



ERTMS SOLUTIONS



FFFIScom FFFIS Protocol Library

<http://www.ertmssolutions.com>

FFFIScom library

The FFFIScom library provides all the functionality needed to use the SLL, STL and Application Layer (Subset 58) protocols in your own applications.

- > Easy SLL/STL connection management
- > Application layer (Subset 58) messages encoding, decoding and validation
- > Source code available
- > EN 50128 SIL certification support material

FFFIScom features :

SLL / STL connection management:

- > Enable user code to create and manage SLL/STL connections
- > Perform full SLL/STL (Subsets56/57) logic and implements all states and transitions
- > Automatic STL Reference Clock management
- > Access to all SLL/STL configuration variables
- > STL message aging checks
- > CRC and Sequence Numbers checks
- > Pluggable CRC calculation algorithm
- > HTML documentation with API and User Guide.
- > HTML messages and field references hyperlinked to UNISIG Subset56 and Subset57

Subset 58 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.

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Quality assurance:

The FFFIScom 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 SLL and STL states and transitions, with traceability in source code
- > Formal documentation for SLL/STL/AppLayer messages definition, with traceability in source code
- > Conformance to the most stringent coding guidelines, depending on target language

EN 50128 SIL certification support:

The FFFIScom 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 the SLL/STL.
- > Documented tests suites and results for all SLL/STL/AppLayer messages coding/decoding.
- > Documented tests suites and results for all modules internal to FFFIScom

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

- > Ada SPARK and RAVEN compliance

Integration services

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

Leverage our problem-solving experience around:

- > *PROFIBUS hardware integration*
- > *SUBSET-35 application behaviour*

Contact us to discuss custom integration for your applications!

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