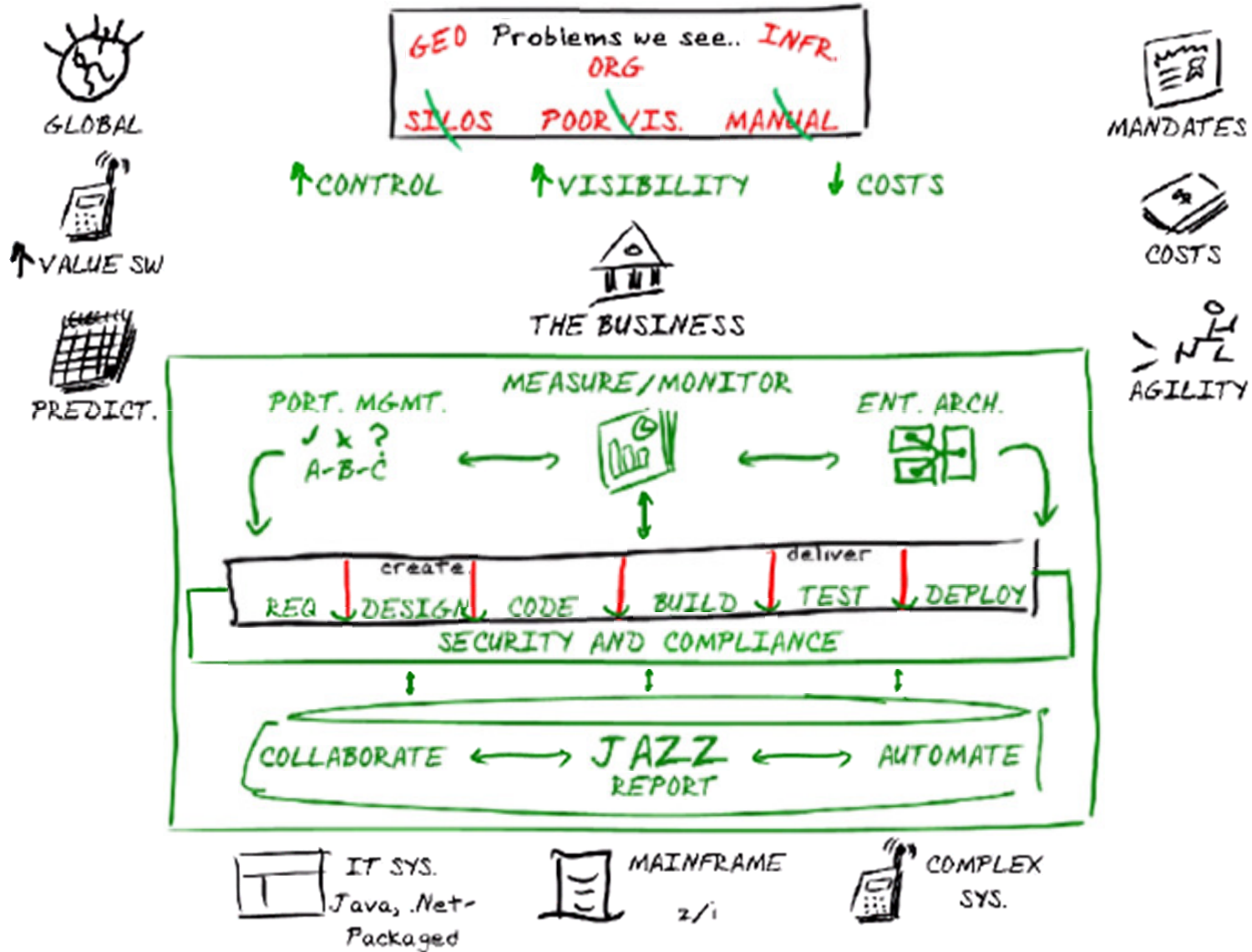


IBM Rational DOORS
Anforderungsmanagement mit ~~(Telelogic) DOORS~~



Was macht IBM Rational?



Product Overview DOORS

■ **Product Packing**

- ▶ DOORS
- ▶ DOORS Analyst – UML Modelling inside of DOORS
- ▶ DOORS WebAccess – Web based access to DOORS data
- ▶ *(DOORS/Net – retired; only available to existing DOORS/Net customers)*

■ **Product Features (DOORS only)**

- ▶ Document-based approach
- ▶ Views – ability to provide the required information to each individual
- ▶ **Traceability**
 - Easy creation of traceability (drag & drop)
 - Ability to restrict the creation of traceability where not desired
 - Various ways to visualize traceability (trace view, trace matrix, suspect links, ...)
- ▶ Inbuilt „Change Proposal System“ (CPS) – lightweight change management for requirements
- ▶ Discussions

Product Overview DOORS

■ When to sell

- ▶ Whenever „Requirements Management“ is an issue
(BUT: check the customer's understanding of „Requirements Management“: if „traceability“ is not the focus other Rational/Telelogic products might be a better fit!)
- ▶ Large scale, complex projects (≥ 3 levels of requirements; ≥ 50 top level requirements; ≥ 5 team members)
- ▶ Process improvement activities
 - CMMI
 - SPICE
 - ...
- ▶ Safety critical systems / Compliance issues
- ▶ Prospect does not have any „real“ RM tool (Office products are not suitable for RM!)

■ When not to sell

- ▶ Customer/Prospect has no budget
- ▶ Prospect is not willing to invest in licenses and training/consulting
- ▶ If you want to push Jazz at the Customer/Prospect right now

Product Overview DOORS

■ **Competitors**

Two different approaches: „best of class“ vs. „integrated solution“

▶ (MS Office)

▶ IrQA (Visure Solutions / QASystems)

▶ Polarion (Polarion)

▶ RTM (Serena)

▶ CaliberRM (Micro Focus)

▶ OptimalTrace (Micro Focus)

▶ ...

▶ MKS Integrity (MKS)

▶ HP Quality Center (HP)

▶ Siemens Teamcenter (Siemens)
and other PLM/PDM software

▶ ...

■ **„Competitors“ (other Rational products in the RM space)**

▶ Requisite Pro

▶ RRC (Rational Requirement Composer)


Rational requirements tool portfolio today

Addressing different cultures and different needs

Group	Focus	
Engineering & Compliance culture <i>Good outcomes are the result of good, controlled processes. "Have we missed anything?"</i>	RM in an engineering process <ul style="list-style-type: none"> • Reliance on formal process • Manufactured Systems • Mission-critical systems • Regulated, compliance, and contract-driven industries • Customized tools to support process and analysis of complex requirements 	
Market-driven culture <i>Balance process and expedience. "How can we get this out faster with good quality?"</i>	Effective teams, efficient tools <ul style="list-style-type: none"> • Business-oriented software applications • Fast-to-market manufacturers 	
ALM minimalist culture <i>"We use our main tools for requirements too"</i>	Use development and test tools <ul style="list-style-type: none"> • Requirements by and for dev and test • Typically business analysts not involved 	
Ad-hoc culture <i>"We don't do RM"</i> <i>"What is RM?"</i>	Using general tools at hand <ul style="list-style-type: none"> • Using general-purpose tools: office, collaboration tools, defect database. • May employ RM, "pure agile" methodologies or no defined methodology at all 	

DOORS Dokumente

Dokumentensicht der Informationen!

Stakeholder Requirements	
1 Introduction	
	<p>This module contains the user requirements for a new car to be commercially available by 31st march 2008. http://www.telelogic.com</p> 
2 User types	
2.1 Nationalities	<p>The car will be used in the following countries and regions: UK, Central Europe, North America and Japan. More information can be found here: file:///D:/plette/public/D_S_IAW.pdf</p> $\sum_{n \rightarrow \infty} \frac{n+1}{2n} = \sum_{n \rightarrow \infty} \left(\frac{1}{2} + \frac{1}{2n} \right) = \frac{1}{2} + \sum_{n \rightarrow \infty} \frac{1}{2n} = \frac{1}{2}$
2.2 User sizes	
	The car shall be suitable for people maximum and minimum sizes 1.3m to 2m.
	The car shall be suitable for people maximum and minimum weight 35 kilograms to 130 kilograms.
3 Audio/Video System	
	This chapter contains the requirements for the available radio systems.

DOORS Dokumente

Kategorisieren von Anforderungen mit eigenen Attributen und Datentypen

ID	Priority	Stakeholder Requirements	Customer	Cost
ShR_1	Middle	1 Introduction		
ShR_133	Middle	This module contains the user requirements for a new car to be commercially available by 31st march 2008. http://www.telelogic.com 	Miller & Sons Smith Inc. Freemile Ltd.	7
ShR_2	High	2 User types		
ShR_3	Low	2.1 Nationalities		3
ShR_118	Low	The car will be used in the following countries and regions: UK, Central Europe, North America and Japan. More information can be found here: file:///D:/plette/public/D_S_IAW.pdf $\sum_{n \rightarrow \infty} \frac{n+1}{2n} = \sum_{n \rightarrow \infty} \left(\frac{1}{2} + \frac{1}{2n} \right) = \frac{1}{2} + \sum_{n \rightarrow \infty} \frac{1}{2n} = \frac{1}{2}$	<input checked="" type="checkbox"/> Miller & Sons <input checked="" type="checkbox"/> Smith Inc. <input checked="" type="checkbox"/> Freemile Ltd.	3
ShR_5	Low	2 User sizes		9
ShR_376	High	The car shall be suitable for people maximum and minimum sizes 1.3m to 2m.	Miller & Sons Freemile Ltd.	9
ShR_406	Low	The car shall be suitable for people maximum and minimum weight 35 kilograms to 130 kilograms.	Freemile Ltd.	9
ShR_408	Middle	3 Audio/Video System		
ShR_409	Middle	This chapter contains the requirements for the available radio systems.	Miller & Sons Smith Inc. Freemile Ltd.	

DOORS View-Konzept

Viele Projektbeteiligte mit unterschiedlichen Rollen - unterschiedlicher Informationsbedarf!

ID	Priority	Stakeholder Requirements
ShR_1	Middle	1 Introduction
ShR_133	Middle	This module contains the user requirements for a new car to be commercially available by 31st march 2008. http://www.telelogic.com
ShR_2	High	2 User types
ShR_3	Low	2.1 Nationalities
ShR_118	Low	The car will be used in the following countries and regions: UK, Central Europe, North America and Japan. More information can be found here: file:///D:/plette/public/D_S_IAW.pdf $\sum_{n \rightarrow \infty} \frac{n+1}{2n} = \sum_{n \rightarrow \infty} \left(\frac{1}{2} + \frac{1}{2n} \right) = \frac{1}{2} + \sum_{n \rightarrow \infty} \frac{1}{2n} = \frac{1}{2}$
ShR_5	High	2.2 User sizes
ShR_376	High	The car shall be suitable for people maximum and minimum sizes 1.3m to 2m.
ShR_406	Low	The car shall be suitable for people maximum and minimum weight 35 kilograms to 130 kilograms.
ShR_408	Middle	3 Audio/Video System
ShR_409	Middle	This chapter contains the requirements for the available radio systems.

Sichtbare Attribute:
ID, priority, main column (Überschrift und Text)

Sichtbare Objekte:
alle

DOORS View-Konzept

Viele Projektbeteiligte mit unterschiedlichen Rollen - unterschiedlicher Informationsbedarf!

Sichtbare Attribute:
main column (Überschrift und Text), customer, cost

Sichtbare Objekte:
alle

Stakeholder Requirements		Customer	Cost
1 Introduction			
This module contains the user requirements for a new car to be commercially available by 31st march 2008. http://www.telelogic.com 		Miller & Sons Smith Inc. Freemile Ltd.	7
2 User types			
2.1 Nationalities			
The car will be used in the following countries and regions: UK, Central Europe, North America and Japan. More information can be found here: file:///D:/plette/public/D_S_IAW.pdf $\sum_{n \rightarrow \infty} \frac{n+1}{2n} = \sum_{n \rightarrow \infty} \left(\frac{1}{2} + \frac{1}{2n} \right) = \frac{1}{2} + \sum_{n \rightarrow \infty} \frac{1}{2n} = \frac{1}{2}$		Miller & Sons Smith Inc. Freemile Ltd.	3
2.2 User sizes			
The car shall be suitable for people maximum and minimum sizes 1.3m to 2m.		Miller & Sons Freemile Ltd.	9
The car shall be suitable for people maximum and minimum weight 35 kilograms to 130 kilograms.		Freemile Ltd.	9
3 Audio/Video System			
This chapter contains the requirements for the available radio systems.		Miller & Sons Smith Inc. Freemile Ltd.	

DOORS View-Konzept

Viele Projektbeteiligte mit unterschiedlichen Rollen - unterschiedlicher Informationsbedarf!

Sichtbare Attribute:

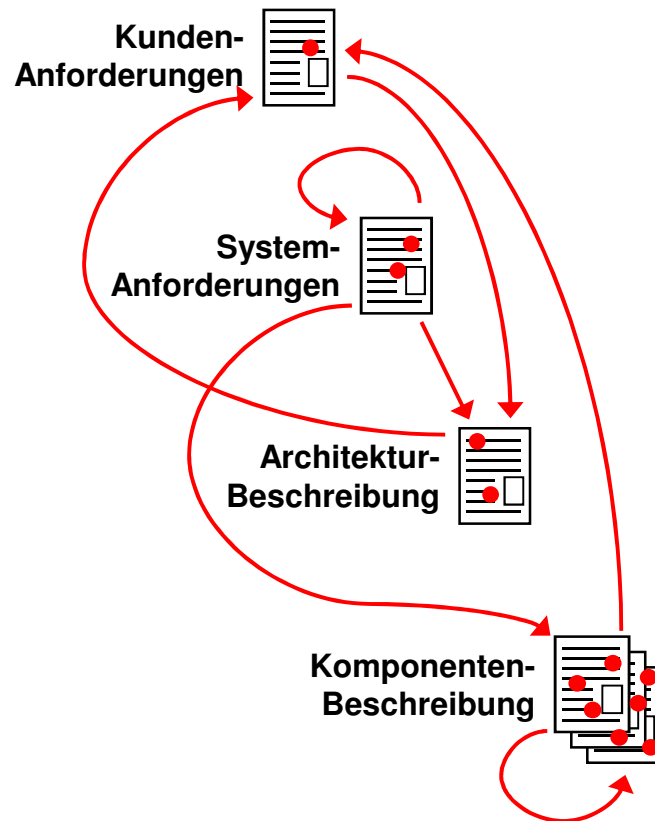
main column (Überschrift und Text), customer, cost

Sichtbare Objekte:

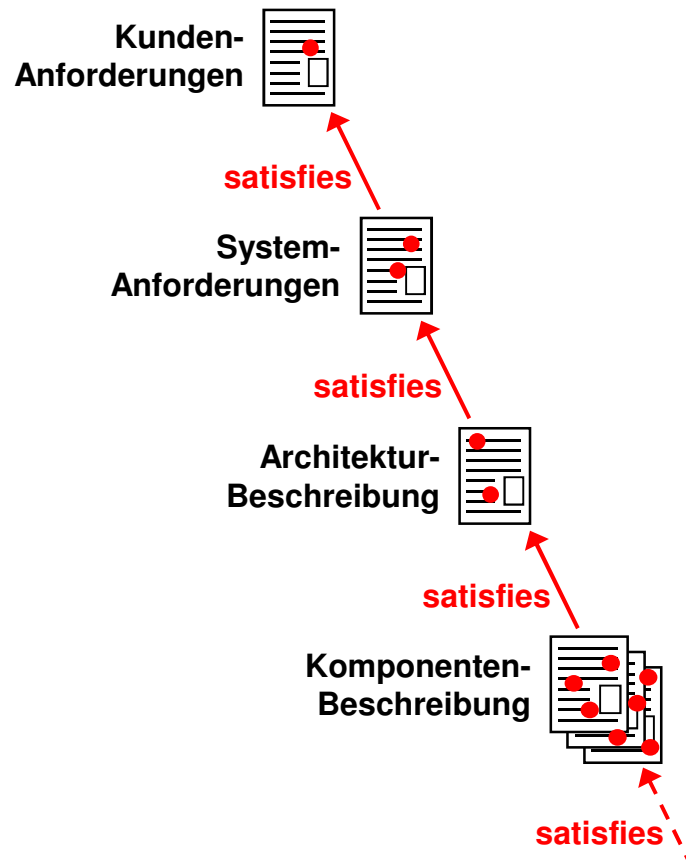
nur Objekte für customer „Smith Inc.“ (gefiltert)

Stakeholder Requirements		Customer	Cost
1 Introduction			
This module contains the user requirements for a new car to be commercially available by 31st march 2008. http://www.telelogic.com 		Miller & Sons Smith Inc. Freemile Ltd.	7
2 User types			
2.1 Nationalities			
The car will be used in the following countries and regions: UK, Central Europe, North America and Japan. More information can be found here: file:///D:/plette/public/D_S_IAW.pdf $\sum_{n \rightarrow \infty} \frac{n+1}{2n} = \sum_{n \rightarrow \infty} \left(\frac{1}{2} + \frac{1}{2n} \right) = \frac{1}{2} + \sum_{n \rightarrow \infty} \frac{1}{2n} = \frac{1}{2}$		Miller & Sons Smith Inc. Freemile Ltd.	3
3 Audio/Video System			
3.1 Radio equipment			
The user shall be able to listen radio broadcasts.		Miller & Sons Smith Inc. Freemile Ltd.	
3.2 Tape equipment			
The user shall be able to listen to tapes.		Miller & Sons Smith Inc.	

Traceability – was ist das?



Traceability – was ist das?



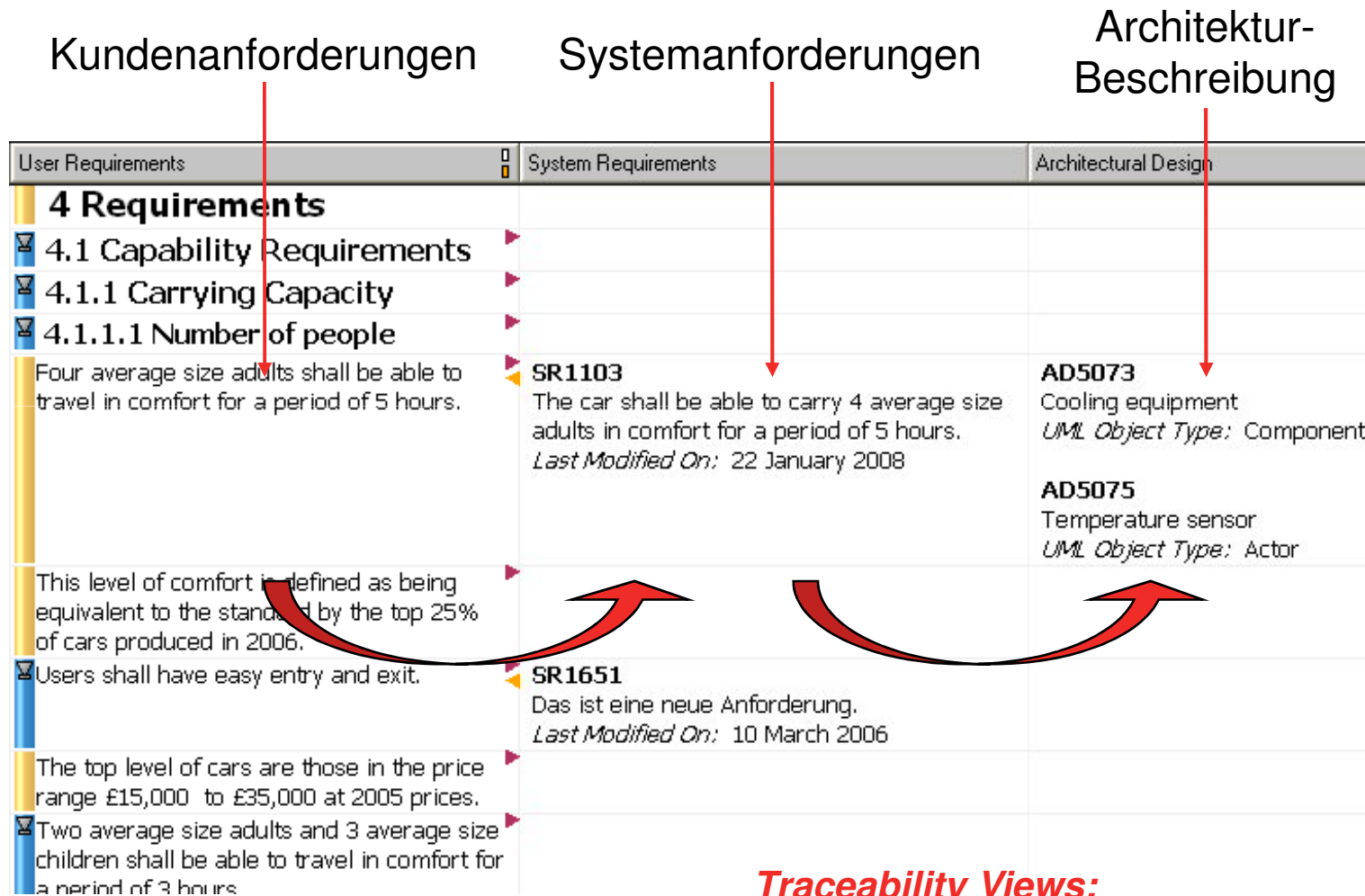
Traceability – wie erzeugt man sie?

User Requirements
4 Requirements
<input checked="" type="checkbox"/> 4.1 Capability Requirements
<input checked="" type="checkbox"/> 4.1.1 Carrying Capacity
<input checked="" type="checkbox"/> 4.1.1.1 Number of people
Four average size adults shall be able to travel in comfort for a period of 5 hours.
This level of comfort is defined as being equivalent to the standard by the top 25% of cars produced in 2006.
<input checked="" type="checkbox"/> Users shall have easy entry and exit.
The top level of cars are those in the price range £15,000 to £35,000 at 2005 prices.
<input checked="" type="checkbox"/> Two average size adults and 3 average size children shall be able to travel in comfort for a period of 3 hours.
<input checked="" type="checkbox"/> Five average size adults shall be able to travel in comfort for a period of 3 hours.
<input checked="" type="checkbox"/> 4.1.1.2 Amount of luggage

ID	System Requirements	Last Modified On
	<input checked="" type="checkbox"/> length of any journey as specified by the user.	
SR1099	<input checked="" type="checkbox"/> 1.13.8 Display route map	03 December 2004
SR1100	<input checked="" type="checkbox"/> The system shall be able to display a route map of any journey specified by the user.	03 December 2004
SR1101	<input checked="" type="checkbox"/> 1.14 Accommodate	03 December 2004
SR1102	<input checked="" type="checkbox"/> 14.1 Accommodate Occupants	03 December 2004
SR1103	<input checked="" type="checkbox"/> The car shall be able to carry 4 average size adults in comfort for a period of 5 hours.	22 January 2008
SR1104	<input checked="" type="checkbox"/> 1.14.2 Accommodate Luggage	03 December 2004
SR1105	<input checked="" type="checkbox"/> The car shall be able to carry 220 kilograms of luggage.	22 January 2008
SR1106	<input checked="" type="checkbox"/> 1.14.3 Accommodate Fuel and fuel system	03 December 2004
SR1107	<input checked="" type="checkbox"/> The car shall be able to accommodate the	03 December 2004
SR1108	<input checked="" type="checkbox"/> The car shall be able to accommodate the fuel delivery system.	03 December 2004
SR1109	<input checked="" type="checkbox"/> 1.14.4 Accommodate Power	03 December 2004

drag & drop

Traceability – was hat man davon?



Traceability Views:
rekursive Darstellung der Abhängigkeiten

Traceability – was hat man davon?

User Requirements

4 Requirements

- 4.1 Capability Requirements
- 4.1.1 Carrying Capacity
- 4.1.1.1 Number of people
 - Four average size adults (**1.9m**) shall be able to travel in comfort for a period of 5 hours.
 - This level of comfort is defined as being equivalent to the standard by the top 25% of cars produced in 2006.
 - Users shall have easy entry and exit.
 - The top level of cars are those in the price range £15,000 to £35,000 at 2005 prices.
 - Two average size adults and 3 average size children shall be able to travel in comfort for a period of 3 hours.
 - Five average size adults shall be able to travel in comfort for a period of 3 hours.
- 4.1.1.2 Amount of luggage



System Requirements

- length of any journey as specified by the user.
- 1.13.8 Display route map
 - The system shall be able to display a route map of any journey specified by the user.
- 1.14 Accommodate
 - 1.14.1 Accommodate Occupants
 - The car shall be able to carry 4 average size adults in comfort for a period of 5 hours.
 - 1.14.2 Accommodate Luggage
 - The car shall be able to carry 220 kilograms of luggage.
 - 1.14.3 Accommodate Fuel and fuel system
 - The car shall be able to accommodate the fuel delivery system.
 - 1.14.4 Accommodate Power

Nie wieder eine Änderung verpassen.

DOORS Web Access

The screenshot displays the Rational DOORS Web Access interface within a Mozilla Firefox browser window. The browser's address bar shows the URL `http://212.209.58.153:8081/dwa/dwa.jsp#`. The page title is "IBM Rational DOORS Web Access".

The interface includes a top navigation bar with the following elements:

- User: demo_user, Current language: English (United States), Package: Edit, Logout
- Navigation links: Goto URL, Layout, Package, Help

The main content area is divided into three primary sections:

- Left Sidebar (Navigation):**
 - DOORS Database: New Family Car Project Requirements
 - Entertainment System: 3 Baselines
 - Marketing Requirements: 4 Baselines
 - Stakeholder Requirements: 6 Baselines (highlighted)
 - System Requirements: 4 Baselines
 - Recent Items: stakeholder Requirements, System Requirements
 - Favorites: Drop here to add to favorites
- Center Panel (Stakeholder Requirements):**

View: Standard View

Id	Description
TRN-CSR	2 User types
TRN-CSR	2.1 Nationalities
TRN-CSR	The car will be used in the following countries: UK, USA, Northern Europe, Eastern Europe, Japan, Russia, Australia.
TRN-CSR	2.2 User sizes
TRN-CSR	Because we need to accommodate for all different sizes of people the car must be suitable for people maximum and minimum sizes 1.3 m to 2 m weighing 25 kilograms to 150 kilograms.
TRN-CSR	3 Requirements
TRN-CSR	3.1 Capability Requirements
TRN-CSR	3.1.1 Carrying Capacity
TRN-CSR	3.1.1.1 Number of people
TRN-CSR	Four average size adults shall be able to travel in comfort for a period of 4 hours. This level of comfort is defined as being equivalent to the standard of comfort provided by the top 30% of cars produced in 2006.
TRN-CSR	Five average size adults shall be able to travel in comfort for a period of 4 hours.
TRN-CSR	An average size is considered 75-85kg and 1.75m
- Right Panel (Comments/Links):**
 - Attributes, Discussions, Links
 - Sort By: New
 - demo_user 01:39:PM
 - [1] Travel Period
 - current
 - Close, New Comment
 - demo_user 01:39:PM
 - Passengers need to be rated for the travel period depending upon their location. People in the states travel much further in their cars while in Europe the drive much less.
 - Less

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Transferring data from 212.209.58.153...

Zusammenfassung: Vorteile durch DOORS

- **Zentrale Datenablage auf einem Server (kein unnötiges lästiges Suchen)**
- **Benutzer arbeiten mit Dokumenten (kein spezielles Datenbank-Know-How nötig)**
- **Analyse der Abhängigkeiten von Anforderungen**
- **Funktionale Erweiterbarkeit zum Anpassen an Firmenprozesse**
- **Stets aktuelle Spezifikationen sehen – Änderungen stehen im Hintergrund bereit**
- **Alle Informationen auf einen Blick (rollen- und aufgabenbasiert)**
- **Versionierung der Spezifikationen**
- **Digitale Signatur zur Nachweispflicht**
- **Einbeziehung aller Projektbeteiligten (Diskussionen, Web-Zugang)**

Fragen?

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