

XML parser
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XML parser parses the EmbeddedXML into the format specified by the ISO 11783 standard. Parsing is done at run-time in the machine controller because there are some VT parameters that affect how the pool should be parsed (e.g. the size of the VT screen and number of colors).

The parser is a very lightweight C program that uses the fast stream based Expat library to read the XML. The parser resizes objects to fit the VT screen and reduces colors to match the color depth of the VT. This makes it possible to support many different VT's with just one XML-file.

As the XML defined object pool is a separate part not included in machine control program, it makes possible to change the appearance of the pool without recompiling or even restarting the controller program. IsoAgLib library uses a different approach (tool chain), where the XML-code is first parsed into C code and header files that are then linked to the machine program. This way only one file needs to be loaded to the controller.

Objects on the screen can have corresponding objects in the control program. These objects can get some data directly from the parser. For example objects IDs can be read from XML and don't need to be hard coded.

Format	Size (KiB)
PoolEditXML + images	258
EmbeddedXML	263
EmbeddedXML compressed	24.6
Pool size on VT	34.7