

Manual

XBB Code Platform

www.xbb-code.com

Manual for resellers and technicians

Innoware Development AB

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Introduction

XBB Code is Innoware's web-based recipe editor at www.xbb-code.com. Here you create, edit, compile, and manage TSharkRex recipes for XBB Dongle, Dongle-2, and PP-CAN-FD.

TSharkRex is a programming language based on IEC 61131-3 Structured Text that compiles to ARM Cortex-M4 firmware. A recipe controls which signals are read from the vehicle's CAN bus and how they are mapped to outputs. The full language reference (25 chapters) is at www.xbb-code.com/docs.

Who is XBB Code for?

XBB Code is a **community-based platform** aimed at advanced users with programming knowledge. This includes technicians, electrical installers, and enthusiasts who want to customize how their XBB system behaves beyond what the XBB Configurator App offers.

What can you do in XBB Code?

- Create new recipes from scratch or from templates
- Copy existing production recipes and customize them
- Edit TSharkRex code with syntax highlighting and code folding
- Manage and link libraries
- Compile and verify flash/RAM usage
- Update recipes so they appear in the XBB Configurator App under My Recipes
- Share recipes with other users

Signing In

XBB Code uses the **same account** as the XBB Configurator mobile app. There is no separate registration on the website.

If you already have an account

Enter your email and password at **www.xbb-code.com** and click Sign in.

If you need to create an account

Step 1. Download the XBB Configurator app from Google Play or Apple App Store.

Step 2. Create your account inside the app.

Step 3. Return to **www.xbb-code.com** and sign in with the same credentials.

Important: Account creation is only done through the XBB Configurator app. There is no registration form on the website.

Projects Page

After signing in you land on the Projects page. This is your home screen showing all your recipes.

Quick Start cards

Card	What it does
Empty Project	Creates a blank recipe with no code.
From Template	Creates a recipe pre-filled with starter code (e.g. wake-up routine, DID reader).
Copy Existing	Copies a production recipe including all library links. Recommended way to get started.
Documentation	Opens the TSharkRex language reference (www.xbb-code.com/docs).

My Projects

Lists all recipes you have created. Each card shows the recipe name, recipe ID, description, creation/update dates, and a settings button.

Shared With Me

Recipes that other users have shared with you. Your ability to edit depends on the access level the owner has granted.

Creating a New Project

Copy Existing (recommended)

The most powerful way to get started. It copies a production recipe including all library links, so you begin with a fully working setup.

Step 1. A searchable tree of all recipes is shown, organized by Brand, Model, Recipe.

Step 2. Use the search to filter (e.g. "BMW 3" for BMW 3-series).

Step 3. Select a recipe and give your copy a new name.

Step 4. Click Copy Recipe. The copy is independent and your changes do not affect the original.

Recommended for beginners: Start with Copy Existing to get a working recipe for your vehicle. Study the code and make modifications to learn how it works.

From Template

Templates provide starter code with common patterns. Select a template, fill in the recipe details (name, description, optional registration number, country), and click Create from Template.

Empty Project

Creates a blank recipe. Fill in the recipe name and click Create Project.

The Editor

The editor opens when you click a recipe. It has four areas:

Area	Description
Top bar	Back to Projects, recipe name, Save Recipe / Compile / Update Recipe buttons, theme toggle
Sidebar (left)	Current recipe, linked libraries (drag to reorder), and code snippets
Code editor (center)	Main editing area with syntax highlighting, line numbers, code folding, and bracket matching
Recipe Data (right)	All VAR_SIGNAL variables from the compiled recipe, grouped by library. Drag signals into the editor.

Top bar actions

Button	Shortcut	Description
Save Recipe	Ctrl+S	Saves code and library order to the server
Compile	F10	Compiles code and libraries. Shows flash/RAM usage or error details.
Update Recipe		Publishes the compiled binary. After this, the recipe appears in the XBB Configurator App under My Recipes. Only active after successful compilation.

Save, Compile, and Update

It is important to understand the three steps:

Step	What happens	Affects the dongle?
Save Recipe (Ctrl+S)	Code is saved to the server. Nothing is compiled.	No
Compile (F10)	Code and libraries are compiled. You get flash/RAM usage or errors.	No
Update Recipe	The compiled binary is published. It becomes available in the XBB Configurator App under My Recipes.	Yes

Safe to experiment: You can save and compile as many times as you want. The recipe on your dongle only changes when you click Update Recipe and then download it in the XBB Configurator App.

Typical workflow

1. Edit code in the editor
2. Save Recipe (Ctrl+S)
3. Compile (F10) to check for errors
4. Fix errors if any, compile again
5. Click Update Recipe to publish
6. Open XBB Configurator App, go to My Recipes, download and flash to dongle

Compile output

Success shows flash usage (of 16,384 bytes) and RAM usage (of 4,096 bytes). Errors show the error type, file, line number, message, source line, and sometimes suggestions.

Libraries

Libraries are reusable code modules compiled together with your recipe.

Managing libraries

Action	How to do it
Reorder	Drag libraries up/down to change compilation order
Deactivate	Drag to the Deactivated zone to exclude from compilation
Remove	Drag to the Trashcan zone to unlink
Add	Click + New Library to create or search for an existing one

Library order matters! Libraries compile top to bottom. If Library B uses variables from Library A, then A must come before B. The recipe is always compiled first (position 1).

Access levels

Access Level	Can view code	Can edit code
Use only	No	No
Read	Yes	No
Read/Write	Yes	Yes
Owner	Yes	Yes

Libraries you cannot view will show available VAR_SIGNAL variables when clicked.

Snippets and Sharing

Code snippets

The sidebar contains pre-written code blocks organized in folders (CAN, IEC Standard). Drag a snippet from the sidebar into the editor to insert it.

Recipe Data panel

After compiling and updating, the right panel shows all VAR_SIGNAL variables grouped by library. Filter chips let you show/hide variable types. Drag any signal directly into the code editor.

Sharing recipes

Share your recipes via Project Settings (click the recipe name in the top bar):

Step	Description
1. Open sharing	Click + Share with someone
2. Enter email	Enter the email address of the person
3. Set access	For each library, set the access level (Use only / Read / Read/Write / Owner)
4. Share	Click Share. The recipe appears in their Shared with me section.

Keyboard shortcuts

Shortcut	Action
Ctrl+S	Save code and library order
F10	Compile recipe
Escape	Close compile output
Tab	Insert indentation
Shift+Tab	Remove indentation

XBB Code also works on mobile with a responsive layout: Code tab, Libraries tab, and bottom action bar with Save, Compile, and Update.

Tips and Best Practices

Save often

Use Ctrl+S regularly.

Compile before updating

Always compile and verify before clicking Update Recipe.

Use Copy Existing

Start by copying a working recipe for your vehicle rather than writing from scratch.

Check flash and RAM

Keep flash usage well below the 16,384 byte limit.

Library order matters

Ensure dependencies are placed before the libraries that use them.

Read the error messages

The compiler provides exact line numbers, tokens, and suggestions.

Full documentation

25 chapters at www.xbb-code.com/docs covering everything from data types to CAN communication.

Contact Innoware

XBB Code is a community-based platform that assumes programming knowledge. For questions about your account or platform access, contact us.

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Traceability

Reference document

Denomination	Publication number
Reference instruction	Nr:EN-20260331-1

Revision

The following significant changes have taken place since the previous version:

Rev	Page	Description of revision	Approved by tech. manager	Date	App. by doc. officer.	Date
1	ALL	Creation of doc.	KHS	26-03-31	KHS	26-03-31