ASoN
The AREA Statements of
Need Management Tool

Michael Rygol

Goals

Provide a tool to capture use cases, requirements & more for the AREA ecosystem

Encourage the creation of contextualized and tagged content

Make this context valued by and accessible to the AREA community

Encourage a collaborative environment

Provide a managed, rich source of valuable content for AR solution users and suppliers

Key Concepts

Database is online and accessible to the AREA community

Adheres to the AREA Schema of Needs

Two views of the system:
- The **registered user**
  - Submit content for approval
  - Search
  - Comment
  - Report
- The **Admin user** (aka Requirements Committee members)
  - User privileges plus…
  - Configuration
    - Users, Settings, Industries, Tags, Personas, Templates, Admin users
  - Content approval

Rich text editing of content and simple linking to other content

Content subscription with automated notifications model
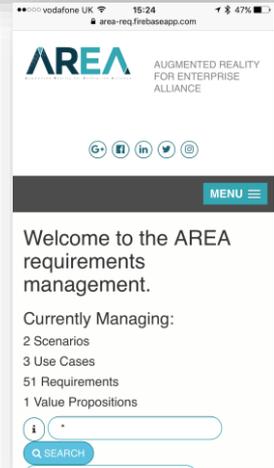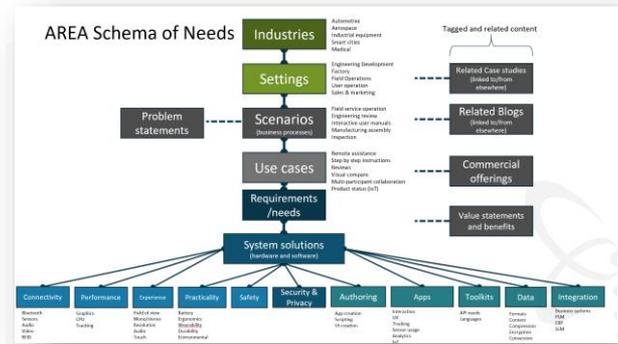
Mobile friendly

Key Capabilities

User's View of the System

Consistently structured content is encouraged:
- Business scenarios
- Use cases
- Requirements / needs
- Value propositions
- Personas
- *Submitted content is subject to a review process*

Rich text editing (include links, images, etc.)
- Commenting to encourage collaboration
- Streamlined referencing to existing
- Subscribe and notify model
- Use pre-defined templates

Bulk loading of content
- *From CSV file*

Comprehensive search capabilities

Reporting

User self registration

Admin's View of the System

Maintain list of admins and users

Define list of tags and tag groups

Define set of Industries
- *e.g. Automotive, Aerospace*

Define usage Settings
- *e.g. Factory, Field, etc.*

Define Personas
- *e.g. Field Service Technician*

Define Templates for all content types

Define notification email lists

Review and Approve content submissions

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User Capabilities

User's initial screen

Have an account? Login!

E-Mail

[Enter your email]

Password

[Enter your password]

[LOGIN] [RESET]

Register Now? [REGISTER]

Register

Display Name

[Display Name]

Email Address

[Email Address]

Password

[ ]

Confirm Password

[ ]

[REGISTER] [CLOSE]

Database location

https://areareqs.firebaseapp.com

Contact Michael@thearea.org for admin privileges (needs a gmail account)

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User's home screen

Login for admin users

→Ð ADMIN LOGIN

Content types

| HOME | SCENARIOS | USE CASES | REQUIREMENTS | VALUE PROPOSITIONS | MANAGEMENT | Welcome, Michael Rygol   LOGOUT

Welcome to the AREA requirements management.

Currently Managing:
2 Scenarios
3 Use Cases
51 Requirements
1 Value Propositions

Overview of approved content in database

Search tools

ⓘ Search...   Q SEARCH   Load Search   Enter search name   SAVE SEARCH

+ Advanced Search

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Searching

Search UI overview

Searches are context-sensitive

HOME | SCENARIOS | USE CASES | REQUIREMENTS | VALUE PROPOSITIONS |

Simple text search according to context

Run the search

Persistent, re-usable personalised search

Help on compound search queries

an

Q SEARCH

Load Search

Enter search name

SAVE SEARCH

+ Advanced Search

Search by Industry, Setting and Tags

1 Scenarios
1 Use Cases
23 Requirements

Facetted search results (links to sublists)

Facetted results shown when in "HOME" context

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Search expressions

Build compound search strings (in addition to use of tags) e.g.
- *
  - Find everything!
- AP* [and] [-]APP*
  - Find items with words beginning with AP but not with APP
- Hololens [OR] ODG
  - Find items that include the "Hololens" or "ODG"

| i | AP* [and] [-]APP* | 🔍 SEARCH |

Click for more info
on search queries

Search Tips   ✕

| * to list all items |
| use [or] operator like: term 1 [or] term 2 |
| use [and] operator like: term 1 [and] term 2 |
| use [-] operator to exclude search term like: [-]term |
| combine [-] and [and] operators like: term 1 [and] [-]term2 |
| combine [-] and [or] operators like: term 1 [or] [-]term2 |
| don't combine [and] and [or] operators. |

CLOSE

These can be saved for later re-use

Advanced Search UI overview (1)

- Advanced Search

- Users

☐ Me

[User name or email]

Search by user (name/email address)

Logical operator within this group

- Related Industries ◉ AND ○ OR

☐ Aerospace & defense   ☐ Automotive   ☐ Industrial equipment   ☐ Shipbuilding
☐ Life sciences   ☐ Consumer goods & high tech   ☐ Smart cities   ☐ Toys and games
☐ Footwear and apparel   ☐ Process industries   ☐ Other   ☐ Updated Test Industry

Collapsible group display

- Settings ◉ AND ○ OR

Engineering development   **Factory**   **Field operations**   **User operations**
☐ Prototype development   ☐ Manufacturing processes   ☐ Field service and repair   ☐ Interactive user instructions
☐ Design   ☐ Factory operations   ☐ Maintenance   ☐ Consumer diagnostics
☐ Test   ☐ Diagnostics   ☐ Virtual operation and interaction

Sales and marketing
☐ Prospect presentations
☐ Marketing promotions

+ Tags ◉ AND ○ OR

Tags

Admin-defined tag groups

Previously saved searches

Define name of saved search

ℹ [AP* [and] [-]APP*]   🔍 SEARCH   [Load Search]   [Enter search name]   [SAVE SEARCH]
                                       Load Search
- Advanced Search   AeroAutoEngineering
                                       ProcessOrSmartCities

Saved searches:
- Capture all tags
- Include search string
- Individual to user

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Advanced Search UI overview (2)

- Tags ● AND ○ OR

Connectivity
☐ Bluetooth
☐ Sensors
☐ Audio
☐ Video
☐ RFID

Performance
☐ CPU
☐ Graphics
☐ Visual tracking

Experience
☐ Field of view
☐ Mono/stereo
☐ Resolution
☐ Audio
☐ Touch

Practicality
☐ Battery
☐ Ergonomics
☐ Wearability
☐ Durability
☐ Environmental

Authoring
☐ App creation
☐ Scripting
☐ UI creation

Apps
☐ Interaction
☐ UX
☐ Tracking
☐ Sensor usage
☐ Analytics
☐ IoT

Toolkits
☐ API needs
☐ Languages

Data
☐ Formats
☐ IoT
☐ Compression
☐ 3D
☐ Encryption
☐ Conversion

Integration
☐ Business systems
☐ IoT
☐ PLM
☐ ERP
☐ SLM

Device
☐ Phone
☐ Tablet
☐ Eyewear
☐ Other

Admin-defined tag groups

Example search – within REQUIREMENTS

AREA

| HOME | SCENARIOS | USE CASES | REQUIREMENTS | VALUE PROPOSITIONS |

MANAGE REQUIREMENTS

SUBMIT REQUIREMENT

Select to search in this context

Simple text field search

Display

Q SEARCH   Load Search   Enter search name   SAVE SEARCH

+ Advanced Search

Manage Selected Requirements

- Related Industries
☐ Aerospace & defense ☐ Automotive ☐ Industrial equipment ☐ Shipbuilding ☐ Life sciences ☐ Consumer goods & high tech
☐ Smart cities ☐ Toys and games ☐ Footwear and apparel ☐ Process industries ☐ Other ☐ Updated Test Industry

+ Settings

+ Tags

SAVE   CLOSE

MANAGE SELECTED REQUIREMENTS

Search Results (51 items)

Select ☐	Title	Description	Action
☐	API links to other databases	Needs access to live data. ...	📋 COPY LINK ✏ EDIT ✖ DELETE
☐	User interface for non-software literate users	Ned to separate creation from usage ...	📋 COPY LINK ✏ EDIT ✖ DELETE
☐	Output to branded applications	Shall output to an application that the yser will define the ...	📋 COPY LINK ✏ EDIT ✖ DELETE
☐	Displaying standard content	"Display PDF ...	📋 COPY LINK ✏ EDIT ✖ DELETE

Simultaneous editing of tags for multiple items

Multi-selection to edit Settings, Tags, etc.

Title of requirement = link to content item

Get the link to this requirement

Edit this requirement

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Viewing

Viewing a requirement

AREA

Edit this item

Subscribe to edits or comments on this item

Share a link to this item (via email)

Who created this item and when

Summary title

Item detail

Tags (admin-definable)

Applicable Settings and Industries

Commenting

HOME | SCENARIOS | USE CASES | REQUIREMENTS | VALUE PROPOSITIONS |

Welcome, Michael F. Rygol   LOGOUT

API links to other databases   ✏ EDIT   👁 SUBSCRIBE   ≪ SHARE

👤 Michael F. Rygol
🏛 05/07/2018 10:35 AM

The toolkit shall provide links to other databases to enable the retrieval of information from enterprise business systems.

Examples include:

1. Retrieval of meta-data

2. Stock count

3. Material parameters

Tags

Connectivity   Bluetooth   Sensors   Audio   Video   RFID

Settings

Engineering development   Prototype development   Design   Test
Factory   Factory operations
Field operations   Field service and repair

Industries

Aerospace & defense   Automotive   Industrial equipment   Shipbuilding   Life sciences   Consumer goods & high tech   Smart cities   Toys and games   Footwear and apparel   Process industries   Other

Comments

Add your comment

POST

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Viewing a use case or scenario

Cabin crew workflow [EDIT] [SUBSCRIBE] [SHARE]

Cabin Crew Workflow

AR-assisted cabin crew workflows use any technology for creation, detection, recognition and rendering. Display options that permit professionals to use both hands are highly preferred. The user interface ⓘ can be speech recognition, gesture recognition ⓘ , eye-gaze ⓘ recognition or touchscreen ⓘ .

Integration of AR-assisted cabin crew workflows with traveler record management systems in some scenarios and systems is desirable.

Tags

Apps [Interaction] [UX] [Tracking] [Sensor usage] [Analytics] [IoT]
Device [Tablet] [Eyewear]

Settings

User operations [Interactive user instructions]

Industries

[Aerospace & defense] [Shipbuilding]

Linked Requirements

User interface for non-software literate users
"Shall support the ability for the user to lock the 3D AR content (not allow the worker to modify location
Visual Tracking method
"For smart devices with touch screen

"For smart devices with touch screen

the worker shall be allowed to use ""pinch"" gesture for zooming"

[✖ CLOSE]

Link to requirement

Popup to view requirement in content

Auto-generated list of referenced requirements

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Notifications

Notifications

Email notifications occur on content item **creation** (e.g. scenarios, use cases) to:

- Admin accounts

- Selected users (list maintained by an admin)

Item **edits** send notifications to:

- Admin accounts

- Selected users (list maintained by an admin)

- The content creator

- Item subscribers

Comment creation sends notifications to:

- Admin accounts

- The content creator

- Item subscribers

- Previous commenters
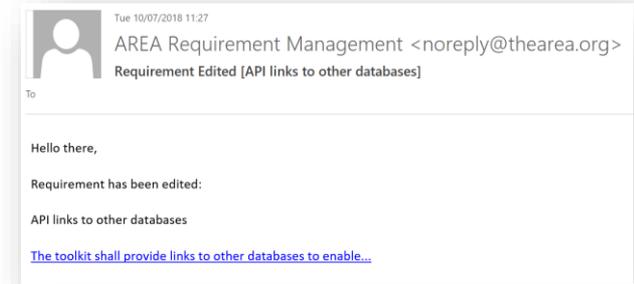
Edit notification
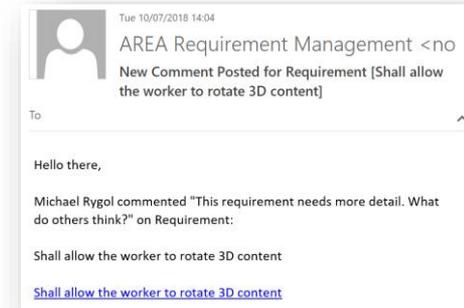
Comment notification

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Commenting

Commenting

Comment thread

Comments

Michael F. Rygol *10/07/2018 11:53 AM*

This is a first comment on this requirement.

Michael F. Rygol *10/07/2018 11:53 AM*

This is a second comment on this requirement.

Add your comment

POST

Automated email notification

Tue 10/07/2018 14:04

AREA Requirement Management <no

New Comment Posted for Requirement [Shall allow the worker to rotate 3D content]

To

Hello there,

Michael Rygol commented "This requirement needs more detail. What do others think?" on Requirement:

Shall allow the worker to rotate 3D content

Shall allow the worker to rotate 3D content

Includes recent comment text.

Submitting Content
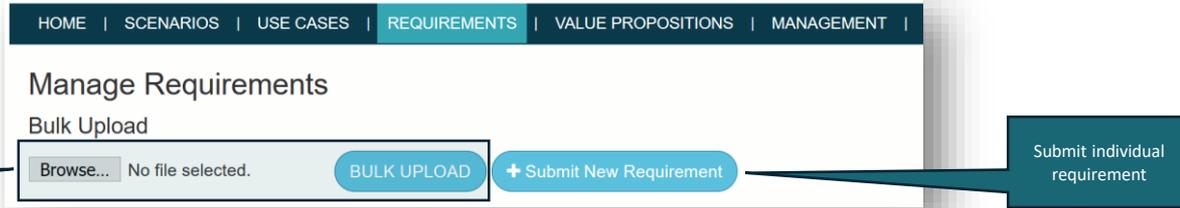
Bulk Upload

Bulk upload supported for all item types:
- Scenarios, Use cases, Requirements, Value propositions
- CSV file format:
    - [title] , [description] \n
- Excel is a good way to prepare existing lists to save to CSV

All item submissions and edits are sent for approval

Submitting an item

AREA

HOME | SCENARIOS | USE CASES | REQUIREMENTS | VALUE PROPOSITIONS | MANAGEMENT | Welcome, Michael Rygol LOGOUT

Submit Scenario

Scenario Title
> scenario Title

Choose Template
> Select Template

scenario

This is the preferred scenario template.

Scenario summary
Please provide a summary of this scenario (<100 words)

Problem statement
Please provide a summary of the problem statement

Scenario description
Please provide comprehensive description of the end to end business process. Please ensure to reference existing use cases and/or requirements wh actors in this scenario.

+ Related Industries

+ Settings

+ Tags

SAVE CANCEL

Annotations:
- (1) Enter title
- (2) Choose template (if required)
- (3) Enter description
- (4) Select relevant Industries (optional)
- (5) Select relevant Settings (optional)
- (6) Select relevant Tags (optional)
- (7) Click SAVE
- Rich formatting tools — Embed pictures, tables, hyperlinks, etc.
- Formatted item template (optional)

All item submissions and edits are sent for approval (except comments)

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Linking to other content (e.g. requirements within a use case)

AREA

(3) Start typing

(1) Enter link text to be shown (optional)

(2) Right Mouse Button menu and select item type

(4) Select from auto-populated list that match the text typed and hit return.
Hyperlink is embedded within the text.

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Reporting

Reporting Search Results to PDF & CSV

Export selected items to a CSV file (import into Excel, etc.)

Embeds links to items within the report

Export selected items from search results to a PDF (via a browser)

Additional optional info for report

Save search results to PDF & CSV reports

PDF report (can also save as HTML)

Use browser's "Print to PDF driver"

Link to item in database

CSV report

Notes:
- Uses browser ability to write to a PDF driver.
- You'll need to enable the popup from the tool

Admin Capabilities

Accessible to Admin Users only

Admin home screen

Overview of approved content in database

Submitted content counts

Time period (defaults to one month ago to 'today')

Approval counts

Links to lists of updated content items

Flagging content for review

Place single item in 'unapproved' state

Place multiple items from search results in 'unapproved' state

*Content flagged for review will **return** to the list of items to be approved by the committee*

Pending Items on the Admin's Home Screen

AREA

Committee actions

Grouped according to Item Type

Backlog of items to approve

Pending for Approval
Pending Scenarios

Title	Description	Action
Product Design	Produc	✔ APPROVE ✏ EDIT ✘ REJECT
Flight Path Visualization	Flight	✔ APPROVE ✏ EDIT ✘ REJECT
Cabin Crew Workflow	Cabin	✔ APPROVE ✏ EDIT ✘ REJECT
Warehouse Picking		
Aircraft Technician Training		
Emergency Response		
Field Service		
Remote Visualization and Inspecti		
Inspection (Medical)		

Pending Use Cases

Title	Description	Action
Emergency Response	Emergency ResponseAR-assisted emergency response supports p	✔ APPROVE ✏ EDIT ✘ REJECT
Placement of equipment in bar cellar as part of system of record	Often, during the layout of cellar equipment for a bar, hote	✔ APPROVE ✏ EDIT ✘ REJECT
AR for Training – Overview Use Case	Overview of use caseThe AR solution provides trainees with a	✔ APPROVE ✏ EDIT ✘ REJECT

Pending Requirement

Title	Description	Action
Ability to place 3D models in physical context	The system shall provide the ability to place a selected 3D	✔ APPROVE ✏ EDIT ✘ REJECT
Ability to capture a view of a 3D model within a physical scene	The system shall provide the ability to capture an image of	✔ APPROVE ✏ EDIT ✘ REJECT

Pending Value Propositions

Title	Description	Action
Reduce knowledge transfer costs from an ageing and retiring workforce	The use of AR will help to reduce the costs of transferring	✔ APPROVE ✏ EDIT ✘ REJECT
Improvements to traceability and auditability	The use of AR shall improve the organisation's ability to en	✔ APPROVE ✏ EDIT ✘ REJECT

Thank you