

# Capital Formboard

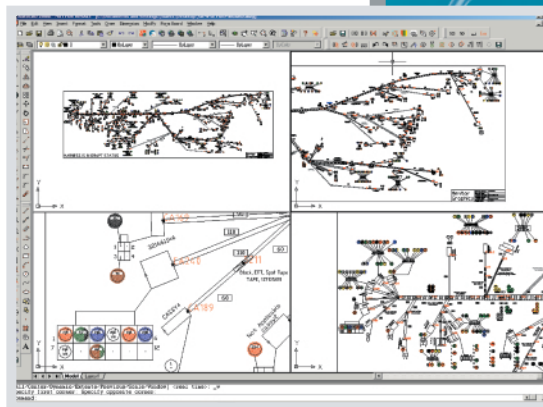
The de facto software solution for the electrical wire harness industry



One of the most difficult and time consuming tasks faced by harness process engineers is the creation of the production formboards onto which the harness will be assembled. The challenge to produce an optimized design using the minimum amount of board space is often at odds with the time pressures to get the harnesses into production. In high volume harness manufacture where space is at a premium, inefficient formboard design results in poor utilization of costly floor space and reduced flexibility to accommodate new business.

Capital Formboard™ automates the creation of wire harness formboard drawings. Inheriting the data stored within Capital Manager™, the outputs are an exact full-scale representation of the harness definition in Capital Manufacture™ enriched with color detail of the harness and its associated assembly fixtures. The customizable graphical output allows companies to configure the formboard representation precisely to their requirements at all levels. The formboard drawings produced display a rich array of information including detailed connector end views showing which wires are placed in which cavities. This graphical connector representation is automatically generated using the data for the harness stored in Capital Manager and is therefore always 100% accurate. Other information displayed includes mating assembly fixtures, block positions, taping, tubes, grommets, splices, clip positions and internal and external branch dimensions.

Extended functionality enables several harnesses to be managed via the same formboard drawing and for the user to define drill points for the placement of support fixtures. As the harness design changes, formboard updates are easily implemented as the system works out intelligently what has changed compared to the preceding version and assists the user in placing the modifications. All of these features help to reduce cycle time from design to production and eliminate assembly errors.



# Functional Overview



## Interactive Layout And Automated Drawing Generation

An easy-to-use graphical interface allows engineers to rapidly design optimized production formboard layouts. Possible bundle interference is avoided by using the layout design interface to display mating-half footprints on the board at design time. Once an optimized layout has been produced, the system then generates the fully detailed formboard drawing, automatically placing all of the associated manufacturing information required.



## Component Symbol Management

Capital Formboard allows users to define custom component symbols and store the designs in a central repository. The connector representations and any custom wire insertion information are displayed automatically on the formboard drawing when it is generated, ensuring manual transposition errors are eliminated.



## Customizable Look and Feel

All of the entities on a Capital Formboard drawing are customizable, so companies can configure the look and feel of the drawing to correspond precisely to their corporate standard.



## Consolidated Designs

Capital Formboard allows production engineers to manage several harnesses from a single formboard drawing, whether they are variants of the same harness or similar but independent. Drawings creation and maintenance as a result becomes far more efficient.



## Accurate Drawing Representations

All of the data used by Capital Formboard is stored within Capital Manager. The resulting formboard produced is a 100% accurate representation of the harness in the system which eliminates potentially costly rework errors due to incorrect board definition.



## Design Change Management

When a design is changed, Capital Formboard compares the new version to the preceding harness definition and where possible re-uses as much of the existing formboard definition as possible. The user is required to update only the areas that have changed, speeding up the time it takes to get a formboard into production.

[www.mentor.com/harness](http://www.mentor.com/harness)

### Mentor Graphics

#### Mentor House

Edward Court  
Altrincham,  
Cheshire,  
WA14 5GL  
United Kingdom  
Tel. No: 44-161-926-1600

### Corporate Headquarters

#### Mentor Graphics Corporation

8005 SW Boeckman Road  
Wilsonville  
OR 97070-7777  
Tel. No: 1 503-685-7000

U.S. Sales: 800 547 3000

### European Headquarters

#### Mentor Graphics

Eisenheimer Str. 41-43,  
80687 Munich,  
Germany  
Tel. No: 49-89-57096-0

### Pacific Rim Headquarters

#### Mentor Graphics (Taiwan)

Room 1603,  
16F International Trade Building No.  
333, Section 1,  
Keelung Road,  
Taipei, Taiwan, ROC  
Tel. No: 886-2-87252000

### Japan Headquarters

#### Mentor Graphics Japan Co.Ltd

Gotenyama Hills 7-35,  
Kita-Shinagawa 4-chome,  
Shinagawa-Ku, Tokyo 140  
Tel. No: 81-3-5488-3030