

Leading Software Solutions for Wire Harness Production



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Assembly area

4Wire PPG generates and transfers order structures of customer and production modules as well as production documents to the production control system, for instance 4Wire PLS. For manual production areas, the production documents can be printed.

Generation of pre-assembly and assembly modules

- Connector and welding node modules
- Pre-assembly modules
- Assembly modules
- Final assembly modules

Work plan generation

For the different levels of production, such as cutting, pre-assembly and assembly, 4Wire PPG automatically generates detailed work plans for every work place with textual and graphical work instructions.

Calculation

4Wire PPG enables bid calculation based on customer modules, and production calculation based on production modules. For your specific method of calculation, 4Wire PPG standard calculation can be supplemented by your own scripts.

Manufacturing documents

4Wire PPG generates your manufacturing documents and reports. The generation is based on a flexible report engine. Therefore, the documents are highly adaptable to your needs.

Different production methods

4Wire PPG supports different production methods on wire harness level, e.g. wire-by-wire, module production, line production, single side production.

Production variants

4Wire PPG generates BOMs and work plans for different types of production. Each plant uses its preferred type and can optionally switch to a different version.

Assembly-suitable modules in KSK mode

4Wire PPG enables the formation of assembly-suitable modules in KSK-mode with components from multiple customer modules.

Wire harness with length variants

4Wire PPG considers length variants in the generation of new modules. So, high variation JIT/JIS processes can be implemented quickly and without compromises.

For over 10 years, 4Wire PPG shows this successfully in the commercial vehicle sector.

Plausibility checks for customer specific wire harnesses in the JIT/JIS process

4Wire PPG supports automated plausibility checks for each vehicle. This increases the speed and safety in the JIT / JIS process.

Reduce processing time

4Wire PPG provides unified, integrated, automated processes and integrates the engineering in the JIT / JIS process.

Throughput time in engineering will be significantly reduced and production documents in the JIT-controlled production process for customer-specific wire harnesses will be provided much faster.

Reduce expenses

4Wire PPG generates production plans automatically. Manual, highly specialized post-processing is drastically reduced. Significant reduction of time and effort in work preparation.

Improve quality

4Wire PPG generates uniform production plans. The typical errors caused by manual data entry, multiple entry and creation of workflow descriptions omitted. No more errors due to multiple data entry in manual process.

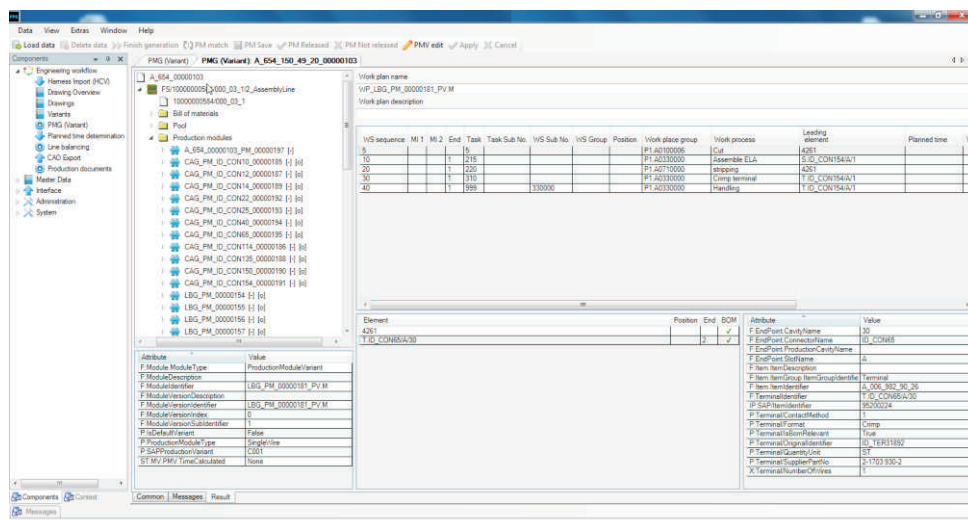
Increase safety

4Wire PPG generate production plans according to clear rules and performs extensive consistency checks in the JIT / JIS process.

Consistent data administration is the result of the integrated IT-based process chain.

Conclusion

With 4Wire PPG, different manufacturing concepts can be quickly, safely and flexibly implemented in a way optimized for production.



Picture 3: production module generation

4Wire PPG V4 EDITIONS

4Wire PPG 4 - CUTTING AREA

- The basic edition supports all functionalities of the cutting area for batch size wire harnesses

4Wire PPG 4 - ASSEMBLY AREA

- This edition extend the basic edition. It supports in addition all functionalities for the pre-assembly and final assembly

4Wire PPG 4 - KSK PRODUCTION

- This edition supports the KSK-specific wire harness production. It includes the cutting area and assembly area



Complementary Systems

4Wire CAO Cutting and Assembly Optimization

The software solution 4Wire CAO is the leading manufacturing execution system for the cutting area and assembly. It is the only system, that is used worldwide and supports all languages.

The system has interfaces to machines from Schleuniger, Artos, Komax, ShinMaywa, Schäfer, Yazaki and others, that are continuously updated in close cooperation with the machine manufacturers. That is why 4Wire CAO has the latest and the largest scope of functions that can be regarded as a de facto standard.

The software solution 4Wire CAO is flexible, scalable and efficient and already successfully installed by many successful companies. Due to its modularity, 4Wire CAO is also beneficial for small and medium-size companies.

4Wire CAO controls any cutting area between 2 to 200 machines and assembly. Its extension functions adapt flexible to the needs of companies. Optimization, machine and control interfaces are realized elegantly, reliably and cost-efficiently in 4Wire CAO.

4Wire PLS Production and Logistics Suite

4Wire PLS is a flexible solution specially made to support customer specific wire harness production (KSK).

Production processes are complex and different in every company contrary to commercial functions, especially in wire harness production with quantity one. Therefore, 4Wire PLS functionality depends on the project at hand. There are no unnecessary, missing or convoluted functions in 4Wire PLS.

Since 1990, DiIT develops software modules that are part of a standard package. The modules have been proven and tested hundreds of times and can be used in any combination. Customizations and new objects can be implemented reliably in very short time and with little effort.

Customer specific data structures are generated automatically with no extra effort. This software technology was funded by the European Commission and has been awarded with the highest award category "excellent".

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