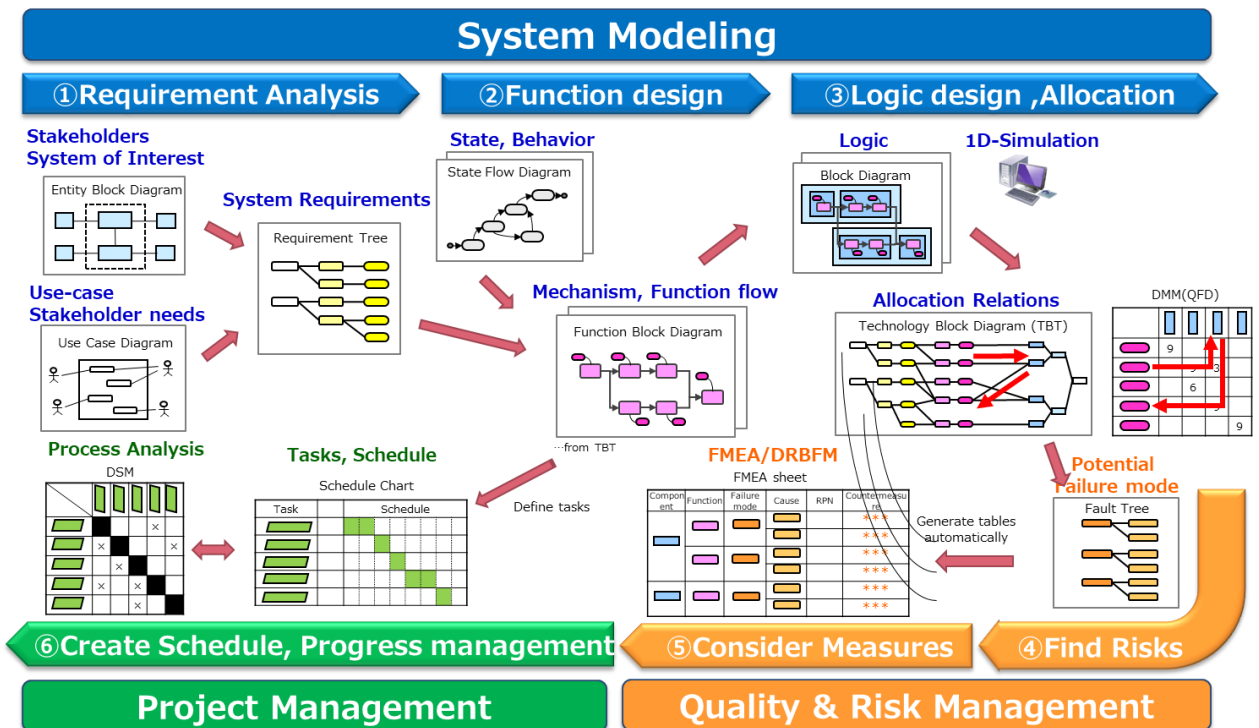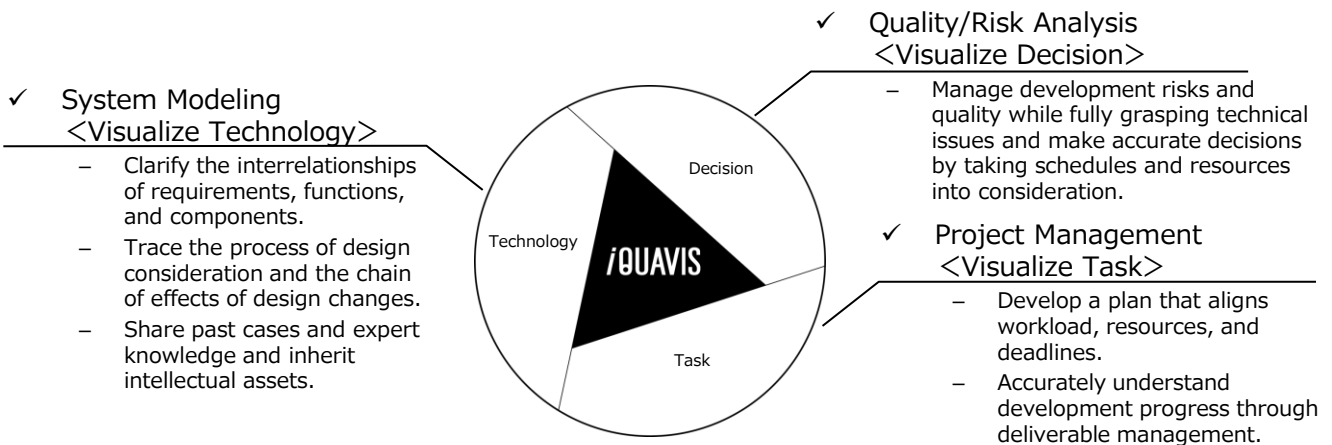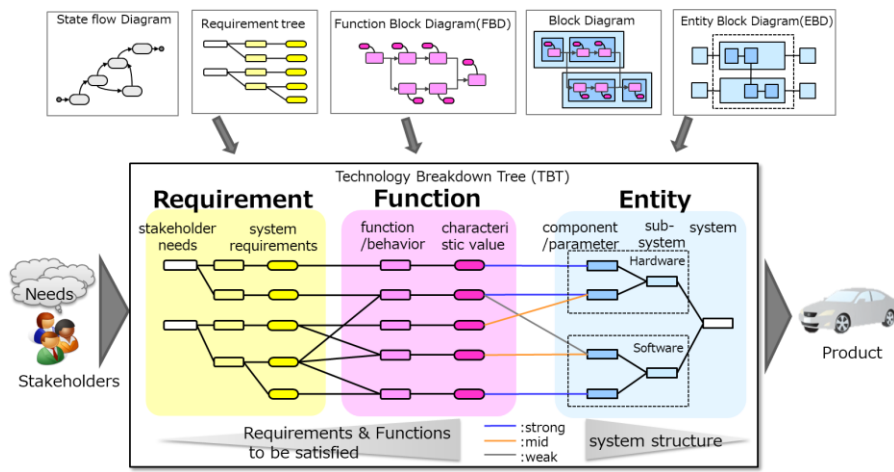# Systems Engineering Support Tool
i Q U A V I S

iQUAVIS is an integrated systems engineering support tool developed by DENTSUSOKEN for product system modeling, quality/risk analysis, and project management.

✓ System Modeling
  <Visualize Technology>
  – Clarify the interrelationships of requirements, functions, and components.
  – Trace the process of design consideration and the chain of effects of design changes.
  – Share past cases and expert knowledge and inherit intellectual assets.

✓ Quality/Risk Analysis
  <Visualize Decision>
  – Manage development risks and quality while fully grasping technical issues and make accurate decisions by taking schedules and resources into consideration.

✓ Project Management
  <Visualize Task>
  – Develop a plan that aligns workload, resources, and deadlines.
  – Accurately understand development progress through deliverable management.

System Modeling

①Requirement Analysis

Stakeholders
System of Interest
  Entity Block Diagram

System Requirements
  Requirement Tree

Use-case
Stakeholder needs
  Use Case Diagram

②Function design

State, Behavior
  State Flow Diagram

Mechanism, Function flow
  Function Block Diagram
  …from TBT

③Logic design ,Allocation

Logic   1D-Simulation
  Block Diagram

Allocation Relations
  Technology Block Diagram (TBT)

DMM(QFD)

Process Analysis
  DSM

Tasks, Schedule
  Schedule Chart
  | Task | Schedule |

Define tasks

FMEA/DRBFM
  FMEA sheet
  | Component | Function | Failure mode | Cause | RPN | Countermeasure |

Generate tables automatically

Potential Failure mode
  Fault Tree

⑥Create Schedule, Progress management **⑤Consider Measures** **④Find Risks**

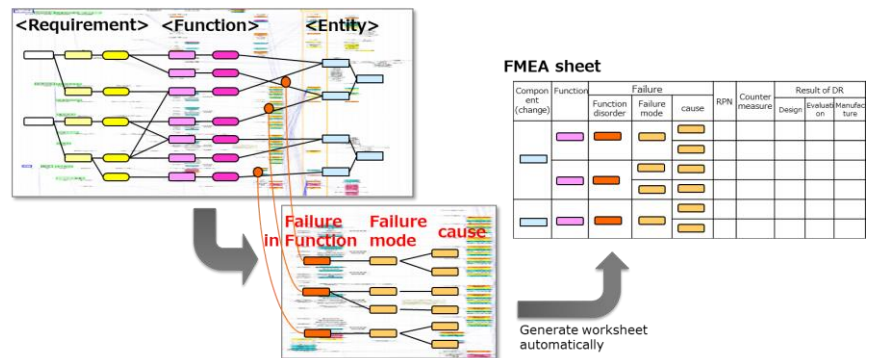**Project Management**   **Quality & Risk Management**

iQUAVIS supports complex system modeling by visualizing technology, quality and risk analysis such as FMEA and DRBFM by visualizing decisions, and project management by visualizing tasks. The greatest feature of iQUAVIS is that these three things work together to support systems engineering.
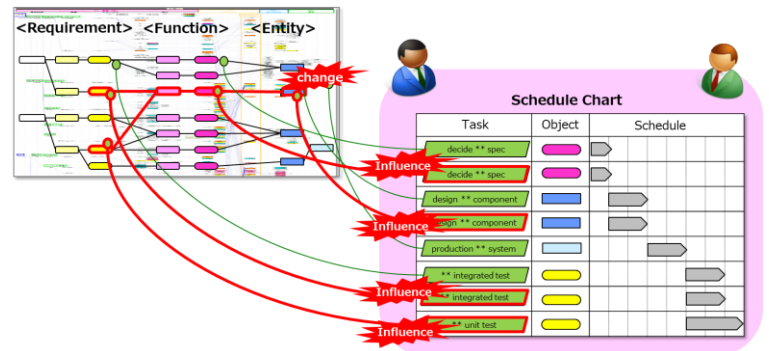
電通総研
DENTSU SOKEN INC.

iQUAVIS utilizes various methodologies such as QFD, making it possible to flexibly and reliably perform product requirements analysis, functional design, and component deployment. Express system models using tree diagrams, block diagrams, and two-way tables to facilitate examination from various perspectives.

iQUAVIS integrates system models with quality and risk analysis. FMEA and DRBFM worksheets are automatically generated from system models enabling verification of the impact of changes and preventing quality defects.

iQUAVIS integrates system models and project management. All the tasks that need to be considered can be defined from the system model.

Tasks impacted by changes can be automatically picked up, making it possible to understand project progress in real time for each management level.

Two Pillars is as a joint venture between DENTSU SOKEN and Fraunhofer-Association. Two Pillars is an iQUAVIS partner in EMEA.
https://www.two-pillars.de/

Interested in iQUAVIS ? Contact us

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