



# Configuration Reference

Use this page as a searchable reference for Codex configuration files. For conceptual guidance and examples, start with [Basic Config](#) and [Advanced Config](#).

## config.toml

User-level configuration lives in `~/.codex/config.toml`.

```
<ConfigTable options=[{ { key: "model", type: "string", description: "Model to use (e.g., gpt-5-codex).", }, { key: "review_model", type: "string", description: "Model override used by /review.", }, { key: "model_provider", type: "string", description: "Provider id from model_providers (default: openai).", }, { key: "model_context_window", type: "number", description: "Context window tokens available to the active model.", }, { key: "model_auto_compact_token_limit", type: "number", description: "Token threshold that triggers automatic history compaction (unset uses model defaults).", }, { key: "oss_provider", type: "lmstudio | ollama", description: "Default local provider used when running with --oss (defaults to prompting if unset).", }, { key: "approval_policy", type: "untrusted | on-failure | on-request | never", description: "Controls when Codex pauses for approval before executing commands.", }, { key: "sandbox_mode", type: "read-only | workspace-write | danger-full-access", description: "Sandbox policy for filesystem and network access during command execution.", }, { key: "sandbox_workspace_write.writable_roots", type: "array", description: "Additional writable roots when sandbox_mode = \"workspace-write\".", }, { key: "sandbox_workspace_write.network_access", type: "boolean", description: "Allow outbound network access inside the workspace-write sandbox.", }, { key: "sandbox_workspace_write.exclude_tmpdir_env_var", type: "boolean", description: "Exclude $TMPDIR from writable roots in workspace-write mode.", }, { key: "sandbox_workspace_write.exclude_slash_tmp", type: "boolean", description: "Exclude /tmp from writable roots in workspace-write mode.", }, { key: "notify", type: "array", description: "Command invoked for notifications; receives a JSON payload from Codex.", }, { key: "check_for_update_on_startup", type: "boolean", description: "Check for Codex updates on startup (set to false only when updates are centrally managed).", }, { key: "feedback.enabled", type: "boolean", description: "Enable feedback submission via /feedback across Codex surfaces (default: true).", }, { key: "instructions", type: "string", description: "Reserved for future use; prefer experimental_instructions_file or AGENTS.md.", }, { key: "developer_instructions", type: "string", description: "Additional developer instructions injected into the
```

session (optional).”, }, { key: “compact\_prompt”, type: “string”, description: “Inline override for the history compaction prompt.”, }, { key: “experimental\_instructions\_file”, type: “string (path)”, description: “Experimental replacement for built-in instructions instead of AGENTS.md.”, }, { key: “experimental\_compact\_prompt\_file”, type: “string (path)”, description: “Load the compaction prompt override from a file (experimental).”, }, { key: “mcp\_servers..command”, type: “string”, description: “Launcher command for an MCP stdio server.”, }, { key: “mcp\_servers..args”, type: “array”, description: “Arguments passed to the MCP stdio server command.”, }, { key: “mcp\_servers..env”, type: “map<string,string>”, description: “Environment variables forwarded to the MCP stdio server.”, }, { key: “mcp\_servers..env\_vars”, type: “array”, description: “Additional environment variables to whitelist for an MCP stdio server.”, }, { key: “mcp\_servers..cwd”, type: “string”, description: “Working directory for the MCP stdio server process.”, }, { key: “mcp\_servers..url”, type: “string”, description: “Endpoint for an MCP streamable HTTP server.”, }, { key: “mcp\_servers..bearer\_token\_env\_var”, type: “string”, description: “Environment variable sourcing the bearer token for an MCP HTTP server.”, }, { key: “mcp\_servers..http\_headers”, type: “map<string,string>”, description: “Static HTTP headers included with each MCP HTTP request.”, }, { key: “mcp\_servers..env\_http\_headers”, type: “map<string,string>”, description: “HTTP headers populated from environment variables for an MCP HTTP server.”, }, { key: “mcp\_servers..enabled”, type: “boolean”, description: “Disable an MCP server without removing its configuration.”, }, { key: “mcp\_servers..startup\_timeout\_sec”, type: “number”, description: “Override the default 10s startup timeout for an MCP server.”, }, { key: “mcp\_servers..startup\_timeout\_ms”, type: “number”, description: “Alias for startup\_timeout\_sec in milliseconds.”, }, { key: “mcp\_servers..tool\_timeout\_sec”, type: “number”, description: “Override the default 60s per-tool timeout for an MCP server.”, }, { key: “mcp\_servers..enabled\_tools”, type: “array”, description: “Allow list of tool names exposed by the MCP server.”, }, { key: “mcp\_servers..disabled\_tools”, type: “array”, description: “Deny list applied after enabled\_tools for the MCP server.”, }, { key: “features.unified\_exec”, type: “boolean”, description: “Use the unified PTY-backed exec tool (beta).”, }, { key: “features.shell\_snapshot”, type: “boolean”, description: “Snapshot shell environment to speed up repeated commands (beta).”, }, { key: “features.apply\_patch\_freeform”, type: “boolean”, description: “Expose the freeform apply\_patch tool (experimental).”, }, { key: “features.web\_search\_request”, type: “boolean”, description: “Allow the model to issue web searches (stable).”, }, { key: “features.shell\_tool”, type: “boolean”, description: “Enable the default shell tool for running commands (stable; on by default).”, }, { key: “features.exec\_policy”, type: “boolean”, description: “Enforce rules checks for shell/unified\_exec (experimental; on by default).”, }, { key: “features.experimental\_windows\_sandbox”, type: “boolean”, description: “Run the Windows restricted-token sandbox (experimental).”, }, {key: “features.elevated\_windows\_sandbox”, type: “boolean”, description: “Enable the elevated Windows sandbox pipeline (experimental).”, }, {key: “features.remote\_compaction”, type: “boolean”, description: “Enable remote compaction (ChatGPT auth only; experimental; on by default).”, }, {key: “features.remote\_models”, type: “boolean”, description: “Refresh remote model list before showing readiness (experimental).”, }, {key: “features.powershell\_utf8”, type: “boolean”, description: “Force PowerShell UTF-8 out-

put (defaults to true).”, }, { key: “features.tui2”, type: “boolean”, description: “Enable the TUI2 interface (experimental).”, }, { key: “model\_providers..name”, type: “string”, description: “Display name for a custom model provider.”, }, { key: “model\_providers..base\_url”, type: “string”, description: “API base URL for the model provider.”, }, { key: “model\_providers..env\_key”, type: “string”, description: “Environment variable supplying the provider API key.”, }, { key: “model\_providers..env\_key\_instructions”, type: “string”, description: “Optional setup guidance for the provider API key.”, }, { key: “model\_providers..experimental\_bearer\_token”, type: “string”, description: “Direct bearer token for the provider (discouraged; use env\_key).”, }, { key: “model\_providers..requires\_openai\_auth”, type: “boolean”, description: “The provider uses OpenAI authentication (defaults to false).”, }, { key: “model\_providers..wire\_api”, type: “chat | responses”, description: “Protocol used by the provider (defaults to chat if omitted).”, }, { key: “model\_providers..query\_params”, type: “map<string,string>”, description: “Extra query parameters appended to provider requests.”, }, { key: “model\_providers..http\_headers”, type: “map<string,string>”, description: “Static HTTP headers added to provider requests.”, }, { key: “model\_providers..env\_http\_headers”, type: “map<string,string>”, description: “HTTP headers populated from environment variables when present.”, }, { key: “model\_providers..request\_max\_retries”, type: “number”, description: “Retry count for HTTP requests to the provider (default: 4).”, }, { key: “model\_providers..stream\_max\_retries”, type: “number”, description: “Retry count for SSE streaming interruptions (default: 5).”, }, { key: “model\_providers..stream\_idle\_timeout\_ms”, type: “number”, description: “Idle timeout for SSE streams in milliseconds (default: 300000).”, }, { key: “model\_reasoning\_effort”, type: “minimal | low | medium | high | xhigh”, description: “Adjust reasoning effort for supported models (Responses API only; xhigh is model-dependent).”, }, {key: “model\_reasoning\_summary”, type: “auto | concise | detailed | none”, description: “Select reasoning summary detail or disable summaries entirely.”, }, {key: “model\_verbosity”, type: “low | medium | high”, description: “Control GPT-5 Responses API verbosity (defaults to medium).”, }, {key: “model\_supports\_reasoning\_summaries”, type: “boolean”, description: “Force Codex to send reasoning metadata even for unknown models.”, }, {key: “shell\_environment\_policy.inherit”, type: “all | core | none”, description: “Baseline environment inheritance when spawning subprocesses.”, }, {key: “shell\_environment\_policy.ignore\_default\_excludes”, type: “boolean”, description: “Keep variables containing KEY/SECRET/TOKEN before other filters run.”, }, {key: “shell\_environment\_policy.exclude”, type: “array”, description: “Glob patterns for removing environment variables after the defaults.”, }, {key: “shell\_environment\_policy.include\_only”, type: “array”, description: “Whitelist of patterns; when set only matching variables are kept.”, }, {key: “shell\_environment\_policy.set”, type: “map<string,string>”, description: “Explicit environment overrides injected into every subprocess.”, }, {key: “shell\_environment\_policy.experimental\_use\_profile”, type: “boolean”, description: “Use the user shell profile when spawning subprocesses.”, }, {key: “project\_root\_markers”, type: “array”, description: “List of project root marker filenames; used when searching parent directories for the project root.”, }, {key: “project\_doc\_max\_bytes”, type: “number”, description: “Maximum bytes read from AGENTS.md when building project instructions.”, }, {key: “project\_doc\_fallback\_file”

names”, type: “array”, description: “Additional filenames to try when AGENTS.md is missing.”, }, { key: “profile”, type: “string”, description: “Default profile applied at startup (equivalent to --profile).”, }, { key: “profiles..\*“, type: “various”, description: “Profile-scoped overrides for any of the supported configuration keys.”, }, { key: “profiles..include\_apply\_patch\_tool”, type: “boolean”, description: “Legacy name for enabling freeform apply\_patch; prefer [features].apply\_patch\_freeform.”, }, { key: “profiles..experimental\_use\_unified\_exec\_tool”, type: “boolean”, description: “Legacy name for enabling unified exec; prefer [features].unified\_exec.”, }, { key: “profiles..experimental\_use\_freeform\_apply\_patch”, type: “boolean”, description: “Legacy name for enabling freeform apply\_patch; prefer [features].apply\_patch\_freeform.”, }, { key: “profiles..oss\_provider”, type: “lm-studio | ollama”, description: “Profile-scoped OSS provider for --oss sessions.”, }, { key: “history.persistence”, type: “save-all | none”, description: “Control whether Codex saves session transcripts to history.jsonl.”, }, { key: “tool\_output\_token\_limit”, type: “number”, description: “Token budget for storing individual tool/function outputs in history.”, }, { key: “history.max\_bytes”, type: “number”, description: “If set, caps the history file size in bytes by dropping oldest entries.”, }, { key: “file\_opener”, type: “vscode | vscode-insiders | windsurf | cursor | none”, description: “URI scheme used to open citations from Codex output (default: vscode).”, }, { key: “otel.environment”, type: “string”, description: “Environment tag applied to emitted OpenTelemetry events (default: dev).”, }, { key: “otel.exporter”, type: “none | otlp-http | otlp-grpc”, description: “Select the OpenTelemetry exporter and provide any endpoint metadata.”, }, { key: “otel.trace\_exporter”, type: “none | otlp-http | otlp-grpc”, description: “Select the OpenTelemetry trace exporter and provide any endpoint metadata.”, }, { key: “otel.log\_user\_prompt”, type: “boolean”, description: “Opt in to exporting raw user prompts with OpenTelemetry logs.”, }, { key: “otel.exporter..endpoint”, type: “string”, description: “Exporter endpoint for OTEL logs.”, }, { key: “otel.exporter..protocol”, type: “binary | json”, description: “Protocol used by the OTLP/HTTP exporter.”, }, { key: “otel.exporter..headers”, type: “map<string,string>”, description: “Static headers included with OTEL exporter requests.”, }, { key: “otel.trace\_exporter..endpoint”, type: “string”, description: “Trace exporter endpoint for OTEL logs.”, }, { key: “otel.trace\_exporter..protocol”, type: “binary | json”, description: “Protocol used by the OTLP/HTTP trace exporter.”, }, {key: “otel.trace\_exporter..headers”, type: “map<string,string>”, description: “Static headers included with OTEL trace exporter requests.”, }, { key: “otel.exporter..tls.ca-certificate”, type: “string”, description: “CA certificate path for OTEL exporter TLS.”, }, { key: “otel.exporter..tls.client-certificate”, type: “string”, description: “Client certificate path for OTEL exporter TLS.”, }, { key: “otel.exporter..tls.client-private-key”, type: “string”, description: “Client private key path for OTEL exporter TLS.”, }, { key: “otel.trace\_exporter..tls.ca-certificate”, type: “string”, description: “CA certificate path for OTEL trace exporter TLS.”, }, { key: “otel.trace\_exporter..tls.client-certificate”, type: “string”, description: “Client certificate path for OTEL trace exporter TLS.”, }, { key: “otel.trace\_exporter..tls.client-private-key”, type: “string”, description: “Client private key path for OTEL trace exporter TLS.”, }, { key: “tui”, type: “table”, description: “TUI-specific options such as enabling inline desktop notifications.”, }, { key: “tui.notifications”, type: “boolean | array”, de-

scription: “Enable TUI notifications; optionally restrict to specific event types.”, }, { key: “tui.animations”, type: “boolean”, description: “Enable terminal animations (welcome screen, shimmer, spinner) (default: true).”, }, { key: “tui.show\_tooltips”, type: “boolean”, description: “Show onboarding tooltips in the TUI welcome screen (default: true).”, }, { key: “tui.scroll\_events\_per\_tick”, type: “number”, description: “Wheel event density used to normalize TUI2 scrolling.”, }, { key: “tui.scroll\_wheel\_lines”, type: “number”, description: “Lines per wheel notch for TUI2 scrolling.”, }, { key: “tui.scroll\_trackpad\_lines”, type: “number”, description: “Baseline trackpad scroll sensitivity for TUI2.”, }, { key: “tui.scroll\_trackpad\_accel\_events”, type: “number”, description: “Trackpad events required to gain +1x acceleration.”, }, { key: “tui.scroll\_trackpad\_accel\_max”, type: “number”, description: “Maximum acceleration multiplier for trackpad scrolling.”, }, { key: “tui.scroll\_mode”, type: “auto | wheel | trackpad”, description: “Scroll interpretation mode for TUI2.”, }, { key: “tui.scroll\_wheel\_tick\_detect\_max\_ms”, type: “number”, description: “Auto-mode wheel tick detection threshold (ms).”, }, { key: “tui.scroll\_wheel\_like\_max\_duration\_ms”, type: “number”, description: “Auto-mode wheel fallback duration threshold (ms).”, }, { key: “tui.scroll\_invert”, type: “boolean”, description: “Invert mouse scroll direction in TUI2.”, }, { key: “hide\_agent\_reasoning”, type: “boolean”, description: “Suppress reasoning events in both the TUI and codex exec output.”, }, { key: “show\_raw\_agent\_reasoning”, type: “boolean”, description: “Surface raw reasoning content when the active model emits it.”, }, { key: “disable\_paste\_burst”, type: “boolean”, description: “Disable burst-paste detection in the TUI.”, }, { key: “windows\_wsl\_setup\_acknowledged”, type: “boolean”, description: “Track Windows onboarding acknowledgement (Windows only).”, }, { key: “chatgpt\_base\_url”, type: “string”, description: “Override the base URL used during the ChatGPT login flow.”, }, { key: “cli\_auth\_credentials\_store”, type: “file | keyring | auto”, description: “Control where the CLI stores cached credentials (file-based auth.json vs OS keychain).”, }, { key: “mcp\_oauth\_credentials\_store”, type: “auto | file | keyring”, description: “Preferred store for MCP OAuth credentials.”, }, { key: “experimental\_use\_unified\_exec\_tool”, type: “boolean”, description: “Legacy name for enabling unified exec; prefer [features].unified\_exec or codex --enable unified\_exec.”, }, { key: “experimental\_use\_freeform\_apply\_patch”, type: “boolean”, description: “Legacy name for enabling freeform apply\_patch; prefer [features].apply\_patch\_freeform or codex --enable apply\_patch\_freeform.”, }, { key: “include\_apply\_patch\_tool”, type: “boolean”, description: “Legacy name for enabling freeform apply\_patch; prefer [features].apply\_patch\_freeform.”, }, { key: “projects..trust\_level”, type: “string”, description: “Mark a project or worktree as trusted or untrusted (“trusted” | “untrusted”).”, }, { key: “notice.hide\_full\_access\_warning”, type: “boolean”, description: “Track acknowledgement of the full access warning prompt.”, }, { key: “notice.hide\_world\_writable\_warning”, type: “boolean”, description: “Track acknowledgement of the Windows world-writable directories warning.”, }, {key: “notice.hide\_rate\_limit\_model\_nudge”, type: “boolean”, description: “Track opt-out of the rate limit model switch reminder.”, }, {key: “notice.hide\_gpt5\_1\_migration\_prompt”, type: “boolean”, description: “Track acknowledgement of the GPT-5.1 migration prompt.”, }, {key: “notice.hide\_gpt-5.1-codex-max\_migration\_prompt”, type: “boolean”, description: “Track acknowledgement of the GPT-5.1 migration prompt.”, }

```
"boolean", description: "Track acknowledgement of the gpt-5.1-codex-max migration prompt.", }, { key: "notice.model_migrations", type: "map<string,string>", description: "Track acknowledged model migrations as old->new mappings.", }, { key: "forced_login_method", type: "chatgpt | api", description: "Restrict Codex to a specific authentication method.", }, { key: "forced_chatgpt_workspace_id", type: "string (uuid)", description: "Limit ChatGPT logins to a specific workspace identifier.", }, ]} client:load />
```

## requirements.toml

`requirements.toml` is an admin-enforced configuration file that constrains security-sensitive settings users can't override. For details, locations, and examples, see [Admin-enforced requirements](#).

```
<ConfigTable options={[ { key: "allowed_approval_policies", type: "array", description: "Allowed values for approval_policy.", }, { key: "allowed_sandbox_modes", type: "array", description: "Allowed values for sandbox_mode.", }, ]} client:load />
```