



Product information: 203/24 (ISOcores)
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ISOcores

Product information

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1. Product description

The ISOcores are ISOBUS (ISO 11783) protocol based libraries for agricultural terminal/server-side applications.

1.1. Key points

- **Hardware independence:** The ISOcores libraries ensure compatibility with every modern hardware running a suitable OS like Linux, Android and Windows.
- **Modular API:** The library is divided into modules, each representing different parts of the ISO 11783 standard, providing a clear overview and ease of use.
- **Comprehensive API:** The library comes with a highly abstracted and documented API, allowing you to implement your solution faster, no need for low-level ISOBUS knowledge like CAN frame content.
- **Tutorial applications (console-only + GUI):** We provide tutorial applications to demonstrate how to use the library, reducing your time to market.
- **AEF Functionalities:** ISOcores are compliant with AEF server functionalities UT, AUX-N (functions and inputs), AUX-O (functions and inputs), TC-BAS, TC-GEO, TC-SC, LOG, ISB, FS and TECU.
- **AEF Conformance Testing:** We conduct AEF CT on the provided VT GUI and TC GUI tutorial applications, making them a great reference for your development.
- **Custom builds:** ISOcores are delivered prebuilt for your target machine(s).
- **Embedded devices compatibility:** Written in C++, ISOcores offer great compatibility with most embedded development environments.

1.2. What you get

You can choose from our ISOcores modules (compiled libraries + API + documentation) and optional extension libraries. You will also get example applications to speed up your implementation and our support services:

- **Framework and base modules, included with every license (ISOcores:framework)**
 - General ISOBUS Framework for ISO 11783-3/5/12 / AEF MinCF
 - J1939 Logging module and proprietary messaging module
 - Tractor-ECU ISO11783-7/9 / AEF TECU (TECU core)
- **Specific server core modules (separate licenses)**
 - Virtual Terminal ISO 11783-6 / AEF UT, AUX-N, AUX-O (ISOcores:vt)
 - Task Controller ISO 11783-10 / AEF TC-BAS, TC-GEO, TC-SC, LOG (ISOcores:tc) including GNSS data integration (GPS core)
 - File Server ISO 11783-13 / AEF FS (ISOcores:fs)
 - ISOBUS Shortcut Button / AEF ISB (ISOcores:isb)
 - Diagnostics Services Service Tool ISO 11783-12 (ISOcores:diag)

- Specific Server-Core Extensions modules
 - TC extension: Our implementation of Rate and Section Control algorithms
 - FS extension: Our implementation of File Server file access
 - GPS extension: Our implementation for GPS parsing
- Tutorials / code examples
 - Console-only tutorials: Quickly get a sense of using our API without a graphical interface. Builds quickly and shows the GUI-independency.
 - GUI tutorials: See how we developed AEF certified VT and TC GUI applications using the ISOcores libraries, which can be a good kick-start with your own application development:
 - 'Simple VT': Qt application example for VT which is certified with AEF Conformance Test Tool
 - 'Simple TC': Qt application example for TC which is certified with AEF Conformance Test Tool
- Library build support: You get a library build for any target system along with support to setup the build environment on your side. You just have to provide us the necessary compiler and build-flags.
- Conformance Test support: We help you obtain AEF application certification with our AEF Conformance testing experience.

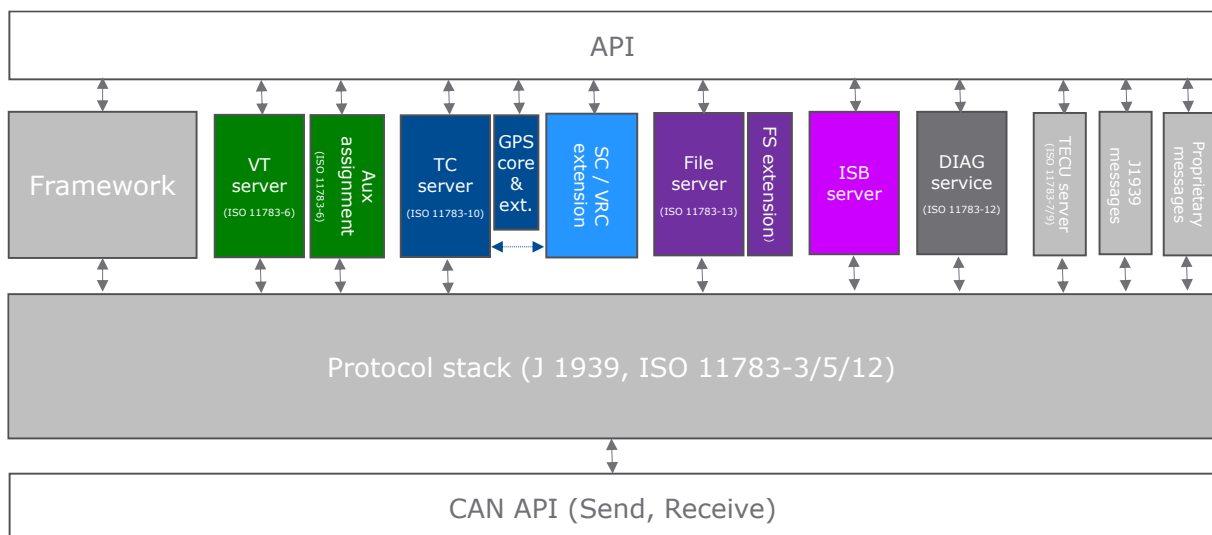


Figure 1: ISOcores architecture

2. Project and cost structure

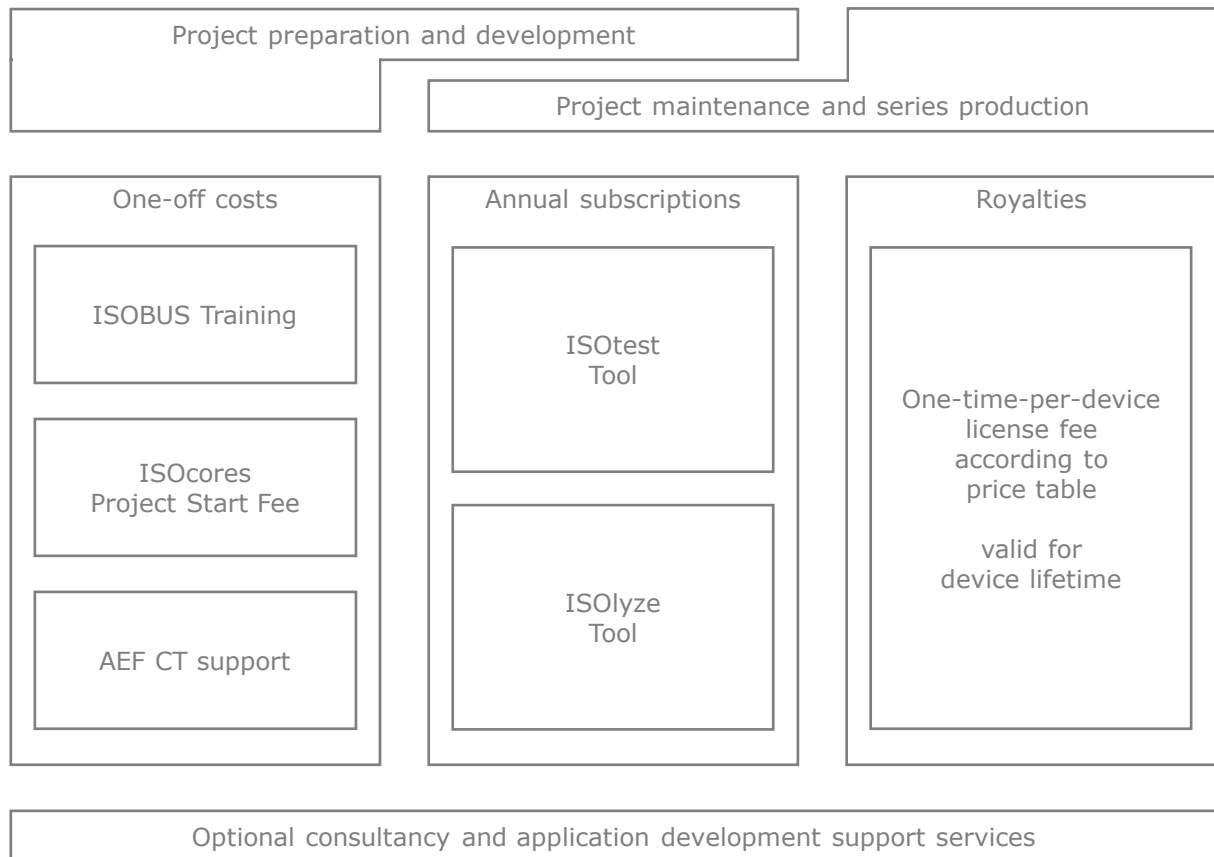


Figure 2: Project and cost structure

2.1. One-off costs

Shown components can be ordered as one starter package that will be invoiced after PO, or separately. If applicable, trainings/workshops will be invoiced after they were held, and PSF and AEF CT support will be invoiced after PO.

- **ISOBUS Training:**
A one day basic training for developers. This is required before you start your first ISOBUS project or when you will involve new developers not having worked on ISOBUS topics before. We can also offer more specific workshops when you are entering new topics.
- **Project Start Fee (PSF):**
PSF is an initial fee that covers all necessary materials and support to start your project implementation and up to SOP. Purchasing PSF is required before libraries or related materials are handed over. See section 'Support' for included services.



- AEF Conformance Test (CT) support:

When you order AEF CT support with the starter package, we will help you from the beginning to get your hardware platform tested in the AEF test lab and we will perform pre-tests, analyses and improvements of your application to prepare it for certification..

2.2. Annual subscriptions

The subscription fee for our tools will be charged after initial PO and then annually as long as the subscription is not cancelled within 30 days prior to the end of the period. The software can be downloaded and installed after PO on multiple computers. A license code is required to unlock the software. This will be installed on a USB dongle.

- ISOtest:

This tool simulates ISOBUS working sets / client applications in a configurable way. It allows basic and stress testing ISOBUS server applications like UT and TC. Ask for our ISOtest price list for more information.

- ISOlyze:

This tool facilitates the analyses of ISOBUS CAN traffic to find issues and to improve implementations. Ask for our ISOlyze price list for more information.

2.3. Royalties

The device license is a lifetime device license (One-time-per-device license fee). The license fee only has to be paid once during or after the period (year) during which the device is manufactured or the application is activated. Prices as shown in our pricing tables are calculated following the license model.

3. License model

3.1. Modules

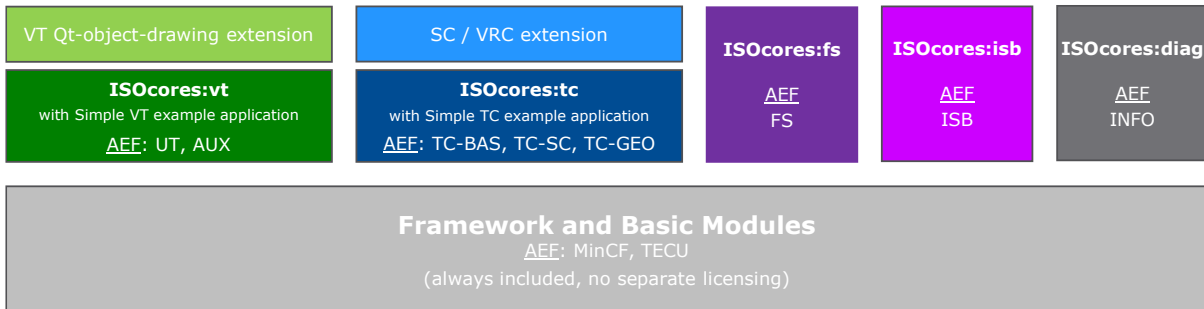


Figure 3: License modules and AEF functionalities

3.2. Pricing

The unit price for the license (one-time-per-device license fee) results from a degressive curve and decreases continuously as the volume increases. For example, the unit price per device license for a number of 501 units per year is already slightly lower than for a number of 500.

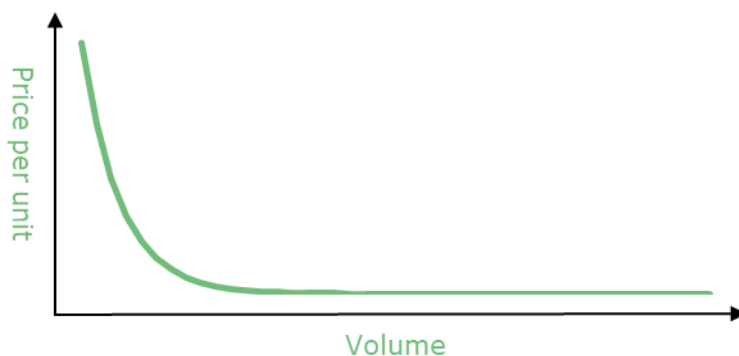


Figure 4: Degressive license pricing curve

3.3. License and Maintenance agreement

In order to regulate all legal aspects of the use of our ISOBUS libraries, our license and maintenance agreement must be signed before we can hand over the compiled libraries and other materials. This agreement governs the terms of use, liability issues, support and cooperation obligations and other legal issues.



4. Support and maintenance services

All included services can be used throughout the development phase and during the production phase as long as the license and maintenance agreement is in place. All optional services are offered either as part of a starter package or on request.

4.1. Included support and maintenance services

- Help with the integration of our libraries into your target hardware
- Answering/resolving questions/issues regarding setup and integration of our libraries for your application development
- Answering/resolving questions/issues about our APIs and their use
- Providing always the latest version of our example applications as source code
- Providing always the latest version of the developer manual/documentation
- Providing always the latest version of the licensed libraries, compiled for your target hardware (compiler environment must be made available)
- Analyzing of CAN logs from lab/field in case of any ISOBUS compatibility issues (CAN logs must be provided, if possible bundled with a short video/screenshots)
- Help with communication to other manufacturers in case of ISOBUS compatibility issues
- Guarantee of ISOBUS conformity and certifiability according to the AEF Conformance Test
- Fixing software bugs in our libraries; help finding solutions for issues caused by bugs in third party ISOBUS components
- Continuous enhancement of our libraries according to AEF standardization process
- Maximum 3 workdays response time on support requests
- Availability of new AEF functionalities generations at the latest 12 months after release of the according AEF Guideline (RIG)

4.2. Optional, paid support services

- ISOBUS trainings, developer and specification workshops, consultancy
- AEF certification of customer applications
- Customer specific modification / Add-ons to our libraries
- Enhancing of our standard applications in case of specific customer requests
- Customer application development.

Request your quote at: sales@osb-connagtive.com