

ART is an IBM® DOORS® accelerator product from
River North Solutions

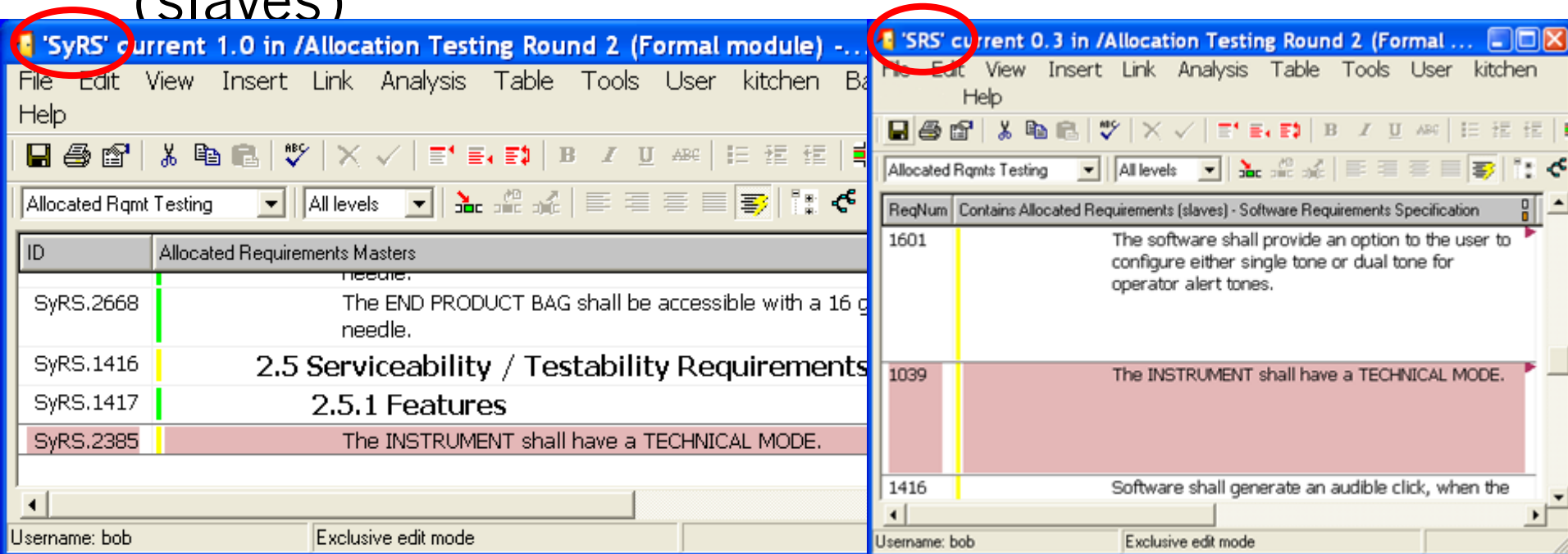


Allocated Requirements Tool™
(ART) for DOORS
v2.2

ART automates synchronization of reused requirements

'Allocated Requirements' Definition

- Same requirement used in two or more places
 - E.g. Software requirement same as System requirement
- Want one instance of requirement in database (master), displayed in more than one location (slaves)



The image displays two screenshots of the SyRS software interface, illustrating the concept of 'Allocated Requirements'.

Left Screenshot: 'SyRS' current 1.0 in /Allocation Testing Round 2 (Formal module) - ...

The interface shows a table of allocated requirements. The 'SyRS' label in the title bar is circled in red. The table lists requirements with their IDs and descriptions:

ID	Allocated Requirements Masters
SyRS.2668	The END PRODUCT BAG shall be accessible with a 16 g needle.
SyRS.1416	2.5 Serviceability / Testability Requirements
SyRS.1417	2.5.1 Features
SyRS.2385	The INSTRUMENT shall have a TECHNICAL MODE.

Username: bob | Exclusive edit mode

Right Screenshot: 'SRS' current 0.3 in /Allocation Testing Round 2 (Formal ...

The interface shows a detailed view of a requirement. The 'SRS' label in the title bar is circled in red. The requirement is displayed in a table:

ReqNum	Contains Allocated Requirements (slaves) - Software Requirements Specification
1601	The software shall provide an option to the user to configure either single tone or dual tone for operator alert tones.
1039	The INSTRUMENT shall have a TECHNICAL MODE.
1416	Software shall generate an audible click, when the

Username: bob | Exclusive edit mode

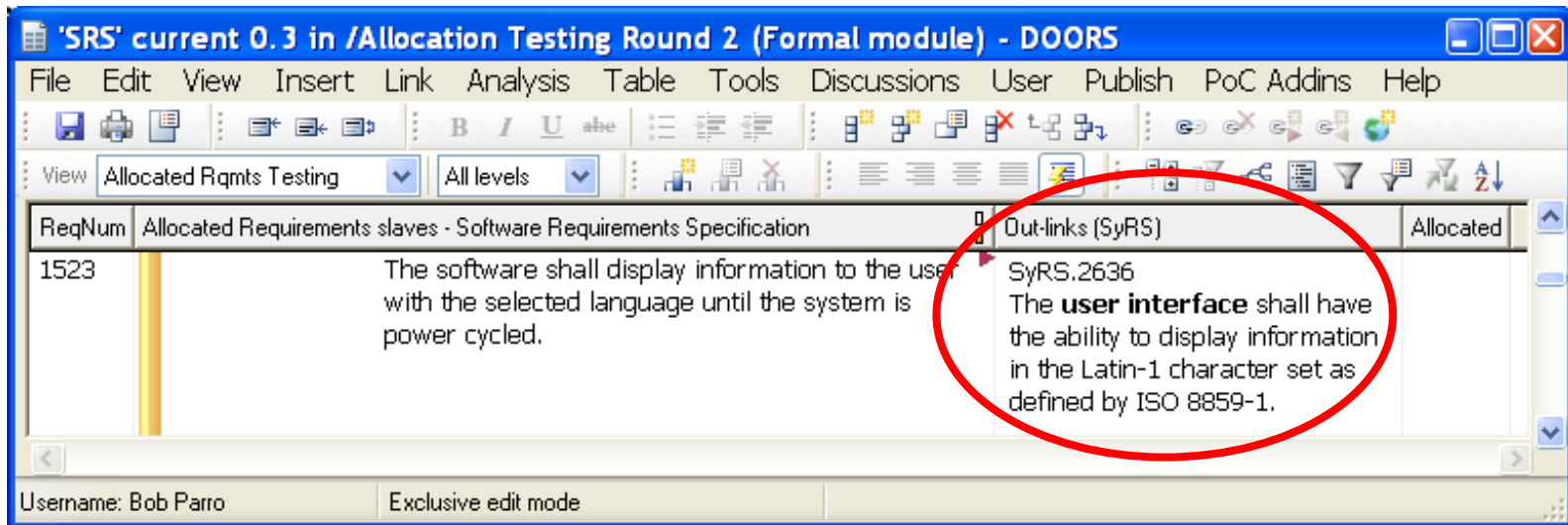
Allocated Requirements Tool™ (ART) Features

- Allocates one ‘master’ requirement to one or more ‘slave’ locations – respects rich text & OLE objects
- Updates slave requirement(s) automatically
 - When module opens
 - When ‘Allocated’ attribute transitions to TRUE
- Prompts user to confirm overwriting of existing requirement text when creating Allocated Requirement, if applicable
- Prohibits modifying Allocated Requirements (slaves)
- Allows manual updating of all Allocated Requirements within a module with a ‘single’ click

Accelerate Requirements Management

ART Operation

- Example starting state
 - Existing requirement with outgoing link
 - Want to reuse different requirement here
 - Link points to requirement user desires to reuse



The screenshot shows the DOORS software interface. The title bar reads "'SRS' current 0.3 in /Allocation Testing Round 2 (Formal module) - DOORS". The menu bar includes File, Edit, View, Insert, Link, Analysis, Table, Tools, Discussions, User, Publish, PoC, Addins, and Help. The toolbar contains various icons for editing and navigation. The main window displays a table with the following data:

ReqNum	Allocated Requirements slaves - Software Requirements Specification	Out-links (SyRS)	Allocated
1523	The software shall display information to the user with the selected language until the system is power cycled.	SyRS.2636 The user interface shall have the ability to display information in the Latin-1 character set as defined by ISO 8859-1.	

The 'Out-links (SyRS)' cell for requirement 1523 is circled in red, indicating the outgoing link to requirement SyRS.2636.

Username: Bob Parro Exclusive edit mode



ART Operation

- When 'Allocated' is set to True on object with outgoing link
- Designates current object as a duplicate or slave object to master object pointed to by outgoing link

The screenshot shows the DOORS software interface. The title bar reads "'SRS' current 0.3 in /Allocation Testing Round 2 (Formal module) - DOORS". The menu bar includes File, Edit, View, Insert, Link, Analysis, Table, Tools, Discussions, User, Publish, PoC, Addins, and Help. The toolbar contains various icons for file operations, editing, and analysis. The main window displays a table with the following data:

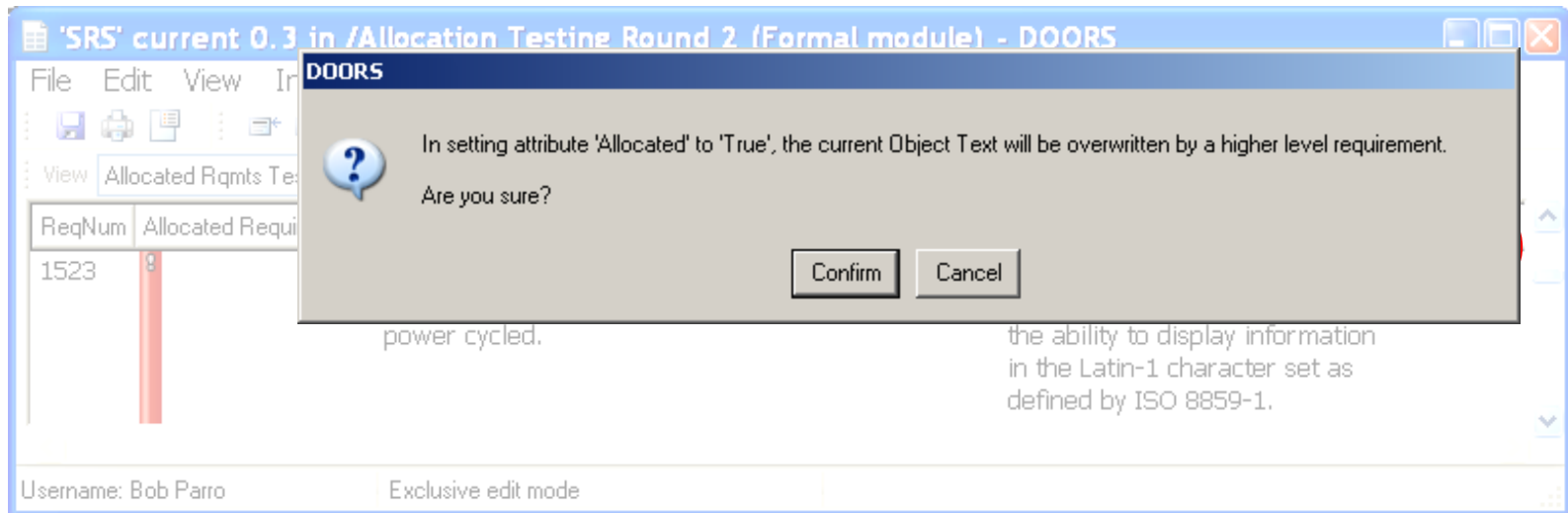
ReqNum	Allocated Requirements slaves - Software Requirements Specification	Out-links (SyRS)	Allocated
1523	The software shall display information to the user with the selected language until the system is power cycled.	SyRS.2636 The user interface shall have the ability to display information in the Latin-1 character set as defined by ISO 8859-1.	True

The 'Allocated' column header and the value 'True' in the first row are circled in red. The status bar at the bottom shows 'Username: Bob Parro' and 'Exclusive edit mode'.



ART Operation

- When 'Allocated' is set to True on object with outgoing link
- Designates current object as a duplicate or slave object to master object pointed to by outgoing link
- ART requests confirmation since current object text is about to be replaced





ART Operation

- When 'Allocated' is set to True on object with outgoing link
- Designates current object as a duplicate or slave object to master object pointed to by outgoing link
- ART requests confirmation since current object text is about to be replaced
- Object text replaced with object text of outgoing-linked object

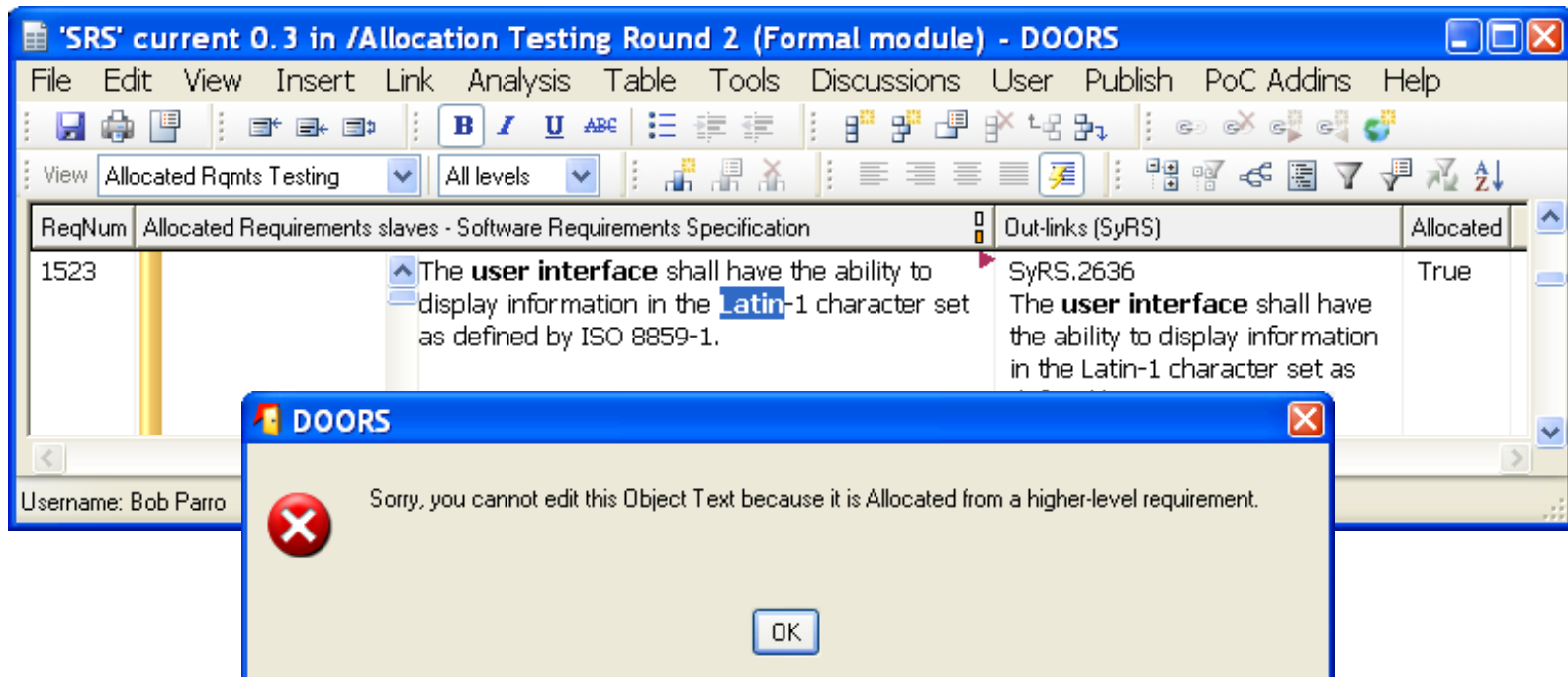
The screenshot shows the DOORS software interface. The title bar reads "'SRS' current 0.3 in /Allocation Testing Round 2 (Formal module) - DOORS". The menu bar includes File, Edit, View, Insert, Link, Analysis, Table, Tools, Discussions, User, Publish, PoC, Addins, and Help. The toolbar contains various icons for file operations, editing, and linking. The main window displays a table with the following data:

ReqNum	Allocated Requirements slaves - Software Requirements Specification	Out-links (SyRS)	Allocated
1523	The user interface shall have the ability to display information in the Latin-1 character set as defined by ISO 8859-1.	SyRS.2636 The user interface shall have the ability to display information in the Latin-1 character set as defined by ISO 8859-1.	True

At the bottom of the window, the status bar shows "Username: Bob Parro" and "Exclusive edit mode".

ART Operation

- If try to modify slave Allocated Requirement (in this case, turn selection bold)
 - Dialog displays message explaining edit was denied
 - To modify requirement must transition Allocated attribute away from 'True'



The screenshot shows the DOORS software interface. The main window title is "'SRS' current 0.3 in /Allocation Testing Round 2 (Formal module) - DOORS". The menu bar includes File, Edit, View, Insert, Link, Analysis, Table, Tools, Discussions, User, Publish, PoC Addins, and Help. The toolbar contains various icons for file operations and editing. The main area displays a table with columns: ReqNum, Allocated Requirements slaves - Software Requirements Specification, Out-links (SyRS), and Allocated. The table has one row with ReqNum 1523. The text in the 'Allocated Requirements slaves' column is bolded. An error dialog box is overlaid on the table, with the title 'DOORS' and the message: 'Sorry, you cannot edit this Object Text because it is Allocated from a higher-level requirement.' The dialog box has an 'OK' button.

ReqNum	Allocated Requirements slaves - Software Requirements Specification	Out-links (SyRS)	Allocated
1523	The user interface shall have the ability to display information in the Latin-1 character set as defined by ISO 8859-1.	SyRS.2636 The user interface shall have the ability to display information in the Latin-1 character set as	True

Username: Bob Parro

DOORS

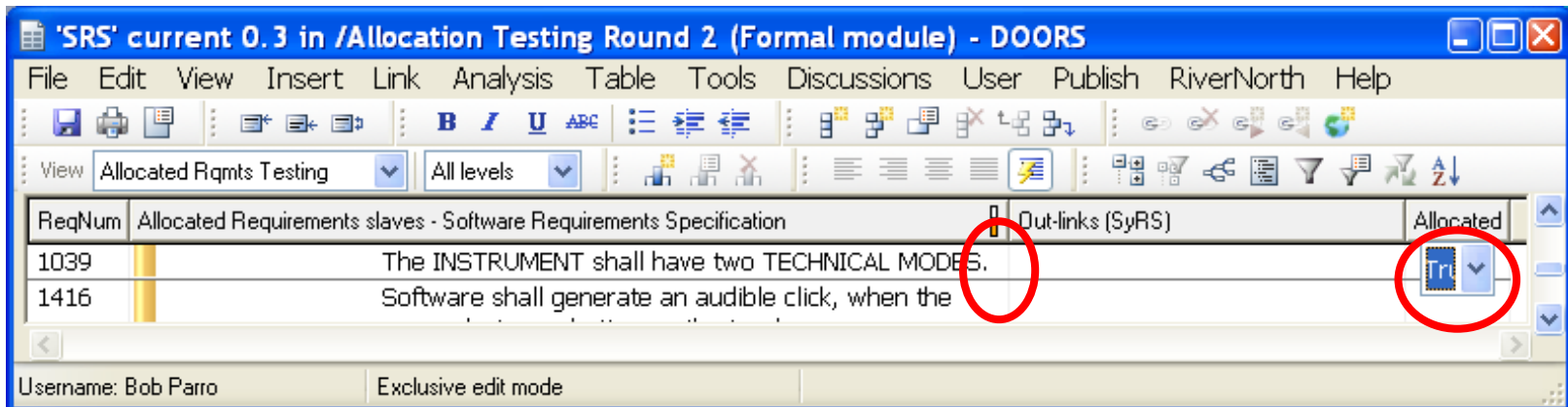
Sorry, you cannot edit this Object Text because it is Allocated from a higher-level requirement.

OK

Accelerate Requirements Management

ART Operation

- If have object with object text, but no out-link, and try to turn into Allocated Requirement (i.e. set “Allocated” = True)



'SRS' current 0.3 in /Allocation Testing Round 2 (Formal module) - DOORS

File Edit View Insert Link Analysis Table Tools Discussions User Publish RiverNorth Help

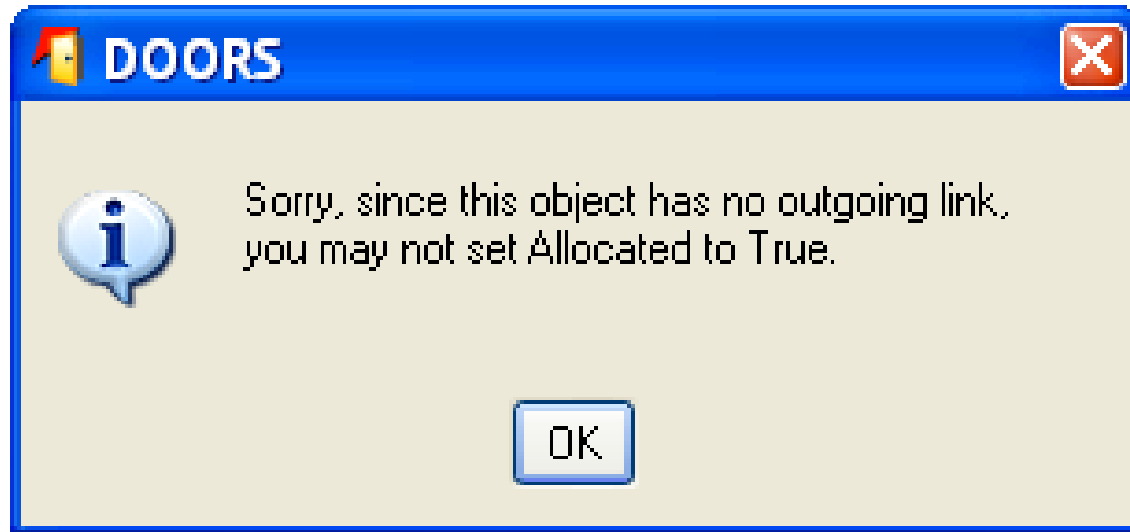
View Allocated Rqmts Testing All levels

ReqNum	Allocated Requirements slaves - Software Requirements Specification	Out-links (SyRS)	Allocated
1039	The INSTRUMENT shall have two TECHNICAL MODES.		<input checked="" type="checkbox"/>
1416	Software shall generate an audible click, when the		<input type="checkbox"/>

Username: Bob Parro Exclusive edit mode

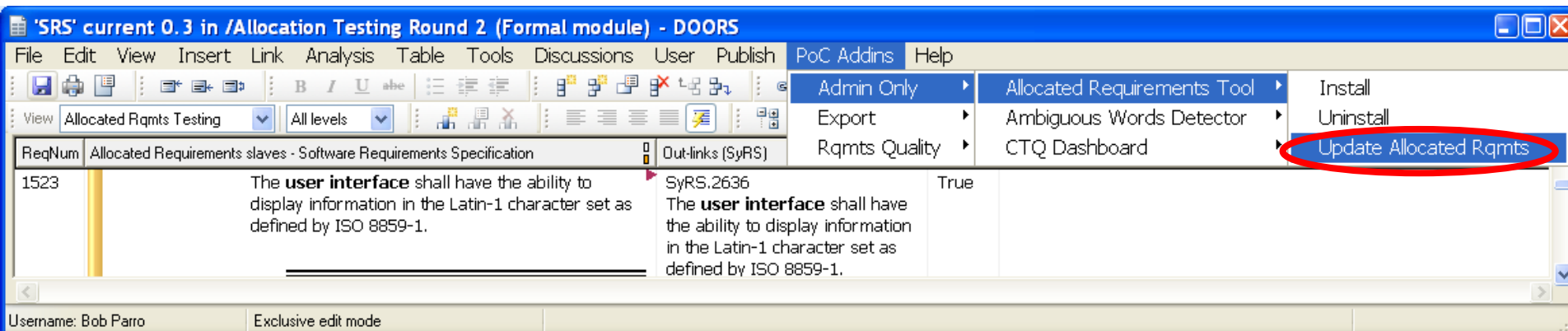
ART Operation

- If have object with object text, but no out-link, and try to turn into Allocated Requirement (i.e. set “Allocated” = True)
 - Get message indicating cannot set Allocated to True – no out-link



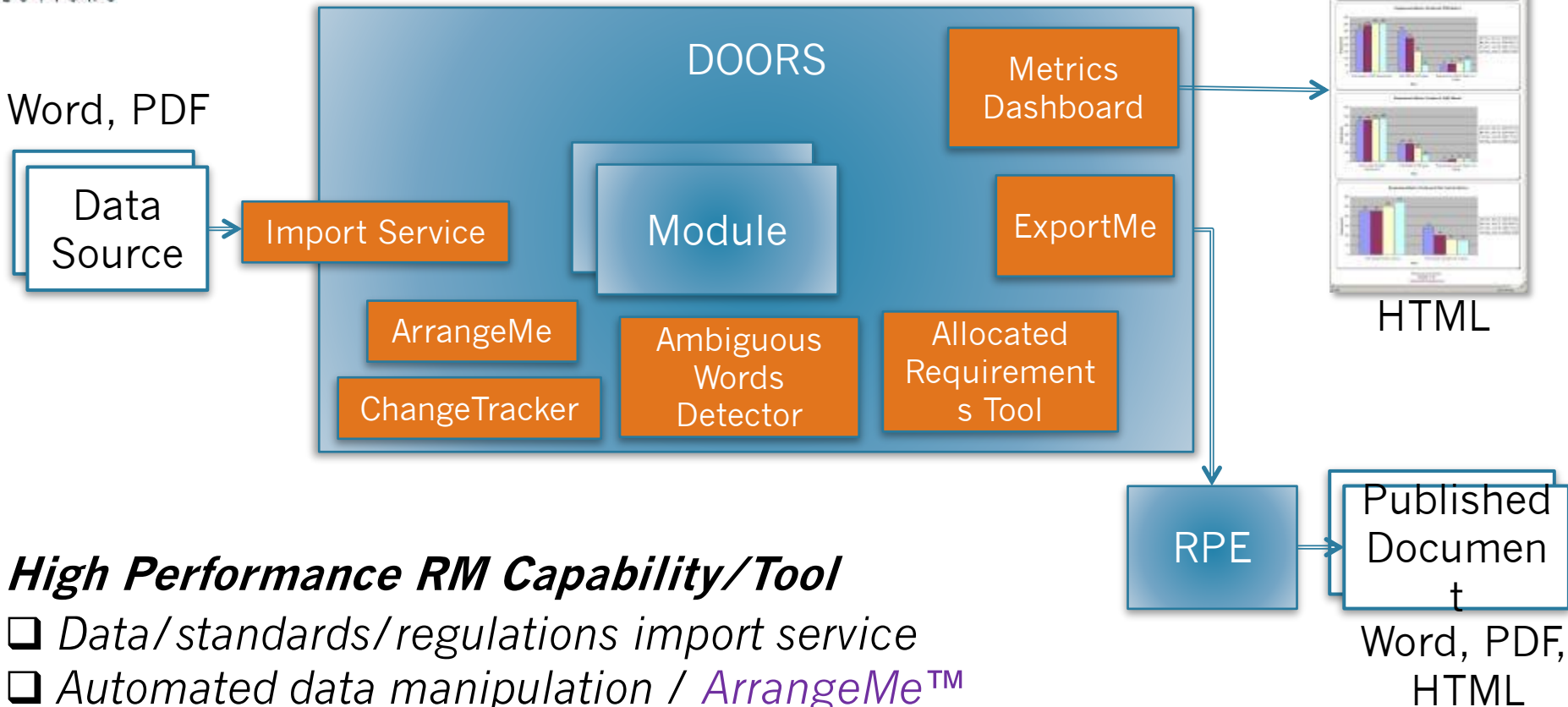
ART Operation

- “Update Allocated Rqmts” compares object text at both ends of link (for all Allocated Requirements in module)
 - If slave different than master, slave is overwritten, affecting change history
- When are slave Allocated Requirements updated?
 1. Upon slave module open, all Allocated Requirements are updated
 2. Upon “Allocated” attribute transition to “True”
 3. Manual – Update Allocated Rqmts menu selection – all objects with “Allocated” = True



The screenshot shows the DOORS software interface. The title bar reads "'SRS' current 0.3 in /Allocation Testing Round 2 (Formal module) - DOORS". The menu bar includes File, Edit, View, Insert, Link, Analysis, Table, Tools, Discussions, User, Publish, PoC Addns, and Help. The 'PoC Addns' menu is open, showing options like Admin Only, Export, and Rqmts Quality. The 'Allocated Requirements Tool' sub-menu is also open, showing options like Install, Uninstall, and 'Update Allocated Rqmts', which is circled in red. The main workspace displays a table with columns for ReqNum, Allocated Requirements slaves, and Out-links (SyRS). The first row shows ReqNum 1523 and a requirement text: 'The user interface shall have the ability to display information in the Latin-1 character set as defined by ISO 8859-1.' The status bar at the bottom indicates 'Username: Bob Parro' and 'Exclusive edit mode'.

River North Accelerator Tools for Requirements Management & Document Publishing



High Performance RM Capability/Tool

- Data/standards/regulations import service
- Automated data manipulation / ArrangeMe™
- Boost requirement quality, reduce churn / Ambiguous Words Detector™
- Automated, simplified, consistent document publishing / ExportMe™
- Monitor leading indicator trends / Metrics Dashboard™
- Display revision markup using rich text / ChangeTracker™
- Reuse requirements / Allocated Requirements Tool™

Accelerate Requirements Management

River North Profile – Industries/Clients*, Products

- **Aerospace & Defense**
 - Aerojet Rocketdyne
 - Boeing
 - Collins Aerospace
 - Crane Aerospace
 - LMCO-NASA
 - NASA JPL
 - Northrop Grumman
- **Energy**
 - NuScale Power
 - Sandia National Labs
 - Westinghouse Nuclear
- **Automotive**
 - Ford Motor Company
 - Honda Motor Company
 - Johnson Controls
- **Medical Device**
 - Ameda
 - Ascensia Diabetes Care
 - Baxter Healthcare
 - Bayer Healthcare
 - Eli Lilly
 - Hospira
 - J&J Vision
 - Roche Diagnostics
 - St. Jude Medical (Abbott)
- **Semiconductor**
 - NXP Semiconductors
- **Transportation**
 - Ansaldo STS
 - Bombardier Transportation
 - GE Transportation
- **Telecommunications**
 - Comcast
 - Motorola Solutions
- **Industrial**
 - Chamberlain
 - HP Enterprise Services

DOORS Classic Accelerator Products from River North

- *Ambiguous Words Detector™ (AWD)* – boosts requirement quality by automatically detecting ambiguous words in DOORS
- *ArrangeMe™* – automated DOORS data manipulation/movement
- *Requirement Metrics Dashboard™ (RMD)* – automated metrics production for DOORS
- *ChangeTracker™* – revision markup displayed using rich text in DOORS
- *ExportMe™* – document publishing automation taken to a new level in DOORS
- *Allocated Requirements Tool™ (ART)* – facilitates requirement reuse in DOORS

Contact Information

www.rivernorthsolutions.com
info@rivernorthsolutions.com



* Partial List



Accelerate Requirements Management For More Information...

- *Allocated Requirements Tool™* can be customized to suit your organization's needs
- Contact Bob Parro at bparro@rivernorthsolutions.com