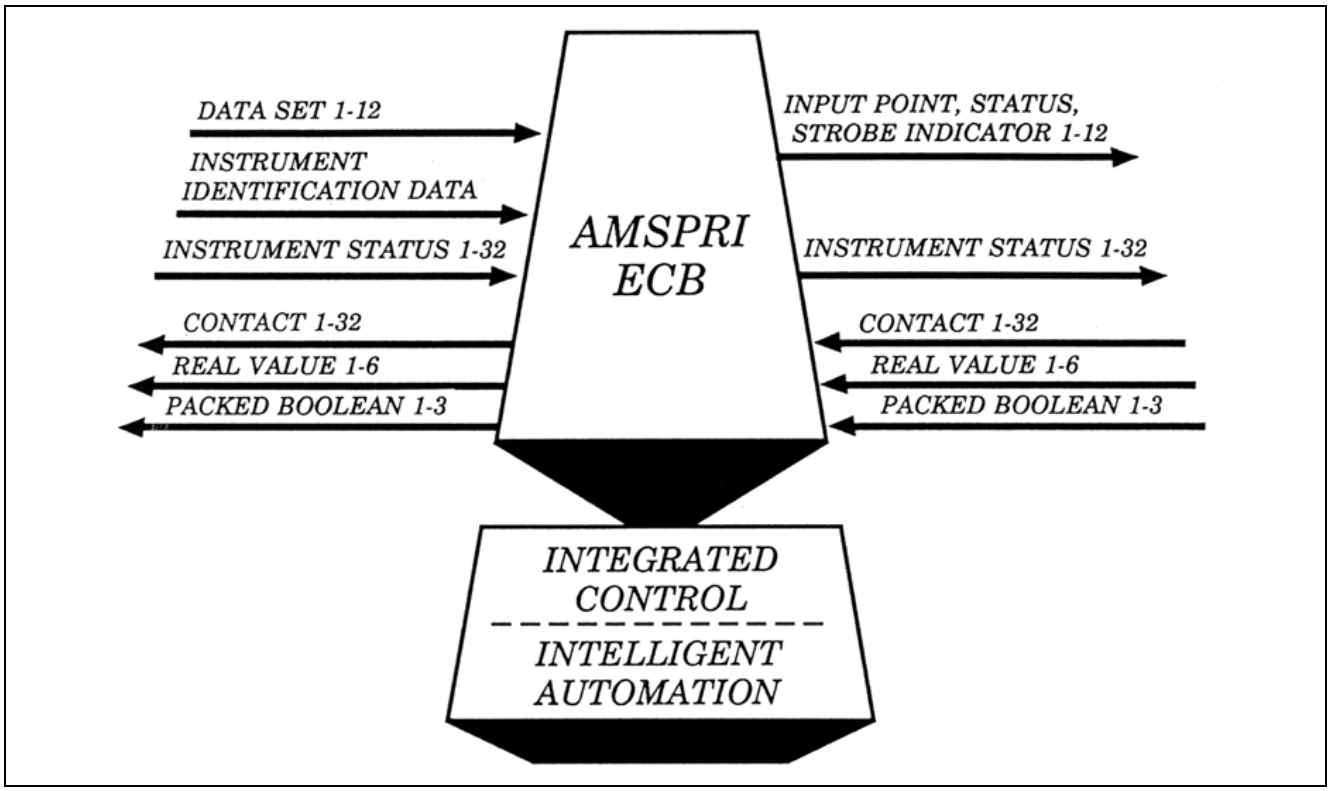
I/A Series® Software
Gas Chromatograph Window Equipment Control Block (AMSPRI) and Secondary Block (AMSSEC)



The Window Equipment Control Block for the process gas chromatograph (AMSPRI) provides 931D gas chromatograph analysis data and status information for direct input to the process control scheme for monitoring and/or control. Optionally, secondary (AMSSEC) blocks can provide additional instrument data and status information.

OVERVIEW

The Window Equipment Control Block (ECB) AMSPRI residing in a Control Processor provides up to 12 discrete data sets as inputs from the 931D process gas chromatograph analyzer to the control scheme. Each data set contains:

- a real value
- real value status
- eight user-configurable status conditions
- an event strobe indicator

The AMSPRI Window ECB also provides non-dynamic 931D PGC identification information such as the software version, user version, and a brief user-supplied description.

In addition, during ECB configuration the user can supply data label strings and general description strings.

Application-specific outputs from the process in the form of real (floating point) values as well as contact I/O data can be returned to the instrument. Outputs from the process allow, for example, data from one analyzer to be sent to another analyzer on the network for inclusion in a calculation.

For alarm purposes, up to 32 instrument status conditions (specific to the gas chromatograph analyzer) are available to the control scheme for connection to standard alarm blocks.

For those applications requiring additional instrument data or status flags, multiple secondary blocks (AMSSEC) can be used. Each secondary block provides an additional 12 data sets and 32 instrument status conditions.

Data from the PGC to the process can be bypassed to allow manual manipulation for control simulation. When the bypass feature is used, the ECB continues to maintain the 'device' value for use when the bypass feature is switched off. Additionally, data to the PGC from the process can be bypassed to allow for manual manipulation.

A hardware fault condition or a communication failure results in a BAD indication. A BAD indicator indicates a bad value and OOS indicates hardware Out-of-Service.

AMSPRI ECB STANDARD FEATURES

- Up to 12 connectable data set outputs, each set containing a real value, real value status, eight status bits, and one strobe indicator
- Up to 32 instrument status conditions for optional connection to alarm blocks
- Up to 5 user-configurable strings for general description for display enhancement
- Up to 12 user-configurable strings for labeling (e.g. data sets) for display enhancement
- Manual manipulation of individual real values and instrument status for control simulation when the bypass feature is used
- Bad value indication
- Primary readback of inputs to the PGC from the control scheme for initialization: six real values, one 32-bit packed boolean, and three 16-bit packed booleans
- Support for multiple AMS secondary blocks to supply additional application-specific data sets and status conditions

AMSSEC BLOCK STANDARD FEATURES

- Up to 12 connectable data set outputs, each set containing a real value, real value status, eight status bits, one strobe indicator
- Up to 32 instrument status conditions for optional connection to alarm blocks
- Up to 5 user-configurable strings for general description for display enhancement
- Up to 12 user-configurable strings for labeling (e.g. data sets) for display enhancement
- Manual manipulation of individual real values and status conditions for control simulation using bypass feature
- Bad value indication

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