1 Vector Embedded Software Definition of SLP/HLP/SIP, Maintenance and Release Types

Caution

The programs are fully operative programs. However there are program parts (features) not thoroughly tested yet (beta feature).

These beta features are documented in chapter 2.4 of the issue report provided with the delivery. For each beta feature the issue report contains information how to handle (deactivate) this beta feature.

With regard to the fact that the program includes features as beta-version, Vector´s liability shall be expressly excluded in cases of ordinary negligence, to the extent admissible by law or statute.

1.1 Software License Package (SLP)

The SLP includes the license and usage rights (see quotation) for a hardware-independent module (e.g. a COM layer) based on a defined specification.

Depending on the type of module, the software will be based on the following technical specifications:

- AUTOSAR, ASAM, OSEK/VDX, ISO, HIS, etc.
- OEM requirements (for OEM-specific deliveries)
- Customer-specific requirements (optional)

The following work products are licensed by purchase of an SLP:

- The module as source code
- Detailed technical documentation
- Generator plug-in to generate ANSI C code
- Configuration files for convenient configuration with Vector configuration tools

The module will be tested using a component test suite on a standard hardware platform (CANoe Emulation). Integration testing on the specific µController and delivery will be performed when a SIP is purchased (see section 1.3).

1.2 Hardware License Package (HLP)

The HLP includes the license and usage rights (see quotation) for a hardware-dependent module (e.g. CAN Driver) and is valid for a combination of compiler (version independent), microcontroller family and relevant hardware (e.g. CAN cell).

Depending on the type of module, the software will be based on the following technical specifications:

- AUTOSAR, ASAM, OSEK, ISO, HIS, etc.
- OEM requirements (for OEM-specific deliveries)
- Customer-specific requirements (optional)
- Specification of microcontroller and compiler

The following work products are licensed by purchase of an HLP:

- The module as source code
- Detailed technical documentation
- Generator plug-in to generate ANSI C code
- Configuration files for convenient configuration with Vector configuration tools.

The module will be tested using a component test suite on a derivative of the microcontroller family which is defined by Vector. Integration testing on the specific µController and delivery will be performed when a SIP is purchased (see section 1.3).

1.3 Software Integration Package (SIP)

The SIP includes integration, test, release and delivery of the modules that are licensed by an SLP and/or an HLP.

To perform integration and closely test the customer's use case, the following must be defined in accordance with the customer:

- Microcontroller derivative
- Compiler, compiler version, and compiler options
- Use case (e.g. number of CAN channels)
- Car manufacturer (regarding communication description, pre-configuration…)

For each SIP, all delivered work products will be added to a configuration management system, thus allowing redeliveries for a minimum of 10 years (excluding the Beta SIPs).

1.4 Mini SIP

The Mini SIP includes the delivery of individual modules. The software is tested on module level. The delivery is not tested on the target hardware and compiler. But Vector provides remedy of defects if they are based on defined processor and compiler mentioned in the quote.

1.5 SIP Types

1.5.1 Beta

A Beta SIP can only be ordered in combination with a Production SIP. Depending on the agreement with the customer, the software may include the complete or reduced functionality. The software is only preliminary integrated and tested. The usage of a Beta

SIP for serial production is prohibited. The Beta SIP software may only be used for test purposes. Vector grants no warranty and/or liability to the extent permitted by law or statute.

1.5.2 Production

A Production SIP is a package which includes the release for serial production.

1.5.3 Update

An Update SIP is a package which replaces a previous Production SIP. An Update SIP is necessary if an additional delivery is needed because of modified requirements (compiler version, options, functionality, etc.). The delivery will be performed according to the existing contractual agreement and must be scheduled with Vector.

1.5.4 Prototype

A Prototype SIP is a special package which may only be purchased by a Tier 1. The use is limited to a defined application area, e.g. prototyping. The software is only preliminary integrated and tested. The SIP is only available for platforms which are already supported by Vector. License packages (HLP, SLP) are not necessary. An upgrade to a Production SIP is only possible if identical technical features are used and the Prototype SIP is not older than one year. Vector grants no warranty and/or liability to the extent permitted by law or statute.

1.5.5 Overview SIP Types

The following table lists the scope of services, deliverables and release types for each SIP Type

	SIP Type / Mini SIP	Beta	Production	Update	Prototype
Scope of Services	Integration and test of selected modules	■	■	■	■
	Delivery	■	■	■	■
	Remedy of defects		■	■	
Deliverables	Software (Source or object code dependent on the contractual agreement - NDA)	■	■	■	■
	Documentation	■ [1]	■	■	■ [1]
	Test report		■ [4]	■	
	Demo application	■ [2]	■ [2,4]		
Release Types[3]	Quickfix[5]	■			
	Development	■		■	■
	Pre Production		■	■	
	Production		■	■	
	Production (Safe)		■	■	

1 The documentation is not necessarily complete

2 Depends on the OEM package

3 Release Types are described in detail on page 6

4 Not part of the Mini SIP

5 Only available as supplement to a development release

Table 1-1 Overview SIP Types

1.6 Maintenance

Maintenance of Vector embedded software is available for the SLP, HLP and SIP. Maintenance generally includes bug-fixing.

Note
Only the latest delivered version will be maintained.

1.6.1 SLP Maintenance

The maintenance of the SLP includes the adaptation of the appropriate working products (components, documentation, generators …). The SLP Maintenance includes:

- Adaptations caused by “minor“ or “patch“-version modifications of the related AUTOSAR specification. In case of new functions, the extension of the licensed functionality has to be discussed with Vector.
- Adaptations caused by comparable changes of other specifications based on Vector’s assessment.
- Registered RfCs for the AUTOSAR Specification are included as far as they are required by the OEM.

Deliveries are not included as part of SLP maintenance; they are part of SIP maintenance.

The SLP maintenance period begins with the first delivery.

1.6.2 HLP Maintenance

The maintenance of the HLP includes the adaptation of the appropriate work products (components, documentation, generators …). The HLP maintenance includes:

- Adaptations caused by “minor“ or “patch“-version modifications of the related AUTOSAR specification. In case of new functions, the extension of the licensed functionality has to be discussed with Vector.
- Adaptation caused by comparable changes of other specifications based on Vector’s assessment.
- Adaptation caused by minor hardware changes based on Vector’s assessment.
- The implementation of simple workarounds for hardware issues.

Deliveries are not included as part of HLP maintenance; they are part of the SIP maintenance.

The HLP maintenance period begins with the first delivery.

1.6.3 SIP Maintenance

The SIP Standard Maintenance includes:

- Reporting about known issues (“Active Issue Reporting“).
- One delivery per year (Update SIP or update of a Beta SIP)

Note
This update will be delivered on customer request.

> If a bug-fix delivery is needed on short notice such a delivery will be performed without comprehensive tests. In this case the status of the delivery will be a Beta or Pre Production (see Release Types in chapter 1.7).
> A Production Release has to be scheduled with Vector separately.

The SIP maintenance period starts with the first delivery of the product (Beta SIP or Production SIP).

In addition to the SIP Standard Maintenance, Vector offers SIP Extended Maintenance and SIP Production Maintenance.

SIP Extended Maintenance contains the same features as SIP Standard Maintenance. It includes one further delivery per year (Update SIP or Beta SIP).

SIP Production Maintenance only includes reporting about known issues (“Active Issue Reporting“). But Vector provides remedy of defects in case of high or critical issues. SIP Production Maintenance requires Standard or Extended Maintenance for more than 2 years.

1.6.4 Differentiation of warranty versus maintenance

The table shows the scope of services depending on validity of warranty and/or maintenance:

	SIP Maintenance running		SIP Maintenance expired	
Warranty period running	Bugfixing	✓	Bugfixing	✓
	Issue reporting	✓	Issue reporting	✓
Warranty period expired	Bugfixing	✓	Bugfixing	✗
	Issue reporting	✓	Issue reporting	✗

Table 1-2 Scope of services

1.7 Release Types

The release type gives information about the scope of function, quality and application field restrictions of the delivered software. The release type depends on the delivered Software Integration Package and is defined in the delivery description.

1.7.1 QuickFix

A QuickFix delivery is an immediate reaction on customer requests. The content of a QuickFix delivery is individually agreed with the customer.

1.7.2 Development

The software includes operational standard functions. Feature extensions of the software are not verified finally and the development process is not fully implemented. The usage of the software is intended for development phase or prototyping.

1.7.3 Pre Production

The software is operational but verification measures have not been completed. The usage of the software is intended for development and preproduction phase.

1.7.4 Production

For all features included in the software planned verification measures have been completed and all known issues are documented. The usage for serial production is allowed if the documented issues are considered.

1.7.5 Production (Safe)

For all features included in the software planned verification measures have been completed and all known issues are documented. Modules needed in a defined ASIL have been included. The usage for serial production is allowed if the documented issues are considered. Delivery includes Safety Case documentation.

Note
To reach this release type, the Safety Case has to be ordered separately.