

Franca Naming and Usage Guidelines

⚠ These are the guidelines for GENIVI components to follow.
It has been approved by GENIVI SAT - therefore please notify the SAT if making / suggesting updates to this page. Thanks in advance.

Revisions

Version	Date	Author	Change	Status
0.1	2013-06-13	Marco Residori	Document created	Draft
1.0	2013-07-01	Marco Residori	Reviewed during SAT F2F	Final
1.1	2014-08-07	Manfred Bathelt	Updated after discussion during SAT F2F 2014-3	Review
1.2	2014-08-13	Marco Residori	Updated first line of the guidelines table as discussed during the SAT teleconference held on the 13th Aug 14	Review
1.3	2014-08-20	Sriram Gopalan	Updated to fix sentence formation and also to clarify specific elements	Review
2.0	2014-08-20	Gunnar Andersson	Reviewed and approved during SAT Telco.	Released
2.0.1	2015-01-23	Harald Hackstein	Fixed regular expression for package names	Bugfix

Naming Conventions

Franca Element	Notation	Regular Expression (*)	Example	Comment
Franca IDL files	CamelCase notation starting with capital letter.	[A-Z][a-zA-Z0-9]*\.fidl	<ul style="list-style-type: none"> - TrafficIncidents.fidl - CommonTypes.fidl //scope: system - NavigationTypes.fidl //scope: group of components - MapViewerTypes.fidl //scope: component - RoutingTypes.fidl //scope: interface 	<ul style="list-style-type: none"> - Fidl files should be named after the interfaces they define. - If a fidl file contains more than one interface, an appropriate name representative of all the interfaces such as the common domain should be used instead. - Data types that are shared between different components /interfaces shall be defined in fidl files whose name ends with the word "Types".
Interfaces	CamelCase notation starting with capital letter.	[A-Z][a-zA-Z0-9]*	TrafficIncidents	
Interface versioning	Franca interface versioning scheme must follow semantic versioning 2.0 rules . Franca interfaces should not define any custom method/property to pass interface version information to implementations, because the IPC CommonAPI C++ language binding provides the specified Franca interface versions at API level automatically.		2.0.0	
Packages	All lower case letters. The package name prefix must contain the proposer's domain name and may be followed by a topic or component name. The expert group name must not be part of the package name. See chapter <i>predefined package names</i> below. A character must follow each dot.	[a-z][a-z0-9]*\.[a-z][a-z0-9]*	org.genivi.navigation	<ul style="list-style-type: none"> It is mandatory that package name and directory structures match in case and content. org +genivi +navigation +MapMatchedPosition.fidl
Attributes	CamelCase notation starting with lowercase letter.	[a-z][a-zA-Z0-9]*	timeFormat	Code generators will turn the initial letter into a capital letter for getters and setters. Example: timeFormat -> getTimeFormat()
Methods	CamelCase notation starting with lowercase letter. It is recommended to use Franca attributes instead of defining Franca get/set methods - CommonAPI will provide get/set methods and notification mechanisms automatically.	[a-z][a-zA-Z0-9]*	startGuidance	

Broadcasts	CamelCase notation starting with lowercase letter.	[a-z][a-zA-Z0-9]*	routeDeleted	
Data Types	CamelCase notation starting with capital letter.	[A-Z][a-zA-Z0-9]*	RoutePreferences	This rule applies equally to all data types including: - Enumerators - Typedefs - Structures - Maps - Arrays - Unions - Strings
TypeCollections	CamelCase notation starting with capital letter.	[A-Z][a-zA-Z0-9]*	Positioning Types	
Variables /Arguments	CamelCase notation starting with lowercase letter.	[a-z][a-zA-Z0-9]*	String name Coordinate coordinate	
Errors	CamelCase notation starting with capital letter.	[A-Z][a-zA-Z0-9]*	FatalError	Errors are enumerators and follow the naming conventions defined for enumerators
Enumerations	Uppercase characters separated by underscores. Enumerator values are optional. Only integer values are allowed. It is recommended not to specify values.	[A-Z][A-Z0-9_]*	PAUSED, STARTED, NOT_AVAILABLE	

Predefined Package Names

org.franca	reserved namespace for Franca specific definitions
org.genivi	Packages which are created and maintained by GENIVI expert groups shall use "org.genivi" as prefix.

Additional Notes

- The expert group name shall not be used in the name of any Franca elements indicated above.
- Underscores shall only be used in the names of enumerators' items. They shall not be used in the name of any other Franca elements.
- It is recommended to use Franca attributes instead of defining get/set methods in the Franca interface - CommonAPI will provide get/set methods and notification mechanisms automatically.

Regular Expressions

- The Regular Expressions listed here are meant as guidance, not as a formal test for a valid identifier. These expressions will not reject every non-valid identifier and fixing that would make them too complex so that they lose their guidance value.

Resources

- [semantic versioning 2.0](#)
- [on-line regular expression tester](#)