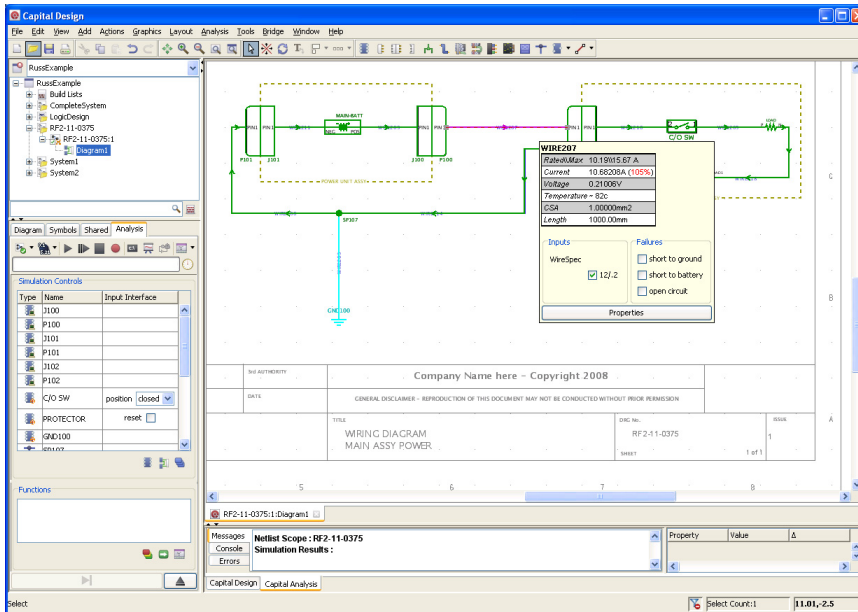


Capital Logic



Features include design rule checks, electrical analysis and design change management.

Logical & Physical Wiring Systems Design

Capital Logic is a powerful graphical and design-process management environment for authoring both logical connectivity designs (signals), and physical wiring designs (wires, splices, multicores, etc). Capital Logic may be used to design both sub-systems and to accomplish interactive system integration, i.e. the merging of multiple sub-systems into the physical vehicle structure.

Capital Logic is more than a schematic design tool, it provides a foundation for a complete CHS electrical design flow: from logical concept design through to harness design (using Capital Harness XC).

Standard capabilities include an easy to use DC simulation facility, a powerful parts library, a symbol authoring facility with pre-defined standard symbols, and extensive project and data management tools that automate many of the time-consuming & error-prone tasks that are usually performed manually, by a designer.

Project and Process Management

Project norms such as naming conventions, design rule checks, customer options & variants, and diagram style-templates can be defined and automatically applied. Process constraints such as release management sequence, design locking, user permissions and component naming can be mandated.

Product Features

Logical & Physical Design

- Powerful functionality for creation of logical and physical wiring designs
- Revisioning and design change management functionality simplifies data management and reduces errors
- Data-centric backbone provides folder-style management of all data: no need to manage files.

Extensive Add-Ons

- Deep integration with MCAD and PLM systems
- Automated generation of service diagrams from wiring diagrams
- Web-based enterprise-wide design browsing
- Service-oriented architecture with powerful customization capability

Analysis & Simulation

- Easy to use DC simulation facility helps trap problems earlier
- Optional add-ons for tracing undersized components, transient analysis, FMEA, and sneak analysis

Streamlined Processes

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

Design Change Management

The data-centric architecture of CHS is designed to facilitate change processes. Multiple change management capabilities are provided such as tabular & graphical difference reports; version management; compatibility control (“build lists”); and aerospace-effectivity tracking.

MCAD & PDM Integration

Capital Logic provides deep integration with leading MCAD platforms such as Dassault Systèmes’ CATIA V5, Siemens’ NX, and ProENGINEER. Data can be shared either offline or in a live “connected” mode, which aids visualization. Design changes can be trapped and reconciled. PDM integration is also available, for example to slave component library data or to archive released designs.

Enterprise Integration

Capital Logic provides extensive integration facilities. Parts libraries can be shared with other systems and with other companies such as suppliers or customers. A variety of interfaces support intelligent management of design data exchange with other tools, including MCAD and PDM, and with customers and suppliers. Add-on products extend Capital Logic’s capabilities— using Capital Enterprise Reporter, design data and diagrams can be accessed from every desktop in the organization via web-browser reporting technology; using Capital Integration Server, customization and SOA integration with other corporate applications can be achieved.

Simulation & Analysis

Optional simulation and analysis products extend Capital Logic’s standard DC simulation functionality:

- Capital SimTransient extends the simulation capability from DC to Transient analysis.
- Capital SimStress rigorously tests all possible circuit states, identifies component and wire sizing problems, and recommends upgraded specifications for wires, fuses, etc to suit worst-case conditions.
- Capital SimProve tests all possible circuit states, identifies unintended functionality such as sneak paths, and detects missing or unimplemented functionality.

Visit our website at www.mentor.com/harness

- Capital SimCertify rigorously tests all possible circuit states, performs FMEA analysis to identify failures and quantify their risk and probability.

Diagram Synthesis

Capital Logic’s optional AVAL facility can automatically generate logical & wiring diagrams – either from existing diagrams or from tabular data – allowing service diagrams, and option-specific diagrams, to be created and maintained with ease. Input designs can be assembled, and filters applied, to create the scope of the AVAL diagrams. AVAL diagrams can be interactively refined, and AVAL memorises and automatically applies interactive refinements to update the wiring diagrams when the original logical or physical specifications are changed.

Data-Centric Architecture

Capital Logic 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 Logic’s 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.

About the CHS Application Suite

Fully integrated application suite for electrical system design, electrical analysis, system integration/wiring design and harness engineering.

- Powerful embedded data management capabilities (vehicle configuration management, design comparison, data sharing, etc.).
- Productivity enhanced by modern technologies— wiring synthesis, interpretive analysis, diagram synthesis, and more.
- Architected for large organizations (multi-user, multi-site) with powerful enterprise integration capabilities.

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