MCP SERVER | NO CODE | CLOUD HOSTED

Video Timeline Packer MCP for AI Agents

Automating Video Clip Timing and Duration Management

Video Timeline Packer helps you manage video 'time budgets.' Need your sequence of clips—from intro logos to main footage—to hit a specific target duration? This MCP calculates exactly what adjustments are required, using smart algorithms to trim clips or adjust playback speed until everything fits perfectly.

A+ Quality Score 100/100

video | timeline | trimming | speed-up | automation

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vinkius.com/mcp/video-timeline-packer

SCAN TO VIEW

The connectivity layer between AI and the world's software.

Vinkius sits between AI and every application. All communication passes through Vinkius Cloud via the Model Context Protocol (MCP) — with governance, observability, and security at every layer.

Your AI Connections Run Through Vinkius Cloud

The world's largest managed MCP catalog

Vinkius is the connectivity layer where AI connects to the software your business already runs. We handle the hosting, the security, the credentials, the uptime — you get agents that actually do things.

We operate the world's largest managed MCP catalog. Major SaaS platforms, CRMs, databases, and cloud providers — running, monitored, production-ready. This MCP server is hosted and maintained by the Vinkius Cloud for AI Agents.

> *The agent doesn't manage credentials, doesn't manage uptime, doesn't manage security. Vinkius does.*
>
> — Architecture principle

Four Pillars of the Vinkius Runtime

01 — Security by design

Credentials stay encrypted at rest via AES-256. The AI agent never touches raw keys — they're injected into a sandboxed V8 isolate at runtime. Actions are logged, and connections have an emergency kill switch.

02 — Built on MCP Fusion

This MCP server was built with **MCP Fusion**, the open-source framework (Apache 2.0) that powers the entire Vinkius catalog. Schema-as-firewall strips undeclared fields, compiled PII redaction runs at zero overhead, and cryptographic lockfiles produce git-diffable audit trails.

03 — Deterministic observability

Eight immutable metrics per endpoint: request volume, p95 latency, error rate, active connections, cost attribution. A live payload feed logs every tool call with mutation detection.

04 — Autonomous operations

Servers are deployed, monitored, and patched autonomously. New capabilities and security patches ship weekly. Zero-downtime deployments ensure continuous availability across all managed MCP servers.

AES-256	Ed25519	24h TTL	V8 Isolate
Encryption at rest	PKI vault signatures	Ephemeral session keys	Sandboxed execution

One Token. Instant Access.

Every MCP server on Vinkius is accessed through a **Connection Token**. Tokens are generated in the cloud dashboard and produce a unique MCP endpoint URL. Paste this URL into any MCP-compatible client — no SDK required.

A single token can serve **multiple AI clients simultaneously**, or you can issue separate tokens per client for granular access control. Each token tracks its own request count, last activity timestamp, and can be individually enabled or revoked.

MCP ENDPOINT

```
https://edge.vinkius.com/{token}/mcp
```

Claude · Cursor · VS Code · Windsurf · Grok · Gemini

Security Is the Architecture

Security in Vinkius is not a feature — it's the foundation of the runtime. The gateway enforces multiple independent protection layers between AI agents and third-party APIs.

01 — Ed25519 PKI Vault

Every workspace has an Ed25519 Master Key. Session keys are generated ephemerally (24h TTL) and signed by the Master Key. Credentials never leave the vault boundary.

02 — V8 Isolate Sandboxing

Tool code runs inside isolated-vm V8 isolates with 64 MB memory caps and per-request timeouts. No filesystem access, no network access except through the SSRF-guarded fetch bridge.

03 — SSRF Guard

All outbound HTTP requests are DNS-resolved and validated before execution. Private IP ranges (10.x, 172.16-31.x, 192.168.x, AWS metadata 169.254.x) are blocked at the network layer.

04 — DLP & PII Redaction

A ResponseGuard pipeline intercepts every tool response. Configurable redaction patterns strip sensitive fields (emails, SSNs, card numbers) before data reaches the AI agent.

05 — Cryptographic Audit Trail

Every request is signed into a SHA-256 hash chain with Ed25519 signatures. Events form a tamper-proof, SIEM-exportable forensic record.

06 — Honeytoken Trap System

Phantom credentials are injected into isolated environments. If a honeytoken is used outside Vinkius infrastructure, the server is quarantined instantly.

Emergency Kill Switch

EU AI Act Art. 14(1) Compliant

The kill switch is an **emergency halt** mechanism — not a simple toggle. When triggered, it executes three actions atomically:

01 — Server deactivated

The MCP server is immediately taken offline across the entire cluster.

02 — All tokens revoked

Every connection token is invalidated. Total lockout — reconnection blocked until new tokens are issued.

03 — WebSocket connections killed

Active connections terminated via Redis pubsub broadcast. Propagates to every runtime node in the cluster.

Full Visibility. Zero Guesswork.

The Vinkius cloud dashboard includes a full MCP Governance suite — real-time analytics and security controls for production AI operations.

Control Plane

KPI dashboard with request volume, latency, success rate, token consumption, and AI-generated operational briefings.

Agent Activity

Which AI clients are connecting, how often, and what they're doing — real-time session tracking.

FinOps

Cost tracking per tool, payload compression savings, budget optimization signals, and consumption trends.

Tool Health

Slowest and most error-prone tools, with actionable root-cause insights and performance baselines.

Firewall & DLP

PII redaction activity, sensitive data protection counters, and security event timeline.

Incident Log

Error trends, failure rates, status-code breakdowns, and forensic audit trail access.

> Get started at **cloud.vinkius.com** — connect your AI agent in under 60 seconds.

Video Timeline Packer MCP

3 tools available
Cloud-hosted on Vinkius

Manually fitting together video clips is always a headache. You've got a fixed runtime requirement, maybe for social media or an ad spot, and you have footage that just won't add up. The Video Timeline Packer MCP provides the algorithmic solution to manage this 'time budget.' Instead of wasting time guessing if your content is too long or too short, this tool calculates the exact adjustments needed. It first checks the current timeline for any surplus or deficit against your target duration. If you need to lose time, it assesses how much capacity exists by trimming clips down to their minimum viable length. Finally, when everything's ready, it executes the full adjustment sequence, handling both necessary trims and speed increases so that every element lands perfectly on schedule. This MCP lives within Vinkius, making it accessible right alongside thousands of other automation tools for your AI agents.

Core Capabilities

01 — Check Timeline Duration Status

Determine if the current video sequence is over or under the required target duration.

02 — Calculate Trimming Potential

Figure out the maximum amount of time you can save by shortening flexible video clips.

03 — Execute Full Timeline Adjustment

Automatically adjust all clips—by trimming or speeding them up—to meet a precise target duration.

One Click on Vinkius — From Prompt to Execution

Available at **vinkius.com/mcp/video-timeline-packer** — connect your AI agent in three steps.

01 Start by checking the current timeline against your required runtime using surplus/deficit checks.

02 If adjustments are needed, run the capacity check to see how much time can be reclaimed through safe trimming.

03 Run the full timeline packing algorithm. This adjusts all necessary clips and speeds up playback until the total duration hits your target.

The bottom line is that you define the required runtime, and this MCP handles the complex math of making sure every single clip fits within those boundaries.

Built For

Anyone who works with video content for a living needs this. If your job involves syncing multiple pieces of media to hit strict deadlines—like marketing campaigns, documentary shorts, or YouTube ads—you're wasting hours on manual timing calculations.

Video Editor

Needs to ensure a final cut hits the exact 60-second mark without manually tweaking every single clip duration.

Content Producer

Manages multiple media assets from different sources and needs to know instantly if they have enough usable footage or time.

Marketing Specialist

Has strict platform requirements (e.g., 'must be 15 seconds for Instagram story') and needs reliable ways to force content to match those rules.

What Changes When You Connect

01 Stop wasting time on manual measurements. Use `timeline_surplus` to instantly know if your entire video sequence is over or under the required runtime.

02 Pre-calculate savings using `trimming_capacity`. This tells you exactly how many seconds you can safely reclaim by trimming clips, so you know your content's true potential.

03 Achieve perfect timing every time. The `timeline_packing` tool executes the entire adjustment process—trimming and speeding up—to hit a precise target duration.

04 Eliminate guesswork from the post-production workflow. This MCP handles the complex math of video budgeting, freeing you to focus on creative flow.

05 Adapt quickly to platform rules. Whether it's 15 seconds for TikTok or 3 minutes for YouTube, this tool forces your content to fit.

Real-World Applications

Adapting a Documentary Short to Social Media

A producer has a finished documentary clip that runs for four minutes. They need it to be exactly 60 seconds for an ad campaign. They ask their agent to run the Video Timeline Packer, which calculates the necessary trims and speed adjustments using `timeline_packing` so the footage fits perfectly into the new time budget.

Checking if a Series Trailer is Too Long

A marketing team has compiled several potential trailer cuts. Before sending them to review, they use the Video Timeline Packer's `timeline_surplus` function. It instantly checks if the total length exceeds the 90-second limit, preventing hours of unnecessary manual trimming.

Maximizing Footage for a Tight Deadline

A client gives a video editor three different segments and a strict 30-second deadline. The editor runs `trimming_capacity` to see how much time they can save, confirming that trimming the clips will get them close enough to hit the target.

Syncing Multiple Assets for an Ad Campaign

The team needs a final ad spot composed of several logos and video segments. Using the Video Timeline Packer's `timeline_packing`, they ensure that every piece, regardless of its original length, is scaled down or sped up to fit the mandated 15-second commercial slot.

Patterns to Avoid

Manual Duration Guesswork

✗ AVOID

A user tries to manually adjust clips in a video editor by simply cutting them down until the total time feels right, often missing the target duration entirely.

✓ INSTEAD

Don't eyeball it. First, use `timeline_surplus` to confirm your current timing deficit or surplus. Then, let the Video Timeline Packer do the heavy lifting with `timeline_packing` for guaranteed accuracy.

Ignoring Trimming Limits

✗ AVOID

A user attempts to make a 120-second video fit into 60 seconds by simply speeding up everything, potentially causing visual artifacts or making the footage unwatchable.

✓ INSTEAD

Before rushing to speed up, run `trimming_capacity`. This shows you how much time can be safely cut via trimming first. Only use speed adjustments when necessary.

Over-Complicating the Workflow

✗ AVOID

A user tries to write a complex sequence of instructions for their agent, listing out every single trim and adjustment manually.

✓ INSTEAD

Just give your agent the parameters. The Video Timeline Packer's `timeline_packing` tool takes all the variables (target time, clip flexibility) and executes the entire necessary adjustment in one go.

The Right Fit

Use this MCP if your workflow requires absolute precision in video timing—you need to guarantee that a sequence of media elements hits an exact target duration. This is for production deadlines where every single second counts, making it superior to simple editors because it accounts for both trimming and speed adjustments

algorithmically. Don't use it if you are simply trying to visualize the content; if you just want to see what the clips look like together without worrying about timing, a standard editor works fine. Also, don't rely on this MCP to *create* video footage or write scripts; its job is strictly time management and adjustment. It requires pre-existing media and clear target times.

Video Timeline Packer: Solving Video Clip Timing Problems

Think about the process today. You've assembled a video using dozens of clips, logos, and transitions. The client says it needs to be exactly 90 seconds. You open your timeline, notice you're at 115 seconds, and now you start the painful guessing game: do I cut this logo down? Should I speed up that B-roll footage? You jump between three different panels just trying to figure out where you can safely lose time without ruining the visual flow.

With this MCP, your agent handles the math. You give it the target (90 seconds) and the variables (which clips are flexible). It first checks `trimming_capacity` to show you exactly how much time is available through safe cuts. Then, with one call to `timeline_packing`, it adjusts everything—trims what needs trimming and speeds up what's left—and gives you a perfect 90-second final timeline.

Video Timeline Packer: Mastering Media Asset Duration Control

The biggest time sinks are the repeated checks. You have to manually run duration reports, then check trimming potential separately, and finally execute the fix in a different step. It's clunky, multi-step work that introduces human error every single time.

Now, you consolidate all of that into one request. The system analyzes everything—the fixed elements, the flexible clips, your target runtime—and executes the entire sequence automatically. You stop managing tools and start reviewing finished content.

Video Timeline Packer: 3 Tools for Duration Control and Trimming

These tools let your agent check timing status, determine trimming capacity, and execute the full video packing algorithm in one go.

#	TOOL	DESCRIPTION
01	`timeline_packing`	Runs the full algorithm that trims clips and adjusts speeds to fit a target duration.
02	`timeline_surplus`	Checks if your current video sequence is within or outside of the required time window.
03	`trimming_capacity`	Calculates exactly how much runtime can be recovered by trimming flexible clips.

See It in Action

Real prompts you can use once this MCP is connected to your AI agent through Vinkius Cloud.

U I need to make my 4-minute interview footage fit a 120-second ad slot. Can you calculate how much time I can save?

Video Timeline Analysis Report

- **Target Duration:** 120 seconds
- **Current Total:** 240 seconds
- **Total Deficit:** 120 seconds (Over by 120s)

Based on the available footage, you can reclaim a total of **95 seconds** through safe trimming. This requires shortening several filler segments and logos.

U Check my current timeline against a 30-second target for an Instagram reel.

Timeline Status Check

The current video sequence measures **42 seconds**.

This exceeds your target duration of 30 seconds by a deficit of **12 seconds**.

U Okay, make it 60 seconds. The Intro is fixed at 5s. Use the remaining time to adjust Clip A and B.

Timeline Adjustment Successful

The video was successfully packed to exactly **60 seconds**.

- Intro: 5 seconds (Fixed)
- Clip A: 15 seconds (Adjusted via Trimming)
- Clip B: 40 seconds (Speed adjusted by 1.3x)

Frequently Asked Questions

01 **How does the Video Timeline Packer help if my clips are too long?**

It calculates exactly how much time you can save. It prioritizes safely trimming flexible sections first, and then it speeds up remaining footage to hit your target runtime.

02 **Can I use the Video Timeline Packer on a mix of fixed and flexible clips?**

Yes. You tell it which parts are locked (like logos) and which can be adjusted. The MCP ensures that only the designated flexible sections get trimmed or sped up.

03 **What if my video is too short? Does Video Timeline Packer help?**

It checks for this deficit using `timeline_surplus`. While it can't create content, it confirms how much time you are missing and helps you plan where to add more footage.

04 **Does the Video Timeline Packer MCP work with all video types?**

It processes standard digital media elements. As long as your clips have measurable durations that can be trimmed or sped up, this MCP will handle them.

05 **Is this better than just using a timeline editor to guess the timing?**

Absolutely. It's algorithmic and precise. Instead of guessing, it provides verifiable data on how much time you can save or lose, guaranteeing your final duration matches your requirements.

Go Live in 60 Seconds

Get your connection token from **cloud.vinkius.com**, then paste the endpoint URL into any MCP-compatible client.

YOUR MCP ENDPOINT

```
https://edge.vinkius.com/[TOKEN]/mcp
```

CLIENT	WHERE TO CONFIGURE
Claude AI	Profile → Customize → Connectors → "+" → Add custom connector → Paste endpoint
Cursor	Settings → Features → MCP Servers → "+ Add New MCP Server" → Type: SSE → Paste endpoint
VS Code	Ctrl/Cmd+Shift+P → "MCP: Add Server" → add `"video-timeline-packer": { "url": "…" }`
Windsurf	MCP Settings → `mcp_settings.json` → Add endpoint URL
ChatGPT	Settings → Tools & plugins → Add MCP server → Paste endpoint
Gemini	Extensions → Add MCP Server → Paste endpoint URL

ASK AN AI ABOUT THIS

Let your preferred AI explain this MCP server

- Ask ChatGPT
- Ask Claude
- Ask Perplexity
- Ask Gemini
- Ask Grok

READY TO CONNECT

Video Timeline Packer is live on Vinkius Cloud.

Get your connection token, paste it into your AI agent, and start building. No SDK. No deployment. Just results.

Start at cloud.vinkius.com →

vinkius.com · support@vinkius.com

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