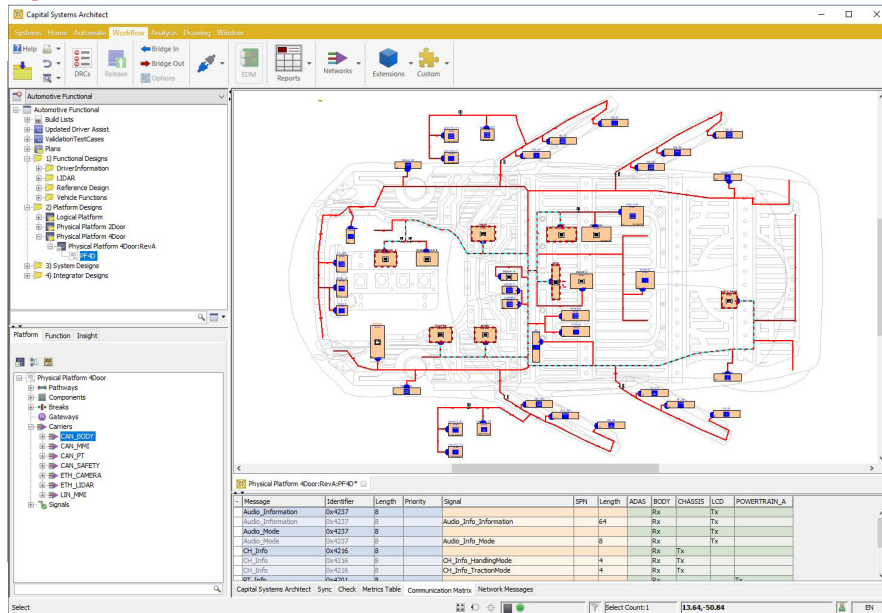


# Capital Systems

## Functional capture & multi domain implementation optimization

Electrical & Wire Harness Design

D A T A S H E E T



Capital Systems Architect can help visualize networks within a platform and provides support for signal and message mapping

### System Design

Capital Systems is the key to defining the Electrical Architecture for a complete platform. By automating large portions of the tasks associated with architecting the system, Capital saves time and removes the risk of copy-and-paste errors between disconnected systems. This leaves engineers free to innovate and optimize the system allocations across the Platform Architecture.

Using a correct-by-construction rules paradigm, Capital Systems can automatically assign signal routings (defined by Functional connectivity in Capital System Capture) to network carriers, or as discrete signals across the Platform Architecture. User-defined rules control automated allocations of functions to Platform components, bringing properties and attributes with them.

Capital Systems' ability to perform quick trade studies, comparing different architectural decisions, provides key competitive advantage to it's users: platform architectures can be planned and assessed quickly supporting data driven decisions, optimized to minimum cost and weight, or with a known planned headroom for future expansions as per the requirements at the time.

### Functional Design/Capture

Capital Systems Capture supports both functional design within the tool, and import of existing/bought-in designs from other tools or partner companies. Designers can describe the functionality at an appropriate level of abstraction, including functional blocks representing Hardware, Software, Sensors, Actuators etc. Functions can be linked by signals, which may represent signals

### System Architecture

- Automates logical design, networks design, across a platform architecture, from functional design and platform definition

### Products in Define Domain

- Capital Systems Capture
- Capital Systems Architect
- Capital Systems Networks

### Architectural Optimization

- Insight Metrics, enabling rapid comparison of multiple different architectural solutions

### Extensive Capital Add-Ons

- Deep integration with MCAD and PLM systems
- Web-based enterprise-wide design browsing
- Service-oriented architecture with powerful customization capability

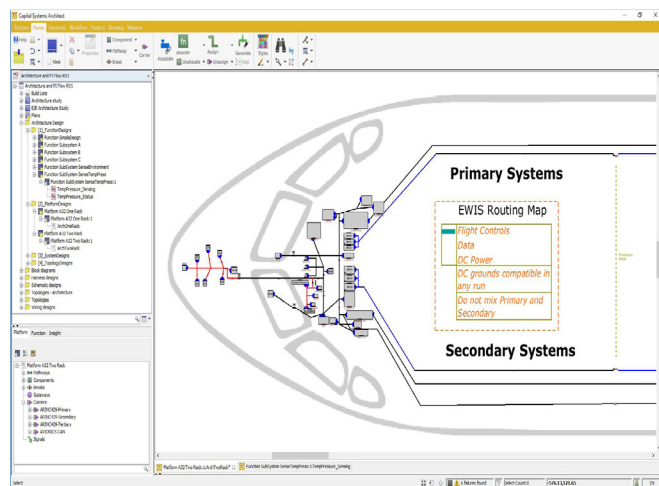
### Streamlined Process

- Data-centric backbone simplifies project & process management, design change, cross organization communication and integration with upstream & downstream processes

which could be flowing between functions on a network carrier, within software, or as a discrete signal.

## System Architecture

Capital Systems Architect is the tool for planning and designing the full Electrical Architecture, the functions from Capital Systems Capture can be assigned to Components, the signals are automatically included in the system connectivity, or maintained out of view if source and destination are within the same component.



*Functions and signals can be assigned to components and carriers allowing engineers to build a platform architecture to help optimize decision making early in the design process*

## Networks

Capital Systems Networks synthesizes the signals which have been routed in Capital Systems Architect onto Network carriers, for review and export to other tools, or for data exchange with suppliers. Capital Systems Networks uses a Dictionary based paradigm, taking networks messages, and signal packing as a standard base, either generated in the Dictionary, or imported from existing designs or supplier partners, ensuring consistent correct-by-construction synthesized networks outputs with minimized repetition of data entry type tasks.

## Architectural Optimization

Capital Systems Architect contains a capability known as Insight Metrics, these are calculated live, supporting rapid comparisons of Architectural decisions such as in which component to host functions, allowing trade studies comparing the relative impacts on cost, weight, and resource consumptions such as bandwidth, memory and process load. The Insight metrics support comparisons of different implementation options, and are available with multiple different graphical views enabling detailed comparisons.

## Streamlined Processes

Capital Systems sits within a fully supported data flow that starts with functional design/capture and manages related data right through to harness and formboard design and across into service/after-sales support. Capital Systems is built on a data-centric backbone that integrates each and every part of the design process, streamlining the flow of information as the design matures, and eliminating the requirement to manipulate files.

Capital Systems data-centric backbone simplifies the data management task and eliminates many of the time-consuming and error-prone data entry tasks required with traditional design tools.

Project management, design management, change management and transparent integration with other enterprise applications are key capabilities of the system. These capabilities can be extended further: using Capital Integration Server, customization and SOA integration with other enterprise applications can be achieved. Using Capital Enterprise Reporter, design data can be accessed from every desktop in the organization via web-browser reporting technology.

**For the latest product information, call us or visit: [www.mentor.com/capital](http://www.mentor.com/capital)**

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