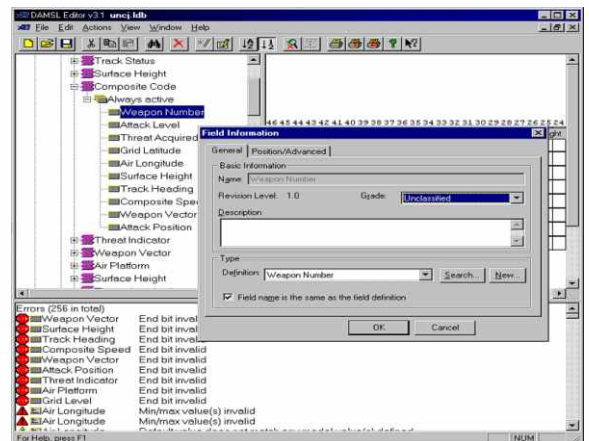


# DAMSL Dictionary and Message Specification Language

## Why is datalink integration expensive?

In most systems datalink implementation is embedded in the application source code. Given the complexity of datalinks such as Link 11 or Link 16 it is a very resource consuming (and therefore expensive) task to encode the message format and associated rules using a high level programming language such as C, C++ or Ada. Given the fact that each datalink is unique, this task often has to be repeated for each datalink implemented in the system (e.g. Link 1, Link 4, Link 11, Link 16, Link 22).

Since the datalink format is embedded in the source code, each time a single field is modified in the Datalink standard, it is therefore necessary to carry out the design reviews, source code modification and re-compilation, regression testing and update of the associated documentation.

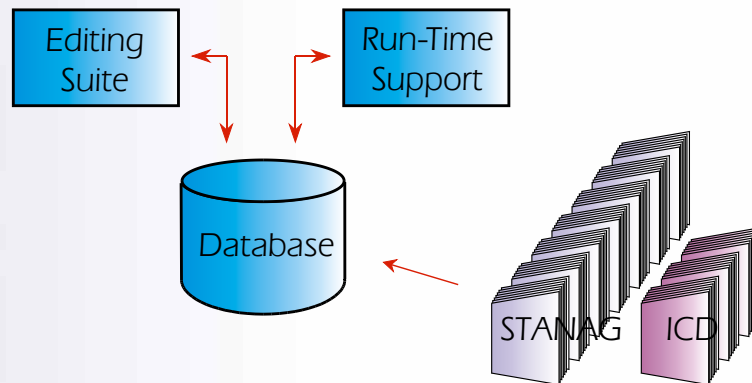


## How can we reduce these costs?

Working from this evidence, Aerosystems has developed the Dictionary and Message Specification Language (DAMSL™). This datalink processing tool provides the means to define datalinks (message format and transmit/receive rules) in a format that can be directly interpreted by the machine.

DAMSL™ incorporates three packages:

- a database comprising:
  - ✓ message definition,
  - ✓ transmit/receive rules,
  - ✓ datalink implementation (limited),
  - ✓ structure of the application tables.
- a database editor (DBED) to enter data in the database.
- a run-time library providing the following functions:
  - ✓ automatic datalink processing,
  - ✓ format conversion,
  - ✓ interface with the application software.



DAMSL™ provides the encapsulation of the complete datalink definition. In a DAMSL™ based application, the application software concentrates on processing operational information, and is independent from the format of the transmitted/received datalink messages and rules.

Using DAMSL™ provides a high level of flexibility. No datalink messages need to be hard coded in a message structure file. Data are entered in a database via a mouse driven graphical interface.

DAMSL™ enables the user to modify the characteristics of a message and/or create new messages, in most cases, without having to modify the source code or recompiling the application.

DAMSL™ technology is currently used in the ....

- Aerosystems Generic Integrated Link Environment (AGILE)
- Network Control and Initialisation Data Preparation Facility (NCIDPF)
- JTIDS Situation Awareness Facility (JSAF)
- JTIDS Portable Capability (JPC)
- CAYMAN Datalink Operational Systems

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