



FW Tools Feature Documentation (English)

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⌘	Trạng thái	Hoàn tất

FW Tools - Slide Content Guide

Purpose: This document contains detailed content for presentation slides, user guides and introduction to each module of the FW Tools web app - a tool to enhance data collection efficiency for quantitative online surveys.

FW Tools Overview

General Information

- **Application Name:** Data Collection Pro - FW Tools
- **Purpose:** Enhance data collection efficiency for quantitative online surveys
- **Author:** dien.pham
- **Technology:** Web app (HTML/CSS/Javascript) + Firebase (Auth, Firestore, Storage) + Alchemer API

Main Modules (8 modules)

1. **Dashboard** - Project overview
2. **Import Data** - Import data from various sources
3. **URL Import** - Import from online URLs

4.  **Projects**  - FW project management
 5.  **Filter & Batch**  - Filter and batch marking
 6.  **Export** - Export data
 7.  **Config** - System configuration
 8.  **Auto Report** - Automatic reporting
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Module 1: Dashboard

Purpose

Provides an overview of the current project and recent activities.

Key Features

1.1 Stats Cards

Statistic	Description
Total Rows 	Total number of imported data rows
SMS Marked 	Rows marked for SMS batch
Email Marked 	Rows marked for Email batch
Pending 	Unprocessed rows

1.2 Batch History Chart

- Displays history of marked batches
- Track processing progress over time

1.3 Recent Actions

- Log of recent activities
- Track who did what, when

1.4 Quick Actions

Button	Function
 Import File	Navigate to Import Data
 Mark SMS 500	Mark 500 rows for SMS immediately
 Mark Email 500	Mark 500 rows for Email immediately
 Export Latest	Export the latest batch

1.5 Starred Projects

- List of favorite projects
- Click to quickly switch to project

How to Use

1. After login, Dashboard is the first screen
 2. Quickly view statistics
 3. Use Quick Actions for fast operations
 4. Click on favorite projects to switch
-

Module 2: Import Data

Purpose

Import respondent data from various sources.

Import Tabs

2.1 Import File (Default)

Supported formats: CSV, Excel (.xlsx, .xls)

How to import:

1. Drag and drop file into drop zone
2. Or click "Choose File" to select
3. Configure options:
 - **Sheet:** Select sheet (for multi-sheet Excel)

- **Header row:** Row containing headers (default: 1)
- **Auto detect columns:** Automatically map columns

4. Click "Import" to confirm

Preview: View first 10 rows before importing

2.2 Import URL

- Enter direct URL of online CSV/Excel file
- Useful when file is hosted on server

2.3 Alchemer API

Features:

- Connect directly with Alchemer (SurveyGizmo)
- Test connection before use
- 2 main functions:
 1. **Update Response Status:** Update status (Complete/Partial/Disqualified) from Alchemer
 2. **Fetch Full Survey Data:** Download all responses from survey

How to use:

1. Enter API Token and API Secret
2. Enter Survey ID
3. Click "Test Connection" to verify
4. Click "Save Credentials" to save

Module 3: URL Import

Purpose

Import data from online URLs with history management.

Features

3.1 Import Form

- **File URL:** Enter path to CSV/Excel file
- **Project name:** Name for new project
- Shows progress bar while loading

3.2 Import History

- Save imported URLs
- Click to quickly re-import
- Delete individual items or all

3.3 Data Table

- Display imported data
- **Filter:** Filter by column and value
- **Column Visibility:** Show/hide columns
- **Pagination:** Page through data (25/50/100/200 rows)

Module 4: Projects (Main FW Module)

[!IMPORTANT]

This is the most important module for Fieldwork project management

Purpose

Manage information and quotas for FW projects.

2-Panel Interface

- **Left panel:** List of all projects
- **Right panel:** Details of selected project

Detailed Features

4.1 Create New Project

Required information:

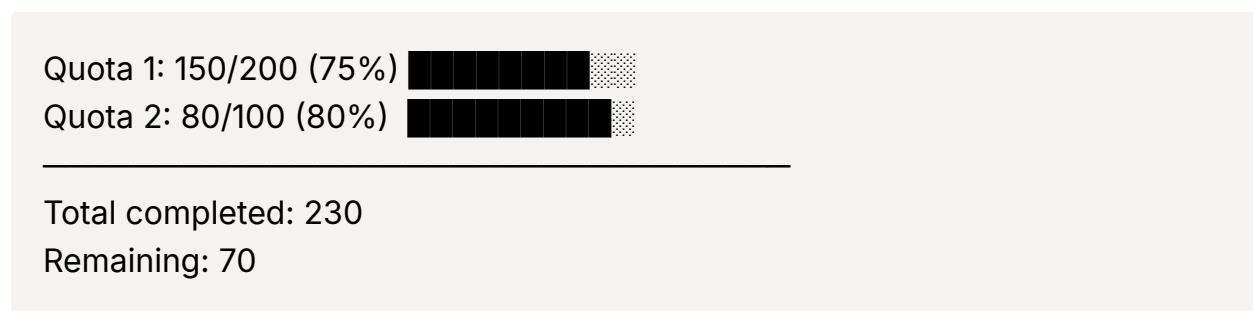
Field	Description	Required
Project name	Display name	✓
Survey ID	ID from Alchemer	✓ (for quota fetch)
Target	Target quantity	✗
Criteria	Screening criteria	✗
Notes	Additional notes	✗
Vendor links	URLs for vendors	✗

4.2 Quota Status (Important Feature)

How to use:

1. Select project from list
2. Click  Refresh to fetch quota from Alchemer
3. Displays:
 - List of each quota with progress bar
 - Completes / limit count
 - **Total completed:** Sum of all completes
 - **Remaining:** Count needed to reach target

Example display:



4.3 Project Data

- Shows number of imported rows
- Import data directly for project

4.4 Actions

Button	Function
 Edit	Edit project information
 Delete	Delete project
 Import Data	Import data for project
 Set as Active	Set as current working project

Projects Tips

1. **Always enter Survey ID** to enable quota fetching
2. **Star projects** you're working on for quick access from Dashboard
3. **Refresh quota regularly** to track progress

Module 5: Filter & Batch (Main FW Module)

[!IMPORTANT]

Most important module for batch sample sending

Purpose

Filter data and mark batches for SMS/Email sending.

Interface

5.1 Toolbar

Tool	Function
 Filter Toggle	Show/hide filter panel
Search box	Quick search
 Shuffle	Randomize row order
 Columns	Select visible columns
 Refresh	Refresh data

5.2 Filter Panel (Important)

How to create filter:

1. Click  to open filter panel
2. Click **+ Add Condition** to add criteria
3. Select:
 - **Column**: Column to filter
 - **Operator**: Comparison type (equals, contains, in, empty, not empty...)
 - **Value**: Filter value (or select multiple values)
4. Click **Apply** to apply

Operators:

Operator	Description
equals	Exact match
not equals	Different from
contains	Contains text
starts with	Begins with
ends with	Ends with
in	In list (select multiple values)
is empty	Empty
is not empty	Not empty

Preset filters:

- Not yet batched
- SMS not sent
- Email not sent

 **Defaults:** Reset to default filters (province, year, fincome, SMS_Batch)

5.3 Data Table

- Display data with applied filters
- **Showing X / Y**: X visible rows / Y total rows

- Pagination: 25/50/100/200/500 rows

5.4 Batch Actions (Important Feature)

SMS Batch:

Button	Function
Mark 500	Mark next 500 rows as new batch
Mark 1000	Mark 1000 rows
Custom...	Enter custom number

Email Batch:

- Same as SMS Batch

Remind SMS & Remind Email:

- Used to mark reminder batch for those already sent but not completed

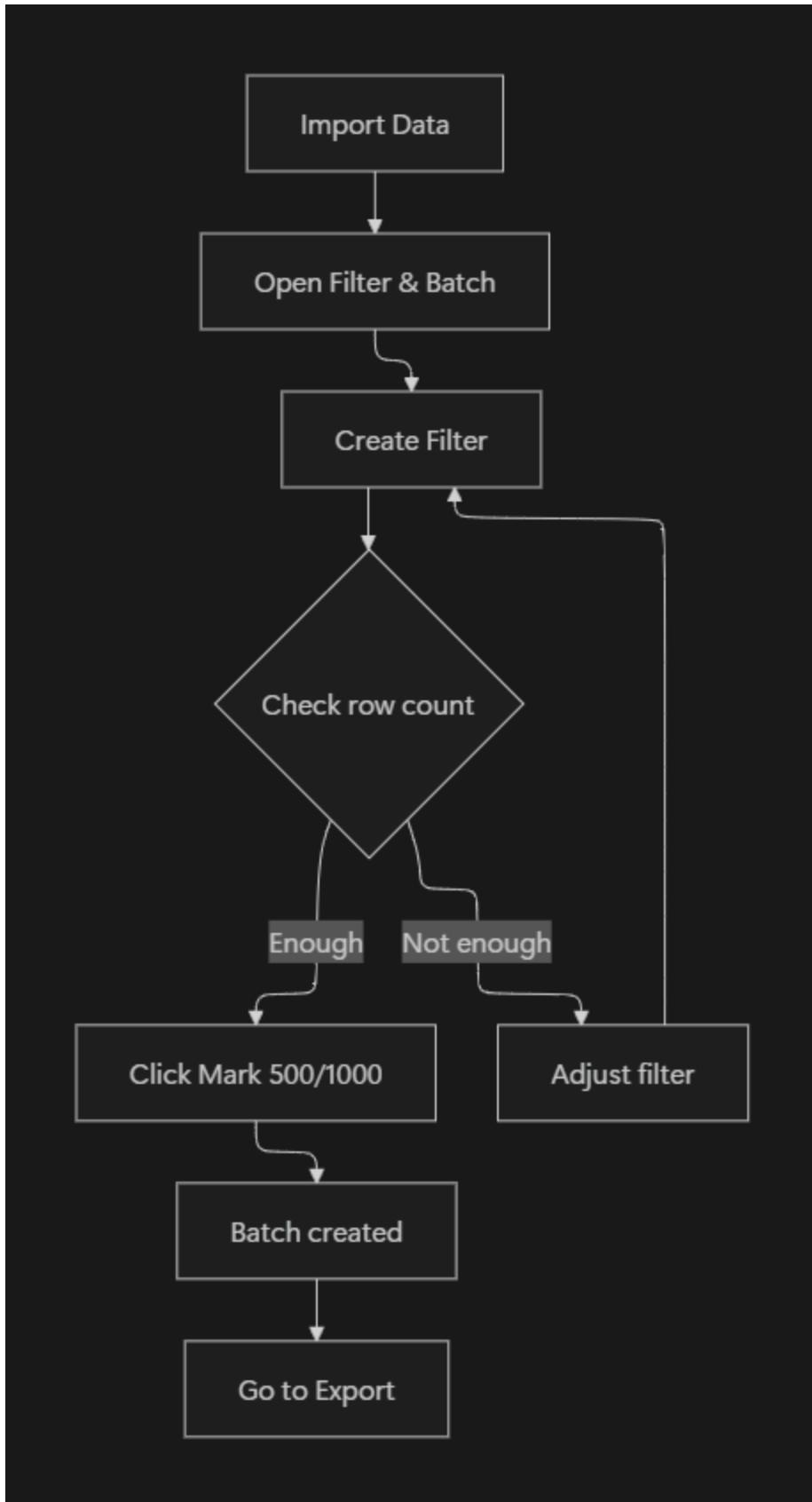
Delete Batch:

1. Select type (SMS/Email)
2. Select batch number
3. Click Delete to remove batch (clear column values)

5.5 Undo/Redo

- ⌛ Undo: Undo last action
- Redo ⌛: Redo undone action

Standard Batch Marking Flow



Filter & Batch Tips

1. **Always filter before marking batch** to avoid mistakes
 2. **Use Shuffle** to randomize order before marking
 3. **Check "Showing" count** before marking to know remaining rows
 4. **Use Undo** immediately if marked incorrectly
 5. **"Not yet batched" preset** is most commonly used
-

Module 6: Export

Purpose

Export marked batch data for sample sending.

Export Tabs

6.1 SMS Export

- Select SMS batch to export
- Shows row count to be exported
- Export columns: Phone (Column A), SMS Content

6.2 Email Export

- Select Email batch to export
- Export columns: Email, SGUID Link

6.3 Custom Export

- Select any columns
- Filter options:
 - All rows: Entire dataset
 - Visible rows only: Only currently displayed rows

Export Format

- **Excel (.xlsx)**: Default format
- **CSV (.csv)**: For other applications

Export History

- History of exports
- Shows: Type, Batch, Rows, Filename, Time

Export Tips

1. **Verify row count** before exporting
 2. **Name file clearly** including batch number
 3. **Keep Export History** to track what was sent
-

Module 7: Config

Purpose

Configure column mapping and system settings.

Configuration Sections

7.1 Column Configuration

Configure important columns in data file:

Setting	Default	Description
Source Column (sguid_link)	E	Column containing survey link
Content Column (SMS)	P	Column containing SMS content
SMS Batch Column	Q	Column for SMS batch marking
Email Column	H	Column containing email
Email Batch Column	S	Column for email batch marking
Email Link Column	E	Column containing links for email
Remind SMS Batch Column	T	Column for SMS reminder batch
Remind Email Batch Column	U	Column for email reminder batch

Setting	Default	Description
Respondent Status Column	V	Status column (Complete/Partial)

7.2 Alchemer API Credentials

- Enter API Token and Secret to connect to Alchemer
- Used for Projects module and Update Status

7.3 Template Management

- Create and save SMS templates
- Variable `{link}` will be replaced with Source Column value

7.4 Advanced Options

Option	Description
Overwrite existing batch	Overwrite old batch when marking
Auto export after mark	Automatically export after marking batch
Default batch limit	Default quantity (500)

When to Configure?

- When data file has different structure from standard template
- When changing default columns
- After initial system setup

Module 8: Auto Report

Purpose

Automatically send quota progress reports via email on schedule.

Main Sections

8.1 Report Configuration

Field	Description
Select Project	Project to report on
Survey ID	Survey ID from Alchemer
FW Start Date	Fieldwork start date
FW End Date	Fieldwork end date
Recipient Emails	Email list (comma separated)

Schedule (multi-select):

- 7:00 AM
- 8:00 AM
- 9:00 AM
- 12:00 PM
- 5:00 PM
- 8:00 PM

8.2 Report Preview

- Preview email content before sending
- Displays:
 - Total completes and target
 - Overall progress bar
 - Pacing info (on track/behind/ahead)
 - Daily timeline
 - Individual quota list

8.3 Send Now

- Click " Send report now" to send manually
- No need to wait for schedule

8.4 Send History

- Shows report send history
- Time and status

Email Report Content

Daily Quota Report - [Project Name]

-
-  Date: [Current Date]
 -  Survey ID: [ID]
 -  Target: [X] completes

OVERALL PROGRESS

[Progress bar]
Completes: [X] / [Target] ([%])

PACING

[Status: On track / Behind / Ahead]
[X] days remaining
Need [Y] completes/day

QUOTA DETAILS

[Detailed quota table]

RECOMMENDATIONS

[Quotas needing focus]

System Architecture Optimization

Security Enhancement & API Key Management (Server-side Migration)

The transition of API Key management from Client-side (Browser) to Server-side (Firebase Cloud Functions) introduces several critical improvements to the system's architecture:

1. Maximum Security

- **Previous state:** API Keys (Token and Secret) were stored in the browser's `localStorage` or entered manually by users. This posed a risk of exposure if the user's device was compromised or via XSS (Cross-Site Scripting) attacks.
- **Current state:** API Keys are securely stored in **Firestore** (within the `config/alchemy` collection) with restricted access limited to Administrators. The frontend source code and client-side storage are now completely free of sensitive credentials.

2. Centralized Management

- **Zero Configuration:** Users no longer need to manually input API Keys every time they use the tool or after clearing browser cache.
- **Unified Updates:** When an Admin updates the API Keys in the Firebase console, the changes are instantly applied across the entire application for all users, eliminating the need for individual manual updates.

3. "Secure Proxy" Mechanism

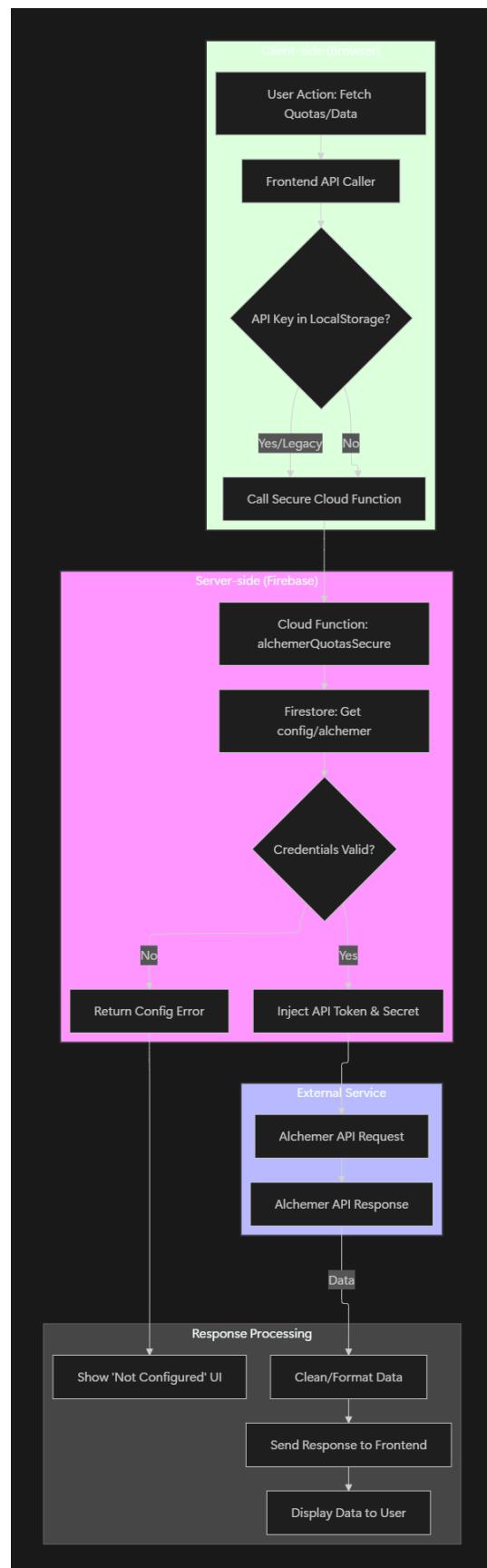
- The system implements a robust intermediary layer (Proxy Layer) through **Firebase Cloud Functions**:
 - `alchemyTest` : Verifies API connectivity.
 - `alchemySurveys` : Retrieves survey lists.
 - `alchemyResponses` : Fetches survey response data.
 - `alchemyQuotasSecure` : Retrieves quota information securely.
- When the frontend requests data, the Server automatically retrieves the credentials from Firestore, injects them into the request, and handles the communication with Alchemer. All data is sanitized on the server before being sent back to the client.

4. Improved User Experience (UX)

- **Seamless Integration:** The system automatically detects and applies the API configuration upon user login.
- **Cleaner Interface:** Complex and technical input fields have been removed from the UI. Users are now presented with a simple, real-time connection status ( Connected /  Not configured).
- **System Stability:** Reduces errors caused by human factors, such as typos, incorrect key formatting, or expired credentials.

This content can be utilized in the "Technical Architecture" or "Security Compliance" sections of your project documentation.

FLOWCHART:





Key Flow Steps:

1. **Frontend Request:** The browser sends a request to a managed endpoint (e.g., `/api/alchemer/quotas-secure`) without sending any sensitive keys.
2. **Server Authentication:** The Firebase Cloud Function retrieves the production API Keys directly from a secure document in **Firebase Firestore**.
3. **Proxy execution:** The server acts as a proxy, attaching the hidden credentials and performing the request to Alchemer on behalf of the user.
4. **Secure Return:** The results are sanitized and sent back to the browser for rendering.

Common Features

Header Bar (Top)

- **Project Selector:** Select/switch project
- **Star:** Star favorite project
- **Save:** Save current project
- **+ New:** Create new project
- **Delete:** Delete project
- **User Info:** Logged in email + Logout
- **Notifications:** System notifications

Sidebar (Left)

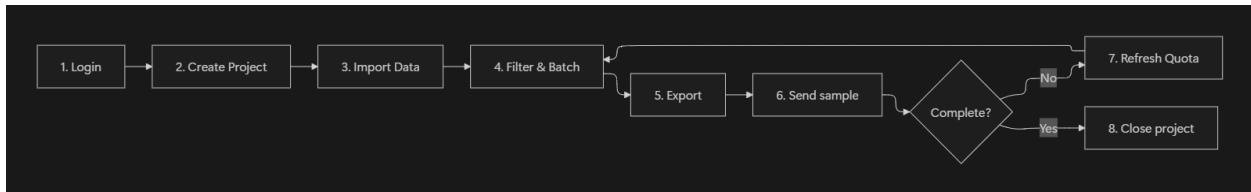
- Navigation between modules
- **VI/EN:** Switch language
- Dark mode
- Version: v1.0.0

Data Sync

- Data saved locally (`localStorage`) and synced to Firebase

- Can work offline, syncs when internet available
-

Standard Workflow



Step Details:

- 1. Login:** Use admin-approved email
 - 2. Create Project:** Enter project info, survey ID
 - 3. Import Data:** Upload respondent file
 - 4. Filter & Batch:** Filter by criteria, mark batch
 - 5. Export:** Export batch file for sending
 - 6. Send sample:** Send SMS/Email outside app
 - 7. Refresh Quota:** Check progress, repeat if needed
 - 8. Close project:** When sample complete
-

Tips and Shortcuts

Advanced Tips

- 1. Large imports:** For files >10K rows, split by batch
- 2. Efficient filtering:** Use "in" operator to select multiple values
- 3. Backup:** Periodically Custom Export all data
- 4. Quota tracking:** Setup Auto Report to stay updated

Common Troubleshooting

Issue	Solution
Cannot fetch quota	Check API credentials in Config
Data not displaying	Check if filter is active
Export file empty	Check selected batch number
Cannot save	Check internet connection

Q&A / Contact

- **Author:** dien.pham
- **Copyright:** © 2025 by dien.pham
- **Report Bug:** [Contact admin]

SCREEN INTERFACES OF THE FW TOOL SOFTWARE

This section presents the main user interface screens of the FW Tool software. Each image illustrates the actual interface of a specific module, helping users quickly recognize features and navigate the system effectively during daily operations.

DASHBOARD

The screenshot shows the FW Tools dashboard. On the left sidebar, there are several menu items: Dashboard, Import Data, URL Import, Projects, Filter & Batch, Export, Config, and Auto Report. The main area displays four cards: 'Tổng số dòng' (Total rows) with 0, 'Đã mark SMS' (Marked SMS) with 0, 'Đã mark Email' (Marked Email) with 0, and 'Chờ xử lý' (Pending processing) with 0. Below these are sections for 'Batch History' and 'Recent Actions'. The 'Batch History' section contains a placeholder message: 'Import data để xem thống kê batch'. The 'Recent Actions' section lists the following entries:

Action	Time
delete_batch	08:30
Batch 1 SMS (500 rows)	08:30
Imported 250475-db.csv	00:24
Exported batch 1 (500 rows)	22:56
Batch 1 SMS (500 rows)	22:23

At the bottom, there are 'Quick Actions' buttons for Import File, Mark SMS 500, Mark Email 500, and Export Latest. A footer bar at the bottom left shows language and version information: VI, EN, v1.0.0 © 2025 by dien.pham.

IMPORT DATA

The screenshot shows the 'Import Data' page. The left sidebar is identical to the dashboard. The main area features three upload options: 'Import File' (with a folder icon), 'Import URL' (with a link icon), and 'Alchemer API' (with a gear icon). Below these is a large dashed rectangular area with a yellow folder icon and the text 'Kéo thả file vào đây' (Drag and drop file here). Underneath it, it says 'Hỗ trợ CSV, Excel (.xlsx, .xls)' and 'hoặc' (or). At the bottom right of this area is a blue 'Chọn File' (Select File) button. The footer bar at the bottom left shows language and version information: VI, EN, v1.0.0 © 2025 by dien.pham.

URL IMPORT

The screenshot shows the FW Tools URL Import interface. On the left, a dark sidebar menu includes options like Dashboard, Import Data, URL Import (which is selected and highlighted in purple), Projects, Filter & Batch, Export, Config, and Auto Report. At the bottom of the sidebar are language and version information buttons: VI and v1.0.0 © 2025 by dien.pham. The main content area has a header "URL Import" with tabs for "Lưu" (Save), "Mới" (New), "Xóa" (Delete), and "Saved". It also shows "Đặng Hồng Sơn" (Dang Hong Son) and "Logout". A notification icon with a red '5' is visible. The central part of the screen is titled "Import từ URL" (Import from URL). It features a "URL file CSV/Excel:" input field containing "https://example.com/data.csv", a "Tên dự án:" (Project Name:) input field with placeholder "Tên dự án...", and a blue "Import" button. Below this is a section titled "Lịch sử import:" (Import History) with a dropdown and a trash bin icon.

PROJECTS

The screenshot shows the FW Tools Projects interface. The left sidebar is identical to the URL Import interface, with the "Projects" option selected. The main content area is titled "Project Management". It displays a list of projects under a "Projects" folder, showing 4 items: "250446_reask_F88" (Survey: 8/34, Active), "f88 - reask 1" (Survey: 8615387, 9/34), "Breeze" (Survey: 8583173, 263/250), and "250479_FLYER_C..." (Survey: 8598754, 1/100). To the right, a detailed view for "250446_reask_F88" is shown. It includes "Survey ID: 8615387", "Target: 34 responses", and a "Tiêu chí dự án" (Criteria for project) section listing "34 mẫu reask1". Below this is a "Quota Status" section with a progress bar for "TOTAL 34 *": "panel ifm*" at 8/100 (còn 92) and "purespectrum *" at 1/11 (còn 10). A note at the bottom says "Tổng số lượt trả lời: 8/34 (còn 25)".

FILTER AND BATCH

The screenshot shows a complex data management interface. On the left, there's a sidebar with a 'Cần ưu tiên chạy' section listing items like 'panel Ifm*: Thiếu 89' and 'purespectrum*: Thiếu 10'. Below it is a 'Quota' section showing 'TOTAL 34*' at 12/34, 'panel Ifm*' at 11/100, and 'purespectrum*' at 1/11. A 'Tiêu chí' section indicates 34 mẫu reask1. A 'Ghi chú nhanh' section contains a note about Nhập ghi chú nhanh... and a 'Lưu Thay đổi' button.

The main area has tabs for 'Vendors & Quota' and 'Sample Vendors'. Under 'Vendors & Quota', there's a 'Vendor Quota Table' with columns 'TÊN QUOTA' and 'NEED'. It lists 'TOTAL 34*' (22), 'panel Ifm*' (89), and 'purespectrum*' (10). Buttons include 'Fetch từ Alchemer', '+ Online', '+ Offline', 'Save', and 'Copy'.

Below this is a large table with columns: province, MOBILE, YEAR, GENDER, FINCOME, PROVINCE, and CONTENT_SMS. The table contains 4 rows of data. To the right of the table is a 'Mark Batch' section with dropdowns for 'SMS' and 'Batch', and a grid of options like 'Mark 500', 'Mark 1000', 'Custom...', 'Remind SMS', and 'Remind Email'.

EXPORT

The screenshot shows the FW Tools Export interface. The left sidebar includes 'Dashboard', 'Import Data', 'URL Import', 'Projects', 'Filter & Batch', 'Export' (which is selected and highlighted in purple), 'Config', and 'Auto Report'.

The main area is titled 'Export Options' and includes tabs for 'SMS Export' (selected), 'Email Export', and 'Custom Export'. It features a 'Select Batch:' dropdown ('Chọn batch'), a 'Rows to export:' input field (set to 0), a 'Columns to export:' section with 'Phone (Column A)' and 'SMS Content' buttons, and a 'Format:' dropdown set to 'Excel (xlsx)'. A 'Download Export' button is at the bottom right.

Below this is an 'Export History' section showing a single entry: '250523 - Batch 1 (SMS).xlsx' (500 rows) from 22:56:27 11/12/2025.

CONFIG

⚙️ Column Configuration

Source Column (sguid_link):	Content Column (SMS):	SMS Batch Column:
E - sguid_link		
Email Column:	Email Batch Column:	Email Link Column:
H - email		E - sguid_link
Remind SMS Batch Column:	Remind Email Batch Column:	Respondent Status Column:
T	U	V

🔑 Alchemer API Credentials

✓ Configured

Để fetch quota từ Alchemer, bạn cần nhập API credentials. Lấy từ: Alchemer → Account → Integrations → API

API Token:

API Token Secret:

 Save Credentials  Test Connection

Template Management

Current Template:

```
IFM co KS 11phut ve nha dep song chat, nhan evoucher gotit 20.000đ (250373). Hay tham gia ngay  
hom nay. Link:
```

Biến {link} sẽ được thay bằng giá trị từ Source Column

Saved Templates:

Default Template

Load



+ Save Current as Template

Advanced Options

- Overwrite existing batch (ghi đè batch cũ)
- Auto export after mark

Default batch limit:

500

[Reset to Defaults](#)

[Save Configuration](#)

AUTO REPORT

The screenshot displays the FW Tools web application interface. On the left, the 'Auto Report' configuration section is shown, featuring fields for 'Survey ID' (8615387), 'Fieldwork Start Date' (12/13/2025), 'Fieldwork End Date' (12/14/2025), 'Report Recipients' (dien.pham@ifmresearch.com), and an 'Auto Send Schedule' (checkboxes for 7:00 AM, 8:00 AM, 9:00 AM, 12:00 PM, 5:00 PM, 8:00 PM). Below these are buttons for 'Test API Connection' and 'Lưu cấu hình'. On the right, the 'Preview Báo cáo' section shows a report titled 'BÁO CÁO QUOTA - 250446_reask_F88' from 'Ngày: 2025-12-14'. It includes a status bar ('Trạng thái: Live Mục tiêu: 34'), a 'Tiến Độ Dự Án (Pacing)' summary, and a 'Đè Xuất' panel listing 'panel ifm: Mới đạt 8.0%, cần thêm 92 mẫu.' and 'purespectrum: Mới đạt 9.1%, cần thêm 10 mẫu.'. The preview also includes a 'Tiến Độ Theo Ngày' chart and a 'Thống Kê Tổng Quan' section.

Additional Features

The web application includes additional features such as **multi-language support** and **light/dark mode**, allowing users to customize the interface based on their preferences and working environment.

This screenshot shows the FW Tools interface with a red arrow pointing to the 'Auto Report' button in the left sidebar. The main area displays the 'autoReport' configuration and preview sections. The configuration section includes fields for 'Select Project' (250446_reask_F88), 'Survey ID' (8615387), 'Fieldwork Start Date' (12/13/2025), 'Fieldwork End Date' (12/14/2025), 'Report Recipients' (dien.pham@ifmresearch.com), and an 'Auto Send Schedule' (checkboxes for 7:00 AM, 8:00 AM, 9:00 AM, 12:00 PM, 5:00 PM, 8:00 PM). Below these are buttons for 'Test API Connection' and 'Save Configuration'. The preview section shows a report titled 'QUOTA REPORT - 250446_reask_F88' from 'Date: 2025-12-14' with 'Status: Live Target: 34'. It includes a 'Project Pacing' summary, a 'Recommendations' panel listing 'panel ifm: Reached 8.0%, need 92 more' and 'purespectrum: Reached 9.1%, need 10 more.', and a 'Daily Progress' chart.

