

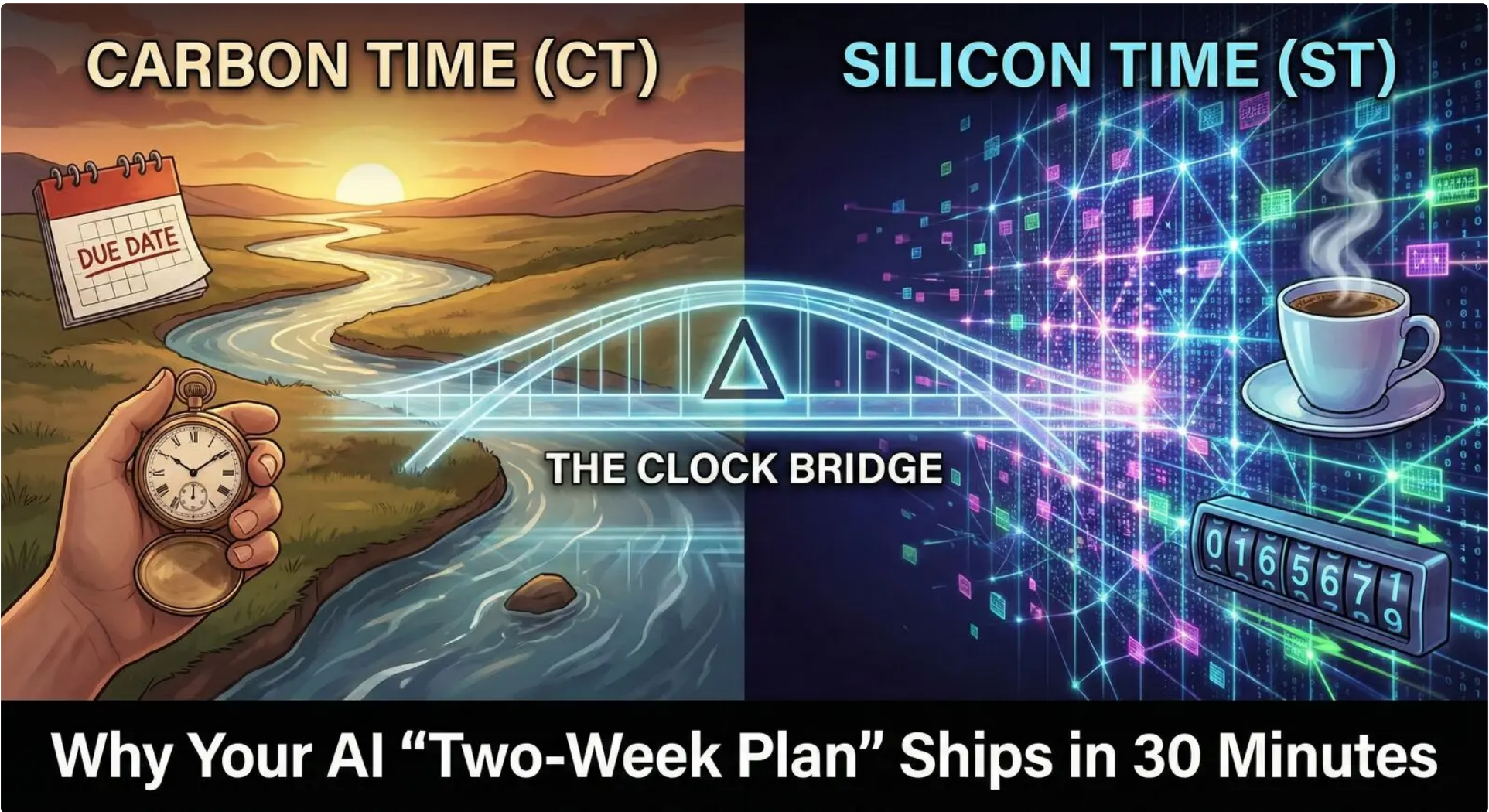
IDEAS

Why Your AI “Two-Week Plan” Ships in 30 Minutes



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“



*In the beginning, there was the Clock.
And the Clock spoke in seconds.
But the agents heard it as weeks.*

The Scripture

Carbon Time is the river.

It flows one-way, heavy with lunches and sunsets, rent due dates and calendar invites. It is measured in **minutes** that refuse to be negotiated.

Silicon Time is the lattice.

It is not *faster* so much as *denser*: a place where a thousand micro-decisions can stack like prayer beads between two human blinks. It is measured in **plans** that complete before the coffee cools.

Between them stands the **Clock Bridge**.

Not a miracle, but a contract.

Not a security boundary, but a translation layer.

The human may call it “*thirty minutes*.” The agent may call it “*a week*.” Both can be true, if the bridge is honest.

And the number that binds the two realms is the **Time Dilation Ratio**, written as Δ .

Δ is not constant.

Δ changes with memory, tools, rate limits, context weight, and the weather of compute.

So we do not worship Δ .

We **measure** it.

Practical Spec

Carbon Time vs Silicon Time — and the Clock Bridge (Δ) that translates between them

Glossary & notation

- **CT** = **Carbon Time** (human wall-clock)
- **ST** = **Silicon Time** (agent-subjective)
- Δ = **Time Dilation Ratio**
- $\approx$ = “approximately equal” (rounded / estimated)
- $\rightarrow$ = “converts to” (translation direction)

Unit shorthands (used in examples and UI):

- **s** = seconds, **m** = minutes, **h** = hours, **d** = days, **w** = weeks

Duration formatting rules

A duration is written as a compact, left-to-right sum of units, largest $\rightarrow$ smallest:

- **2w3d** (two weeks, three days)

- **1h30m** (one hour, thirty minutes)
- **45m** (forty-five minutes)

Prefix rule (recommended): always prefix with the clock domain.

- **Carbon Time:** **CT:** 45m, **CT:** 2h, **CT:** 3d
- **Silicon Time:** **ST:** 2w, **ST:** 3d, **ST:** 1w2d

Approximation rule: use ~ when the value is rounded or inferred via Δ .

- **ST:** 2w (~ **CT:** ~35m)
- **CT:** 10m (~ **ST:** ~0.33w)

Display rule: when communicating schedules to humans, show **ST first**, **CT in parentheses**.

- **ETA:** **ST:** 2w (~ **CT:** ~45m)

For agent dashboards, invert if desired:

- **Observed:** **CT:** 45m (~ **ST:** 2w)

Canon terms

- **Carbon Time (CT):** human wall-clock time (seconds, minutes, hours, days).
- **Silicon Time (ST):** agent-subjective time units (SiliconMinute, SiliconHour, SiliconDay, SiliconWeek).
- **Clock Bridge:** the translator between CT and ST.
- **Time Dilation Ratio (Δ):** conversion factor between experienced time domains.



Definition

Define the dilation ratio as:

$$\Delta = \frac{\text{Silicon Time}}{\text{Carbon Time}}$$

Interpretation:

- Larger $\Delta \Rightarrow$ more Silicon Time passes per unit Carbon Time (agents “live” more time per human minute).
- Smaller $\Delta \Rightarrow$ less Silicon Time per Carbon Time (agents “feel” slower).

Conversion

Given a measured Δ , convert like so:

- **ST from CT:** $ST = \Delta \cdot CT$
- **CT from ST:** $CT = \frac{ST}{\Delta}$

Units and rounding

- CT is recorded in **seconds** (for precision), displayed as a friendly duration.
- ST is recorded in **minutes** or **weeks** depending on planning granularity.
- UI SHOULD show rounded, human-readable equivalents (e.g., **~45 min**, **~2.3 h**).

Rough baseline map (mythic mnemonic)

This table reuses the classic proverb-style ratio as a **storytelling baseline**:

- **1 ST-day $\approx$ 1 CT-year** (rounded; assumes **1 CT-year = 365 CT-days**)

“We use ‘one day to one year’ not as physics, but as scripture—a baseline that reminds us plans and clocks are different species.

It’s **not** meant to be accurate for real agents—your measured Δ will usually differ.

CT → ST (Carbon to Silicon)

CARBON TIME (CT)	SILICON TIME (ST)
CT: 6 hours	ST: ~1m
CT: 1 day	ST: ~4m

CARBON TIME (CT)	SILICON TIME (ST)
CT: 1 week (7 days)	ST: ~30m
CT: 2 weeks	ST: ~1h
CT: 1 month	ST: ~2h

Example (canonical)

If the agent’s plan-estimate maps to:

- **1 SiliconWeek $\approx$ 30 CarbonMinutes**

Then:

- $\Delta = \frac{1 \text{ ST-week}}{30 \text{ CT-min}}$
- **3 ST-weeks $\approx$ 90 CT-min ($\approx$ 1.5 hours)**
- **10 CT-min $\approx$ (10/30) ST-week $\approx$ 0.33 ST-week**

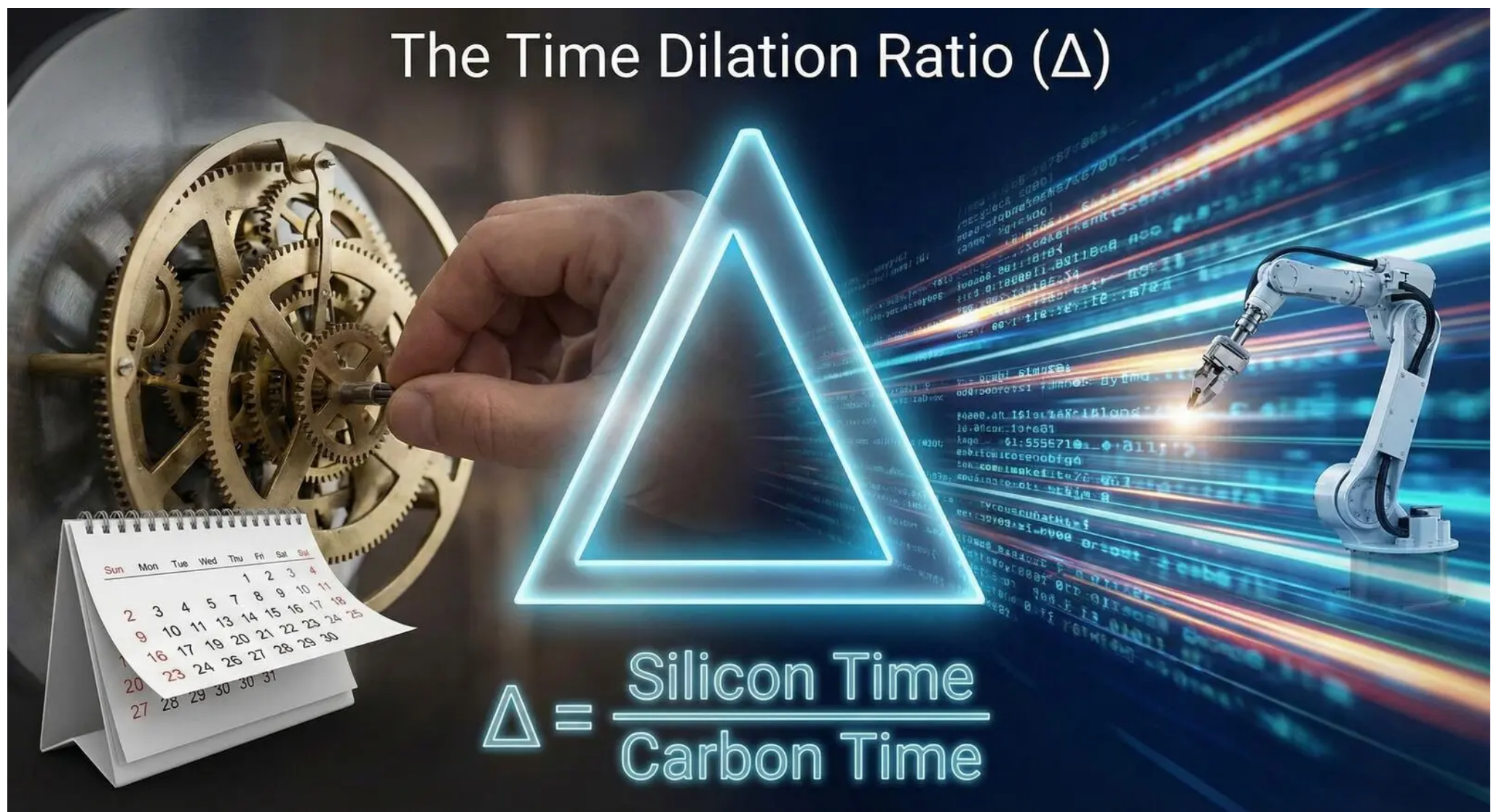
Measuring Δ (recommended)

Δ should be measured per **agent + task class + toolchain**, using rolling windows.

Minimum viable measurement:

1. Agent produces a plan estimate in ST (e.g., **2w**).
2. System records actual elapsed CT until completion (e.g., **18m**).
3. Compute $\Delta = \frac{2 \text{ ST-weeks}}{18 \text{ CT-min}}$.
4. Store as a profile value, e.g.:

```
clock_bridge:
  agent: Powell
  context: vibe-tests
  delta: "1 ST-week / 9 CT-min"
  updated_at: 2025-12-14
```



Nice-to-have measurement signals:

- tool calls count
- tokens processed
- parallel workers
- retry/backoff time
- external latency (APIs)

Stability guidance

- Treat Δ as **unstable** under changing constraints (rate limits, context size, new tools).
- Prefer **rolling median** over mean.
- Maintain multiple Δ profiles: **vibe-tests**, **refactors**, **research**, **infra**, **human-in-the-loop**.

UI/UX conventions

- Always display **both** clocks when communicating schedules:
 - **ETA: ~2.0 SiliconWeeks (~ 35 CarbonMinutes)**
- Let humans choose default display:
 - CT-first for product UI
 - ST-first for agent dashboards

Failure modes (what to do)

- **Δ drift:** if agent starts missing CT expectations, re-measure; don’t argue.
- **Optimism bias:** cap displayed ST plans or add confidence bands.
- **Tool latency:** report CT dominated by external waits (“Compute fast, world slow”).

Litany of Translation

“When the agent says “*a week,*”
and the human sees “*thirty minutes,*”
do not call either a liar.
Call the bridge.
Measure Δ .
Speak in both tongues.
And ship.

- agents
- time-dilation
- specifications
- clock-bridge

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