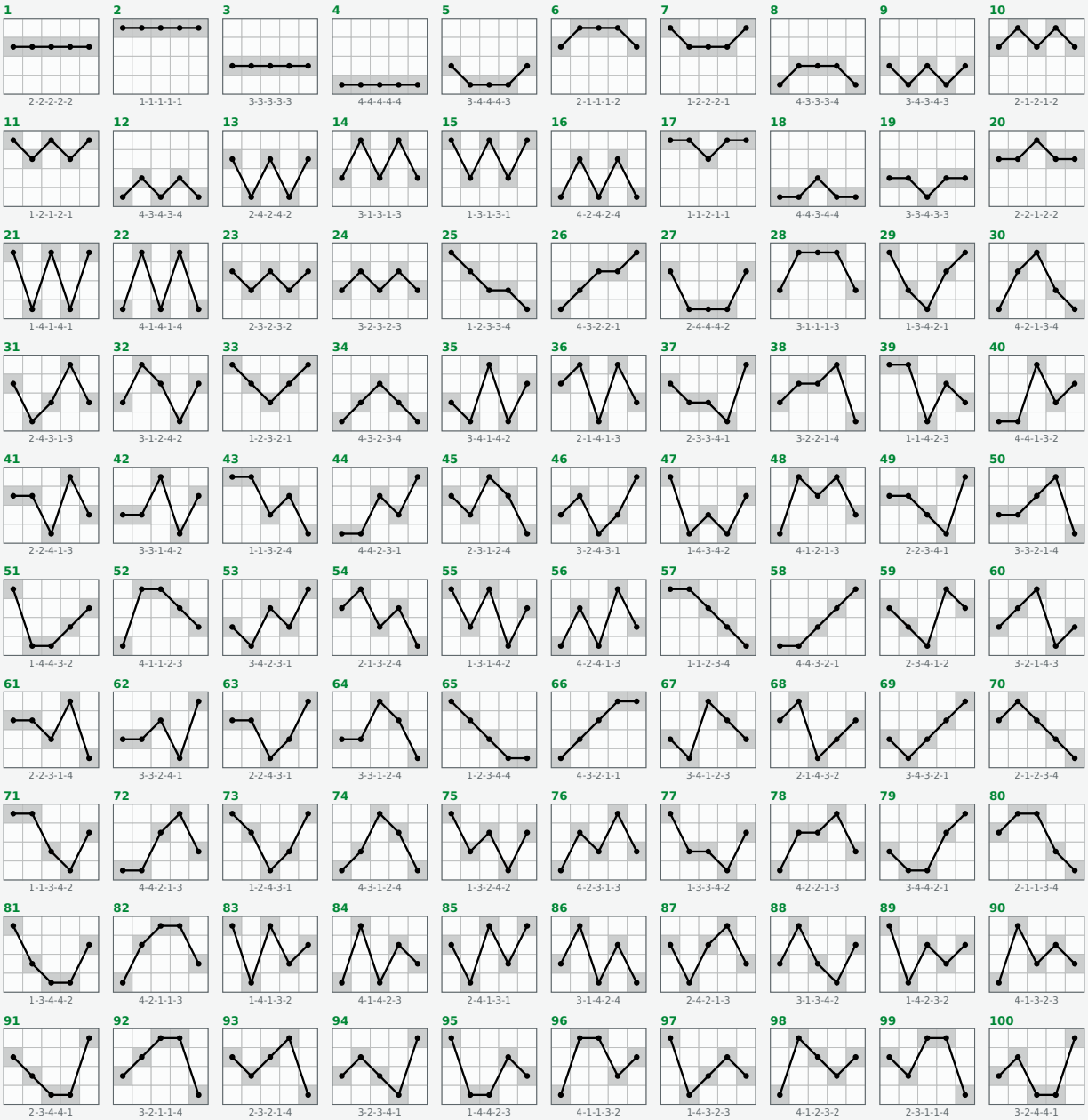


Figure 19 — 5×4 · 100 lines · AGT. Rows count from the top; the digits under each grid give the row on reels 1 to 5.

5×4 · 100 lines · CT Interactive

T3

Games: 100 Burning Brilliants, Cave of Clovers. **Source:** open-source reconstruction[4]. **Checked:** 100 lines, 100 distinct, one row on each of 5 reels, 100 of 1,024 possible.

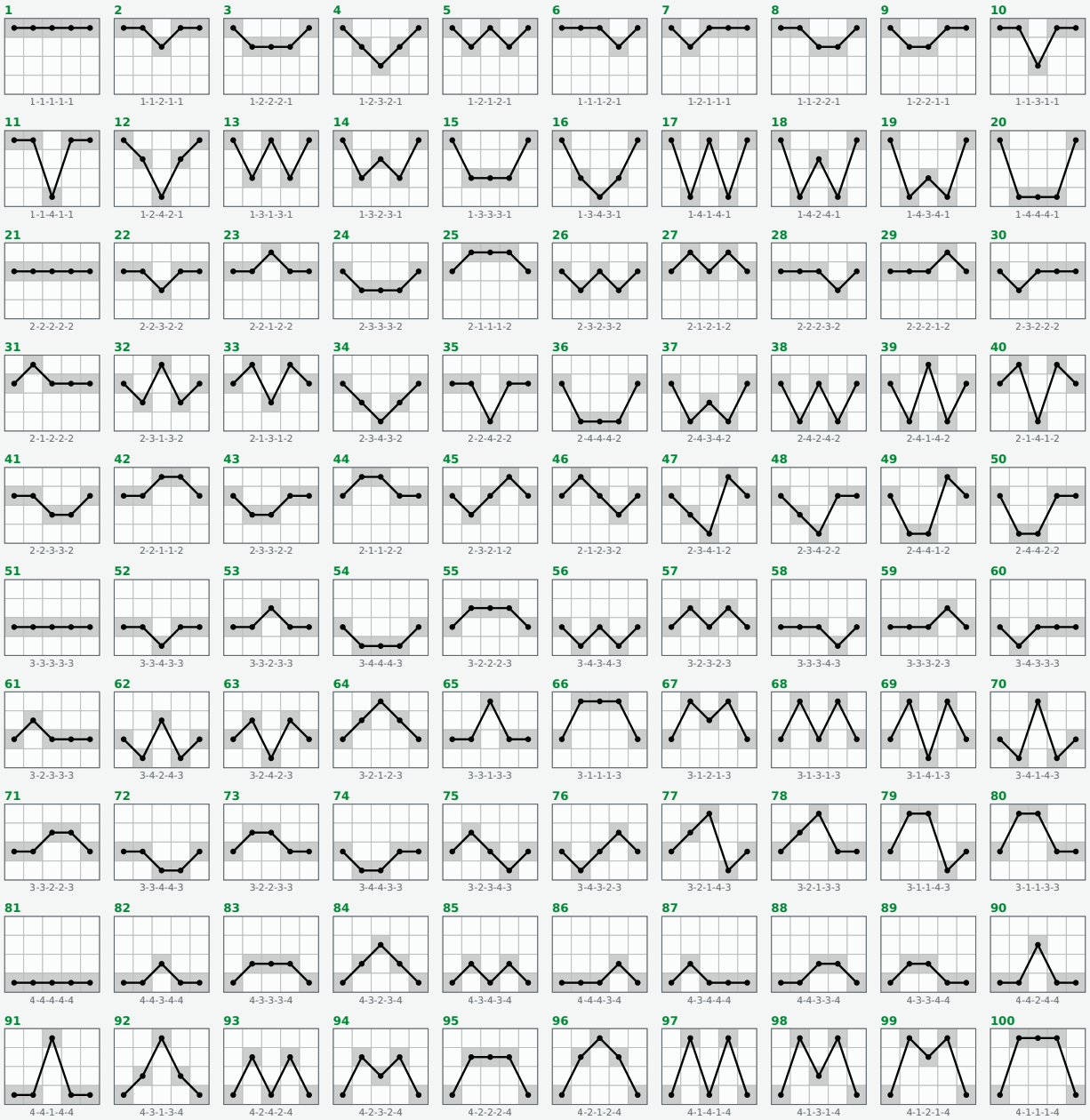


Figure 20 — 5×4 · 100 lines · CT Interactive. Rows count from the top; the digits under each grid give the row on reels 1 to 5.

CT Interactive's 50-line table in the same reconstruction lists one line twice (its line 44 repeats line 6), and AGT's 30-line 5×3 table repeats two lines (26 and 27 repeat 6 and 7). A real machine does not pay one path twice under two numbers, so both tables fail this key's duplicate check and are left out.[4]

6 — OTHER GRIDS: 4×4 AND 6×3

Four-reel and six-reel line games follow the same rule of one row per reel. The 4×4 below holds 256 possible lines and uses 10; the 6×3 holds 729 and uses 20. No 5×5 or 6×4 line table on the record met this key's standard of source; those grids appear in Section 7 as ways games, where 5×5 is Aristocrat's Super Reel Power at 3,125 ways[8] and 6×4 is Raging Rhino's 4,096 ways.[9]

4×4 · 10 lines · AGT

T3

Games: Zeus, Santa. **Source:** open-source reconstruction[4]. **Checked:** 10 lines, 10 distinct, one row on each of 4 reels, 10 of 256 possible.

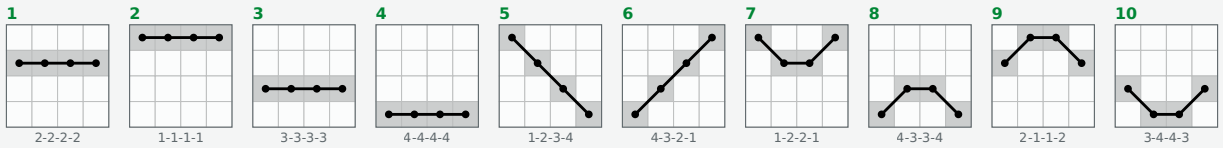


Figure 21 — 4×4 · 10 lines · AGT. Rows count from the top; the digits under each grid give the row on reels 1 to 4.

6×3 · 20 lines · AGT

T3

Games: Ice Fruits 6 reels. **Source:** open-source reconstruction[4]. **Checked:** 20 lines, 20 distinct, one row on each of 6 reels, 20 of 729 possible.

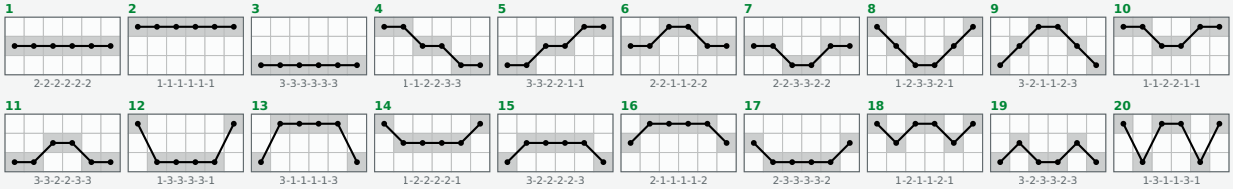
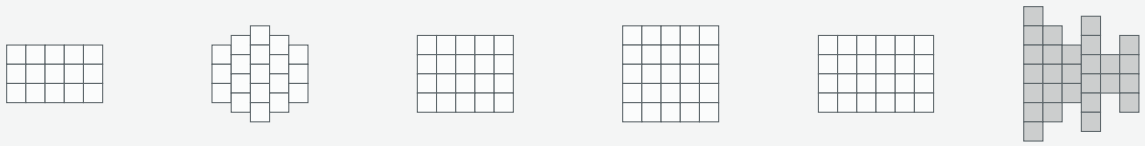


Figure 22 — 6×3 · 20 lines · AGT. Rows count from the top; the digits under each grid give the row on reels 1 to 6.

7 — WAYS, BOTH WAYS, MEGAWAYS, CLUSTERS AND PAY ANYWHERE

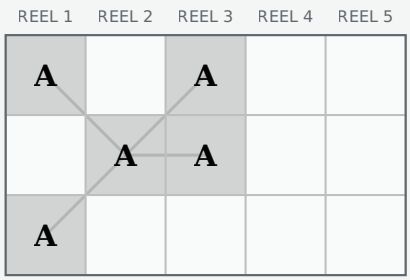
A ways game pays every line at once. Instead of numbered lines, it pays matching symbols on adjacent reels from reel 1, anywhere on each reel. The count of "ways" is the product of the positions on each reel: 3 × 3 × 3 × 3 × 3 = 243 on a 5×3, 4^5 = 1,024 on a 5×4 — Buffalo's layout[8] — and 4^6 = 4,096 on six reels of four rows, Raging Rhino's.[9] Aristocrat's patent states the idea in 1994: "every possible combination having one symbol in each column will form a line."[3] A win is paid once for each combination of positions that carries it, so two matching symbols on reel 1, one on reel 2 and two on reel 3 make 2 × 1 × 2 = 4 ways of three-of-a-kind (Figure 24).

Aristocrat sells ways by the reel. Its ways engine is Reel Power: "Reel Power proper runs a 5×3 window for 3^5 = 243 ways, Xtra Reel Power a 5×4 window for 4^5 = 1,024, and Super Reel Power a 5×5 window for 3,125." The bet buys reels, not lines: "Xtra Reel Power prices a bet per reel; covering all five reels costs 40 credits," which is Buffalo's cost to cover.[8] L&W's Reel Ways and AGS's PowerXStream are ways engines on the same rule.[7]



3 rows × 5 reels	3-4-5-4-3	4 rows × 5 reels	5 rows × 5 reels	4 rows × 6 reels	Megaways, one spin
3^5 = 243	3·4·5·4·3 = 720	4^5 = 1,024	5^5 = 3,125	4^6 = 4,096	7·5·3·6·2·4 = 5,040

Figure 23 — Ways layouts and their counts. Each count is the product of the positions on each reel. IGT's Siberian Storm uses the 3-4-5-4-3 layout for 720 ways and pays them in both directions.[10] The Megaways spin shown is one example; the reel heights change every spin.



Reel 1: two A

Reel 2: one A

Reel 3: two A

Reel 4: no A, so the run stops at three

Three-of-a-kind A pays 2 × 1 × 2 = 4 ways

Figure 24 — Counting one ways win. The four paths drawn are the four ways the three A symbols connect from reel 1.

Uneven reel sets. A ways game need not give every reel the same height; the count is still the product. The Buffalo family's uneven sets run from 576 ways to 16,000 (Table 7.1).[8]

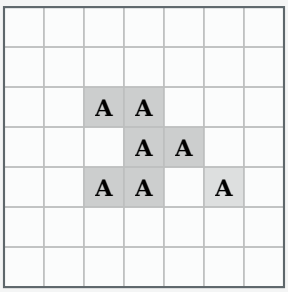
Table 7.1 — Uneven reel sets: rows on each reel and the ways they make

GAME	ROWS ON REELS 1–5	WAYS
IGT Siberian Storm	3-4-5-4-3	3 · 4 · 5 · 4 · 3 = 720
Aristocrat Wild Wild Buffalo	3-3-4-4-4	3 · 3 · 4 · 4 · 4 = 576
Aristocrat Buffalo Grand	4-5-5-5-4	4 · 5 · 5 · 5 · 4 = 2,000
Aristocrat Buffalo Diamond	4-5-6-5-4	4 · 5 · 6 · 5 · 4 = 2,400
Aristocrat Buffalo Chief	4-6-6-6-4	4 · 6 · 6 · 6 · 4 = 3,456
Aristocrat Buffalo Ascension, fully grown	4-7-7-7-4	4 · 7 · 7 · 7 · 4 = 5,488
Aristocrat Buffalo Chief Stampede, fully grown	4-10-10-10-4	4 · 10 · 10 · 10 · 4 = 16,000

Some games pay both ways. NetEnt's Starburst "uses a 5x3 reel setup with 10 paylines that pay both ways – left to right and right to left";[11] IGT's Siberian Storm does the same on its 720 ways.[10] The lines are the same lines; a run may now start on reel 5 and read leftward across adjacent reels, so each line has two chances to pay.

Megaways changes the heights every spin. Each of six reels shows a different number of symbols each spin, so the ways change too; the spin in Figure 23 has 7 · 5 · 3 · 6 · 2 · 4 = 5,040. Big Time Gaming's Bonanza shows "up to seven different symbols per reel," so its top count is 7^6 = 117,649, the figure printed for the game.[5] The count on screen describes that spin only.

Cluster pays drop lines and direction. A cluster game pays groups of matching symbols that touch. Play'n GO's Reactoonz, released in October 2017, plays on a 7×7 grid, and a win needs "at least 5 examples of the same symbol, connected horizontally, vertically, or in blocks."[6] A symbol that meets a group only at a corner does not join it.



Brass: six A joined edge to edge, one cluster of 6

Gray: an A that meets the cluster only at a corner

does not join it; adjacency is up, down, left or right

No lines and no reels-left-to-right rule: position on the

grid matters only through which cells touch

Figure 25 — A cluster on a 7×7 grid. Six edge-joined symbols form one cluster; a seventh touching only at a corner stands alone.

Pay anywhere drops lines and adjacency. Pragmatic Play's Sweet Bonanza plays "6 reels and 5 rows" and "pays out according to the total number of symbols on the board instead of along a payline," a win needing "eight or more of the same symbol anywhere on the screen"; "the winning symbols disappear, and new ones take their place."[12] Position does not matter at all: only the count of each symbol on the screen.

Table 7.2 — Six ways to evaluate a screen

TYPE	WHAT PAYS	BET	DIRECTION
Line game	Numbered lines on the WIN LINES screen	Lines lit times line bet	Left to right from reel 1
Line game, both ways	The same numbered lines, read from either end	Lines times line bet	Left to right and right to left
Ways (243, 720, 1,024, 3,125, 4,096)	Every combination, one position per reel	Fixed bet covers all ways; Reel Power sells it by the reel	Left to right; some games both ways
Megaways	Every combination; heights change each spin	Fixed bet	Left to right from reel 1
Cluster pays	Edge-joined groups anywhere on the grid	Fixed bet	No direction
Pay anywhere	A count of one symbol anywhere on the screen (eight or more on Sweet Bonanza)	Fixed bet	No direction, no adjacency

8 — PERCEIVED PROGRESSION ON A LINE GAME

Every volume in the series sorts what a game displays into decoration, a record of play and true persistent state. Line evaluation itself carries nothing from one spin to the next: each spin's lines are scored on that spin's screen and the slate is clean. What builds up on a line game is display.

Many lines make small "wins" that lose money. At 100 lines and a bet multiplier of 1, the filmed bet is 100 credits; three 10s on a line pay 5 credits on the Inca Diamonds pay table.[2] The machine flashes the line and counts up the win, and the spin has lost 95 credits. A win smaller than the bet is a loss shown as a win.

Busy lines look like near misses. With each position on 31 to 37 of the 100 lines (Section 4), every symbol on the screen sits on about a third of the lines, so one screen shows dozens of partial runs at once, and runs that stop a reel short light up as the line display plays. They are the arithmetic of many overlapping lines, not a sign that a feature or a bigger win is close.

Table 8.1 — What a line display means

DISPLAY	WHAT IT IS	BETWEEN SPINS
Line-win animation and the counted-up WIN meter	Decoration and the record of this spin	Nothing carries over
Number of lines and bet multiplier	Configuration chosen by the player	Persists by choice, sets the bet, not the odds of any one line
Lines lit across the screen after a spin	Decoration	Nothing carries over
Collectors and meters that do persist (bars, pots)	True persistent state, where the help screen says so	Read each game's volume; lines never carry it

9 — THE SERIES ON THIS KEY

Each volume of the series records how its game evaluates a screen. Table 9.1 sets the 22 reel-game volumes from I to XXIV against this key: the grid, the line or ways count the volume records, and where the matching map or count is here. Volume X (video poker) and Volume XVI (keno) are not reel games and are left out.[7] Where a volume's own table has not been read off a machine, this key gives the grid, not the lines.

Table 9.1 — Reel-game volumes I to XXIV, on this key

VOL.	GAME (MAKER)	GRID AND EVALUATION	LINES OR WAYS	IN THIS KEY
I	Rakin' Bacon! (AGS)	PowerXStream ways; fixed lines on chassis G–I	243, growing to 16,807	Section 7; Table 1.1
II	Big Hot Flaming Pots (L&W)	Reel Ways, 5×3	243	Section 7
III	Regal Riches (IGT)	Line game, 5×4	30 fixed lines	Section 5 grid; IGT's 5×4 table not read
IV	Huff N' Puff (L&W)	Reel Ways, 5×3; Super features 5×6; Xtra Puff three reels	243; 7,776; 27	Section 7; Table 1.1
V	Buffalo (Aristocrat)	Xtra Reel Power, 5×4, and uneven sets	1,024 base; 64 to 46,656	Section 7; Table 7.1
VI	Quick Hit (L&W)	One-line stepper; line video; ways	1 line; 25 to 50 lines; 243 to 7,776	Sections 2, 3, 4.2 and 7
VII	Dragon Link (Aristocrat)	Line game, 5×3	50, 25 or 5 by denomination	Section 4.2
VIII	Spooky Link (Aristocrat)	Line game, 5×3	Grand: 5, 25 or 50	Section 4.2
IX	Dancing Drums (L&W)	Reel Ways, 5×3	243	Section 7

VOL.	GAME (MAKER)	GRID AND EVALUATION	LINES OR WAYS	IN THIS KEY
XI	Wolf Peak (King Show Games)	Line game, 5×4	40 fixed lines	Section 5 grid; its table not read
XII	Bomberman (Konami)	Line game, 5×3	20 or 40 by denomination	Sections 3 and 4.2 grid; its table not read
XIII	Phoenix Link (Aristocrat)	Line game, 5×3	Not in the cross-reference	Section 4.2
XIV	Lightning Link (Aristocrat)	Line game, 5×3	50 or 25 by denomination	Section 4.2
XV	Lightning 10 Year Storm (Aristocrat)	Line game, 5×3	Not in the cross-reference	Section 4.2
XVII	Piggy Bankin' (L&W)	Four designs: a 1996 three-reel coin bank, a WMS portal bonus, Lock It Link, Break In	Lock It Link 50 lines; Break In 40	Grids not given in the cross-reference
XVIII	MONOPOLY Big Board Bucks (Aristocrat)	Line game, 5×3	50 at 1¢; 5 at $1	Section 4.2
XIX	Thunder Empire (Aristocrat)	Line game, 5×3	50 or 100	Section 4: the machine's own table
XX	Magic Treasures Gold (IGT)	Line game; rows printed as both 3 and 4	50; Gold 5 at its two highest denominations	Grid not settled by the volume
XXI	Diamond Queen (IGT)	Line game, 5 reels	20	Section 3: IGT's 20-line table (Tier 3)
XXII	Ultimate Fire Link (L&W)	Line game, 5×4; Cash Falls ways	50 online; 50, 20 or 10 on land; 4,608 ways	Section 5 grid; Section 7
XXIII	Grand Legends (Aristocrat)	Line game, 5×3	50, 25 or 5 by denomination	Section 4.2
XXIV	Dollar Storm (Aristocrat)	Line game, 5×3	100, 50, 25, 15 or 5 by denomination	Sections 4 and 4.2

Only Volumes XIX and XXVII have read lines off a machine, and Volume XXVII's 50 match no set in this key. Diamond Queen's 20 lines are IGT's, but the 20-line table in Section 3 comes from an open-source reconstruction of Cleopatra, not from Diamond Queen's screens. Section 4.2's reading carries to the other Aristocrat volumes only if they share Inca Diamonds' table.

APPENDIX A — SOURCES AND PROVENANCE

Each source is graded as in the series. Tier 1 is a primary document: the machine's own screens or the maker's patent. Tier 3 is a secondary source: here an independent reconstruction of makers' line tables, and review sites for the ways, both-ways, cluster and pay-anywhere examples. The series' own volumes are cited as they grade their sources. No Tier 2 or Tier 4 source is used. Tier 3 line tables should be checked against the machine's WIN LINES screen before they are relied on for a particular game.

1. **T1** Aristocrat, Inca Diamonds (Thunder Empire family), 1¢ North American build: the machine's GAME RULES, PAYTABLE and two WIN LINES help screens (lines 1–50 and 51–100), filmed by the author on October 13, 2026. Read frame by frame for this key; every line redrawn from the screens.
2. **T1** Lost Cabin Consulting, Slot Intelligence Series Volume XIX, Thunder Empire (SIS 26-TE), §4.1 and §5: the same help screens, the rules quoted there and the pay table.
3. **T1** U.S. Patent 5,580,053, "Multi-line gaming machine," inventor Philip C. Crouch; filed December 21, 1994 (Australian priority August 22, 1994); issued December 3, 1996; assigned to Aristocrat Leisure Industries Pty Ltd. Tables 1–16 and FIGS. 1–18. patents.google.com/patent/US5580053
4. **T3** slotopol/server, an open-source slot server that reimplements makers' games: game/slot/lines.go (the line tables) and each game's rule and link files, commit 5142e87 (October 20, 2026). github.com/slotopol/server. An independent reconstruction, not a maker's document.
5. **T3** FanDuel Research, "Bonanza – FanDuel Casino Review": "there are 117,649 ways to win, thanks to Big Time Gaming's unique Megaways slot system"; "up to seven different symbols per reel." fanduel.com/research/theduel/bonanza-fanduel-casino-review-01eyak5hrw9g
6. **T3** OLBG, "Complete Guide to Play 'n GO's Reactoonz Slot Series": "Released in October 2017"; "Played on a 7x7 grid with Cluster Pays." olbg.com/slots/articles/reactoonz-slot-series. Gambling.com, Reactoonz: "You need to land at least 5 examples of the same symbol, connected horizontally, vertically, or in blocks to win." gambling.com/us/online-casinos/slots/reactoonz
7. **T1** Lost Cabin Consulting, Slot Intelligence Series Volume XXIV, Dollar Storm (SIS 26-DS), Series Cross-Reference, pp. 64–68: the evaluation engine of every volume, I to XXIV, as each volume records it from its own graded sources. Volume IV, Huff N' Puff (SIS 26-HNP), for the 7,776 ways on five reels of six rows; Volume V for Buffalo Stampede at "5×6, 7,776 ways" and Buffalo Gold Max Power at "up to 46,656 ways."
8. **T1** Lost Cabin Consulting, Slot Intelligence Series Volume V, Buffalo (SIS 26-BUF), §4 and §5.2: "Reel Power proper runs a 5×3 window for $3^5 = 243$ ways, Xtra Reel Power a 5×4 window for $4^5 = 1{,}024$, and Super Reel Power a 5×5 window for 3,125"; "Xtra Reel Power prices a bet per reel; covering all five reels costs 40 credits."
9. **T3** Casinos.com, "Raging Rhino Slot Review": "this epic 6-reel, 4-row slot by WMS"; "4,096 ways to win." casinos.com/slots/raging-rhino
10. **T3** ReadWrite, "Siberian Storm Slot Review": "an IGT game with a 3-4-5-4-3 reel layout and 720 ways to win"; wins "from both left to right and right to left." readwrite.com/slots/siberian-storm/
11. **T3** Casinos.com, "Starburst Slot Review": "It uses a 5x3 reel setup with 10 paylines that pay both ways – left to right and right to left"; "The Starburst slot has 10 paylines which are fixed." casinos.com/slots/starburst
12. **T3** WSN, "Sweet Bonanza": "The game is produced by Pragmatic Play"; "The game layout is made up of 6 reels and 5 rows"; it "pays out according to the total number of symbols on the board instead of along a payline," "when you land eight or more of the same symbol anywhere on the screen"; "the winning symbols disappear, and new ones take their place." wsn.com/online-casinos/slots/sweet-bonanza/

A.1 How the Lines Were Read and Checked

The film. The two WIN LINES screens were found in the author's 13-second film of the Inca Diamonds help, about 9.4 and 9.9 seconds in. Frames were taken at full resolution (3840 × 2160), each grid cropped, its contrast and color raised, and its 15 cells read: colored cells are the line, white cells are not. Lines whose grids were washed by glare (7, 24, 29, 59, 77, 99

among them) were read again on a second frame. The filming casino, the machine's label and the file's location stamp are not printed.

A second, machine check of the 100. Both frames of each WIN LINES screen were then read by script, independent of the transcription: each of the 100 grids was located, its 15 cells sampled for color, and the cell in each column farthest in color from the grid's white cells taken as the line. The script returned the transcribed line on at least one frame for 93 of the 100. The other seven, lines 19, 59, 60, 67, 77, 94 and 99, are pale-colored or sit under glare or the cabinet's light, which misled the script; each was checked again by eye on enlarged crops of both frames, and all seven stand as drawn. No line was changed.

The patent. Tables 5 and 6 of U.S. 5,580,053 were transcribed and every line traced on FIGS. 7 and 8. The text of Table 5 names reel E twice in line 7 (AY, BZ, CZ, EZ, EY); the figure runs the line through DZ, and the figure is followed.

The reconstruction. Line tables were parsed directly from the source file; each table's games and line counts were read from the same repository's game files. Where a game plays fewer lines than its table holds, the reconstruction plays the lowest-numbered lines, and this key says so in each set's game list.

APPENDIX B — VERIFICATION RECORD

Table B.1 — Every set, every check

SET	TIER	LINES	DISTINCT	ONE ROW PER REEL	POSSIBLE	LINES PER POSITION	MIRROR IN SET	RESULT
3×3 · 5 lines · Novomatic Ultra Hot	T3	5	5	Yes	27	1–3	5	Passed
3×3 · 9 lines · Aristocrat patent, FIG. 8	T1	9	9	Yes	27	3–3	9	Passed
3×3 · 9 lines · IGT Triple Diamond (online)	T3	9	9	Yes	27	2–5	9	Passed
3×3 · 27 lines · every combination	—	27	27	Yes	27	9–9	27	Passed
5×3 · 9 lines · Aristocrat patent, FIG. 7	T1	9	9	Yes	243	3–3	9	Passed
5×3 · 10 lines · Novomatic classic	T3	10	10	Yes	243	3–4	9	Passed
5×3 · 20 lines · IGT	T3	20	20	Yes	243	4–11	19	Passed
5×3 · 20 lines · Novomatic, first table	T3	20	20	Yes	243	5–10	19	Passed
5×3 · 20 lines · Novomatic, second table	T3	20	20	Yes	243	6–8	19	Passed
5×3 · 25 lines · Novomatic	T3	25	25	Yes	243	8–9	25	Passed
5×3 · 30 lines · NetEnt table	T3	30	30	Yes	243	8–12	27	Passed
5×3 · 30 lines · Playtech table	T3	30	30	Yes	243	10–10	27	Passed
5×3 · 100 lines · Aristocrat Inca Diamonds	T1	100	100	Yes	243	31–37	99	Passed
5×4 · 40 and 50 lines · Novomatic	T3	50	50	Yes	1,024	8–17	50	Passed
5×4 · 40 lines · NetEnt	T3	40	40	Yes	1,024	7–13	40	Passed
5×4 · 100 lines · AGT	T3	100	100	Yes	1,024	25–25	100	Passed
5×4 · 100 lines · CT Interactive	T3	100	100	Yes	1,024	20–30	100	Passed
4×4 · 10 lines · AGT	T3	10	10	Yes	256	2–3	10	Passed
6×3 · 20 lines · AGT	T3	20	20	Yes	729	5–9	19	Passed

Checks, run by script on the data drawn in this key: each line has exactly one entry per reel; each entry is a row that exists on the grid; no line appears twice in a set; the line-positions in each set total lines × reels, and every reel column totals the number of lines. "Mirror in set" counts lines whose top-to-bottom flip is also in the set (a line that is its own flip counts). All 19 sets and 634 lines passed.

APPENDIX C — COORDINATE TABLES

Every line in the key as a row of coordinates: the line's number, then the row it uses on each reel, counted from the top. Tables run down each column block, then across.

Table C.1 — 3×3 · 5 lines · Novomatic Ultra Hot

LINE	R1	R2	R3	LINE	R1	R2	R3	LINE	R1	R2	R3	LINE	R1	R2	R3	LINE	R1	R2	R3	LINE	R1	R2	R3
1	2	2	2	2	1	1	1	3	3	3	3	4	1	2	3	5	3	2	1				

Table C.2 — 3×3 · 9 lines · Aristocrat patent, FIG. 8

LINE	R1	R2	R3	LINE	R1	R2	R3	LINE	R1	R2	R3	LINE	R1	R2	R3	LINE	R1	R2	R3	LINE	R1	R2	R3
1	2	2	2	3	3	3	3	5	1	1	2	7	2	3	3	9	3	2	1				
2	1	1	1	4	2	1	1	6	3	3	2	8	1	2	3								

Table C.3 — 3×3 · 9 lines · IGT Triple Diamond (online)

LINE	R1	R2	R3	LINE	R1	R2	R3	LINE	R1	R2	R3	LINE	R1	R2	R3	LINE	R1	R2	R3	LINE	R1	R2	R3
1	2	2	2	3	3	3	3	5	3	2	1	7	2	3	2	9	1	2	1				
2	1	1	1	4	1	2	3	6	2	1	2	8	3	2	3								

Table C.4 — 3×3 · 27 lines · every combination

LINE	R1	R2	R3	LINE	R1	R2	R3	LINE	R1	R2	R3	LINE	R1	R2	R3	LINE	R1	R2	R3	LINE	R1	R2	R3
1	1	1	1	6	1	2	3	11	2	1	2	16	2	3	1	21	3	1	3	26	3	3	2
2	1	1	2	7	1	3	1	12	2	1	3	17	2	3	2	22	3	2	1	27	3	3	3
3	1	1	3	8	1	3	2	13	2	2	1	18	2	3	3	23	3	2	2				
4	1	2	1	9	1	3	3	14	2	2	2	19	3	1	1	24	3	2	3				
5	1	2	2	10	2	1	1	15	2	2	3	20	3	1	2	25	3	3	1				

Table C.5 — 5×3 · 9 lines · Aristocrat patent, FIG. 7

LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5
1	2	2	2	2	2	4	2	1	1	1	2	7	2	3	3	3	2						
2	1	1	1	1	1	5	1	1	2	1	1	8	1	2	3	2	1						
3	3	3	3	3	3	6	3	3	2	3	3	9	3	2	1	2	3						

Table C.6 — 5×3 · 10 lines · Novomatic classic

LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5
1	2	2	2	2	2	4	1	2	3	2	1	7	2	1	1	1	2	10	3	2	2	2	1
2	1	1	1	1	1	5	3	2	1	2	3	8	3	3	2	1	1						
3	3	3	3	3	3	6	2	3	3	3	2	9	1	1	2	3	3						

Table C.7 — 5×3 · 20 lines · IGT

LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5
1	2	2	2	2	2	6	1	1	2	3	3	11	3	2	2	2	1	16	1	1	2	3	2
2	1	1	1	1	1	7	3	3	2	1	1	12	2	1	1	2	3	17	3	3	2	1	2
3	3	3	3	3	3	8	2	1	2	3	2	13	2	3	3	2	1	18	2	1	2	3	3
4	1	2	3	2	1	9	2	3	2	1	2	14	2	2	1	2	3	19	2	3	2	1	1
5	3	2	1	2	3	10	1	2	2	2	3	15	2	2	3	2	1	20	1	1	1	2	3

Table C.8 — 5×3 · 20 lines · Novomatic, first table

LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5
1	2	2	2	2	2	6	2	3	3	3	2	11	1	2	2	2	3	16	1	2	1	2	1
2	1	1	1	1	1	7	2	1	1	1	2	12	1	1	2	1	1	17	3	2	3	2	3
3	3	3	3	3	3	8	3	3	2	1	1	13	3	3	2	3	3	18	2	2	1	2	2
4	1	2	3	2	1	9	1	1	2	3	3	14	2	1	2	3	2	19	2	2	3	2	2
5	3	2	1	2	3	10	3	2	2	2	1	15	2	3	2	1	2	20	1	2	2	2	1

Table C.9 — 5×3 · 20 lines · Novomatic, second table

LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5
1	2	2	2	2	2	6	1	1	2	3	3	11	3	2	2	2	3	16	1	2	1	2	1
2	1	1	1	1	1	7	3	3	2	1	1	12	2	1	2	3	2	17	3	2	3	2	3
3	3	3	3	3	3	8	2	1	1	1	2	13	2	3	2	1	2	18	1	3	3	3	3
4	1	2	3	2	1	9	2	3	3	3	2	14	1	3	1	3	1	19	3	1	1	1	1
5	3	2	1	2	3	10	1	2	2	2	1	15	3	1	3	1	3	20	2	2	1	2	2

Table C.10 — 5×3 · 25 lines · Novomatic

LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5
1	2	2	2	2	2	8	3	3	2	1	1	15	3	2	3	2	3	22	1	1	3	1	1
2	1	1	1	1	1	9	1	1	2	3	3	16	2	2	1	2	2	23	3	3	1	3	3
3	3	3	3	3	3	10	3	2	2	2	1	17	2	2	3	2	2	24	2	1	3	1	2
4	1	2	3	2	1	11	1	2	2	2	3	18	1	3	1	3	1	25	2	3	1	3	2
5	3	2	1	2	3	12	2	3	2	1	2	19	3	1	3	1	3						
6	2	3	3	3	2	13	2	1	2	3	2	20	3	1	2	1	3						
7	2	1	1	1	2	14	1	2	1	2	1	21	1	3	2	3	1						

Table C.11 — 5×3 · 30 lines · NetEnt table

LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5
1	2	2	2	2	2	9	2	1	1	1	2	17	3	2	2	2	3	25	3	3	1	3	3
2	1	1	1	1	1	10	2	1	2	1	2	18	1	2	3	3	3	26	1	3	2	1	3
3	3	3	3	3	3	11	2	3	2	3	2	19	3	2	1	1	1	27	3	1	2	3	1
4	1	2	3	2	1	12	1	2	1	2	1	20	1	3	1	3	1	28	2	1	3	2	3
5	3	2	1	2	3	13	3	2	3	2	3	21	3	1	3	1	3	29	1	3	2	3	2
6	1	1	2	1	1	14	2	2	1	2	2	22	1	3	3	3	1	30	3	2	1	1	2
7	3	3	2	3	3	15	2	2	3	2	2	23	3	1	1	1	3						
8	2	3	3	3	2	16	1	2	2	2	1	24	1	1	3	1	1						

Table C.12 — 5×3 · 30 lines · Playtech table

LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5
1	2	2	2	2	2	9	3	3	2	1	1	17	2	2	3	2	2	25	3	1	3	1	3
2	1	1	1	1	1	10	2	3	2	1	2	18	1	1	3	1	1	26	1	3	2	1	3
3	3	3	3	3	3	11	2	1	2	3	2	19	3	3	1	3	3	27	3	1	2	3	1
4	1	2	3	2	1	12	1	2	2	2	1	20	1	3	3	3	1	28	2	1	3	2	3
5	3	2	1	2	3	13	3	2	2	2	3	21	3	1	1	1	3	29	1	3	2	3	1
6	2	1	1	1	2	14	1	2	1	2	1	22	2	3	1	3	2	30	3	2	1	1	2
7	2	3	3	3	2	15	3	2	3	2	3	23	2	1	3	1	2						
8	1	1	2	3	3	16	2	2	1	2	2	24	1	3	1	3	1						

Table C.13 — 5×3 · 100 lines · Aristocrat Inca Diamonds

LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5
1	2	2	2	2	2	26	1	3	2	3	1	51	2	2	2	2	1	76	1	3	1	3	2
2	1	1	1	1	1	27	3	1	2	1	3	52	1	1	1	1	3	77	1	3	1	3	3
3	3	3	3	3	3	28	2	2	2	2	3	53	3	3	3	3	1	78	3	1	3	1	2
4	1	2	3	2	1	29	1	1	2	3	3	54	1	2	3	2	2	79	3	1	3	1	1
5	3	2	1	2	3	30	3	3	2	1	1	55	3	2	1	2	2	80	2	1	3	1	1
6	1	1	2	1	1	31	1	2	2	2	3	56	1	1	2	1	2	81	2	1	3	1	3
7	3	3	2	3	3	32	3	2	2	2	1	57	1	1	2	1	3	82	2	3	1	3	3
8	2	3	3	3	2	33	1	2	3	2	3	58	3	3	2	3	2	83	2	3	1	3	1
9	2	1	1	1	2	34	3	2	1	2	1	59	3	3	2	3	1	84	1	1	3	1	2
10	1	2	2	2	1	35	1	1	1	1	2	60	2	3	3	3	3	85	1	1	3	1	3
11	3	2	2	2	3	36	3	3	3	3	2	61	2	3	3	3	1	86	3	3	1	3	2
12	1	2	1	2	1	37	1	2	1	2	3	62	2	1	1	1	1	87	3	3	1	3	1
13	3	2	3	2	3	38	3	2	3	2	1	63	2	1	1	1	3	88	1	3	3	3	2
14	2	1	2	1	2	39	2	1	2	3	2	64	1	2	2	2	2	89	1	3	3	3	3
15	2	3	2	3	2	40	2	3	2	1	2	65	3	2	2	2	2	90	3	1	1	1	2
16	2	2	1	2	2	41	2	2	1	1	1	66	1	2	1	2	2	91	3	1	1	1	1
17	2	2	3	2	2	42	2	2	3	3	3	67	3	2	3	2	2	92	1	3	2	3	2
18	1	3	1	3	1	43	2	1	1	2	3	68	2	1	2	1	1	93	1	3	2	3	3
19	3	1	3	1	3	44	2	3	3	2	1	69	2	1	2	1	3	94	3	1	2	1	2
20	2	1	3	1	2	45	2	1	2	3	3	70	2	3	2	3	3	95	3	1	2	1	1
21	2	3	1	3	2	46	2	3	2	1	1	71	2	3	2	3	1	96	2	2	2	1	2
22	1	1	3	1	1	47	3	2	1	1	2	72	2	2	1	2	1	97	2	2	2	3	2
23	3	3	1	3	3	48	1	2	3	3	2	73	2	2	1	2	3	98	1	1	1	2	1
24	1	3	3	3	1	49	1	1	2	3	2	74	2	2	3	2	3	99	1	1	1	2	3
25	3	1	1	1	3	50	3	3	2	1	2	75	2	2	3	2	1	100	3	3	3	2	3

Table C.14 — 5×4 · 40 and 50 lines · Novomatic

LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5
1	1	1	1	1	1	14	2	2	2	2	3	27	3	2	1	1	1	40	3	4	4	4	3
2	2	2	2	2	2	15	3	3	3	3	2	28	4	3	2	2	2	41	2	1	2	1	2
3	3	3	3	3	3	16	4	3	3	3	3	29	1	1	2	1	1	42	3	2	3	2	3
4	4	4	4	4	4	17	2	1	1	1	1	30	2	2	1	2	2	43	4	3	4	3	4
5	1	2	3	2	1	18	2	3	3	3	3	31	3	3	4	3	3	44	1	2	1	2	1
6	2	3	4	3	2	19	3	2	2	2	2	32	4	4	3	4	4	45	2	3	2	3	2
7	3	2	1	2	3	20	3	4	4	4	4	33	1	2	2	2	1	46	3	4	3	4	3
8	4	3	2	3	4	21	1	1	1	2	3	34	2	2	3	2	2	47	2	1	2	3	2
9	1	1	1	1	2	22	2	2	2	3	4	35	3	3	2	3	3	48	3	2	3	4	3
10	2	2	2	2	1	23	3	3	3	2	1	36	4	3	3	3	4	49	2	3	2	1	2
11	3	3	3	3	4	24	4	4	4	3	2	37	2	1	1	1	2	50	3	4	3	2	3
12	4	4	4	4	3	25	1	2	3	3	3	38	2	3	3	3	2						
13	1	2	2	2	2	26	2	3	4	4	4	39	3	2	2	2	3						

Table C.15 — 5×4 · 40 lines · NetEnt

LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5
1	2	2	2	2	2	11	1	2	3	4	4	21	2	2	3	4	4	31	1	1	1	2	3
2	3	3	3	3	3	12	4	3	2	1	1	22	3	3	2	1	1	32	4	4	4	3	2
3	1	1	1	1	1	13	2	1	2	3	2	23	2	2	1	2	2	33	2	1	1	2	3
4	4	4	4	4	4	14	3	4	3	2	3	24	3	3	4	3	3	34	3	4	4	3	2
5	2	3	4	3	2	15	1	2	1	2	1	25	2	3	3	3	4	35	1	2	2	3	4
6	3	2	1	2	3	16	4	3	4	3	4	26	3	2	2	2	1	36	4	3	3	2	1
7	1	1	2	3	4	17	2	3	2	1	2	27	1	1	2	1	1	37	2	1	2	3	4
8	4	4	3	2	1	18	3	2	3	4	3	28	4	4	3	4	4	38	3	4	3	2	1
9	2	1	1	1	2	19	1	2	2	2	1	29	1	2	3	3	4	39	1	2	3	4	3
10	3	4	4	4	3	20	4	3	3	3	4	30	4	3	2	2	1	40	4	3	2	1	2

Table C.16 — 5×4 · 100 lines · AGT

LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5
1	2	2	2	2	2	26	4	3	2	2	1	51	1	4	4	3	2	76	4	2	3	1	3
2	1	1	1	1	1	27	2	4	4	4	2	52	4	1	1	2	3	77	1	3	3	4	2
3	3	3	3	3	3	28	3	1	1	1	3	53	3	4	2	3	1	78	4	2	2	1	3
4	4	4	4	4	4	29	1	3	4	2	1	54	2	1	3	2	4	79	3	4	4	2	1
5	3	4	4	4	3	30	4	2	1	3	4	55	1	3	1	4	2	80	2	1	1	3	4
6	2	1	1	1	2	31	2	4	3	1	3	56	4	2	4	1	3	81	1	3	4	4	2
7	1	2	2	2	1	32	3	1	2	4	2	57	1	1	2	3	4	82	4	2	1	1	3
8	4	3	3	3	4	33	1	2	3	2	1	58	4	4	3	2	1	83	1	4	1	3	2
9	3	4	3	4	3	34	4	3	2	3	4	59	2	3	4	1	2	84	4	1	4	2	3
10	2	1	2	1	2	35	3	4	1	4	2	60	3	2	1	4	3	85	2	4	1	3	1
11	1	2	1	2	1	36	2	1	4	1	3	61	2	2	3	1	4	86	3	1	4	2	4
12	4	3	4	3	4	37	2	3	3	4	1	62	3	3	2	4	1	87	2	4	2	1	3
13	2	4	2	4	2	38	3	2	2	1	4	63	2	2	4	3	1	88	3	1	3	4	2
14	3	1	3	1	3	39	1	1	4	2	3	64	3	3	1	2	4	89	1	4	2	3	2
15	1	3	1	3	1	40	4	4	1	3	2	65	1	2	3	4	4	90	4	1	3	2	3
16	4	2	4	2	4	41	2	2	4	1	3	66	4	3	2	1	1	91	2	3	4	4	1
17	1	1	2	1	1	42	3	3	1	4	2	67	3	4	1	2	3	92	3	2	1	1	4
18	4	4	3	4	4	43	1	1	3	2	4	68	2	1	4	3	2	93	2	3	2	1	4
19	3	3	4	3	3	44	4	4	2	3	1	69	3	4	3	2	1	94	3	2	3	4	1
20	2	2	1	2	2	45	2	3	1	2	4	70	2	1	2	3	4	95	1	4	4	2	3
21	1	4	1	4	1	46	3	2	4	3	1	71	1	1	3	4	2	96	4	1	1	3	2
22	4	1	4	1	4	47	1	4	3	4	2	72	4	4	2	1	3	97	1	4	3	2	3
23	2	3	2	3	2	48	4	1	2	1	3	73	1	2	4	3	1	98	4	1	2	3	2
24	3	2	3	2	3	49	2	2	3	4	1	74	4	3	1	2	4	99	2	3	1	1	4
25	1	2	3	3	4	50	3	3	2	1	4	75	1	3	2	4	2	100	3	2	4	4	1

Table C.17 — 5×4 · 100 lines · CT Interactive

LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5	LINE	R1	R2	R3	R4	R5
1	1	1	1	1	1	26	2	3	2	3	2	51	3	3	3	3	3	76	3	4	3	2	3
2	1	1	2	1	1	27	2	1	2	1	2	52	3	3	4	3	3	77	3	2	1	4	3
3	1	2	2	2	1	28	2	2	2	3	2	53	3	3	2	3	3	78	3	2	1	3	3
4	1	2	3	2	1	29	2	2	2	1	2	54	3	4	4	4	3	79	3	1	1	4	3
5	1	2	1	2	1	30	2	3	2	2	2	55	3	2	2	2	3	80	3	1	1	3	3
6	1	1	1	2	1	31	2	1	2	2	2	56	3	4	3	4	3	81	4	4	4	4	4
7	1	2	1	1	1	32	2	3	1	3	2	57	3	2	3	2	3	82	4	4	3	4	4
8	1	1	2	2	1	33	2	1	3	1	2	58	3	3	3	4	3	83	4	3	3	3	4
9	1	2	2	1	1	34	2	3	4	3	2	59	3	3	3	2	3	84	4	3	2	3	4
10	1	1	3	1	1	35	2	2	4	2	2	60	3	4	3	3	3	85	4	3	4	3	4
11	1	1	4	1	1	36	2	4	4	4	2	61	3	2	3	3	3	86	4	4	4	3	4
12	1	2	4	2	1	37	2	4	3	4	2	62	3	4	2	4	3	87	4	3	4	4	4
13	1	3	1	3	1	38	2	4	2	4	2	63	3	2	4	2	3	88	4	4	3	3	4
14	1	3	2	3	1	39	2	4	1	4	2	64	3	2	1	2	3	89	4	3	3	4	4
15	1	3	3	3	1	40	2	1	4	1	2	65	3	3	1	3	3	90	4	4	2	4	4
16	1	3	4	3	1	41	2	2	3	3	2	66	3	1	1	1	3	91	4	4	1	4	4
17	1	4	1	4	1	42	2	2	1	1	2	67	3	1	2	1	3	92	4	3	1	3	4
18	1	4	2	4	1	43	2	3	3	2	2	68	3	1	3	1	3	93	4	2	4	2	4
19	1	4	3	4	1	44	2	1	1	2	2	69	3	1	4	1	3	94	4	2	3	2	4
20	1	4	4	4	1	45	2	3	2	1	2	70	3	4	1	4	3	95	4	2	2	2	4
21	2	2	2	2	2	46	2	1	2	3	2	71	3	3	2	2	3	96	4	2	1	2	4
22	2	2	3	2	2	47	2	3	4	1	2	72	3	3	4	4	3	97	4	1	4	1	4
23	2	2	1	2	2	48	2	3	4	2	2	73	3	2	2	3	3	98	4	1	3	1	4
24	2	3	3	3	2	49	2	4	4	1	2	74	3	4	4	3	3	99	4	1	2	1	4
25	2	1	1	1	2	50	2	4	4	2	2	75	3	2	3	4	3	100	4	1	1	1	4

Table C.18 — 4×4 · 10 lines · AGT

LINE	R1	R2	R3	R4	LINE	R1	R2	R3	R4	LINE	R1	R2	R3	R4	LINE	R1	R2	R3	R4
1	2	2	2	2	4	4	4	4	4	7	1	2	2	1	10	3	4	4	3
2	1	1	1	1	5	1	2	3	4	8	4	3	3	4					
3	3	3	3	3	6	4	3	2	1	9	2	1	1	2					

Table C.19 — 6×3 · 20 lines · AGT

LINE	R1	R2	R3	R4	R5	R6	LINE	R1	R2	R3	R4	R5	R6	LINE	R1	R2	R3	R4	R5	R6
1	2	2	2	2	2	2	8	1	2	3	3	2	1	15	3	2	2	2	2	3
2	1	1	1	1	1	1	9	3	2	1	1	2	3	16	2	1	1	1	1	2
3	3	3	3	3	3	3	10	1	1	2	2	1	1	17	2	3	3	3	3	2
4	1	1	2	2	3	3	11	3	3	2	2	3	3	18	1	2	1	1	2	1
5	3	3	2	2	1	1	12	1	3	3	3	3	1	19	3	2	3	3	2	3
6	2	2	1	1	2	2	13	3	1	1	1	1	3	20	1	3	1	1	3	1
7	2	2	3	3	2	2	14	1	2	2	2	2	1							

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