Patterns in kernel/classes/audit

Every class, view, fetch function, operator and plugin point of kernel/classes/audit with its design patterns.

Source file: `doc/eng-us/standards/patterns/area-kernel-classes-audit.md` Last changed 2026-11-04
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> **Note**
>
> This page is generated from the source code by `php bin/php/exppatterncatalogue.php --write`. Do not edit it by hand: change the code or the generator, then run the command again. How the patterns are recognized: the pattern catalogue.

Every class, interface and trait of `kernel/classes/audit` with the patterns it was recognized as, followed by the module views, policy functions, fetch functions, template operators, cronjobs, event hooks and INI plugin points of the area. All patterns.

Classes (54)

Class	Kind	Patterns	File	Description
expAudit	class	Factory and static factory methods, Registry, Utility (static helper)	kernel/classes/audit/expaudit.php:26	The audit: what happens in Exponential, recorded as hash-chained JSON lines per channel (doc/eng-us/bc/6.0/audit.md, "The developer API (Z3)").
expAuditAlertEvaluator	class	Utility (static helper)	kernel/classes/audit/alerts/expauditalertevaluator.php:23	Evaluates the alert rules (doc/eng-us/bc/6.0/audit.md, "Alerts (F5)") and fires system.audit.alert.
expAuditAlertRule	interface	Interface (contract)	kernel/classes/audit/expauditalertrule.php:14	An alert rule class, registered in audit.ini: [AuditAlertSettings] RuleClasses[]= Counted by the RAD survey (registry "auditalertrules").
expAuditAlertRuleBase	abstract class implements expAuditAlertRule	Template Method / abstract base class	kernel/classes/audit/alerts/expauditalertrulebase.php:13	Shared code of the built-in alert rule classes: the record fields a rule groups by, the time of a record, and the de-duplication (doc/eng-us/bc/6.0/a…

Class	Kind	Patterns	File	Description
expAuditAlertState	class	Factory and static factory methods	kernel/classes/audit/alerts/expauditalertstate.php:19	The window state of one alert rule (doc/eng-us/bc/6.0/audit.md, "Alerts (F5)"): /alerts/.json, read and written under flock() only when a matching re...
expAuditArchiver	class	–	kernel/classes/audit/archive/expauditarchiver.php:37	Archives, manifests, verification, restore and retention of the audit channels (doc/eng-us/bc/6.0/audit.md, "The archive manifest and its HMAC", "Rot...
expAuditBridge	class	Adapter / bridge / wrapper, Utility (static helper)	kernel/classes/audit/bridge/expauditbridge.php:24	The ezpEvent bridge of the audit (doc/eng-us/bc/6.0/audit.md, "The ezpEvent bridge", Z3): kernel and extension events that already exist (ezpEvent::g...
expAuditBuffer	class	–	kernel/classes/audit/expauditbuffer.php:11	The records of one request (or one stretch of a command), per channel, until they are flushed (doc/eng-us/bc/6.0/audit.md, "Buffering and flushing (F...
expAuditBzip2Format	class extends expAuditFormatBase	INI plugin point (extension point), Strategy / handler	kernel/classes/audit/format/expauditbzip2format.php:11	The bzip2 archive format (PHP extension bz2): .jsonl.bz2.
expAuditConfig	class	Factory and static factory methods, Utility (static helper)	kernel/classes/audit/expauditconfig.php:21	The audit settings (settings/audit.ini, doc/eng-us/bc/6.0/audit.md "The settings reference") read once into one array.
expAuditConsole	class	Utility (static helper)	kernel/classes/audit/console/expauditconsole.php:16	What the views of the audit module share (doc/eng-us/bc/6.0/audit.md, "The console: module audit"): the channels the current user may read (audit/rea...

Class	Kind	Patterns	File	Description
expAuditExporter	class	–	kernel/classes/audit/archive/expauditexporter.php:26	Searching the audit files and exporting records (exp:audit search --files, exp:audit export; doc/eng-us/bc/6.0/audit.md, "The command: exp:audit").
expAuditExportStream	class	Factory and static factory methods	kernel/classes/audit/console/expauditexportstream.php:28	The audit records of a filter as CSV, JSON lines or JSON, newest first, written piece by piece to a callback as they are read: the download of audit/...
expAuditFormatBase	abstract class implements expAuditFormatHandler	Strategy / handler, Template Method / abstract base class	kernel/classes/audit/format/expauditformatbase.php:14	Shared code of the archive format handlers (doc/eng-us/bc/6.0/audit.md, "Rotation, archives and retention"): streaming compression through a PHP stre...
expAuditFormatHandler	interface	Interface (contract), Strategy / handler	kernel/classes/audit/expauditformathandler.php:14	An archive format (gzip, bzip2, xz, zstd, zip), registered in audit.ini: [AuditArchiveSettings] FormatHandlers[]= Counted by the RAD survey (registry...
expAuditFormatRegistry	class	Registry, Utility (static helper)	kernel/classes/audit/format/expauditformatregistry.php:16	The archive format registry: [AuditArchiveSettings] FormatHandlers[]= (RAD survey registry "auditformats").
expAuditFunctionCollection	class	Fetch function (Query Object, Facade), Utility (static helper)	kernel/classes/audit/console/expauditfunctioncollection.php:22	The fetch functions of the audit module (kernel/audit/function_definition.php; doc/eng-us/bc/6.0/audit.md, "Template operator and fetch"):
expAuditGuard	class	Utility (static helper)	kernel/classes/audit/expauditguard.php:32	[AuditSettings] OnWriteFailure (doc/eng-us/bc/6.0/audit.md, "When the audit cannot write"): what happens to an action whose audit record cannot be wr...

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expAuditGzipFormat	class extends expAuditFormatBase	INI plugin point (extension point), Strategy / handler	kernel/classes/audit/format/expauditgzipformat.php:11	The gzip archive format (zlib, always available): .jsonl.gz.
expAuditHook	class	Utility (static helper)	kernel/classes/audit/hook/expaudithook.php:25	The kernel's audit call sites (doc/eng-us/bc/6.0/audit.md, "The event catalogue", stage 3): one guarded way to record an event from a hook point, and…
expAuditImporter	class	–	kernel/classes/audit/archive/expauditimporter.php:28	Import of the 4.x text audit logs (doc/eng-us/bc/6.0/audit.md, "Import of the old logs (Z4)"; exp:audit import).
expAuditIndexer	class	–	kernel/classes/audit/index/expauditindexer.php:20	Fills the audit index from the channel files (doc/eng-us/bc/6.0/audit.md, "Incremental indexing", "Rebuild", "Pseudonymisation after 90 days").
expAuditIndexRow	class	Factory and static factory methods, Utility (static helper)	kernel/classes/audit/index/expauditindexrow.php:12	One audit record as a row of expaudit_event (doc/eng-us/bc/6.0/audit.md, "Tables"): the columns the console filters on, the record itself (as written…
expAuditIndexSchema	class	Utility (static helper)	kernel/classes/audit/index/expauditindexschema.php:18	The audit index tables (doc/eng-us/bc/6.0/audit.md, "The index"): their definition in the generic schema format of share/db_schema.dba, creating them…
expAuditIndexSettings	class	Utility (static helper)	kernel/classes/audit/index/expauditindexsettings.php:12	The settings of the audit index and console (audit.ini [AuditIndexSettings], [AuditConsoleSettings] and [AuditPrivacySettings] PseudonymiseAfterDays)…

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expAuditJson	class	Utility (static helper)	kernel/classes/audit/expauditjson.php:16	The canonical JSON of audit records (doc/eng-us/bc/6.0/audit.md, "Canonical JSON").
expAuditKeys	class	–	kernel/classes/audit/expauditkeys.php:23	The audit keys (doc/eng-us/bc/6.0/audit.md, "Keys (Z7)", "Key handling"): the installation id (a UUID, part of every channel's genesis hash), the sig...
expAuditMailRecipients	class	Utility (static helper)	kernel/classes/audit/sinks/expauditmailrecipients.php:30	Who gets the audit's alert mail (doc/eng-us/bc/6.0/audit.md, "E-mail"; owner decision 2026-10-02).
expAuditMailSink	class extends expAuditSinkBase	INI plugin point (extension point)	kernel/classes/audit/sinks/expauditmailsink.php:23	The e-mail sink (doc/eng-us/bc/6.0/audit.md, "E-mail"): events at MinSeverity (critical) or matching Events[] are mailed through eZMail, one mail per...
expAuditMaintenance	class	–	kernel/classes/audit/archive/expauditmaintenance.php:20	The audit's scheduled work (doc/eng-us/bc/6.0/audit.md, "Rotation, archives and retention (Q8)"), run by the cronjob part audit (cronjobs/audit.php),...
expAuditMatchRule	class extends expAuditAlertRuleBase	INI plugin point (extension point)	kernel/classes/audit/alerts/expauditmatchrule.php:20	The alert rule class "match" (RuleClasses[match]=expAuditMatchRule): fires for every record matching Event (and, with Policies[], only when the role...
expAuditPrivacy	class	–	kernel/classes/audit/expauditprivacy.php:16	The privacy rules of audit records (doc/eng-us/bc/6.0/audit.md, "Fields", "Never recorded"; settings [AuditPrivacySettings] and [AuditRecordSettings]...

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expAuditQuery	class	–	kernel/classes/audit/index/expauditquery.php:21	Searches the audit index (doc/eng-us/bc/6.0/audit.md, "The console", URL parameters): the console's filters turned into one WHERE clause that every e...
expAuditReader	class	–	kernel/classes/audit/expauditreader.php:12	Reads audit records from the live channel files: the newest records (read backwards from the end of the files, so a large day file is not read whole)...
expAuditReauth	class	Utility (static helper)	kernel/classes/audit/console/expauditreauth.php:26	Password re-entry before the audit's manage actions (doc/eng-us/bc/6.0/audit.md, Q9; [AuditConsoleSettings] ReauthForManage, ReauthMinutes).
expAuditScheduleRule	class extends expAuditAlertRuleBase	INI plugin point (extension point)	kernel/classes/audit/alerts/expauditscheduleRule.php:15	The alert rule class "schedule" (RuleClasses[schedule] =expAuditScheduleRule): fires for records matching Event that happen outside business hours ([A...
expAuditSink	interface	Interface (contract)	kernel/classes/audit/expauditsink.php:15	A copy of the audit records outside the file (syslog, webhook, mail), registered in audit.ini: [AuditSinkSettings] SinkClasses[]= Counted by the RAD...
expAuditSinkBase	abstract class implements expAuditSink	Template Method / abstract base class	kernel/classes/audit/sinks/expauditsinkbase.php:14	Shared code of the audit sinks: the sink's settings block ([AuditSink_]), which records it wants (Events[] patterns and MinSeverity) and whether it d...
expAuditSinkRegistry	class	Registry, Utility (static helper)	kernel/classes/audit/sinks/expauditsinkregistry.php:23	The sink registry and delivery (doc/eng-us/bc/6.0/audit.md, "Sinks (Q7)", "The sink registry").

Class	Kind	Patterns	File	Description
expAuditSource	interface	INI plugin point (extension point), Interface (contract)	kernel/classes/audit/console/expauditsource.php:23	An optional source of the audit console: an extension that writes its own events (usually into a channel of its own) and tells the console's views ho…
expAuditSourceBase	abstract class implements expAuditSource	Template Method / abstract base class	kernel/classes/audit/console/expauditsourcebase.php:11	The base of an audit console source (expAuditSource): every method answers "nothing", so a source implements only what it shows.
expAuditSourceRegistry	class	Factory and static factory methods, Registry, Utility (static helper)	kernel/classes/audit/console/expauditsourceregistry.php:16	The registry of the audit console's sources (expAuditSource), from audit.ini [AuditSourceSettings] Sources[]: which are registered, which work here,…
expAuditSpool	class	–	kernel/classes/audit/sinks/expauditspool.php:16	The spool of a sink (doc/eng-us/bc/6.0/audit.md, "Webhook"): records for network sinks are appended at flush time to /.jsonl under flock(), so a web…
expAuditSyslogSink	class extends expAuditSinkBase	INI plugin point (extension point)	kernel/classes/audit/sinks/expauditsyslogsink.php:36	The syslog / journald sink (doc/eng-us/bc/6.0/audit.md, "Sinks", "syslog / journald"): one RFC 5424 message per record,
expAuditTaxonomy	class	Utility (static helper)	kernel/classes/audit/expaudittaxonomy.php:21	The audit taxonomy registry (doc/eng-us/bc/6.0/audit.md, "Taxonomy", "Naming rules", "The event catalogue").
expAuditTaxonomyBranch	interface	Interface (contract)	kernel/classes/audit/expaudittaxonomybranch.php:15	An extension's branch of the audit taxonomy, registered in audit.ini: [AuditEventSettings] Branches[myext]=myExtAuditBranch Counted by the RAD survey…

Class	Kind	Patterns	File	Description
expAuditTemplateOperator	class	Template operator (Interpreter plugin)	kernel/classes/audit/console/expaudittemplateoperator.php:13	The template operator audit_label (doc/eng-us/bc/6.0/audit.md, "Template operator and fetch"): the human label of an audit event name from the taxono...
expAuditThresholdRule	class extends expAuditAlertRuleBase	INI plugin point (extension point)	kernel/classes/audit/alerts/expauditthresholdrule.php:16	The alert rule class "threshold" (RuleClasses[threshold]=expAuditThresholdRule): fires when Threshold events matching Event fall within Window second...
expAuditVerifier	class	–	kernel/classes/audit/expauditverifier.php:22	Verifies the hash chain of audit channels (doc/eng-us/bc/6.0/audit.md, "Verification").
expAuditWebhookSink	class extends expAuditSinkBase	INI plugin point (extension point)	kernel/classes/audit/sinks/expauditwebhooksink.php:20	The webhook sink (doc/eng-us/bc/6.0/audit.md, "Webhook"): POSTs batches of records as JSON,
expAuditWriter	class	–	kernel/classes/audit/expauditwriter.php:29	Appends audit records to a channel's live file and keeps the hash chain (doc/eng-us/bc/6.0/audit.md, "The hash chain").
expAuditXzFormat	class extends expAuditFormatBase	INI plugin point (extension point), Strategy / handler	kernel/classes/audit/format/expauditxzformat.php:11	The xz archive format: .jsonl.xz, through the xz binary (no PHP extension is commonly available).
expAuditZipFormat	class extends expAuditFormatBase	INI plugin point (extension point), Strategy / handler	kernel/classes/audit/format/expauditzipformat.php:12	The zip archive format (PHP extension zip): .jsonl.zip, one archive per live file holding that one file, so a single file can be restored.
expAuditZstdFormat	class extends expAuditFormatBase	INI plugin point (extension point), Strategy / handler	kernel/classes/audit/format/expauditzstdformat.php:11	The zstd archive format: .jsonl.zst, through the PHP extension zstd when it is loaded, else the zstd binary.

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