

FFFISCOM EURORADIO PROTOCOL LIBRARY

The FFFIScom Euroradio library provides all the functionality needed to use Euroradio FIS (UNISIG Subset-037) and the Application Layer (Subset 026 chapters 7 and 8) protocols in your own applications.

- Easy Euroradio Safety/X.224./T.70/HDLC connection management
- Application layer (Subset 026-7 and 026-8) messages encoding, decoding and validation
- Euroradio Safety MAC (Message Authentication Code) computation and verification
- Source code available

FFFIScom features

Safety/X.224./T.70/HDLC connection management:

- Automatic safety layer management
- Automatic X.224 transport layer connection management
- Automatic T.70 CSPDN network layer headers
- Automatic HDLC data link layer connection management and FCS calculation and checks
- Safety layer MAC computation and verification
- Pluggable MAC computation algorithm
- HTML documentation with API and User Guide.
- HTML messages and field references hyperlinked to UNISIG Subset26

Subset 026-7 and 026-8 message encoding/decoding

- High-level interface to create Application Layer messages
- Decoding of Application Layer messages from raw data
- Full support for iterated variables
- Embedded field value checking (Can be disabled for testing)
- HTML documentation with message and field references hyperlinked to UNISIG Subset58

Environments: C/Csharp/Ada

ANSI-C

- Optimized for speed and memory usage
- MISRA coding guidelines compliance
- Fully annotated and statically validated using splint (<http://www.splint.org/>)

Csharp/.Net

- Optimized for ease of use and development speed
- Callable from Csharp, Visual Basic, and all the languages supported by the .Net platform

Ada

- Compliant with ADA SPARK and RAVEN

ERTMS Solutions was founded in 2008, and is located in Brussels, Belgium. ERTMS Solutions is a world leader in railways testing, maintenance and systems integration product tools, especially known in the ERTMS world. We are working with many key actors of railway signaling: Manufacturers, Rail Infrastructure Managers and Operators.



Quality assurance

The FFFIScom Euroradio library has what you need to get a complete assurance that your quality requirements will be fulfilled:

- High-level architectural documentation
- Full source code available for external code review
- Formal documentation for Safety, X.224 and HDLC states and transitions, with traceability in source code
- Formal documentation for Safety, X.224, T.70 and HDLC messages definition, with traceability in source code
- Conformance to the most stringent coding guidelines, depending on target language
- Safety Formal documentation, with traceability in source code

EN 50128 SIL certification support

The FFFIScom Euroradio library contains test cases, test documentation and test results that you can reproduce in your own environment. Partial or Full EN 50128 documentation is also available.

- Documented tests suites and results for all public interfaces
- Documented tests suites and results for all states and transitions for Safety/X.224 and HDLC
- Documented tests suites and results for all Safety/X.224/T.70/HDLC messages coding/decoding.
- Documented tests suites and results for all modules internal to FFFIScom

The FFFIScom library is independent of the underlying GSM-R hardware and lets you deal with application-specific code.

Leverage our problem-solving experience around:

- GSM-R hardware integration
- SUBSET-026 application behaviour

Contact us to discuss custom integration for your applications!

