Subject: DBus package for U++
Posted by Oblivion on Sun, 30 Aug 2026 14:13:40 GMT
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Hi,

I have made my DBus package for U++ public. Basically, it is a fresh implementation of DBus protocol from scratch.
It will be available on UppHub, shortly (awaiting merge).

Here's a summary from its README:

DBus is a native D-Bus Inter-Process Communication (IPC) library for the U++ framework. This repository contains the core DBus components required to build both clients and servers entirely using native U++ code.

Features

- Native Protocol Implementation: Speaks the D-Bus binary protocol directly using standard U++ Socket and String classes, avoiding external dependencies like libdbus or glib.
- Event Loop Integration: Integrates easily with U++'s SocketWaitEvent for asynchronous messaging. It sleeps when idle and wakes on network traffic, ensuring it won't burn CPU cycles or freeze your GUI.
- Full Client & Server Support: Query properties, call remote methods, claim well-known bus names, listen for incoming requests, and send structured replies seamlessly.
- Built-in Authentication: Automatically handles standard D-Bus EXTERNAL handshakes to connect cleanly to both local session buses and system buses.

Documentation & Tutorials

Design Docs: Pseudoblocking, Async Mechanics, and API Usage
Tutorials:
Method Calling
Complex Variant Marshaling
Global Multiplexing and Async Event Loops
Sending Desktop Notifications
Building a Server Service

Examples
The DBus nest ships with ready-to-run interactive examples demonstrating both client-side and server-side setups, from basic blocking calls to background daemons.

- Method A basic example demonstrating D-Bus method calls.
- Notify A minimal client application demonstrating how to trigger a native desktop notification using a simple blocking method call.
- Monitor An asynchronous listener that subscribes to system-wide D-Bus broadcast signals and logs them to the console in real-time.

- Marshall Demonstrates how to marshall complex, poymorphic D-Bus data easily.
- Properties Demonstrates how to query and parse complex nested structures using the standard org.freedesktop.DBus.Properties interface.
- Server A headless background daemon that claims a well-known bus name and routes remote method requests asynchronously.
