Introduction

This poster presents a structured graphical representation of the software developed with the FESA framework. In addition, it demonstrates a GUI that facilitates editing to make the resulting graph cleaner and more user-friendly.

FESA

- A framework for real-time software development.
- Integrated in Eclipse IDE.
- Software design is stored in an XML document.
- Generated C++ boilerplate code.
- Resulting software is structured in three major segments:
  - Server – software API.
  - Real-Time – hardware access.
  - Data Store – shared, internal data model.

Graphical Representation of a FESA Design

Visualising a FESA-design in a graph benefits from:

- a structured fragmentation grouping the elements from the different parts.
- a clean, yet descriptive overview, hiding internal details, while emphasising its public API.
- quick error detection as the association between the logical groups are visible in the form of arrows.

FESA Graph Editor

FESA Graph Editor is an interactive, stand-alone, JavaFX application that eases the transformation of a FESA-design document to its graphical depiction.

DATA STORE SUMMARY

The Data Store is summarised in classified tables for better readability and it can be made visible on demand, when the internal details of the design are required.

Conclusion

- A structured, pictorial fragmentation of a FESA-design benefits from the effortless overview of the software.
- A graphical application with in-built editor allows the graph customisation, resulting in a cleaner illustration.
- The integration of the framework into the application is highly promising for producing a complete visual layout tool.