



# AIDA MODEL

The Assistant for an Integrated Development Assessment (AIDA) Model supports the integration of ISO 26262, Automotive SPICE® and the related safety extension ISO/IEC 15504-10.

AIDA Model should be better used by automotive companies that already have implemented Automotive SPICE compliant processes at Capability Level 2.

AIDA Model may be used both as a Reference Model for reaching compliance to ISO 26262 and as an Assessment Model for processes assessment (i.e. to improve capabilities) and for product functional safety assessment (i.e. to demonstrate compliance of the item to ISO 26262).

The Model should be used first to drive the change management to the new organization compliant with ISO 26262, and then to support the continuous improvement of the integrated processes, periodically assessing their capability.

## ISO 26262 Self-Assessment Toolkit

AIDA Model has been developed as a collaboration among Fiat Group Automobiles, Skytechnology, the Federal University of Rio Grande do Norte in Brazil, and IST CNR of Pisa.

ISO 26262 Self-Assessment Toolkit is part of the research project which aims at collecting field feedback to improve AIDA Model with a theoretical basis and a strong practical application.

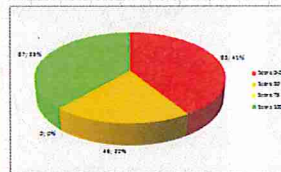
The Toolkit is composed by 8 Checklists (i.e. one for each normative Part of ISO 26262) and a Dashboard that provide a graphical presentation of the current status and historical trends of the gaps analysis and of the corrective actions implementation for achieving the compliance to ISO 26262.

Each Checklist comprises the following worksheets:

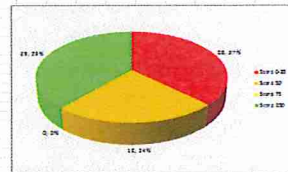
- Work Products, that allows to score the compliance to each ISO 26262 sub-clause.
- Methods, that traces the evidences of the application of methods and techniques.
- Gaps, that summarises the deviations from what requested for processes, work products and methods.
- Corrective Actions, that lists the corrective and preventive actions related to one or more identified gap.

ISO 26262	Automotive SPICE	Assessment Checklist		TIPS & POINTS	Score	Evidences
Work Product	Sub-clause ID	Keywords	Work Product	Best Practice ID		
Clause 5 Development interface agreement (DIA)	5.4.1.2	supplier	02-00 Contract	ACQ 4 EP1		
Supplier selection report	5.4.2 5.4.2.1	supplier, CPIS	10-00 Supplier qualification criteria	ACQ 10 EP1 ACQ 10 EP2		
Supplier selection report	5.4.2.2	supplier, safety requirements	15-21 Supplier evaluation report	ACQ 14 EP7 ACQ 14 EP2		
Development interface agreement (DIA)/Supplier's project plan/Supplier's safety plan	5.4.3 5.4.3.1	supplier, safety planning	03-01 Commitment agreement, 03-00 Contract	ACQ 3 EP1		
Development interface agreement (DIA)/Supplier's project plan/Supplier's safety plan	5.4.3.2	supplier, safety planning, hazard analysis	03-00 Contract			

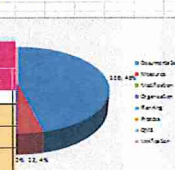
PROCESSES GAPS PER SCORING CLASS (including WPs)



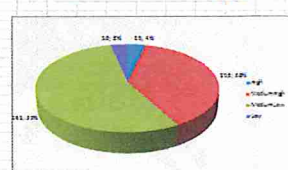
WORK PRODUCTS GAPS PER SCORING CLASS



PROCESSES GAPS PER TYPE



PROCESSES GAPS PER CRITICALITY LEVEL



ISO 26262	AIDA Model				Aim	Final score	Achieved Aim	Manual score
Sub-clause	Table	Method	A	B	C	D		
6.4.1.1	1	1a) Formal notation for requirements specification	**	**	*	*	0A	B
		1b) Semi-formal notation for requirements specification	*	*	**	**	0B	
		1c) Formal notation for requirements specification	*	*	*	*	0C	
6.4.1.3	2	2a) Verification by walk-through	**	*	*	*	0A	A
		2b) Verification by inspection	*	**	**	**	0B	
		2c) Semi-formal verification	*	*	**	**	0C	
11.4.E.1	4	4a) Formal verification	**	*	*	*	0A	None
		4b) Traceability from use in accordance with TL4.7	**	**	*	*	0B	
		4c) Evaluation of the tool development process in accordance with TL4.8	**	**	*	*	0A	
		4d) Validation of the software tool in accordance with TL4.9	*	*	**	**	0B	
		4e) Development in accordance with a safety standard	*	*	**	**	0A	
4f) Periodic compliance from use in accordance with TL4.7	**	**	**	*	0B			



Since 2004 Skytechnology supplies quality and embedded services to the Automotive, Medical Devices, Railways and Avio/Space industries.

Skytechnology, based in Turin, Milan and Rome, provides :

- Hardware design,
- Software and firmware design
- Test and simulation
- Application of Functional Safety standards (e.g. IEC 61508, ISO 26262, IEC 62304, CENELEC 5012x, RTCA DO-178B) and Process Improvement Models (i.e. CMMI and SPICE), both on:
  - Processes:
    - Gap Analysis and Remediation Plans;
    - Support to 3rd part Assessments and Appraisals.
  - Products:
    - RAMS analyses;
    - V&V and system assurance.

SKYTECHNOLOGY SRL  
Via Francesco Gonin, 55  
20147 Milan—Italy  
Phone: +39 02 370511  
Fax: +39 02 37051226  
[information@sky-team.it](mailto:information@sky-team.it)



Skytechnology provides quality and embedded services to the automotive industry and develops tools and methods cooperating with market leader companies, worldwide universities and research centers.

We support both OEMs and Tier 1 and Tier 2 Suppliers, with experienced Project Managers, Hardware and Software Architects, Designers and Developers, Testers and Validators and Functional Safety Assessors.

Quality and safety-related services are targeting both Processes and Products.

Embedded services address ECU, body electronics, infotainment and telematics.

## Competences

- ISO 26262.
- Automotive SPICE and CMMI.
- AUTOSAR.
- Model Based Design development.
- Agile development: SCRUM.
- MISRA C and C++.
- UML and SysML.
- Safety Analyses: HAZOP, PHA, FMEA, FTA.
- V&V: ISTQB.

## Embedded Services

- ECU Design development:
  - Hardware Design
  - BSP, Protocol Stacks and devices drivers
  - Application Software
 Experience in more diffused platforms (ARM, PowerPC, Renesas,...)
- Networking
  - Vehicle network management using CAN, LIN, ...
  - Communication drivers
- Diagnostics
  - Expertise in protocol standards KWP2000
  - Vehicle diagnostics over CAN & K-LIN
- Hardware in the loop, sw in the loop Testing
- EOL and integration test automation

## Process Quality

- Assessment and implementation of ISO 26262 standard
- Assessment and implementation of ISO 26262 standard for organizations with Automotive SPICE compliant processes, applying AIDA Model.
- Execution of Functional Safety Assessments and Functional Safety Audits.
- Support to the applications of MISRA C and MISRA AC AGC guidelines.
- Support to the application of Agile methodologies.

## Product Quality

(System Assurance)

- Preparation of RAM Plans and related RAMS analysis to support reliability/availability demonstration and system/device maintainability.
- Preparation of Safety Cases accordingly to Functional Safety directives.
- Design and execution of Verification and Validation (V&V) tests on system and software.