

Requirements Tracing

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Overview

- History
- Tools
- Process
- Experience

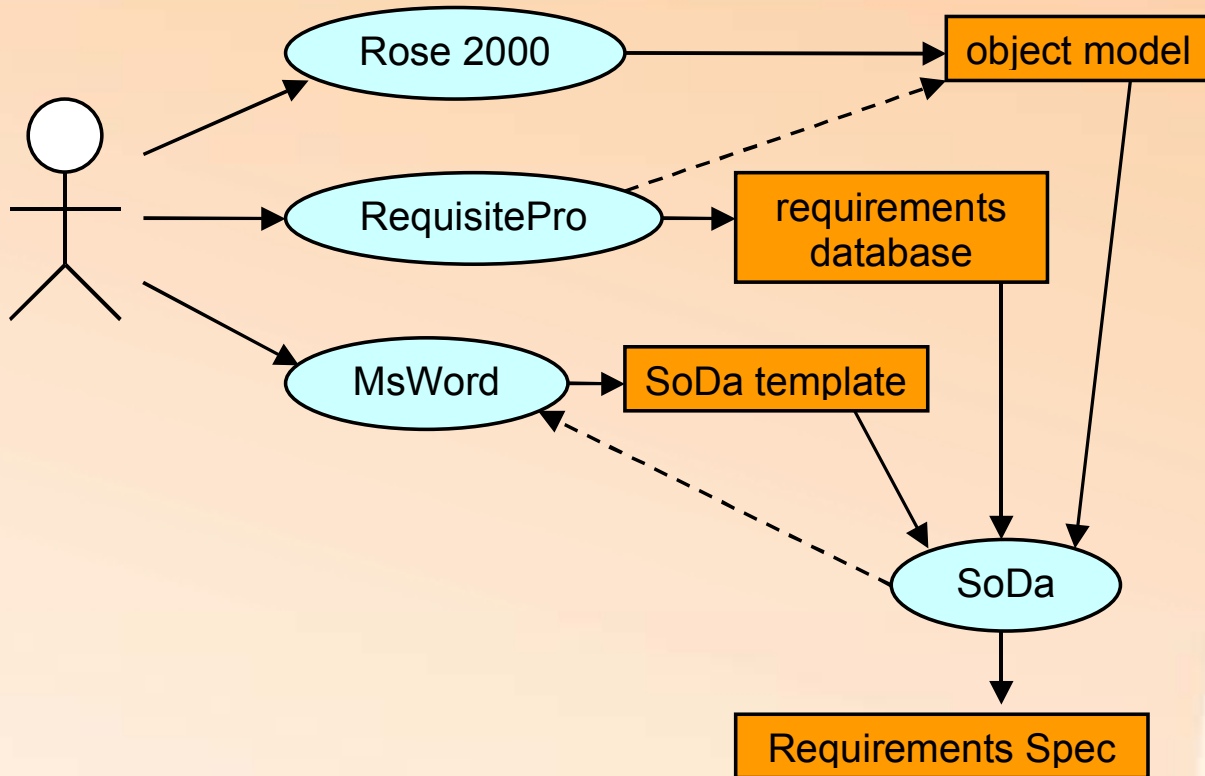
History

- TMR
 - ± 5 man-year
 - 90 reqs, 35 testcases
- Pink
 - $\pm 15-20$ manyear
 - several subprojects:
 - 22 customer reqs,
 - 119 software reqs,
 - 18 testcases

Tools(1)

- Rational Suite
 - Rose
 - usecase, sequence, object diagrams
 - RequisitePro
 - text, attributes, version
 - SoDa
 - document generation
 - commands to retrieve reqs, diagrams, etc.
- Word
 - templates, etc.

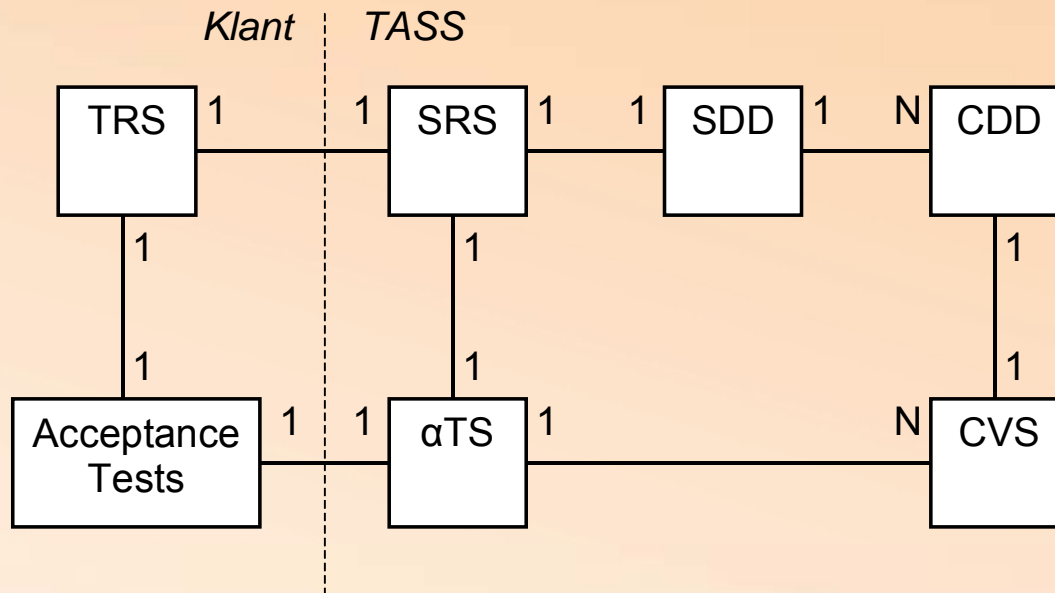
Tools(2)



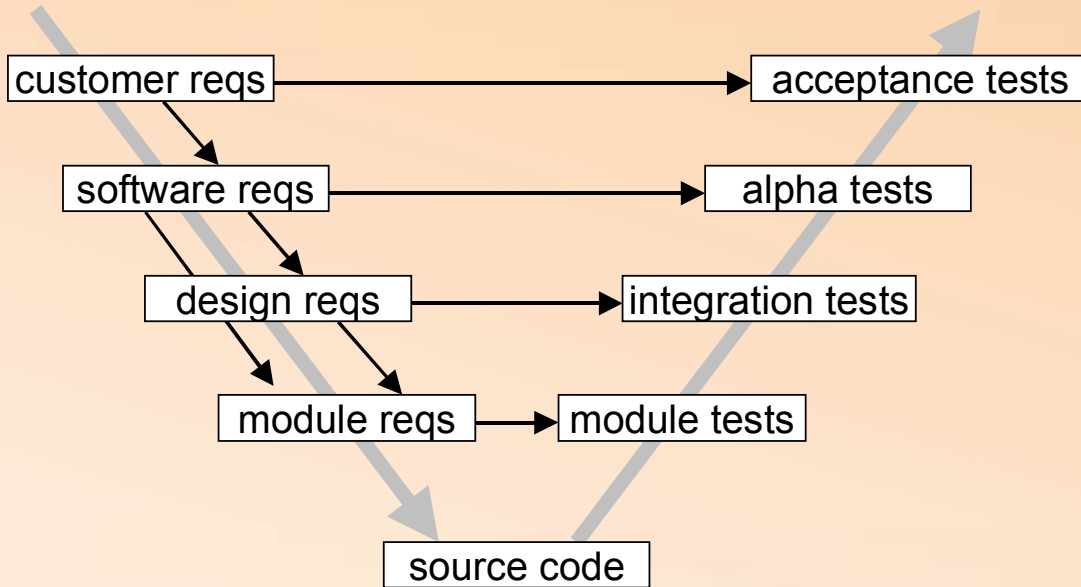
Process(1)

- V-model
 - design requirements
- Traceability matrices used in reviews
- Interface with customer
 - extra req attributes for custom(er) labelling

Process(2)



Process(3)



Process(4)

Requirements View - [CR SR Traceability Matrix CR - 3 SR]

File View Requirements Window Help

Relationships:
- direct only

SR02: UI The host configuration shall be available from:
SR03: FR The grid of the host configuration will contain:
SR04: UI The subsystem tree shall contain a list of:
SR05: UI In the subsystem tree, a subsystem shall contain:
SR06: UI In the subsystem tree, a managed element shall:
SR07: UI In the subsystem tree, a connection shall:
SR08: UI In the subsystem tree, references to ports are the:
SR09: UI When an item of the subsystem tree is selected,
SR10: FR The user shall be able to add application:
SR11: UI The 'add subsystem' dialog box shall:
SR12: FR When the user adds an application subsystem,
SR13: FR How application subsystems shall be added:
SR14: UI The 'add subsystem' dialog box shall contain a:
SR15: UI The 'add subsystem' dialog box shall contain an:
SR16: UI The 'add subsystem' dialog box shall contain a:
SR17: UI The 'add subsystem' dialog box shall contain a:
SR18: UI The 'add subsystem' dialog box shall contain a:
SR19: FR In case the 'File open' dialog was cancelled,
SR20: UI The 'add subsystem' dialog box shall contain a:
SR21: FR The 'Simulator' checkbox shall indicate:
SR22: FR When the 'add subsystem' dialog box is:
SR23: UI In the 'add subsystem' dialog box, the:
SR24: UI In the 'add subsystem' dialog box, the:
SR25: FR Addition of an application with 'Simulator',
SR26: UI In the 'add subsystem' dialog box the 'OK',
SR27: UI The user shall be able to remove the currently:
SR28: UI The user shall be able to remove the currently:
SR29: UI The function to remove application subsystems:
SR30: FR Before a simulated application subsystem is:
SR31: FR The user shall be able to resume the logical:
SR32: UI Resuming subsystems shall be done from an:
SR33: UI The function to remove subsystems shall be:
SR34: FR After resuming a subsystem, its name shall:
SR35: UI The host subsystem shall provide an 'about',
SR36: UI When the user chooses 'F', the host subsystem:
SR37: DC The product must operate under resolution of:
SR38: DC The product must operate under resolution:
SR39: DC The product must operate under resolution:
SR40: DC Components which are part of the host,
SR41: DC The application subsystems must be written:
SR42: DC Internal consistency of OML files must be:

CR1: R-1 SR The subsystem shall conform to PAMELA.
CR2: R-2 UI The Subsystem Simulator shall have a windows UI, being all saving applications.
CR3: R-3 UI The windows UI of the Subsystem Simulator shall allow an:
CR4: R-4 UI The windows UI of the Subsystem Simulator shall allow an:
CR5: R-4 FR One Subsystem Simulator shall encompass one simulated host.
CR6: R-5 FR Application subsystems shall be launched by the host subsystem.
CR7: R-6 FR The host subsystem offers the possibility for PAMELA clients,
CR8: R-7 FR A host subsystem shall offer a physical map, that is presented in:
CR9: R-8 FR The host subsystem shall store the configuration of applications it:
CR10: R-8 FR An application subsystem shall offer a resource map, that is:
CR11: R-10 FR An application resource_map_file shall be used to configure an:
CR12: R-12 FR It shall be possible to reuse an application resource_map_file:
CR13: C-27 DC For evolution step 1, only devices must be simulated.
CR14: C-13 DC For evolution step 1, only the following PAMELA objects must be:
CR15: C-14 DC There must be only one Subsystem Simulator per PC.
CR16: C-15 DC The host subsystem must be the only subsystem of which an:
CR17: C-16 DC An application resource_map_file shall be structured in order:
CR18: C-17 DC An application subsystem must be a unique process in the:
CR19: C-18 DC The host subsystem should be able to launch a control server.
CR20: C-19 FR The name of the application subsystem may be changed by:
CR21: C-11 DC The Subsystem Simulator shall be developed in such a way:
CR22: C-12 DC The Subsystem Simulator shall be developed in such a way:

CR2: R-2 UI The Subsystem Simulator shall have a windows UI, being all saving applications.
SR02: UI The add subsystem functionality shall be available from the menu bar, the button bar, a context sensitive pop-up menu and via the keyboard (short cut listed).

ReqView

Experiences

- start small, and expand
- checking matrices is boring work
- design requirements?
- Useful to search for testcases after changes
- Useful when writing test specs