HarnWare V6

Computer-Aided Electrical Wiring Harness Design Software

iS Rayfast

TE connectivity

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HARNWARE V6

Introduction

A new version of TE Connectivity's (TE's) popular harness design software has been re-engineered using the latest Microsoft programming tools to offer improvements in performance and enhance the user interface. Additional improvements include new product ranges added to the database, which now includes over 100,000 TE products and several thousand standard military connectors. The HarnWare design wizard also has a more modern appearance and includes hyperlinks to relevant product information.

The HarnWare computer-aided design package enables users to produce high-quality wiring harness assembly drawings, parts lists/bill of materials, labour estimates, RoHS compliance codes for each component, cable cross-section designs, connector planform drawings, wiring schematics and schedules. Data can also be exported in a variety of formats to allow transfer of information into other computer systems.

TE's extensive product ranges and systems approach to harness design provide complete harness solutions to meet the requirements of most markets, especially demanding applications in the defence, rail, aerospace, naval and motor sport industries.

The HarnWare software uses a drag and drop drawing interface that enables the designer to rapidly draw and designate the overall parameters of the harness. This drawing combines with the HarnWare software to guide the designer through a series of design operations. The harness system can be specified and a range of fully compatible components can be selected.

Features

- Compare Design.
- Updated COP Listing.
- Materials and Equipment Listing.
- Extended User Parts Library editable by users.
- Data Import Option from Microsoft Excel.
- Improved export of Parts Listing.
- Create Shape Function.
- Fibre Optic Module including PRO BEAM Connectors.
- Database File Path Selection for Drawing Translator, User Parts Library and Weights.
- Users can supplement the databases of preferred parts by adding other component data into the HarnWare User Parts Library.

Benefits

- More detailed and accurate design with the use of preferred parts, helping provide best delivery and price.
- Designs and quotations produced up to 20 times faster.
- Promotes a systems approach for choosing components, materials, adhesives, etc to help confirm parts are compatible with the intended service conditions and with mating parts.
- More cost effective designs, minimised transcription errors and a more disciplined approach to harness design.

New Products Included in Version 6

- Micro Heat Shrink Moulded Parts.
- Spin-Lock Adaptors.
- STXR Adaptors.
- ADK Rectangular Backshells.
- SolderTacts Contact Devices.
- RF Connectors including TNC, BNC and N Types
- GPR Rectangular Connectors.
- AMPLIMITE Rectangular Connectors.
- VG95218 Pt 28 Multicore Cables.
- RG Coaxial Cables.
- D-SCE Range of Identification Sleeves.
- RT-780 Heat Shrink Tubing.

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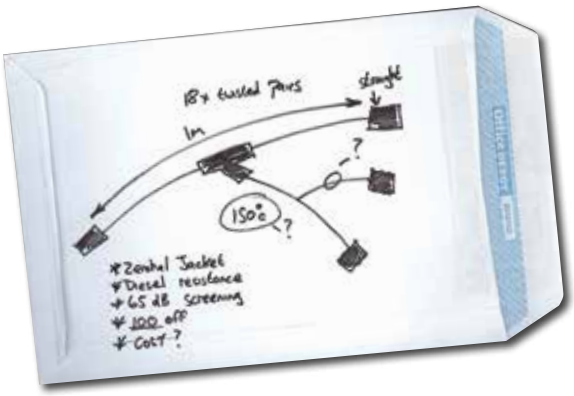
Since the introduction of the HarnWare software V1 in December 1995, many key changes and new features have been introduced. Version 6 of the software contains design modules for heat shrink sealed systems, conduit systems, MIL-STD-1553 data bus and fiber optical assemblies. The new V6 version gives a smarter, faster, better solution for harness design and component selection.

System Specifications

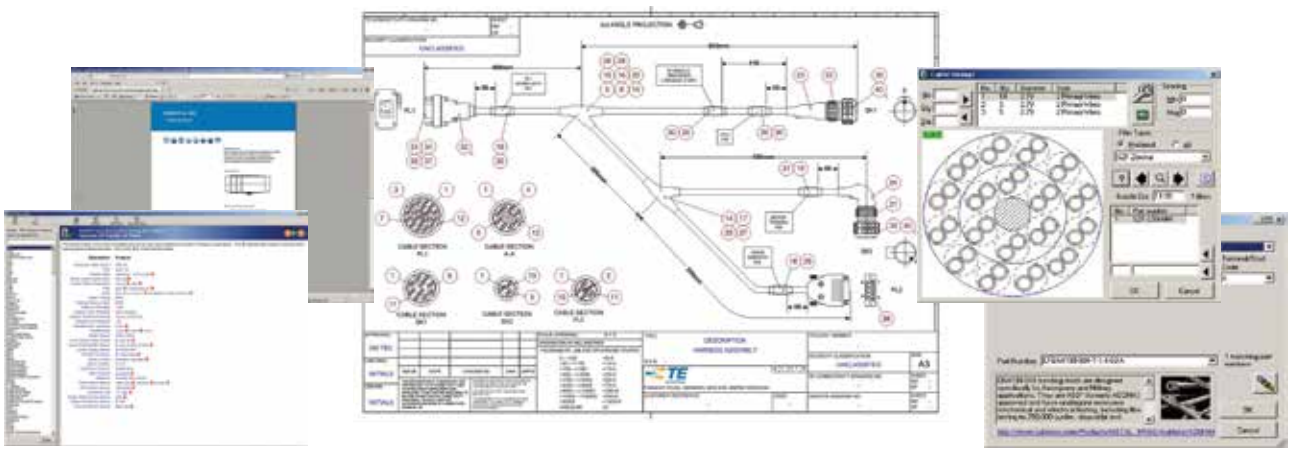
Microsoft Visio: For HarnWare software V6, Visio 2007, 2010, or 2013 software can be used. Only the 32-bit versions of Visio are supported for use with HarnWare.
Microsoft Windows: HarnWare software is compatible with the 32-bit versions of Windows XP Service Pack 3, Windows Vista Service Pack 1, Windows 7, and Windows 8.1. It is also compatible with the 64-bit version of Windows 7.

From Initial Concept



- Materials Selection for given Applications
- Wire Selection Advice
- Wire Routes
- Cable Lays
- Component Selection
- User Parts Library
- Design Checker

Links to Data Sheets and an Extensive Help Section



To Full Manufacturing Documentation

Export Parts List
Export Parts List menu options allow parts lists contained in the current Visio document or a selected set of documents to be exported to the Windows clipboard or a text file. This data can then be used in a spread sheet, database.

Codes of Practice
HarnWare can list the Codes of Practice (COPs) TE uses to support its harnessing products including information on laying wires, shrinking tubing/moulded parts and terminating connectors.

Export Wiring Data to ATE
HarnWare forms allow data such as connectivity, connector references and contact references to be exported to a text file or to the Windows Clipboard. This data can then be used in other systems, for example, automatic test equipment or other electrical design software.

Export Marker Data to TE Wintotal Software System
A Marker Sleeve page can be generated in Microsoft Visio software and or cable marker text and formatting details can be generated in an '.xmt' or COMMS file that is suitable for import into the TE WinTotal labelling software.

Labour Estimates
HarnWare will total up the assembly times for all of the products in a harness, selected by using the database, and output a grand total. The labour estimate sheet, that forms part of the HarnWare document package, works like a spread sheet, and the times and labour rates within it can be adjusted to suit local conditions.

Tooling and Equipment
The HarnWare Materials and Equipment option analyses the drawing and wire list. Materials and equipment that are relevant to the parts contained in the harness design are listed based on TE Codes of Practice.

RoHS Listing
The HarnWare Restriction on Hazardous Substances (RoHS) Codes option analyses the parts referenced in the drawing and wire list. A list of RoHS compliance codes for each part can be added to a page in the Visio document

Weight Estimates
The HarnWare Weight option provides a means of estimating the weight of a harness. Where component weight data is not available, users can add the relevant data to the database.

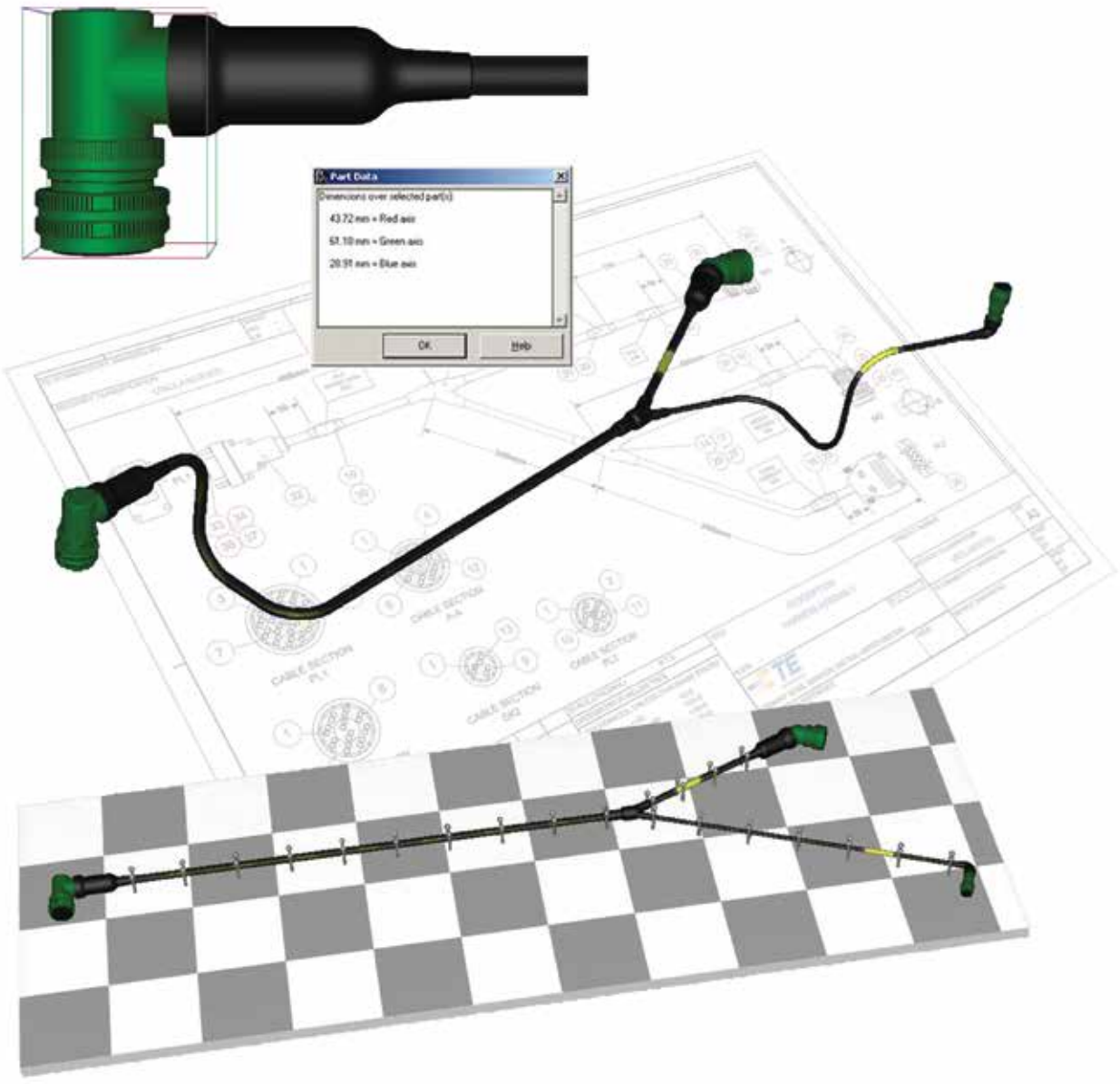
Composite Weights and Parts Lists
This option generates a composite parts or weights list for a number of drawings.

Design Comparison
This option is initiated from the HarnWare Tools menu and is used to analyse the changes between two Visio design documents, typically two different revisions of a harness design or two similar designs.

3D Modelling and Lay-up Boards

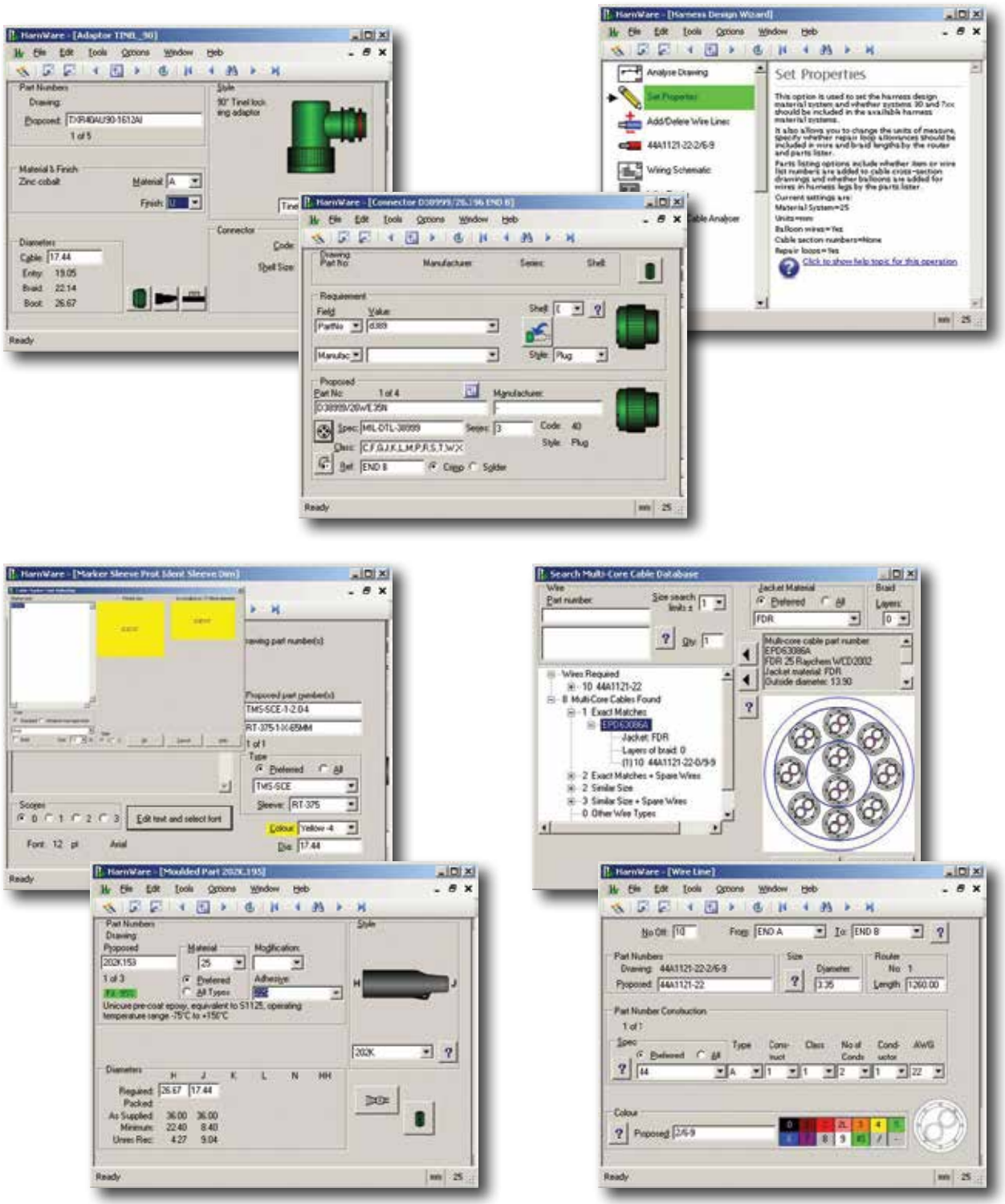
The HarnVis 3D harness design visualisation system offers automatic generation of to-scale 3D models of wiring harnesses and components. These 3D models provide “virtual prototypes” of harnesses allowing the user to see the harness with lengths, diameters and parts shown to-scale. By simply clicking on a part, the user can access such data as part numbers, materials, finishes, adhesives, etc.

These “virtual prototypes” reduce the potential for errors, harness lay-up boards (also known as nail, form and peg boards) can be modelled and pegs can be automatically positioned along the harness legs. When a long harness leg makes it necessary, legs can be bent to fit a lay-up board. 3D models of harnesses and of many TE parts can be exported from the HarnVis system in the form of IGES files for use in other CAD systems.



HarnWare V6 User Friendly Forms

The forms for selecting the wide range of TE components are clear and easy to use with many links to data sheets and design help topics.



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