

How the chronological families fit together

September 28, 2026 — expanded spine comparison

Contents

Local changes become complete chronological fields	4
The Regular kernel has two generators	5
SP births constrain its lifespan field	6
Rounded rows form the Moses family	7
Original duration words and the inverse backbone	8
The same spine operation in LXX and SP	10
Calendar Keys preserve a declared measure	13
Covenant paths and the cumulative clutch	14
Counts extend ordered measurement	16
NT slots and source chronology	16
What the common explanation achieves	17
Reading the evidence	18

A connected explanation of the selected source families · C1431 synthesis with the September 28, 2026 MT/LXX/SP spine extension

The families fit together because several chronological measurements can be made from the same labelled source structure. A genealogy provides begetting ages and lifespans; an event path adds selected intervals and a terminal date. Regular chronology accumulates birth intervals. Cumulative chronology accumulates selected lives. Rounded chronology first rounds the relevant source intervals. The resulting paths can then enter specifically appointed comparisons, including File52c’s single decimal reversal and the calendar Keys.

The strongest new result is a continuous route through these constructions. Located changes in source rows explain complete chronological differences. SP births determine Flood capacities that account for three major lifespan reductions. Rounded MT intervals reconstruct the whole Moses-centred path; its Creation and Noah nodes join File52c’s supplied events to recover the three original Regular duration words. Covenant and counted structures reuse ordered measurement, with their own source relationships.

The C1132-C1431 continuation develops the complete row and Moses reconstructions, the source provenance of the SP rectangle, and the NT comparison. The present edition adds the supplied LXX/SP spine study: the same segmented reversal yields MT convergence, a 500-year LXX separation and a 190-year SP separation. The accepted SP Fall construction then connects its inverse heads with MT Creation intervals and the LXX. Established Covenant and count constructions retain their place in the common explanation.

There are three kinds of connection to follow. **Shared data** passes from one construction to another. A **shared operation** acts on different source inputs. A **source calibration** makes two separately generated structures agree. The distinction lets us explain the agreements without treating every repeated number as another independent result.

Starting structure	Construction	Result that connects onward
Selected genealogical rows	Change row parts; accumulate births or lives	Complete Regular and Cumulative fields
SP births and comparison lives	Form inclusive Flood capacities; cap lives	Located lifespan reductions and the SP rectangle
Selected MT chronological path	Round its rows; retain residuals	Moses blocks, cycles and File52c inputs
Original named duration words	Apply one admitted reversal; then a declared Key	MT/LXX/SP trunks, preserved head differences and specified calendar comparisons
Covenant local events and lives	Build paths; derive their relative shift	Forced joins and the cumulative clutch field
Lists and NT named slots	Count, accumulate and group	Recoverable count fields and precise comparisons

This is a conditional reconstruction of the supplied source families. It does not yet establish a unique ancestral chronology or a historical sequence of scribal changes. The Strategy’s providential interpretation remains its interpretive premise. The mathematical contribution is to show what follows together from stated inputs, and to identify which inputs still need explanation.

The inherited MT account uses the File52c edition frozen at C1431. Its comparative extension uses the supplied September 28 study, Reversed Creation-Flood Spines: LXX Comparison and the Accepted SP Solution. The selected LXX Lamech pair remains 182/753, with remainder 571; older 777 comparisons retain their appendix role. The inverse of the inverse is deferred.

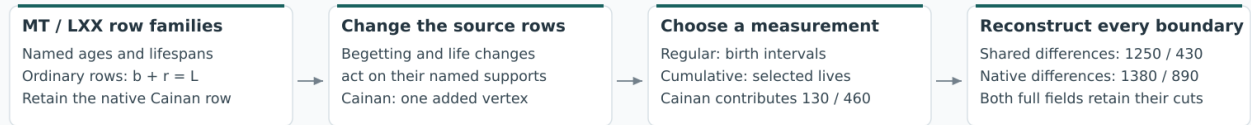
How the chronological families connect

Source-labelled structures → declared operations → complete measured families

Each lane follows a specified source route. The same measurement methods recur across distinct objects.

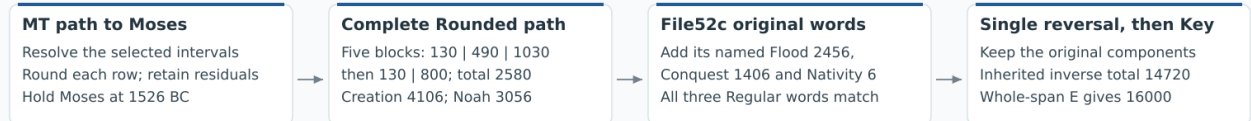
1 Source rows → Regular and Cumulative fields

Local changes generate complete ordered differences.



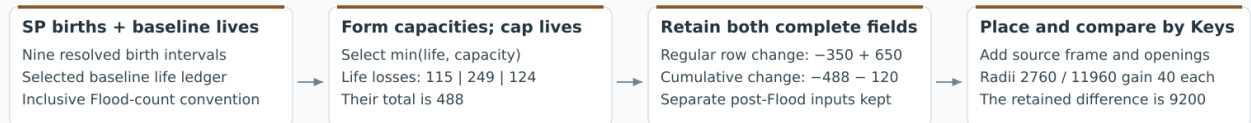
2 Rounded Moses path → the admitted inverse family

The new row reconstruction supplies the existing component words.



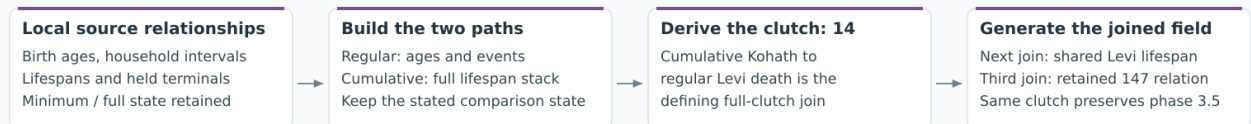
3 SP source mechanism → the calendar rectangle

Birth capacities explain life reductions before the source placement is compared.



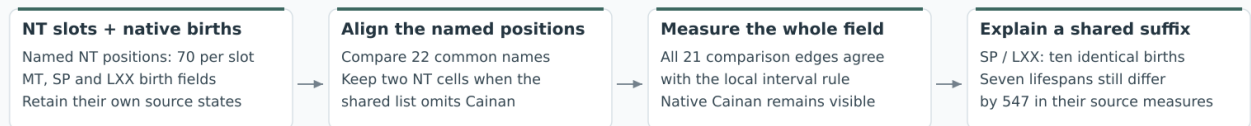
4 Covenant source relations → the clutch family

Shared biographies explain which joins are forced and which need a source relation.



5 NT slots → comparison with native source births

One fixed list measure makes the differences between birth fields visible.



6 Labelled counts → complete measured structures

The same ordered-measurement method also works on lists and literary occurrences.



Shared source structure, distinct measures

Located changes, complete fields

Source roles travel with coordinates

Regular and Cumulative use different weights. Equal totals can retain different interiors. Source and proof locators accompany this map.

Figure 1: Six source routes connecting the chronological families

Read each lane from left to right: retained source inputs, admitted operations and complete measured results. The pairs in the first lane are Regular/Cumulative differences, not BC dates. The Moses lane joins the reconstructed path to separately supplied File52c event nodes. The comparative chapter below extends the inverse route to the LXX and accepted SP trunks.

Local changes become complete chronological fields

Write an ordinary row as begetting age b , remaining years r , and lifespan $L = b + r$. A compatible change has the form

$$(b, r, L) \mapsto (b + d, r + e - d, L + e).$$

Here d changes the birth interval and e changes lifespan. If $e = 0$, years move between the two parts of a life while its total stays fixed. If $e = d$, remaining years stay fixed while both the begetting age and lifespan rise. These are different local mechanisms even when the same century appears.

Row and comparison	Begetting age	Remaining years	Lifespan	What the change preserves
Adam, MT → LXX	130 → 230	800 → 700	930 → 930	Lifespan
Peleg, MT → LXX	30 → 130	209 → 209	239 → 339	Remaining years
Eber, MT → SP	34 → 134	430 → 270	464 → 404	Neither part nor lifespan; $d = 100, e = -60$
Cainan, native LXX insertion	130	330	460	Adds a named row with two distinct measures

Thus Regular and Cumulative differences are not rival readings of a single change total. They select different components of the source rows. Adam's change is visible to a Regular birth chain and invisible to a lifespan sum. Peleg's change is visible to both. Cainan contributes 130 or 460 according to the declared measurement.

Source basis: File18 selected rows; Strategy §3.2; C1162-C1189.

Once the row measure and terminal are fixed, ordered addition generates the entire field. If w_j are the selected intervals downstream of a boundary and a is the terminal,

$$X_i = a + \sum_{j \geq i} w_j.$$

The difference between adjacent boundaries recovers the intervening interval. Consequently, a complete field records where changes occur; its head total records only their sum.

The current model reconstructs the changes in all nineteen shared MT/LXX genealogical rows. Five amplitudes summarize their located changes: the repeated century $u = 100$, Lamech's lifespan change -24 , the Arphaxad/Shelah lifespan addition 27 , Eber's lifespan addition 40 , and Nahor's lifespan addition 60 . The relation $40 + 60 = 100$ reduces this description to four amplitudes if retained as a further source condition. The named rows on which each change acts remain necessary.

On the matched Cainan-OFF comparison, the Regular head difference is 1250 and the lifespan difference is 430 . Native LXX Cainan contributes another 130 and 460 , making 1380 and 890 . The two measurements therefore change differently even though they share the same inserted person.

The century is a useful summary of paired source rows, not an extra independent input after those rows are given. This model explains the changes across a complete selected family. It does not derive every source age from the amplitudes or prove that the particular changes occurred in this historical order.

Source basis: C1182-C1189; complete source-row packet and five-amplitude model.

The Regular kernel has two generators

The first generator is the **located sequence of row changes**. In the matched Cainan-OFF comparison, the complete MT/LXX Regular difference from Adam through Abraham is

Boundary	LXX minus MT
Adam	1250
Seth	1150
Enosh	1050
Kenan	950
Mahalalel	850
Jared	750
Enoch	750
Methuselah	650
Lamech	650
Noah	650
Shem	650
Arphaxad	650
Shelah	550
Eber	450
Peleg	350
Reu	250
Serug	150
Nahor	50
Terah	0
Abraham	0

The steps record source changes at particular names. Six pre-Flood century changes account for the 600 difference between the Creation level 1250 and Noah level 650. Native Cainan adds 130 from Arphaxad upstream, retaining the native 1380/780 levels separately.

The second generator is the **finite field of source variants**. Let the Terah difference be $T = 60$, Cainan's Regular interval $C = 130$, and the separately sourced Sojourn choice $S = 215$. Their eight combinations give:

Choice	Offset
Base	0
T	60
C	130
T+C	190
S	215
T+S	275
C+S	345
T+C+S	405

The consecutive gaps are 60|70|60|25|60|70|60. The 70 and 25 are differences between combinations; they are not additional switches.

These structures meet in the Strategy's fivefold formulas:

$$1250 = 5(C + 2T), \quad 650 = 5C.$$

The row mechanism gives $12.5u$ and $6.5u$, where the observed century is $u = 100$. Requiring the fivefold form yields $C = 1.3u$ and $T = .6u$. Thus the coefficient five expresses a calibration between two source mechanisms. It does not itself generate the patriarchal ages.

SP supplies a further located comparison. Its post-Flood birth additions total 650; its pre-Flood shortening is $100 + 120 + 130 = 350$ in the completed-year comparison, leaving 300. The Lamech contribution retains its nominal 129 plus the one-year boundary completion, counted once. These

locations explain more than the identity $950 \pm 300 = 1250, 650$: the latter is a useful description of the resulting pair, while the row model explains its construction.

Source basis: File07 finite states; File18 source rows; C1253-C1264.

SP births constrain its lifespan field

The SP mechanism links the two chronological measurements directly. Reconstruct the ancestral births, measure each birth's inclusive capacity to the Flood boundary, and cap the comparison lifespan at that capacity:

$$L'_i = \min(L_i, c_i).$$

The native SP capacities below use Noah's 600-year interval plus the inclusive one. The lifespans compared are the selected MT baseline values.

Ancestor	Baseline life	SP capacity	Selected capped life	Reduction
Adam	930	1307	930	0
Seth	912	1177	912	0
Enosh	905	1072	905	0
Kenan	910	982	910	0
Mahalalel	895	912	895	0
Jared	962	847	847	115
Enoch	365	785	365	0
Methuselah	969	720	720	249
Lamech	777	653	653	124

One rule reproduces the nine outputs, including the three reductions totaling $115+249+124 = 488$. Shorter birth paths bring the Flood boundary inside those three baseline lives. Enoch illustrates why an earlier birth boundary does not automatically shorten every life: his baseline 365 remains below capacity.

The relation is especially transparent for Methuselah. In the MT comparison, $969 = 187+182+600$. The SP birth changes remove $120 + 130$, while the inclusive boundary restores one: $250 - 1 = 249$. This produces the selected 720 without treating its reduction as an unrelated adjustment.

Eber and official SP Terah supply another 60 each after the Flood, making the total lifespan displacement $488 + 120 = 608$. Ideal Terah 205 is a separate state from official Terah 145.

This is a conditional mechanism for the selected SP field: the birth ages, baseline lives and count convention are supplied. A capped result alone cannot recover how far its original life exceeded the boundary. That missing excess remains part of a reversible record, rather than becoming a newly generated source value.

Source basis: File18 native rows; C1132-C1161.

The same located changes now supply the SP equal-gain rectangle. Starting with the selected standard MT frames and the initial 1446 Exodus reference, the source construction gives two radii:

$$\begin{aligned} R &= (4114 - 1446) + 650 - 350 - 215 + 7 = 2760, \\ C &= (14004 - 1446) - 488 - 120 + 10 = 11960. \end{aligned}$$

The Regular line retains the post-Flood additions, pre-Flood shortening, Sojourn choice and seven-year source opening. The Cumulative line retains the cap losses, post-Flood lifespan changes and ten-year source opening. Those openings and absolute frames remain source premises.

Mode	Source opening	Radius from 1446	Appointed Key	Expanded radius	Resulting common anchor
Regular	4206	2760	70/69	2800	1406
Cumulative	13406	11960	300/299	12000	1406

During these Key expansions, the source openings 4206 and 13406 are held fixed; the lower comparison endpoint moves from 1446 to 1406. Both radii gain forty. Their difference stays 9200; Priestly expansion then gives $9200 \times 25/23 = 10000$.

The equal-gain condition is $R/69 = C/299$, or $3C = 13R$. Before the source openings, the radii are 2753 and 11950 and their balance is $3C - 13R = 61$. Adding seven and ten changes that balance by $3(10) - 13(7) = -61$. This identifies precisely how the source packet closes the rectangle.

The advance is an explanation of where its two inputs come from. The equality of gains follows once those inputs and Keys are fixed; it is one connected family of consequences. The cap mechanism does not independently select the source openings or the Exodus anchor.

Source basis: Strategy §4.3; Report IV; C1223–C1230.

Rounded rows form the Moses family

The Moses-centred construction uses the MT Terah-70, Cainan-OFF state, excludes the separate Shem +2 convention, and holds Moses at 1526 BC. It follows an ordered Regular chronological path. Its late edges include events as well as begetting ages: Jacob is 91 at Joseph's birth, Joseph is 39 at Entry, and Entry precedes Moses by 350. Row rounding gives 90, 40 and 350, preserving their combined 480.

The complete path contains twenty-five nodes. Five named blocks expose its structure:

Segment	Exact sum	Sum of rounded rows	Exact minus Rounded
Adam → Seth	130	130	0
Seth → Enoch	492	490	2
Enoch → Arphaxad	1034	1030	4
Arphaxad → Reu	129	130	−1
Reu → Moses	801	800	1
Adam → Moses	2586	2580	6

The whole Rounded path gives $2580 = 6 \times 430$. Removing its first block gives Seth-to-Moses $2450 = 5 \times 490$; removing the next gives Enoch-to-Moses $1960 = 4 \times 490$. These are connected measurements of one reconstructed path.

The post-Flood partition is especially revealing: strict Actual $129+801$ becomes Rounded $130+800$, reproducing the two parts of Adam's selected life while retaining the total 930. Eber, Reu and Nahor's rounding residuals account for the internal shift, with the Jacob/Joseph residuals cancelling later. The relationship belongs to the selected path and its rounding rule.

Source basis: File18, File51a and File52c; C1232–C1252.

For exact reconstruction, record both the nearest-five rounded value and its residual:

$$Q(x) = 5 \left\lfloor \frac{x+2}{5} \right\rfloor, \quad \rho(x) = x - Q(x).$$

For an individual integer row, the residual lies between -2 and 2 . Along a path, the residuals add. All twenty-five exact coordinates are recovered by adding the appropriate downstream residual sum to each Rounded coordinate.

The whole path's accumulated residual is six. Therefore Rounded Creation 4106 plus six recovers strict Actual Creation 4112. Standard Actual 4114 additionally includes the separate Shem +2

convention. Rounding the exact total 2586 once would give 2585, not the row-rounded 2580; likewise rounding the exact 1034 block once gives 1035 rather than its row-rounded 1030. The construction's order matters.

The 130 bridge also follows from the selected cycles: $6(430) - 5(490) = 130$. It is not an independent selector of Moses. More generally, $430m - 490n = 130$ has positive solutions $m = 6 + 49k, n = 5 + 43k$ for nonnegative k . The named source path supplies the actual selection.

Native LXX extends the same construction with its own rows and Cainan. Its twenty-six-node Rounded path totals 3960 above Moses, placing Creation at 5486. The gap from MT is $600 + 650 + 130 = 1380$. Its corresponding post-Flood blocks are 660 and 1050, compared with MT's 130 and 800. On the selected SP post-Flood comparison the blocks are 530 and 1050. The transmitted SP 4411 does not by itself supply a newly reconstructed complete Rounded SP genealogical field. The accepted Fall construction introduced below now supplies the complete selected SP trunks, using 4406 Regular and 13396 Cumulative as their derived Fall heads.

This is the bridge to File52c. The complete MT path supplies Creation 4106 and Noah 3056. File52c separately provides Nativity 6, Conquest 1406 and Flood 2456. Their roles together determine the admitted original duration words. Arphaxad's birth also occupies 2456 in the reconstructed path; equal coordinates do not merge that birth with the Flood event.

Source basis: C1240-C1252, C1273-C1279.

Original duration words and the inverse backbone

File52c's decimal operation reverses the significant digits of each original span while retaining its trailing-zero places. Thus 1650 becomes 5610, 1050 becomes 5010, and 1400 becomes 4100. A source-appointed partition is part of the operation: the regular 2700-year Creation-to-Conquest span, treated whole, produces 7200; its 1650+1050 partition produces 5610+5010=10620. The named Flood division therefore carries information that the total alone omits. [File52c §§1.2,3.3-3.4]

With Conquest 1406 BC held, the regular primary path gives

$$1406 + 5610 + 5010 = 12026.$$

The cumulative primary path uses Creation 14006 and Flood 4836, giving 9170+3430. Its one-pass images are 7190+3430, also totaling 10620 and rebuilding 12026 BC. This convergence concerns the specified primary paths; their source breakpoints remain distinct. [File52c §3.3]

A decimal-register calculation explains the two-component convergence. For two original spans, each ten times a three-digit core ending in a nonzero digit, a Regular total 2700 forces transformed total 10620. In that same register, a Cumulative total 12600 permits transformed totals 10620 or 11610; its actual 917 and 343 cores select the 10620 branch. The source supplies the named split. The technical companion retains the proof and the alternative branch. [C938-C947]

The continuation to 14726 BC supplies an additional original interval: Conquest 1406 to Nativity 6 is 1400 years, whose one-pass image is 4100. Moving the held anchor from 1406 to 6 and including this leg changes the rebuilt endpoint by $4100 - 1400 = 2700$. Therefore 12026 becomes 14726. The explanation retains both the original tail and the anchor change. [File52c §3.4; C952]

The four admitted MT paths can be compared compactly. The divisions are listed outward from the held 6 BC anchor toward earlier source dates:

Source path after Nativity	Original spans	One-pass spans
Regular: Conquest-Flood-Creation	1400 + 1050 + 1650	4100 + 5010 + 5610
Regular: Conquest-Noah-Creation	1400 + 1650 + 1050	4100 + 5610 + 5010
Regular: Conquest-Flood-Noah-Creation	1400 + 1050 + 600 + 1050	4100 + 5010 + 600 + 5010
Cumulative primary: Conquest-Flood-Creation	1400 + 3430 + 9170	4100 + 3430 + 7190

Every MT row in this table totals 14720 and therefore ends at 14726 BC. The Noah alternatives preserve the regular result through their particular component relations. The new genealogy interface matches the first three original rows exactly and reuses their established images; the cumulative row retains its own source measurement. The first transformed leg ends at 4106 BC, numerically equal to original regular Creation, but it remains the generated endpoint of the Conquest leg. This preserves the distinction between a shared coordinate and a shared chronological role. [File52c §3.4; C1274-C1276]

The same 12026 anchor also divides the selected Actual Creation bridge. Its cumulative and regular completion endpoints are 14004 and 4114 BC, respectively. Their 9890-year separation splits into

$$14004 - 12026 = 1978, \quad 12026 - 4114 = 7912 = 4 \times 1978.$$

Priestly expansion by 25/23 gives 2150 and 8600, preserving 1:4 and totaling 10750. These expanded parts belong to the expanded total. The Rounded endpoints 14006/4106 instead divide into 1980+7920=9900, again 1:4. Both selected pairs satisfy

$$12026 = \frac{4C + R}{5},$$

where C,R are their cumulative and regular Creation coordinates. Moving Rounded→Actual changes them by -2 and +8, preserving the weighted value because $4(-2)+8=0$. The regular +8 combines the six-year row residual with the separate standard Shem +2 convention; selecting the cumulative completion endpoint supplies its -2. The matching weight is derived from these selected values. It expresses their compatibility without making the state selections disappear. [File52c §3.14; C932-C948]

The same division is visible in the original one-pass convergence. The regular span grows from 2700 to 10620, gaining 7920; the cumulative span falls from 12600 to 10620, losing 1980. The gain is four times the loss. Thus the weighted coordinate and the inverse construction express a shared relation among these source values. Once the inputs are fixed, the two descriptions belong to one connected calculation. The historical significance rests on why those particular intervals and their named divisions occur in the source family. [C937-C948]

The completed backbone also has a 9890-year interval to the Conquest-held cumulative Flood companion at 4836 BC: $14726-4836=9890=23 \times 430$. The Flood companion retains the 1406 anchor and unchanged 3430 span; it is a separate anchored comparison from the completed Nativity-held path. Its interval matches the Actual Creation bridge in magnitude, while the original Rounded Creation gap stays 9900. The correspondence links declared measurements without replacing their endpoints or chronological roles. [File52c §3.6]

The same spine operation in LXX and SP

The LXX and SP comparison shows more clearly what the MT result means. The common construction is a segmented chronological path: select its Creation or Fall head, Flood division and held end-point; reverse each original interval once; then rebuild the path by addition. The three traditions supply different intervals to that same procedure. MT produces a common Regular/Cumulative head; LXX and SP produce paired heads with definite separations. Their differences become part of the explanation.

Here **spine** or **trunk** means this selected Creation/Fall-Flood-Conquest path, optionally continued to the 6 BC Nativity anchor. It is a complete reconstruction of those named divisions. A full genealogical field contains additional nodes and source information.

The September 28 comparative study is the source for this extension. It retains MT as primary, LXX as the secondary comparison, and the author's **accepted SP Fall construction**. The LXX uses native second Cainan and the declared full-430 comparative frame. Its Rounded Creation/Flood pairs are 5486/3236 BC Regular and 14896/5746 BC Cumulative. The MT pairs remain 4106/2456 and 14006/4836 BC. [Comparative study §§1-3]

For SP, the accepted decision moves the lower Rounded Creation coordinate forward five years to the Rounded Fall before forming the spans: **4411 → 4406 BC** Regular and **13401 → 13396 BC** Cumulative. The lower Flood members stay 3106 and 4716 BC. Thus the source Creation coordinates remain identifiable, and both executions use the same declared Fall interpretation. The rationale draws on the SP Fall-Flood 1300 structure, with BJ retained as a derivative witness to the SP pattern. The five-year adjustment is an adopted interpretation of the Rounded source; reversal operates after that choice. [Comparative study §§2,7.1; File20 §§3-3B]

Six spines, one reconstruction rule

Read each pair of original spans outward from the held Conquest anchor at 1406 BC. Every head below is a BC coordinate.

Construction	Original spans	Reversed spans	Head from 1406	Head from 6
MT Regular	1050 + 1650	5010 + 5610	12026	14726
MT Cumulative	3430 + 9170	3430 + 7190	12026	14726
LXX Regular	1830 + 2250	3810 + 5220	10436	13136
LXX Cumulative	4340 + 9150	4340 + 5190	10936	13636
SP Regular, Fall	1700 + 1300	7100 + 3100	11606	14306
SP Cumulative, Fall	3310 + 8680	1330 + 8680	11416	14116

The final column prepends the same original 1400-year Conquest-Nativity leg, whose reversed value is 4100, and moves the held anchor from 1406 to 6. If H_2 and H_3 denote the two- and three-stage heads,

$$H_3 - H_2 = 4100 - 1400 = 2700.$$

This explains the repeated 2700 across all six rows. It follows from the shared tail and anchor change, regardless of the other two source intervals. Consequently, any Regular/Cumulative head separation already present in the two-stage construction survives unchanged in the three-stage construction.

Tradition	Cumulative minus Regular head	Contributions from the two reversed legs	Meaning
MT	0	$-1580 + 1580$	Exact convergence
LXX	+500	$+530 - 30$	Cumulative head 500 years earlier
Accepted SP	-190	$-5770 + 5580$	Cumulative head 190 years later

Larger BC coordinates lie earlier. These signed differences identify what changes between the modes. MT's compensation is exact. LXX's two changes leave 500, while SP's leave -190. The Strategy's common grammar therefore explains both agreement and structured difference without requiring the traditions to end at one date. [Comparative study §§3,7; signed comparison derived here from its six spines]

What survives reversal, and where

The cumulative constructions each preserve a major span under reversal, but the preserved span occupies a different position in SP.

Construction	Self-reversing original span	Position in the source spine
MT Cumulative	3430	Flood-Conquest
LXX Cumulative	4340	Flood-Conquest
SP Cumulative, Fall	$8680 = 2 \times 4340$	Fall-Flood

The cumulative two-stage trunks contract by **1980 years in MT, 3960 in LXX, and 1980 in accepted SP**. Each contraction comes entirely from the other, non-self-reversing leg: $9170 - 7190 = 1980$, $9150 - 5190 = 3960$ and $3310 - 1330 = 1980$. In MT and LXX the retained span adjoins the held Conquest anchor, so the Flood intermediate stays in place. In SP the retained 8680-year Fall-Flood span moves intact with its endpoints. The shared operation thus preserves interval length while its position determines what remains stationary.

The SP Cumulative reconstruction displays that distinction directly:

$$1406 + 1330 = 2736, \quad 2736 + 8680 = 11416.$$

Adding the reversed Nativity leg gives the complete BC path

$$6 \longrightarrow 4106 \longrightarrow 5436 \longrightarrow 14116.$$

The first SP intermediate, 2736 BC, lies 1290 years before Exodus 1446 BC. The three-stage intermediate 5436 BC shares the Rounded MT cumulative Shem coordinate. These are connections between named constructions: the generated SP intermediate keeps its role even when its coordinate agrees with an MT boundary. [Comparative study §7.5]

The accepted SP trunk recovers the MT Creation intervals

The Regular SP original path is Fall 4406 $\rightarrow$ Flood 3106 $\rightarrow$ Conquest 1406 $\rightarrow$ Nativity 6 BC, with intervals 1300, 1700 and 1400. Its two-stage head moves 7200 years earlier than its Fall coordinate:

$$11606 - 4406 = (7100 - 1700) + (3100 - 1300) = 7200.$$

The third-stage head gains another 2700, making $14306 - 4406 = 9900$. The source's upper Rounded SP Creation member is 4416, ten years earlier than the adopted Fall, so $14306 - 4416 = 9890 = 23 \times 430$.

Both intervals reproduce the established MT comparison through one exact translation:

SP Regular inverse comparison	MT comparison	Preserved interval
14306 → Fall 4406 BC	Cumulative Rounded 14006 → Regular Rounded 4106 BC	9900
14306 → upper Rounded Creation 4416 BC	Cumulative Rounded 14006 → Actual Year-6/Adam 4116 BC	9890

Every SP coordinate in these two comparisons is 300 years earlier than its corresponding MT coordinate:

$$14306 - 14006 = 4406 - 4106 = 4416 - 4116 = 300.$$

This is a concrete connection across families: a Regular SP inverse head reproduces intervals already found between MT Cumulative and Regular coordinates. The 9890 row deliberately compares different declared states; the wholly Actual MT endpoint expression remains $14004 - 4114 = 9890$. The 9900/9890 pair is one translated interval structure.

The accepted SP Cumulative heads contribute another linked pair: $11416 - 4416 = 7000$ and $14116 - 4116 = 10000$. Their difference is accounted for by the same head shift and target difference: $10000 - 7000 = 2700 + 300$. The report's corrected 7200 relation is **11606-4406**, while **11606-4106=7500**. [Comparative study §§7.3-7.6; File22 §§5.1,7.1]

LXX connects the MT targets and SP heads

The LXX comparison contributes two further kinds of connection. First, it preserves complete paired intervals when source nodes and targets move together. Rounded MT cumulative Shem/Flood 5436/4836 BC stand 4900/4300 years before the selected restoration target 536 BC. Rounded LXX cumulative Shem/Flood 6346/5746 BC stand the same 4900/4300 years before Exodus 1446 BC. All three coordinates move by **910**. The separate equality $13136 - 536 = 14006 - 1406 = 12600$ uses an **870** translation between the LXX Regular inverse head and ordinary MT Cumulative Creation. [Comparative study §4]

Second, the LXX supplies an intermediate head connecting the two accepted Regular SP heads. Hold Conquest 1406 BC and expand the LXX Regular three-stage radius by the Prophetic Key:

$$(13136 - 1406)\frac{70}{69} = 11730\frac{70}{69} = 11900.$$

The generated earlier head is therefore **13306 BC**. The same LXX Rounded Creation coordinate, **5486 BC**, now measures all three:

Earlier head	Span to LXX Rounded Creation 5486 BC	Factorization
SP three-stage 14306 BC	8820	180×49
Expanded LXX 13306 BC	7820	$170 \times 46 = 17 \times 460$
SP two-stage 11606 BC	6120	17×360

Their head separations are $14306 - 13306 = 1000$ and $13306 - 11606 = 1700$. The latter is exactly the original SP Flood-Conquest interval, $3106 - 1406 = 1700$, which entered the Regular SP trunk through $1700 \rightarrow 7100$. The source interval thus returns as a separation between the expanded LXX head and the SP two-stage head. Dean's proposed reciprocal reading has this exact arithmetic basis; a complete reciprocal mapping between the chronologies remains to be established. The 8820, 7820 and 6120 displays form one connected comparison around the shared 5486 endpoint. [Comparative study §§6.2,7.7]

The LXX 500-year head difference also enters the calendar Keys coherently. The intervals $13636 \rightarrow 1446$ and $13136 \rightarrow 1406$ BC are 12190 and 11730. Their difference is 460; multiplying by $25/23$ makes it 500, matching the held heads' separation. With each inverse head held, both expanded intervals therefore end at **386 BC**, a generated comparison point. The LXX Cumulative head additionally has $13636 - 4114 = 9522 = 18 \times 529$ to Actual MT Creation. This extends the connection between inverse heads, Actual source nodes and the Key's integer domains developed below. [Comparative study §§4.3,5.2]

These comparisons enlarge the explanatory picture in a specific way. All three traditions use segmented reversal and ordered reconstruction. Their source intervals determine convergence or displacement; preserved segments, translations and appointed Key expansions then connect the resulting trunks to other families. The accepted SP Fall interpretation supplies its admitted inputs, and the LXX helps show how SP and MT structures relate. The complete supplied study retains the further actual-date, calendrical and AD comparisons alongside this central account. No second reversal is needed for the construction presented here.

Calendar Keys preserve a declared measure

The Keys explain how another kind of agreement crosses families. Write the Priestly, Prophetic and Enochian factors respectively as

$$E = 25/23, \quad P = 70/69, \quad J = 300/299.$$

Their corresponding schematic year lengths give

$$336E = 360P = 364J = 8400/23.$$

Consequently different year counts can carry the same modeled day-volume. The completed MT 14720 duration gives 16000 under E, $44800/3$ under P, and $192000/13$ under J. Multiplying those counts by 336, 360 and 364 respectively gives 5376000 in every case. File52c appoints the E completion here; the P/J values illustrate the inherited calibration conditionally. Equal modeled volume does not itself appoint a new chronological route or a historical calendar. [Strategy §3.3; C1062]

Placement is specified by a held anchor: $D_{k,a}(x) = a + k(x - a)$. This acts on a distance from the anchor, not a naked BC date. Source units, moving components and anchor together define the chronological comparison.

For the appointed MT E route, holding 6 BC converts 14720 to 16000 and locates the expanded endpoint at 16006 BC. The intermediate positions need not become integers. Every nonempty proper prefix of the four transformed MT paths has a nonzero residue modulo 23. For example, the shared first 4100-year prefix becomes $102500/23$; the whole 14720 becomes 16000. Uniform multiplication remains additive over exact rational durations, so componentwise conversion and whole-span conversion agree at the endpoint. What fails is the further requirement that every

retained internal position lie on an integer-year grid. The rational path is a conditional display of the same uniform conversion, not a universal map between all original chronological date labels. [File52c §3.6; C1059-C1062]

This distinction gives 23 and 529 their structural roles. The first controls integral Priestly conversion. Its square 529 permits the duration ladder

$$529k \longrightarrow 575k \longrightarrow 625k.$$

For the 12026 backbone and Exodus 1446, the supplied interval is $10580 = 20 \times 529$, yielding $10580 \rightarrow 11500 \rightarrow 12500$ under two successive Priestly expansions. The coefficient 20 is obtained from that span; the later values follow from the same factor. Endpoint placement additionally requires the declared anchor and counting convention. [File52c §§6.1-6.2]

Covenant paths and the cumulative clutch

The Covenant family shows how two ways of building chronology can meet through shared source material. Regular chronology follows births, ages, household events and deaths. Cumulative chronology stacks complete lifespans along a selected succession. Each produces an ordered path; the clutch compares their placement while preserving the cumulative path's internal lengths. This brings the Strategy's family explanation down to a concrete mechanism: source rows generate paths, shared biographies connect them, and additional source conditions determine which further boundaries coincide.

Begin with the MT Minimum Covenant placement at 1866 BC. The source assigns one year from the Covenant to Ishmael's birth and fifteen to Isaac's birth. Isaac's sixty years to Jacob, Jacob's seventy-seven years to his call, and another ten to Levi's birth give:

$$\text{Covenant to Levi birth} = 15 + 60 + 77 + 10 = 162.$$

Thus Levi's birth is 1704 BC, and Ishmael's birth at 1865 precedes it by 161 years. Levi's 137-year life places his death at 1567; Ishmael's equal 137-year life places his death at 1728. Equal lives preserve the 161-year separation from births to deaths. The further 161 years from Levi's death to the Conquest at 1406 depend on that separately retained terminal.

The larger partition now follows the same path. Covenant to Levi's death is $162 + 137 = 299$, and Covenant to Conquest is $299 + 161 = 460$. These spans are generated measurements. The local inputs are the assigned Covenant offsets, ages, lifespan and terminal. This distinction explains where the prominent numbers come from and which source choices must remain available to reproduce them.

The state matters. File 60 uses 1866 as the minimum Covenant coordinate; its full-state counterpart, 2081, is author-designated. The applicable ancestral coordinates differ by 215 while the Conquest remains 1406. Consequently, the 460-year Covenant-to-Conquest span belongs to the minimum state. The separate offering comparison at 2051, with Isaac at proposed age fifteen, retains that proposed status: Genesis 22 supplies neither that date nor that age.

Three 147-year spans organize the inner family: Isaac's birth to Levi's birth, Jacob's own life, and Jacob's call to Levi's death. Their agreement rests on two relations to Jacob's supplied lifespan:

$$60 + 77 + 10 = 147, \quad 10 + 137 = 147.$$

Subtracting them gives $60 + 77 = 137$. The matching vertical separations and shared diagonal therefore follow from the same connected structure. This also explains why the 147 relation can reappear when a cumulative lifespan path meets the regular field: it already links an intergenerational interval to a complete biography.

The Keys add a measurement comparison. The Covenant-to-Joseph-death path is $15 + 60 + 77 + 14 + 110 = 276$; the Levi path is 299. Holding the minimum Covenant coordinate fixed, the Priestly

Key sends $276 \times 25/23$ to 300, and the Enochian Key sends $299 \times 300/299$ to 300. Both transformed points are therefore 1566 BC. More generally, writing the Levi and Joseph distances as u and w , agreement requires $13w = 12u$. The two displayed landings express one agreement condition between source paths. The transformed 1566 point keeps its comparison role; Joseph's and Levi's regular deaths remain 1590 and 1567.

The cumulative construction supplies a second complete path. Starting from Moses' fixed birth at 1526 BC and stacking Amram's 137, Kohath's 133, Levi's 137, Jacob's 147, Isaac's 180 and Abraham's 175 years generates the original column below. Each row names a cumulative boundary; it need not equal that person's regular birth.

Cumulative boundary	Original Nisan	Half-clutch	Full clutch
Abraham	2435	2428	2421
Isaac	2260	2253	2246
Jacob	2080	2073	2066
Levi	1933	1926	1919
Kohath	1796	1789	1782
Amram	1663	1656	1649
Moses-side interface	1526	1519	1512

The fourteen-year clutch is derived before generating the other columns. In the full regular state, Levi is born at 1919 and dies at 1782; Moses is born at 1526 and reaches the Exodus at 1446. For the maximum-envelope calculation, each successor is assumed to begin when the preceding life ends. Levi, Kohath, Amram and Moses' eighty years to Exodus then supply $137 + 133 + 137 + 80 = 487$ years. Regular elapsed chronology supplies $1919 - 1446 = 473$. Their difference is fourteen.

The reason the first join works becomes clearer algebraically. Let B, D be regular Levi birth and death, M Moses' birth, e Exodus, and L, K, A the three Levitical lifespans. Since $B - D = L$, the clutch is

$$d = [L + K + A + (M - e)] - (B - e) = M + K + A - D.$$

But $M + K + A$ is cumulative Kohath. Subtracting d therefore places that boundary at regular Levi's death by construction: $1796 - 14 = 1782$. The adjacent join follows because both paths use Levi's same 137-year life: cumulative Levi becomes $1933 - 14 = 1919$, regular Levi's birth. These two joins reveal how the comparison is built.

The next join requires the earlier 147 relation. Cumulative Jacob lies one Jacob lifespan before cumulative Levi. After translation it becomes $2080 - 14 = 2066$, regular Isaac's birth, precisely because regular Isaac-to-Levi also measures 147. The cumulative and Covenant families thus meet through an identifiable shared source condition. Once this condition is retained, the resulting coincidence follows across the two constructions.

The half-clutch is the exact midpoint: subtract seven instead of fourteen. Moving every boundary by either amount preserves all six lifespan blocks. Moving just one end temporarily changes its block; moving the other end by the same amount restores the original length in its new position. The last row records interfaces measured from Moses' fixed birth. Its 1519 and 1512 values do not relocate that birth.

Phase completes the field. The exact Aaron/Tishri branch adds 3.5 to every entry of the Nisan table, using the same Nisan-derived clutch. Thus original cumulative Levi is 1936.5 on that branch; the separate whole-year display is 1936. Keeping one clutch preserves the phase difference across all columns. Recalculating a different full clutch to force the same regular landing would erase that difference and produce a different comparison.

The complete field contains seven rows, two phases and three clutch positions: forty-two coordinates generated by the same path, shift and phase. The technical companion gives both phase tables and their exact dependency count.

In the coupled construction, even the row positions and clutch are generated: lifespans and Moses' anchor build the cumulative path; regular Levi's death determines its translation. The common register therefore retains the source inputs, operations and required joins while recording the conspicuous gaps as consequences. This explains a complete family of agreements and identifies the source information each agreement uses. The arithmetic establishes those dependencies; the chronology's historical premises and theological interpretation retain their own evidentiary roles.

Source basis: Files60-62; inherited Covenant dependency proofs; C1311 and C1319.

Counts extend ordered measurement

The counted families extend the same construction already visible in the genealogies. A source supplies labelled items, an order and a measure. Accumulation builds a path; selected observations may recover its inputs; grouping may preserve some information while losing other information. Animal counts, ritual categories and named generations therefore belong within the common grammar. What crosses each interface must remain explicit: a count carries its category, a generation carries its name and slot, and a chronological comparison carries its source state and placement.

Esau's gift provides a complete reconstruction example. Its nine printed counts belong to female and male goats, sheep and cattle, the female camel block, and female and male donkeys. The declared male-first clean order gives cumulative counts 20, 40, 50, 250, 450 and 490. The female register gives 200, 400, 430, 470 and 490. Together these observations recover eight animal counts. Male donkeys occur in neither register, so their count remains undetermined until the grand total of 550 supplies the missing information. The recovered count is 10. Unnumbered camel young introduce no additional numerical input. (File 58 §§13.1-13.4; C1009-C1010.)

Nine selected measurements already recover the whole list: the six clean cumulative counts, the third and fifth female counts, and the grand total. Recovery uses exact integer additions and subtractions. This is the same accumulation-and-difference procedure used for chronological intervals, now applied to category-labelled counts. It gives another complete description of nine numerical inputs; it does not generate them from fewer independent values. A value such as 430 also retains its role: connecting that female cumulative count to a chronological span requires the separately supplied dates. (File 58 §§13.2-13.4; C1011-C1013.)

The Numbers-only Tishri 1-22 ledger, in the Enochian fixed-week state with three Sabbaths, shows how additional source conditions can complete a reconstruction. Its seven categories are daily offerings, Sabbaths, New Moon, Trumpets, Atonement, seven-day Sukkot and Eighth Day. Their four species totals—75 bulls, 18 rams, 176 lambs and 11 goats—sum to 280, but do not determine the category allocation by themselves. Retaining the source's category templates, including Sukkot's 70:14:98:7 species vector, leaves seven amplitudes to determine. The four totals, equal amplitudes for Trumpets, Atonement and Eighth Day, and the daily contribution of 44 lambs then recover every category. The numerical templates remain part of the source cost. (File 58 §§2.2-3.2; C1014-C1015.)

The daily Sukkot sequence makes that dependence concrete. Seven totals summing to 189 and decreasing by one must be 30, 29, 28, 27, 26, 25 and 24. With 17 nonbull animals on each day, the bull counts are 13 through 7. The total alone does not select that sequence: the decrement and daily allocation supply information. This is how source rules explain a whole pattern without treating each resulting number as an independent observation. (File 58 §7.1; C1016.)

NT slots and source chronology

The NT family replaces animal counts with named generation slots. Its 70-year measure and 6 BC hinge supply a schematic coordinate field. Relative positions, duration and placement remain distinguishable. The Key comparisons send Enoch's radius one slot outward to Jared under the Prophetic factor and six slots outward to Adam under the Priestly factor. Their equations are proportional, so they fix the radius at 69 slots without independently determining the slot duration. The supplied 2450-year span across 35 slots fixes 70 years, giving a radius of 4830. The existing co-registrations retain the 6 BC birth hinge; this is conditional reconstruction of the supplied display. (File 43 §§2.1-2.3,3.4; File 54 §6, §§8.6,13.2; C1019-C1022.)

The latest comparison carries this fixed NT field across all 22 shared Adam-Jacob names in the native MT, SP and LXX birth tables. Each tradition keeps its supplied frame and count conventions. The result exposes a complete ten-name stretch with identical SP and LXX births, although their lifespan measurements differ:

Name	Shared birth, BC	SP lifespan	LXX lifespan
Shelah	2756	433	460
Eber	2626	404	504
Peleg	2492	239	339
Reu	2362	239	339
Serug	2230	230	330
Nahor	2100	148	208
Terah	2021	145	205
Abraham	1951	175	175
Isaac	1851	180	180
Jacob	1791	147	147

At each of these ten names, SP and LXX give the same NT-to-birth difference. Seven lifespans nevertheless differ: 27, four contributions of 100, and two of 60, totaling 547. Regular birth comparison cannot detect those differences; the Cumulative source-row measure can. The agreement therefore identifies a shared measurement of the sources while leaving their other measurements distinct. This transfers the already established source differences into the NT display without supplying a new generating rule. (File 18 §§3.2–3.3,4.2–4.3; C1266–C1269.)

Native LXX Cainan clarifies what the named slots retain. Its Arphaxad-Cainan-Shelah birth intervals are 135 and 130 years, while the corresponding NT intervals are 70 and 70. The successive comparison values consequently change by 65 and 60. Omitting Cainan from the shared-name table leaves a two-slot NT interval of 140; it must not be mistaken for one generation. The source person, insertion position and biographical measure remain distinct from the carrier width. (File 18 §4.2; File 43 §3.4; C1267,C1270.)

The Rounded head interface is similarly role-specific. LXX 5486, NT Adam 5256 and MT 4106 give the established 230|1150 division. Since the LXX Adam-to-Seth interval is 230, NT Adam shares a coordinate with Rounded LXX Seth. That does not identify their roles or produce a universal conversion of the full genealogy. No Moses or clutch coordinates are imported into this NT field. (File 54 §§2.1–2.2,8.1A; C1271–C1272.)

Toledot adds the distinction between counting and grouping. Eleven formula occurrences form ten major sections because Esau occupies occurrences 9 and 10 within one section. Terah, occurrence 6, has five occurrences on each side but five earlier and four later sections. Giving the Esau section weight two preserves the eleven-occurrence measure and Terah’s balance. It does not preserve every operation on the original list. Reflection pairs positions 9 and 10 with 3 and 2—Noah and Adam, still separate sections—so the grouped Esau section has no single reflected image. (File 70 Appendix B.1; C1023–C1028.)

The primary NT path supplies the positive grouping example. Its 77 seventy-year intervals divide into eleven complete 490-year blocks. Reflection reverses their order and preserves all twelve block boundaries. The separately displayed AD 65–135 extension remains outside that primary path. Together, these families show what a chronological interface must carry: labels and order for recovery, source conditions for allocation, measures for comparison, and compatible grouping for symmetry. Those retained structures explain both exact agreements and the information an agreement leaves unresolved. (File 43 §3.4; File 54 §8.6; C1029.)

What the common explanation achieves

The work now gives a connected construction for several families that previously appeared as separate numerical displays. Two local row changes explain why Regular and Cumulative chronology respond differently. Ordered accumulation carries them into complete fields. SP birth capacities connect its shorter birth path to its lifespan reductions. Row rounding generates the Moses

blocks and cycles; the reconstructed coordinates supply the Regular duration words in File52c. The comparative trunks extend segmented reversal to MT, LXX and the accepted SP Fall inputs. Their common tail preserves the different Regular/Cumulative head separations; fixed segments, the SP-to-MT 300-year translation and the LXX/SP 1700 return connect the outputs across families. Anchored Keys connect declared measures. Covenant joins arise from local paths, repeated lifespans and one further 147 relation. Lists and NT show which parts of ordered measurement survive a change of labels or grouping.

The C1431 compact presentation has four parts: a primitive-data register, an operation inventory, a relation ledger and a complete-family reconstruction ledger. The added comparative chapter and technical §4A explicitly extend its inverse-path account with the new study's six trunks. "Compact" here means that the same rules explain multiple outputs. It is not a proof that no smaller source model exists. Source ages, named supports, cuts, terminals and calibration choices remain visible in the registers.

Some striking equalities are now accounted for as consequences of one construction. The three Moses cycles share one path. The SP rectangle's equal gains follow from its two selected radii. The Covenant's first two clutch joins follow from the shift definition and equal lifespans, while the third uses a further source relation. The NT's two Key equations express one scale relation. The spine comparison's repeated 2700 is likewise generated by one common tail and anchor change; its distinct 0, +500 and -190 mode differences come from the selected source legs. These distinctions strengthen the explanation by identifying the information each family actually uses.

The inherited Sothic and BJ results retain their place in the larger project. Shared operation grammar is broader than exact common calibration: the Sothic factor H differs from the exact-K 365-day extension G. The SP-derived BJ bridge is not an independent witness. The prior bounded symmetry and comparison results remain established at their declared scope; no remote SKL source-chain theorem or historical priority is added here.

The next discriminating research question is whether a frozen subset of this grammar can reconstruct another complete, source-appointed family with fewer fresh choices than a direct restatement of its data. Before that test, choose the family and permitted inputs, identify anything already used in fitting, and specify every expected output. A known family can still challenge transfer, but cannot be represented as untouched evidence.

The present mathematical result is already substantial: it explains how the selected chronological families fit together through shared source information, different measurements, and explicitly connected operations. Historical transmission and theological interpretation can now be discussed against that concrete structure.

Reading the evidence

The technical companion supplies the exact support table, residual and cap proofs, decimal-register theorem, Key domains, complete Covenant phases and grouping criterion. The four-part grammar records inputs, operations, relations and six complete reconstructions. The claim/source index binds the chapter routes to frozen editions and proof records. C-number references identify the sequential research record; earlier C-numbers refer to the inherited proof packet.

This expanded edition adds the September 28 LXX/SP comparison after the original C1431 checkpoint. The original 779-check completion remains a claim about that frozen checkpoint; the added arithmetic has its own bounded review in the integration notes. The supplied study is included in full in the reader package, retaining its source register, further comparisons and correction ledger. The original four-part JSON grammar and claim index remain C1431 records; the comparative chapter cites the dated study directly, and technical §4A supplies the added reconstruction.