


# Survey Management System

## Getting Started — Step by Step


From installation to your first survey record

 This guide covers everything from installing the plugin to saving your first survey. Follow the steps in order and you will be up and running in about 10 minutes.

## Before You Start

You need two free programs installed before you can use this plugin.

Program	Where to get it
QGIS (version 3.0 or later)	Download free from <a href="http://qgis.org">qgis.org</a>
PostgreSQL (version 12+) with PostGIS	Download free from <a href="http://postgresql.org">postgresql.org</a> — during install, use Stack Builder to add PostGIS

 PostgreSQL must be installed and running BEFORE you start the plugin setup. The plugin cannot create its database without it.

## Installing the Plugin

### 1 Open QGIS and go to the Plugin Manager

At the top menu click Plugins then click Manage and Install Plugins. A window opens showing all available QGIS plugins.

### 2 Search for the plugin

In the search box at the top of the plugin manager, type:

**Survey Management System**

The plugin appears in the list below the search box.

### 3 Install it

Click on **Survey Management System** in the list to select it.  
 Click the **Install Plugin** button at the bottom right.  
 Wait a few seconds for the install to complete.  
 The plugin icon appears in your QGIS toolbar.

✔ If you cannot find it by search, you can also install from a ZIP file. Go to **Plugins → Manage and Install Plugins → Install from ZIP**, then select the downloaded zip file.

## First-Time Setup (runs once only)

The first time you click the plugin icon a setup wizard opens. It takes about 2 minutes and never appears again after you finish it.

### 4 Click the plugin icon

Look for the **Survey Management System** icon in the QGIS toolbar and click it.  
 The **Setup Wizard** window opens automatically.

### 5 Welcome screen — click Next

Read the welcome message.  
 If PostgreSQL is not yet installed, install it now before continuing.  
 Click **Next**.

### 6 Install psycopg2 — click the install button

psycopg2 is a small connector that lets the plugin talk to PostgreSQL.  
 Click **Install psycopg2 Automatically**.  
 Wait about 30 seconds. You will see a green tick when it is done.  
 Click **Next**.

⚠ If the install fails, check your internet connection and try again.

### 7 Connect to your database

Enter your PostgreSQL connection details. For most people these are:

<b>Host</b>	<b>localhost</b>
<b>Port</b>	<b>5432</b>
<b>Username</b>	<b>postgres</b>
<b>Password</b>	<b>your PostgreSQL password</b>

Click **Connect and Auto-Setup Database**.  
 The plugin creates the survey\_management database and all tables automatically.  
 You will see a green log showing each step as it completes.

**⚠ Use the password you chose when you installed PostgreSQL — not the plugin password.**

## 8 Setup complete — click Finish

The wizard tells you setup is complete.  
 The login window opens. You are ready to log in.

## Logging In

Every time you open the plugin you need to log in. This keeps your records secure.

## 9 Enter your username and password

The very first time, use these default credentials:

<b>Username</b>	<b>admin</b>
<b>Password</b>	<b>admin123</b>

Type **admin** in the username box and **admin123** in the password box.  
 Click **Login**.

**⚠ Change this password immediately after your first login. See Step 10 below.**

## 10 Change the default password right now

Click **User Admin** in the top right of the main window.  
 Go to the **Change Password** tab.  
 Enter a new password and confirm it.  
 Click **Update Password**.  
 Write it down somewhere safe — there is no automatic password recovery.

**⚠ Do not share the admin account with colleagues. Create a separate account for each person. See Step 11.**

## 11

### Create accounts for your team (optional but recommended)

In User Admin click the **Create User** tab.

Enter a username, full name, and password for each team member.

Choose their role:

Role	What they can do
<b>Superuser</b>	Everything — manage users, view all records, full control
<b>Surveyor</b>	Create and edit survey records, import DXF files
<b>Viewer</b>	Search and view records only — cannot add or edit anything

Click **Create User** to save each account.

## Creating Your First Survey Record

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### Select the correct coordinate system

Before entering any coordinates, select your CRS from the dropdown at the top of the main window.

CRS	Use for
<b>EPSG: 26331</b>	Nigeria West Belt — western states
<b>EPSG: 26332</b>	Nigeria Mid Belt — Abuja and central states
<b>EPSG: 26333</b>	Nigeria East Belt — Imo and eastern states
<b>EPSG: 4326</b>	WGS 84 — GPS coordinates

⚠ If you enter coordinates with the wrong CRS selected, they will plot in the wrong location on the map.

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### Fill in the survey details

Click the **Survey Metadata** tab.

Fill in the fields — Plan Number, Owner Name, Surveyor, LGA, State, and Survey Date.

Plan Number must be unique (e.g. IMO/OWM/2024/0147).

Click **Save New Survey**.

## 14 Enter beacon coordinates

Click the **Coordinate Input** tab.


For each beacon point type the Easting, Northing, and a label (e.g. P1, P2).

Click **Add Point** after each one.

When all points are entered click **Plot Points** to see them on the QGIS map.

Check the map to confirm they are in the right location.

Click **Save to PostGIS**.

 Always plot and check visually before saving. A single wrong digit can move a point by kilometres.

## 15 Import from an AutoCAD DXF file (optional)

If you have an AutoCAD plan file (.dxf) the plugin can read it automatically.


Click **Import from DXF/DWG** on the **Coordinate Input** tab.

Select your DXF file.

The plugin reads the beacon coordinates, traverse legs, and plan title block automatically.

Review the preview — untick anything you do not want.

Click **Accept Import**. Everything loads into the plugin ready to save.

 The first time you import a DXF, the plugin installs a small library (ezdxf). This takes about 30 seconds and only happens once.

## 16 Upload the plan document

Click the **Documents** tab.

Click **Browse** and select the plan file (PDF, DXF, or any format).

Add a description, for example: Original signed plan.

Click **Upload Document**.

The plugin stores a checksum so you can verify the file has not been changed later.

## Finding a Survey Record

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### 17 Use the Global Search tab

Click the **Global Search** tab.

Type any part of the plan number, owner name, LGA, or surveyor name.

Press **Enter** or click **Search**.

Double-click any result to load that survey.

✓ The search returns results in under 2 seconds regardless of how many records are in the database. You can search by partial name — typing 'ugok' finds 'Mr Ferdinand Ugokwe'.

## Something Not Working?

Problem	What to do
I cannot find the plugin in the search	Make sure you typed Survey Management System exactly. If still not found, install from ZIP instead (Plugins → Install from ZIP).
The setup wizard does not open	Click the plugin icon in the toolbar. If no icon is visible, go to Plugins → Manage and Install Plugins → Installed and tick the checkbox next to the plugin.
Cannot connect to database in the wizard	Check that PostgreSQL is running. On Windows open Task Manager and look for postgres.exe, or open Services and start the postgresql service.
I forgot my password	Ask the principal surveyor (admin/superuser) to reset it in User Admin → Manage Users.
Coordinates are plotting in the wrong country	You have the wrong CRS selected. Change the CRS dropdown to match the coordinate system of your plan (e.g. EPSG:26333 for eastern Nigeria).
DXF import says ezdxf is not installed	Click the Install Automatically button that appears. Internet connection required.
I upgraded from v1.0 and features are missing	Go to the PostgreSQL tab and click Auto-Setup Database. This adds the new tables the old version did not have.

### Still stuck? Get in touch.

**Email:** [ugwusochukwuma@gmail.com](mailto:ugwusochukwuma@gmail.com)

**Plugin page:** [plugins.qgis.org](http://plugins.qgis.org) — search Survey Management System

**Full manual:** included in the plugin download