

Capella Development Status & Future Work

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13/10/2020

Capella Development Teams

Capella Core Development Team



Michel BISPO
Product Owner



Shyam DEVDA
Scrum Master



Philippe DUL
Software Architect



Sandu POSTARU
Software Engineer



Minh Tu TON THAT
Software Engineer

Internal Thales Teams

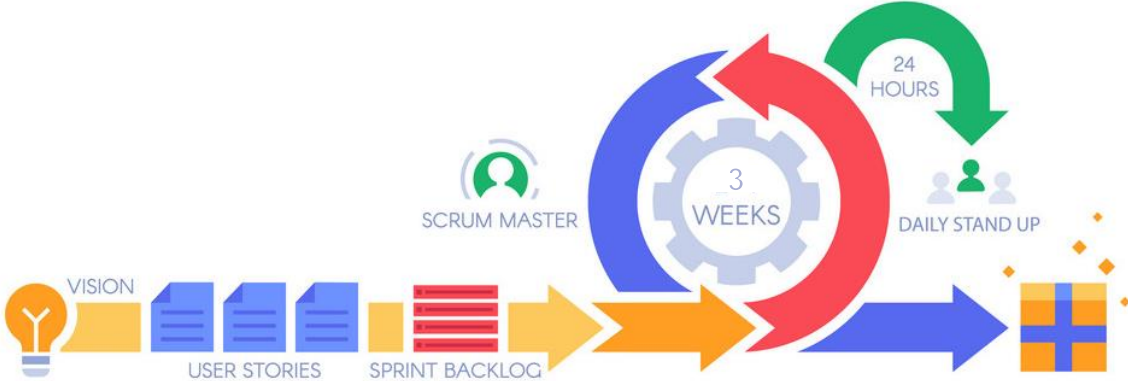


External Collaborators

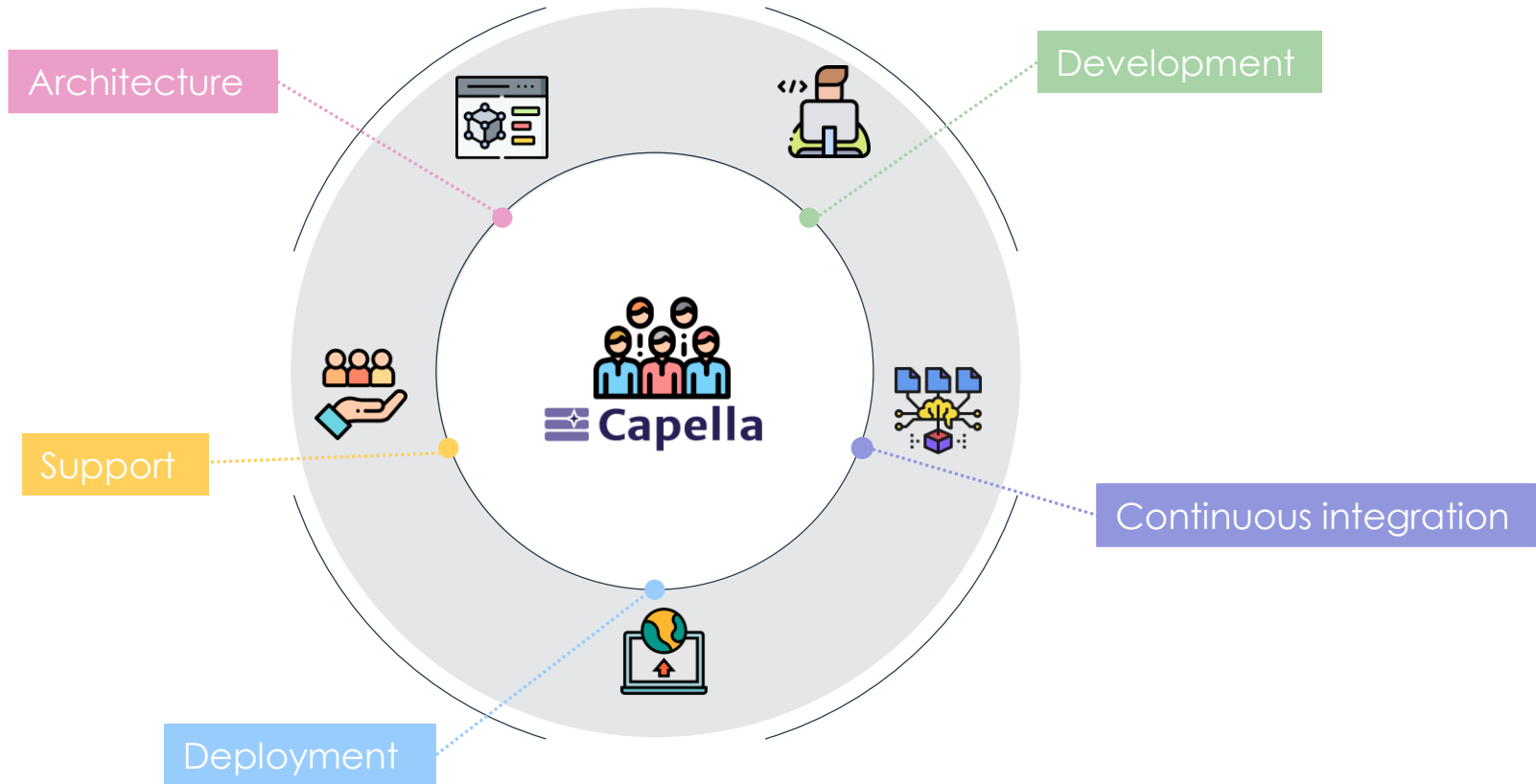


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Capella Core Team Scrum Process



Capella Core Development Team in a nutshell



Capella Roadmap



October
2020



November
2020



December
2020



Capella 1.4.2
October
2020

Capella 5.0
December
2020



Capella

October
2020

1.4.2



176
stories



epics
2

Over **309,674**
line additions



Over **95,738**
line deletions



13,403
changed files



Capella 1.4: Feature overview



Diagram Title Blocks Epic

Add dynamic details to diagram elements, their features and relationships



Search and Replace Epic

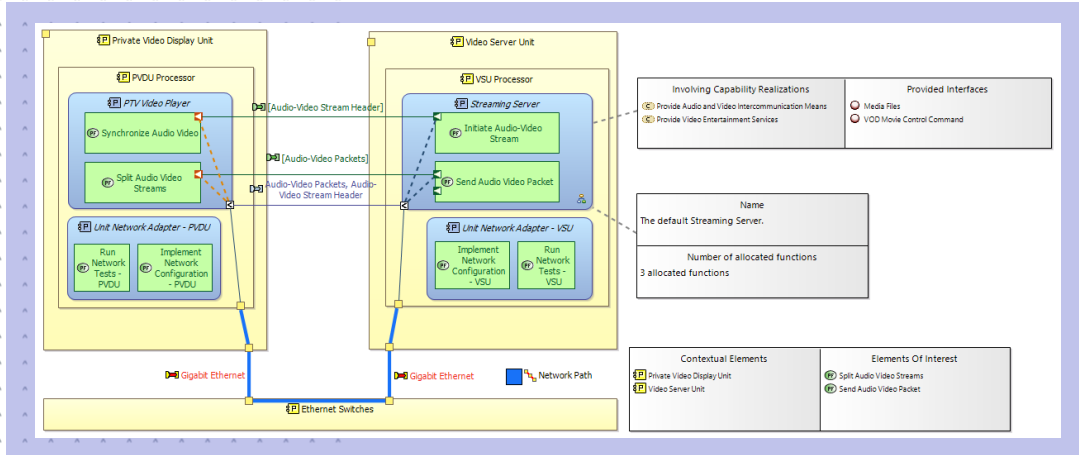
Locate elements efficiently and perform batch modifications to any of their features



Quick Win User Stories

Visible improvements that have immediate benefit and can be delivered quickly

Diagram Title Block: Add dynamic details to diagram elements and their relationships



Polyvalent

- Model element
- Diagram element

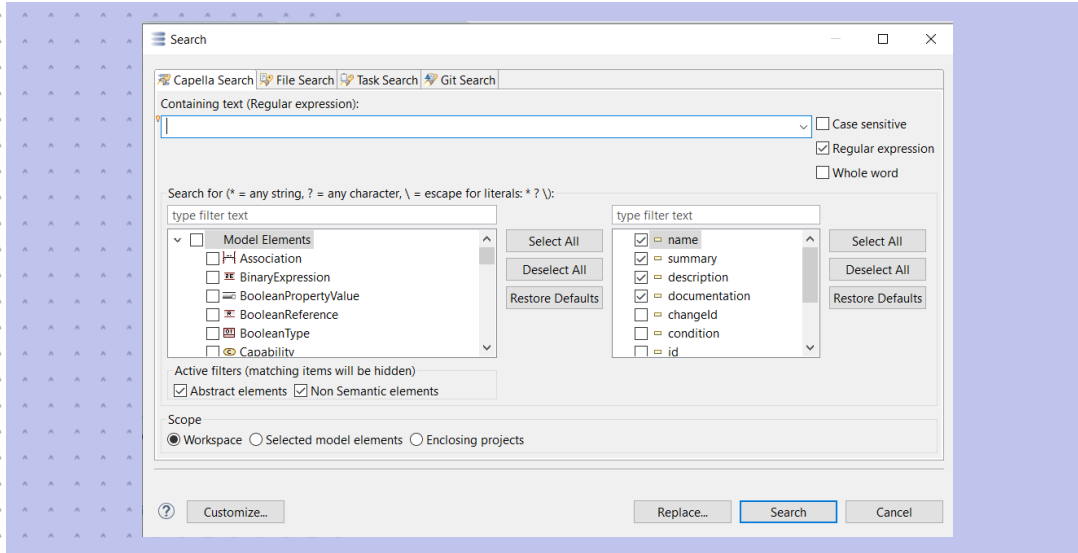
Versatile

- Element features
- Element relationships
- Semantic Browser queries
- Model queries (AQL)

Customizable

- Automatically present on new diagrams

Search and Replace Epic: Locate elements efficiently and modify them



Model-centric

- Fine grained search criteria on model elements and attributes
- Filters on semantic elements

Focus on UX

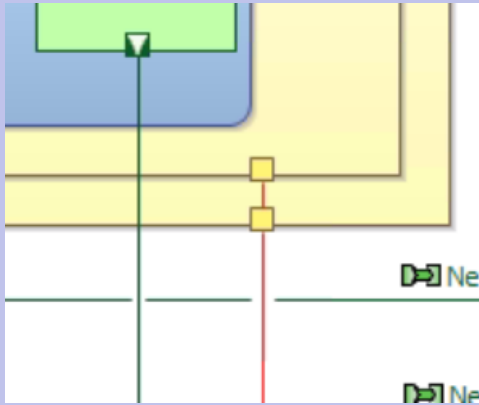
- Many search options
- Many search scopes
- User friendly search result view

Capella integration

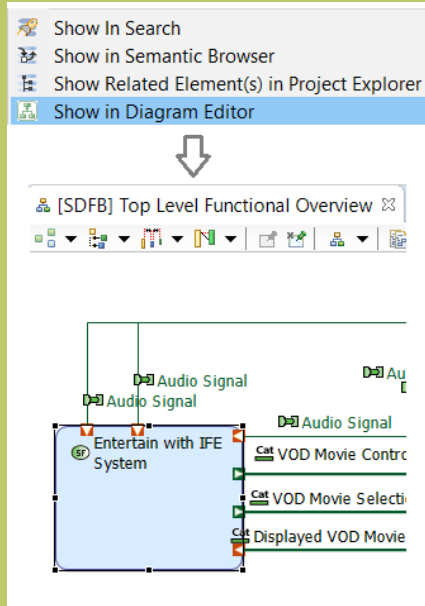
- Same search view as other Eclipse search capabilities
- Navigable search result

Quick wins

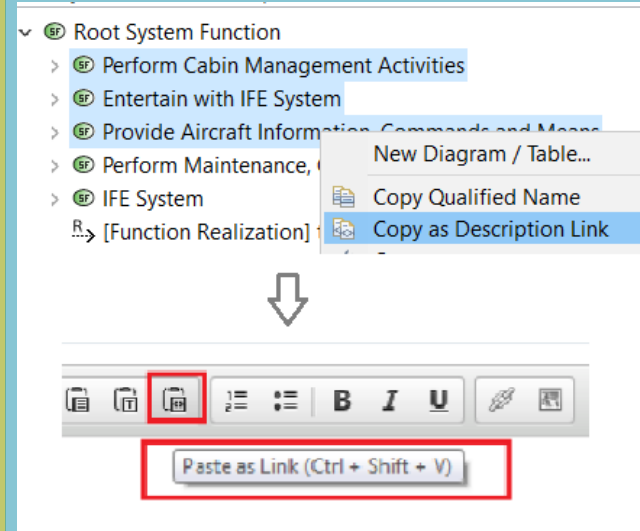
Ability to display jump link in tunnel form



Reveal diagram element with “Show in diagram” menu



Create hyperlinks to elements in description editor



Other enhancements in command-line applications and in collaborative mode

Capella

December
2020

5.0



Simplifying the Capella versioning philosophy

Capella 1.3.x



Capella 1.4.x



Capella 5.0

Purpose

- Improve the versioning scheme

Previously

- Major releases were versioned like patch releases (1.**3**.2, 1.**4**.x)
- Patch releases were versioned like micro releases (1.3.**2**, 1.4.**2**)

Currently

Major releases will be versioned accordingly (**5**.0)

Patch releases will be versioned accordingly (5.**1**)

Capella 5.0: Feature overview



Performance

- Upgraded to Eclipse 2020-06 platform
- Improved refresh operations on scenarios

Deployment

- Embedded OpenJDK 14.0.2

Usability

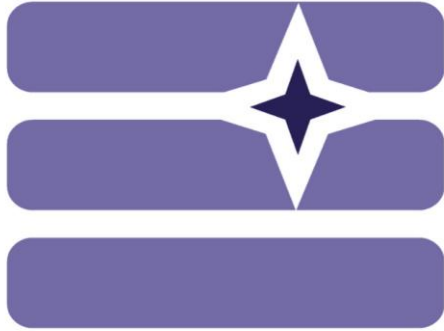
- Improved the Capella UI theme
- Designed consistent view icons

Clarity

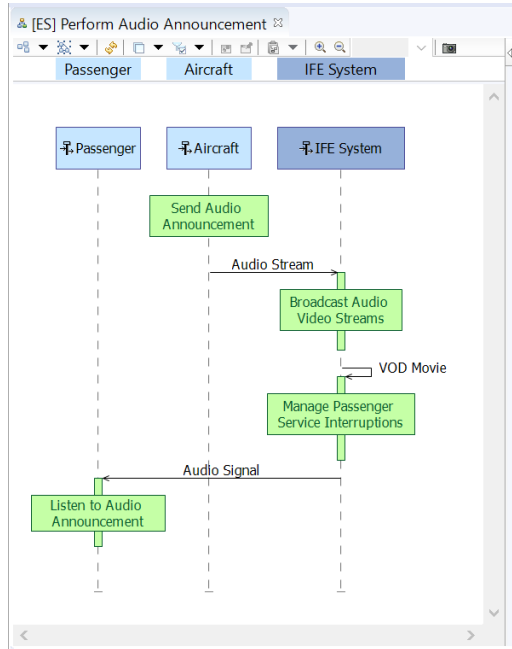
- Replaced legacy file extensions *melodymodeller* to *capella*

Community

- Migrated to Github
- Added a contribution guide

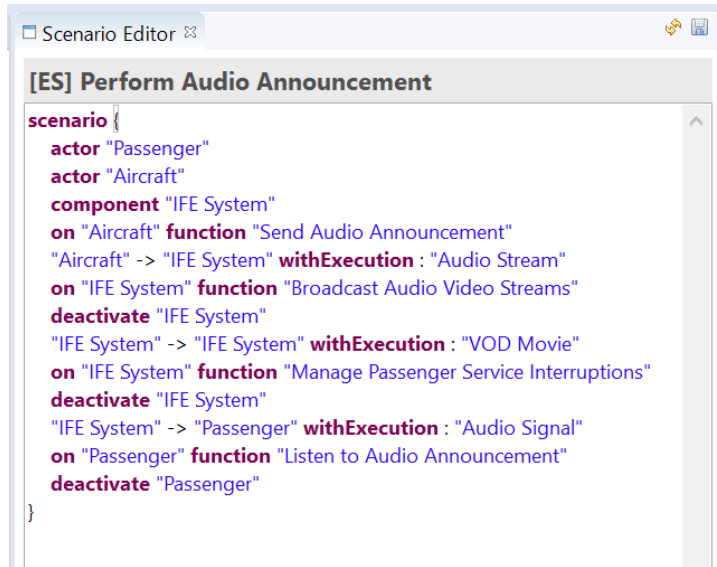


Some on-going and future work



Need

It is not always easy to edit a scenario from its graphical representation (copy / paste, move part of the scenario)



```
Scenario Editor [ES] Perform Audio Announcement
scenario {
  actor "Passenger"
  actor "Aircraft"
  component "IFE System"
  on "Aircraft" function "Send Audio Announcement"
  "Aircraft" -> "IFE System" withExecution : "Audio Stream"
  on "IFE System" function "Broadcast Audio Video Streams"
  deactivate "IFE System"
  "IFE System" -> "IFE System" withExecution : "VOD Movie"
  on "IFE System" function "Manage Passenger Service Interruptions"
  deactivate "IFE System"
  "IFE System" -> "Passenger" withExecution : "Audio Signal"
  on "Passenger" function "Listen to Audio Announcement"
  deactivate "Passenger"
}
```

Solution

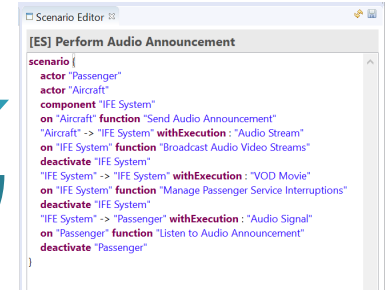
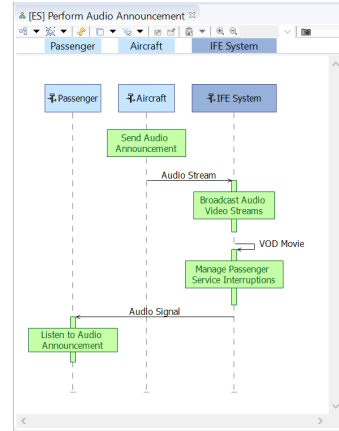
Textual editor for scenarios:

- Synchronized with diagram
- Allow edition from text or diagram

Textual editor for Capella

First supports scenarios

Could be extended to other elements in the futur



First prototype add-on available soon!



Labs for Capella

<https://labs4capella.github.io/>



For the whole Capella community



Tool providers



Industrials



Academics



Single user



Find and try



Share

Prototype add-ons / tooling for Capella

In order to

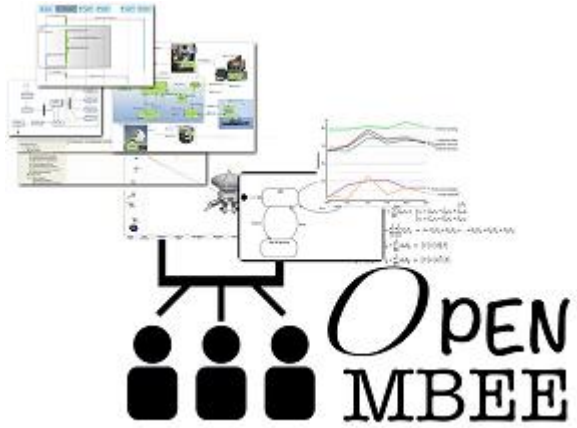


Create synergies



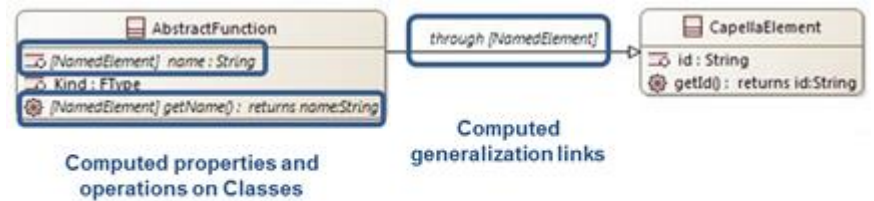
Collaborate

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Capella ↔ Open MBEE connector

Enhanced Class Diagram Blank (CDB) with computed information



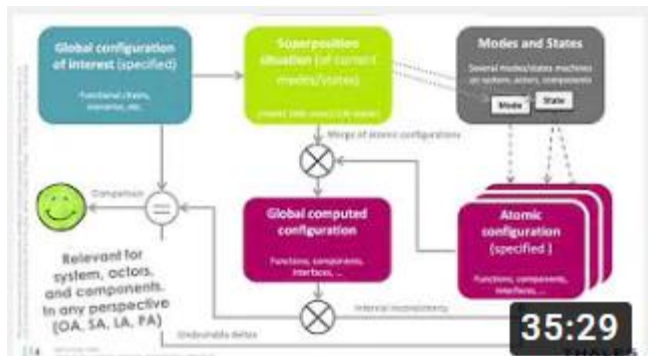
Advanced Class Diagram

Have a look and try!

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Viewpoint Modes & States



[Webinar] Modeling states and modes with Arcadia an...

2,2 k vues • il y a 1 an

<https://www.youtube.com/watch?v=74eKWrs8hl>

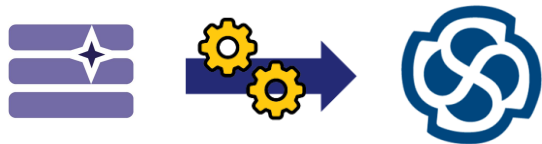
Current work in collaboration with an industrial using Capella!

Soon providing

Improved way of defining Configurations

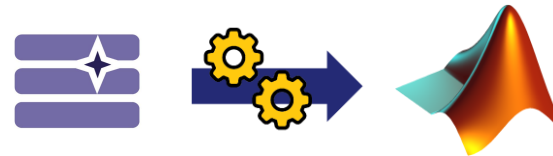
Tables to define Situation

OPEN



**Bridge Capella =>
Enterprise Architect**

**Support contuinity between
System Architecture and
Software design**



Bridge Capella => Simulink

**Support contuinity between
System Architecture and
Simulation**

OPEN



Labs for Capella

<https://labs4capella.github.io/>

Stay tuned for more projects to come and ...

come share your own projects!

Questions

<https://github.com/eclipse/capella>

Icons

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ONLINE 2020

Please wait a few seconds before
we automatically bring you to the **next session**:

Integrating MBSE and Life Cycle Assessment for Removing Plastics from the
Oceans with the Seacleaners

Obeo

*If you want to keep talking with the speakers of this talk, you will have to come back to
this session by opening the Capella Days agenda menu in the top left-hand corner*

altran
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