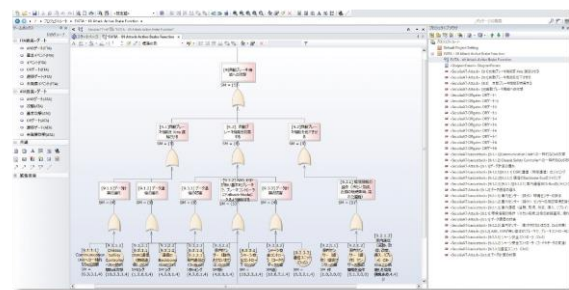


- Threat Analysis based on Attack Trees
- Include the mutual effects of Safety Analysis and Security Analysis
- Assist development conforming to the coming Automotive Security Standards

Security Threat Analysis for secure development processes

“Seculia” is a tool to perform Security Threat Analysis for a secure Development process, using both FTA, ATA, and their mutual effects on each other. Mixing Fault trees and Attack Trees in a single diagram is possible. Modularization (through an UML package) and Risk Assessment of the AT are also possible, helping EVITA-style Analysis.

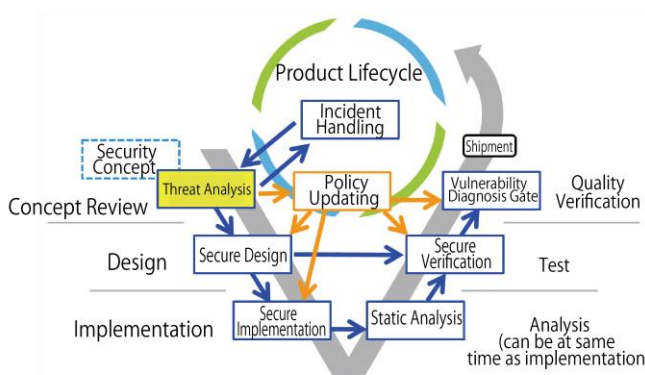
Attack Tree (AT) Diagram



Use cases for each phase and benefits

By using a Secure development process similar to the Parts 3 (Safety Concept) 4 (System Development), 5 (Hardware Development), and 6 (Software Development) of the ISO26262 Safety standard for Automotive, the joint and mutual effects of the Safety and Security Analysis can be evaluated.

Threat Analysis: the basis for Security Measures



Analysis Results can be exported as a list

Diagram Name	ID	Threat Name	Security Metrics
01 Force green lights ahead of attacker	1	[1]Force green lights ahead of attacker	3
02 Manipulate speed limits	2	[2]Manipulate speed limits	3
03 Manipulate traffic flow	3	[3]Manipulate traffic flow	5
04 Simulate traffic jam	4	[4]Simulate traffic jam	5
05 Tamper with warning messages	5	[5]Tamper with warning messages	5
06 Attacking E-Call	6	[6]Attacking E-Call	5
07 Engine refuses to start	7	[7]Engine refuses to start	4
08 Unauthorized brake	8	[8]Unauthorized brake	5
09 Attack active brake function	9	[9]Attack active brake function	5
10 Prevent driver from passing toll gate	10	[10]Prevent driver from passing toll gate	4
11 Increase driver's toll bill	11	[11]Increase driver's toll bill	4
12 Reduce driver's toll bill	12	[12]Reduce driver's toll bill	5
13 Compromise driver privacy	13	[13]Compromise driver privacy	4
14 OBD flashing attack	14	[14]OBD flashing attack	4
15 Head unit attack	15	[15]Head unit attack	5

Seculia Main Features

- Create and View Fault and Attack Trees
- Include Attack Trees within Fault Trees
- Import package to help Modularization of the AT
- Support EVITA-style Analysis
- Risk Assessment Calculation
- Customize calculation (Extension Builder)
- Minimal Cut Set calculation
- Export Analysis Results as TARA table

