

Reports Plugin

Customer documentation generated from the current README

LimeSurvey Reports Plugin

The Reports plugin creates public, shareable reports for LimeSurvey surveys. Reports are accessed through UUID-based URLs and display completed survey responses as charts, numerical summaries, and answer tables.

Charts are rendered with a locally hosted copy of ApexCharts. The plugin supports configurable chart types, dynamic response filters, chart exports, report validity periods, minimum response thresholds, collapsible answer lists, and optional email notifications to survey administrators.

Requirements

- LimeSurvey 6.x
- PHP 8.3 or higher
- An active survey with a response table

Plugin Installation

- Upload the plugin at the LimeSurvey Plugin Manager.
- Activate the plugin in the LimeSurvey Plugin Manager (superadmin rights required).
- Configure the global plugin settings as described below.
- Enable the plugin per survey in the survey-level plugin settings.

Features

Features that are available only in specific packages are marked with their package availability.

- Public and shareable reports identified by UUID
- Automatic creation of a default report when a survey is activated
- Manual creation, editing, activation, deactivation, and deletion of reports
- Global report administration and survey-specific report lists
- Removal of orphaned reports whose surveys no longer exist (Advanced and Expert)
- Pie, bar, column, and 100% stacked bar charts
- Configurable global chart type for list-style questions
- Per-question chart type override (Expert)
- Optional PNG chart export through the ApexCharts toolbar (Advanced and Expert)
- Optional SVG and CSV chart exports through the ApexCharts toolbar (Expert)
- Optimized default chart palette for black chart labels
- Print control (Advanced and Expert)
- Fullscreen control
- Language-specific report URLs and a language switcher for multilingual surveys (Advanced and Expert)
- Dynamic filters based on Single Choice questions (Advanced and Expert)
- Multiple selections within each filter question (Advanced and Expert)

- Submit-date filter for non-anonymous surveys (Expert)
- Minimum completed-response threshold
- Optional report validity period (Expert)
- Mean and response count for numerical and scale questions (Advanced and Expert)
- Mean and response count per subquestion for multiple numerical questions (Expert)
- Static response base per question (Advanced and Expert)
- Percentage and absolute response counts in chart tooltips
- Collapsible question groups
- Collapsible text answer lists with a configurable threshold (Advanced and Expert)
- Optional answer colors supplied by a compatible custom design plugin (Expert)
- Email notification when a report is created (Expert)
- Scheduled email notification on a configured date or when a survey expires (Expert)
- Per-question control over whether a question is included in reports
- Equation and unsupported question types are omitted from reports

Package Feature Matrix

The plugin is built from one shared codebase and released as three packages:

- Reports (Free version) — version 3.0.10
- Reports (Advanced version) — version 3.0.20
- Reports (Expert version) — version 3.0.30

Feature	Free	Advanced	Expert
Public report links	Yes	Yes	Yes
Minimum response threshold	Yes	Yes	Yes
Global default chart type for list questions	Yes	Yes	Yes
Answer filters in the online report	No	Yes	Yes
Multi-select filter logic, shareable filter URLs, reset control, and filtered response count	No	Yes	Yes
Report language URL parameter	No	Yes	Yes
Report language dropdown	No	Yes	Yes
Print button	No	Yes	Yes
Restricted report access for administrator or token-based access	No	Yes	Yes
Collapsible text answer lists	No	Yes	Yes
Configurable collapse threshold for text answer lists	No	Yes	Yes
Static response base per question	No	Yes	Yes
Mean values for scale, matrix, and numerical reports	No	Yes	Yes
Purge orphaned reports	No	Yes	Yes
PNG chart export	No	Yes	Yes
Date/Time questions	No	Yes	Yes
Array Numbers questions	No	Yes	Yes
Array Texts questions	No	Yes	Yes
Submit-date filter	No	No	Yes
Per-question chart type override	No	No	Yes
SVG and CSV chart exports	No	No	Yes

Feature	Free	Advanced	Expert
Report validity period	No	No	Yes
Custom report designs and templates	No	No	Yes
Custom answer colors by question type and answer code	No	No	Yes
Report link email notifications	No	No	Yes
Multiple report link email recipients	No	No	Yes
Scheduled report link email notifications	No	No	Yes

Supported Question Types by Package

The following LimeSurvey question types have dedicated report renderers. The package columns show in which edition each question type is available.

Question type	Code	Free	Advanced	Expert
List (Radio)	L	Yes	Yes	Yes
List (Dropdown), including Bootstrap Dropdown and Image Select	I	Yes	Yes	Yes
Multiple choice	M	Yes	Yes	Yes
Array	F	Yes	Yes	Yes
Array (5 point choice)	A	Yes	Yes	Yes
Long free text	T	Yes	Yes	Yes
Yes/No	Y	Yes	Yes	Yes
5 point choice	5	Yes	Yes	Yes
Short free text	S	No	Yes	Yes
Huge free text	U	No	Yes	Yes
Numerical input	N	No	Yes	Yes
Date/Time	D	No	Yes	Yes
Array (Yes/No/Uncertain)	C	No	Yes	Yes
Array (Increase/Same/Decrease)	E	No	Yes	Yes
Array (10 point choice)	B	No	Yes	Yes
Array Numbers	:	No	Yes	Yes
Array Texts	;	No	Yes	Yes
Gender	G	No	Yes	Yes
List with comment	O	No	Yes	Yes
Array by column / dual scale	1	No	No	Yes
Multiple short text	Q	No	No	Yes
Multiple numerical input	K	No	No	Yes

Equation questions (*) and question types without a dedicated renderer are not displayed.

Date, Matrix Number, and Matrix Text Reports

Available in Advanced and Expert.

Date/Time questions

Date/Time questions (D) are evaluated depending on the submitted values:

- If all valid answers are pure dates without a real time component, at least one date occurs more than once, and there are no more than 30 distinct dates, the report displays a chronologically sorted Bar chart.
- If the values contain real time components, mixed/invalid date formats, or more than 30 distinct dates, the report displays the answers as a list instead.
- Empty values are ignored.
- Invalid or mixed date values are kept as raw values in the list view.
- Pure date values are displayed using the LimeSurvey/admin date format.

Array Numbers questions

Array Numbers questions (:) are displayed as a matrix table. For each matrix cell, the report calculates:

- the mean value;
- the valid response count for that cell.

Empty values are ignored.

Array Texts questions

Array Texts questions (;) are displayed as grouped matrix text tables:

- each matrix row is shown as a separate section;
- the original matrix columns are preserved;
- text answers are listed per matrix cell;
- empty values are ignored;
- long answer lists use the existing collapse threshold setting.

Custom Answer Colors

Available in Expert.

Compatible custom design plugins can provide answer colors per LimeSurvey question type and answer code.

The color key format is:

`<questionType>:<answerCode>`

Examples:

5:1=>#708e15
A:1=>#b6c235
B:10=>#007377
Y:Y=>#34d399
G:F=>#d93a97
L:1=>#708e15
M:SQ001=>#34d399

The `questionType` part uses the concrete LimeSurvey question type code listed above. This allows different color schemes for question types that may share the same answer codes, for example F:1, A:1, B:1, and 5:1.

Dynamic Report Filters

Available in Advanced and Expert.

Single Choice questions of type List (Radio) (L) can be displayed as filters above the report.

To configure a filter question:

1. Open the question in LimeSurvey.
2. Open its advanced settings or question attributes.

3. Find the Reports attribute group.
4. Enable Use as filter question.
5. Open the report and select one or more answers in the filter bar.

Selecting or clearing a checkbox automatically reloads the report. The filter bar also displays the number of matching respondents and provides a link to reset all active filters.

Filter logic

- Multiple selected answers within the same question are combined with OR.
- Filters from different questions are combined with AND.
- Only completed responses are included.
- Active filters are stored in the report URL as GET parameters, so a filtered report can be shared or bookmarked.
- Filter question codes and answer values are sanitized before they are applied to the response query.

Example: Selecting Germany and Austria for the country question and Female for the gender question returns completed responses matching:

`(Country = Germany OR Country = Austria) AND Gender = Female`

Response Base per Question

Available in Advanced and Expert.

Each reported question displays a static response base in the question header, for example `n = 120`.

The base is calculated per question type:

- Single-answer questions such as List (Radio), List (Dropdown), Yes/No, Gender, 5 point choice, and numerical input count non-empty answers for the question.
- Array and multiple-input questions count respondents with at least one non-empty subquestion value.
- Array by column / dual scale questions count respondents with at least one non-empty value in either scale.
- Multiple choice questions use the number of completed responses included in the report as their base, because each answer option is evaluated as a separate selected/not-selected field.
- Empty answer records and LimeSurvey no-answer values are not counted as valid answers for single-answer and array-style bases.

When report filters are active, the displayed base is calculated from the filtered response set.

Report Language

Available in Advanced and Expert.

Reports are displayed in the survey base language by default.

For multilingual surveys, a specific report language can be requested with the `lang` URL parameter:

`https://example.org/index.php/plugins/direct?plugin=Reports&id=<report-uuid>&lang=en`

Parameter names are accepted as `lang`, `Lang`, or `LANG`. The value must be a two-letter language code and is only used if the language exists for the survey. Invalid or unavailable language codes fall back to the survey base language.

When a survey has more than one language, the report header displays a language dropdown next to the print and fullscreen controls. The dropdown keeps active report filters in the URL when switching languages.

Global Plugin Settings

Global settings apply to all surveys and are configured in the LimeSurvey Plugin Manager.

Base URL

(text, default: detected automatically during plugin activation)

The LimeSurvey base URL used by plugin operations that require an absolute URL. It is initialized when the plugin is activated and normally does not need to be changed.

Create default report on survey activation

(boolean, default: enabled)

Automatically creates one active default report when a survey is activated, provided no report exists for that survey yet.

Required responses

(number, default: 0)

Defines the default minimum number of completed responses required before a report is displayed. A value of 0 disables the minimum threshold.

This default is copied to newly created default reports and can be changed later for an individual report.

Default report design

(selection, default: automatic; Expert)

Defines the default design used for newly created reports.

Compatible design plugins can register themselves with the Reports plugin. If no design plugin is registered, the built-in report renderer is used. If exactly one design plugin is registered, it is selected automatically as the default. If multiple design plugins are registered, the preferred default can be selected in the global plugin settings.

A compatible custom design plugin can implement the Reportable interface to provide custom report HTML and answer colors. Design plugins can register themselves by calling registerReportTemplate() on the Reports plugin, optionally using the ReportTemplateProvider interface for template metadata.

Default chart type for list questions

(selection, default: Pie chart; available in all packages)

Defines the default chart type for list-style questions:

- List (Radio) (L)
- List (Dropdown) (!)
- List with comment (0)
- Yes/No (Y)
- Gender (G)

Available chart types are:

- Automatic (Bar chart)
- Pie chart
- Bar chart
- Column chart
- Stacked bar chart

This default can be overridden for an individual question through the question-level Chart type attribute in the Expert package.

Default collapse threshold for text answer lists

(number, default: 20; Advanced and Expert)

Defines how many text answers are shown before the remaining answers are placed inside a collapsed section.
A value of 0 initially collapses the complete answer list. The value can be overridden in the survey-level plugin settings.

Show chart export icon by default

(boolean, default: enabled; PNG in Advanced and Expert, SVG/CSV in Expert)

Controls whether charts display the ApexCharts export icon for PNG, SVG, and CSV downloads by default.

This value can be overridden in the survey-level plugin settings.

Survey-Level Settings

Survey-level settings are configured under Survey Settings → Plugins → Reports.

Activate reporting feature for this survey

(boolean, default: disabled)

Enables report administration for the survey and adds a Reports entry to the survey tools menu.

Send report link by email for new reports

(boolean, default: disabled; Expert)

Sends the report URL whenever a new report is created manually or automatically.

At least one report link recipient must be configured, an email template must be selected, and the selected template must contain the {REPORTLINK} placeholder.

Send report link by email for expired surveys

(boolean, default: disabled; Expert)

Sends report links on the day the survey expires. A daily cron job must run the plugin command described under Scheduled Email Notifications.

Report link email recipients

(semicolon-separated email list, default: survey administrator email; Expert)

Defines the recipients for report link emails. Multiple addresses can be separated by semicolons, for example:

first@example.org;second@example.org

If this field is empty, the survey administrator email address is used as fallback.

Report link email sending date

(date string, format: Y-m-d, default: empty; Expert)

Sends report links on a specific date. Leave the setting empty when no fixed sending date is required.

A daily cron job is required.

Report link email template

(selection; Expert)

Defines which LimeSurvey administrator email template is used for notifications sent when a new report is created:

- Basic admin notification (admin_notification)
- Detailed admin notification (admin_responses)

Add {REPORTLINK} to the selected template where the linked report URL should appear.

Scheduled notifications use the basic admin notification template.

Collapse threshold for text answer lists

(number, default: global setting; Advanced and Expert)

Overrides the global collapse threshold for this survey.

- Use a positive number to show that many answers before the collapsed section.
- Use 0 to collapse the complete answer list initially.
- Leave the survey-specific value unchanged to use the global default.

Show chart export icon

(boolean, default: global setting; PNG in Advanced and Expert, SVG/CSV in Expert)

Controls whether charts in this survey display the ApexCharts export icon for PNG, SVG, and CSV downloads.

Question Attributes

Question attributes are configured in the Reports attribute group of an individual question.

Include question at report

(boolean, default: enabled)

Controls whether the question is included in generated reports.

Chart type

(selection; Expert)

Overrides the global chart type default for list-style questions:

- List (Radio) (L)
- List (Dropdown) (!)
- List with comment (0)
- Yes/No (Y)
- Gender (G)

Leave the field empty to use the global default.

Available chart types are:

- Automatic (Bar chart)
- Bar chart
- Column chart
- Stacked bar chart
- Pie chart

Multiple Choice questions are displayed as Bar charts by default. Array and matrix questions are always displayed as Stacked Bar charts.

Use as filter question

(boolean, default: disabled; Advanced and Expert)

Displays a List (Radio) question as a dynamic report filter. This attribute is only available for question type L.

Report Settings

Reports can be created and edited from the survey-specific Reports administration page.

Report title

The heading displayed at the top of the public report.

Minimum responses required

The number of completed responses required before the report becomes available. Use 0 to disable this requirement.

Report design

Available in Expert.

The report design used for this individual report. Available designs are provided by registered design plugins. Select the built-in design to use the default report layout.

Valid from

Available in Expert.

An optional date before which the report is not available.

Valid until

Available in Expert.

An optional expiration date after which the report is no longer available.

Active state

Reports can be activated or deactivated from the administration pages. An inactive report displays an informational error instead of its results.

Scheduled Email Notifications

Available in Expert.

Sending report links on a fixed date or when a survey expires requires a daily cron job or scheduled task.

Run:

```
php application/commands/console.php plugin --target=Reports --  
function=sendReportLinkEmail
```

The command evaluates all active surveys and sends report links when the configured conditions match the current date.

Changelog

3.0.31 (2026-07-27)

- Added Date/Time question reports with automatic Bar chart or list output depending on the submitted date values.
- Added Array Numbers reports with mean values and valid response counts per matrix cell.
- Added Array Texts reports with grouped text answer lists per matrix row and column.

3.0.30 (2026-07-27)

- Added Free, Advanced, and Expert package definitions based on one shared codebase.
- Added edition-based feature gates for report settings, filters, language handling, exports, custom designs, and email notifications.
- Added package-specific release build support for versions 3.0.10, 3.0.20, and 3.0.30.
- Added a package feature matrix to the README.

2.5.0 (2026-07-21)

- Added lang/Lang/LANG URL parameter support for rendering reports in a specific survey language.
- Added a report language dropdown for multilingual surveys.
- Preserved active report filters when switching report languages.
- Moved filter bar styling from inline HTML into the Reports stylesheet so custom design plugins can override it reliably.
- Improved debug-mode asset publishing so changed plugin assets are refreshed during local development.
- Fixed configured answer colors being ignored when all configured colors were identical.
- Fixed an unwanted percent suffix in Multiple Choice category labels.
- Fixed PHP warnings in chart initialization and sanitized image attribute parsing.

2.4.5 (2026-07-21)

- Added a public submit-date filter for non-anonymous surveys with real submission dates.
- Removed response counts from subquestion labels and Stacked Bar tooltips.
- Shortened long Array subquestion labels so the average remains visible.
- Allowed sanitized embedded images in question texts.

2.4.4 (2026-06-29)

- Report link emails can be sent to semicolon-separated recipient lists.
- Automatic chart selection now uses Bar charts consistently instead of switching between Column and Bar charts based on the number of answer options.
- Report link email recipients can now be configured in a dedicated survey-level Reports setting.

2.4.3 (2026-06-26)

- Fixed report template table creation on MySQL/MariaDB setups with MyISAM and utf8mb4.

2.4.2 (2026-06-26)

- New Release for testing.

2.4.1 (2026-06-26)

- Cleanup.

2.4.0 (2026-06-26)

- Added global chart defaults for list-style questions.
- Added per-question chart type fallback to the global list-question default.
- Added explicit automatic, pie, bar, column, and stacked bar handling for list-style questions.
- Added List with comment questions to the configurable chart type attribute.
- Added static response base display per question.

- Added global and survey-level settings to show or hide the chart export icon.
- Reduced pie chart size.
- Increased chart label and legend font sizes.
- Fixed stacked bar legend order for matrix questions.
- Replaced dark default chart colors with brighter alternatives optimized for black labels.

2.3.0 (2026-06-26)

- Added a report design registry for compatible custom design plugins.
- Added automatic default design resolution based on registered design plugins.
- Replaced the report design text input with a dropdown in report administration.
- Added validation for selected report design plugins.
- Added concrete LimeSurvey question-type-aware answer color lookups for custom design plugins.

2.2.1 (2026-06-24)

- Removed an accidental status message emitted while loading the plugin.
- Fixed manually created reports being saved without an active state.
- Added a database migration to repair existing reports with a missing active state.
- Made the report active-state check safe for legacy NULL values.
- Fixed report loading when question groups return questions as a generator.

2.2.0 (2026-06-24)

- Removed the remaining Highcharts dependency.
- Added an extended 30-color chart palette.
- Added automatic label contrast for stacked bar charts.
- Added configurable collapse thresholds for text answer lists.
- Added response counts and totals to chart tooltips.
- Added PNG, SVG, and CSV chart exports.
- Added dynamic filters for List (Radio) questions.
- Added multi-select filter logic with OR within one question and AND between different questions.
- Added a filter reset control and matching respondent count.
- Raised the minimum PHP version to 8.3.
- Updated plugin metadata, author information, and documentation.

2.1.0 (2026-06-04)

- Migrated chart rendering from Highcharts to ApexCharts.
- Added the locally hosted ApexCharts library.
- Improved chart colors and layouts.
- Added percentage-based multiple-choice charts.
- Optimized pie and stacked bar charts.
- Improved empty-chart handling.
- Added automatic switching to bar charts for larger datasets.
- Improved chart label positioning and offsets.

2.0.1 (2026-06-04)

- Improved missing-data handling for Increase/Same/Decrease array questions.
- Corrected the PieChart filename.

2.0.0 (2026-06-03)

- Added support for numerical questions.
- Added support for multiple numerical questions.
- Added mean values and valid response counts.
- Added pie chart support.
- Added dynamic chart heights.
- Added collapsible free-text answer lists.
- Added collapsible multiple-short-text tables.
- Excluded equation questions from reports.
- Suppressed unsupported question types.
- Removed JavaScript and CSS from displayed question texts.
- Improved automatic default-report creation.
- Applied global defaults during plugin activation.
- Improved report administration layouts and labels.
- Improved survey-level setting labels and descriptions.
- Replaced remaining German interface and error texts.
- Improved handling of missing chart data.

1.3.0 (2025-12-04)

- Added removal of orphaned reports.

1.2.0 (2025-09-18)

- Added support for custom chart colors.

1.1.0 (2025-08-20)

- Added plugin initialization and default settings.

1.0.2 (2025-08-11)

- Fixed an internal server error.
- Improved report validity and response-threshold error handling.

1.0.1 (2025-08-08)

- Fixed scheduled report-link emails when a survey expires.

1.0.0 (2025-08-01)

- Initial release.

Author

Marcel Minke — marcel.minke@survey-consulting.com

<https://survey-consulting.com>