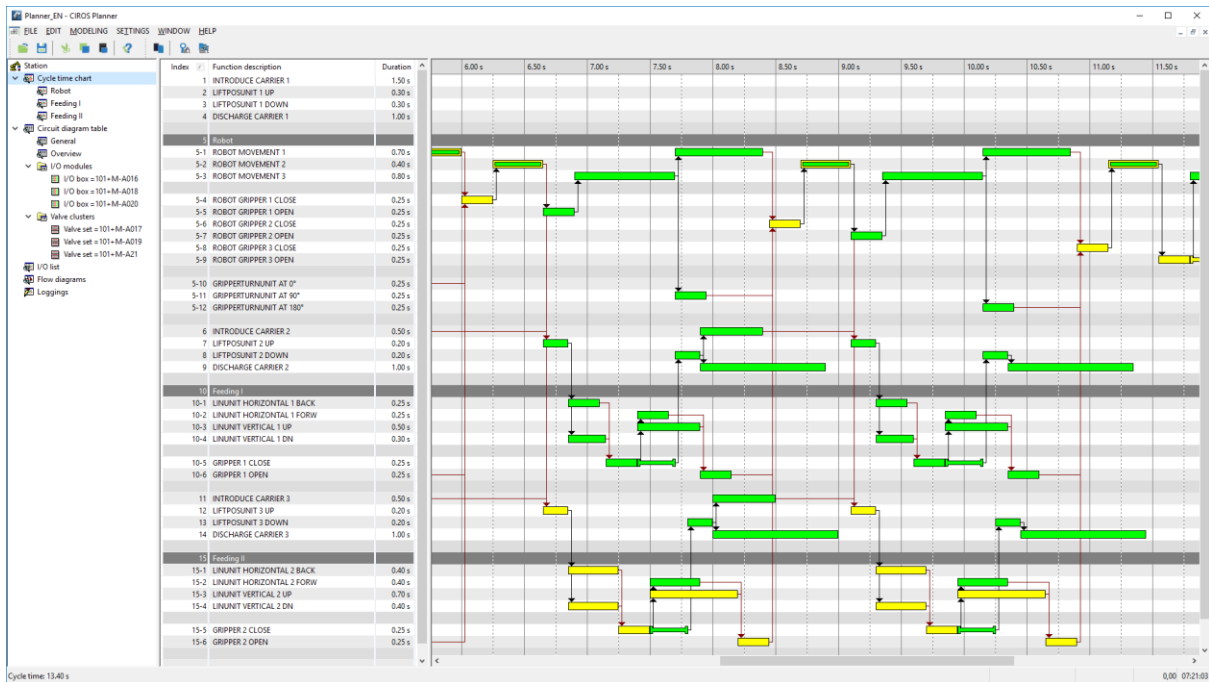# CIROS Planner

CIROS Planner is the software for the planning and optimization of complex manufacturing systems. CIROS Planner enhances the effectivity, and the efficiency of work flows at mechanical design, electrical design, and control software design. Interdepartmental collaboration is improved in all stages of the production design. In practice, CIROS Planner supports you in modelling and verifying of designs. You will get reliable information on the cycle time of your automation solution early in the planning stage.

How does this work? How does CIROS Planner help you to improve your plant planning processes? Certainly, you are already using methods in the planning phase to ensure the later function and the resulting cycle times. With CIROS Planner, you can achieve the digital transformation of these processes. Break down the entire process of your plant into the smallest sub-processes and keep an overview. The graphic representation of the CIROS Planner directly shows you the relationships between individual sub-processes. Experiment with alternative components and assemblies and see immediately how these changes affect the cycle time of the overall process. Sub-processes that can be optimized are immediately highlighted in color. When planning a new plant, rely on digitally stored experience from previous systems and use this as the basis for a new plant. In the course of time, digital documentation of all planned and implemented systems is created in your company. This documentation secures your know-how in the long term and facilitates the training of new employees. Many industrial companies in Germany, Europe and around the world have been using CIROS Planner for many years. In a one-hour web meeting, we work with you to find out whether CIROS Planner can also be used profitably in your company.

For more than twenty years now, we have been developing the software, distributing our solutions successfully in industry, and offering maintenance, support, training, and services. If you want to learn more about CIROS Planner addressing your individual use case, we will be glad to fix a date for a web-based presentation.

Application Areas

Among others, CIROS Planner is used for the following applications:

- Planning and optimization of complex production systems
- Comfortable creation of cycle time diagrams in the style of Gantt charts
- Management of resource labels
- Graphically interactive cycle time analysis
- Circuit diagram planning
- Creation of sequential function charts according to IEC 61131
- Creation of documentation

Highlights

In the following, you will find an overview of CIROS Planner.

Cycle Time Planning / Mechanical Design
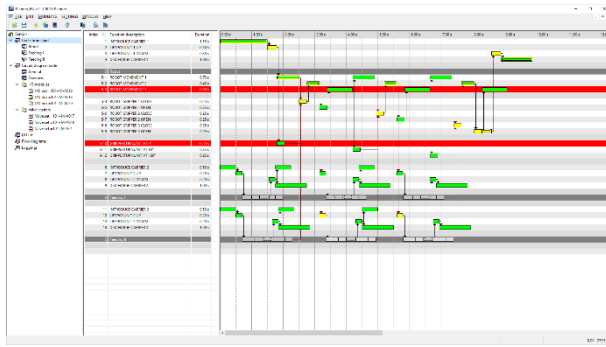
At the mechanical design of new manufacturing plants, cycle time diagrams for the whole process or time-critical sub-processes are created to ensure optimum cycle times. Even today, these cycle time diagrams are often created on paper by hand or using common spreadsheet software. None of these methods matches the requirements of modern cycle time planning. CIROS Planner is the software designed to close this gap. Create complex cycle time diagrams, even with parallel paths and methods-time measurement (MTM-1), by easy operations in a graphical view. Use sub-diagrams for structuring, observe the reaction of the critical path to modifications, and print results.

- Management of all actuators and sensors of a plant
- Durations of actions are edited graphically interactive and independent of time scales. All subsequent actions are adapted automatically.
- Gantt diagrams to describe the sequence of all actions
- Easy modelling of durations and dependencies of actions
- Scalable time axis from 10 ms (milliseconds) up to years
- Parallel sub-processes
- Different types of dependencies: simple, AND, OR
- Instant automatic calculation of the critical path and the total cycle time
- Sub-diagrams for the structuring of large processes
- Actions can be marked as dependent on sensors or initiators of the 3D plant model

Circuit Diagram Planning / Electrical Design
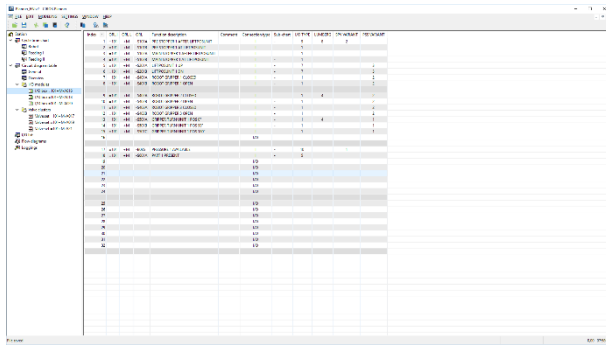
At electrical design, CIROS Planner allows for comfortable circuit diagram planning and management of all I/O modules and valve clusters. Actuators and sensors are mapped onto these modules by graphically interactive assignment operations. Functions for model checking and automated assignment of unique resource labels support your work at this design state.

- Management of I/O modules and valve clusters
- Graphical assignment of actuators and sensors

Sequential Flow Charts / Controller Development
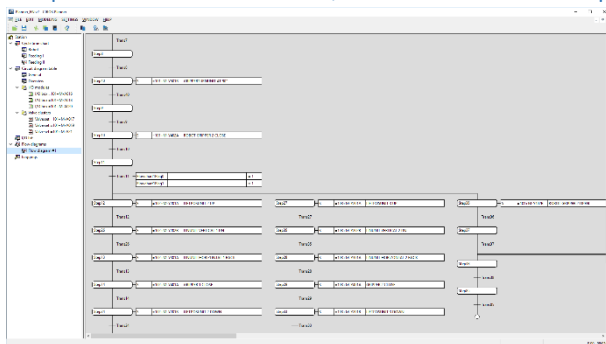
For the design of controller code and programs, CIROS Planner allows for automatically or manually created sequential function charts (SFC) according to IEC 61131-3. Such SFCs can be exported into real PLCs.

- Sequential Function Charts (SFC) according to IEC 61131-3
- Sequences with steps, transitions, actions, conditions, and jumps
- Fully automatic creation of SFCs from cycle time diagrams with sensor-dependent actions
- Export of SFCs according to IEC into a real PLC
- Sequential flow charts can be converted with Python and be used in Siemens TIA via the Version Control Interface (VCI)

More Features
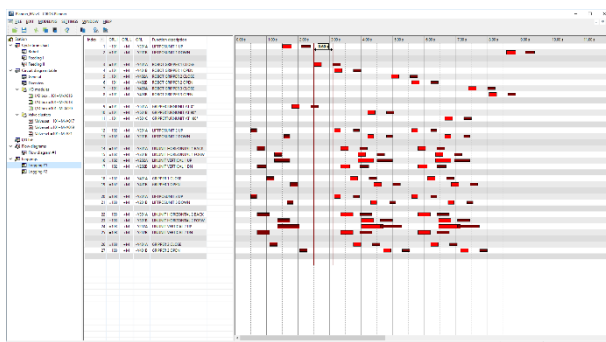
Using extensible model libraries, you can reuse complete or partial processes modelled before. Model libraries can be structured and be kept in a company-wide model database that is completely integrated into CIROS Planner.

- Cycle time analysis: comparison of cycle time diagrams
- Documentation compilation

System Requirements

The following lists the requirement of CIROS Planner concerning hardware and software.

Hardware Requirements

- One free USB port or network access for server-based licenses

Supported Operating Systems

- CIROS is developed for Microsoft Windows 11. You should use a Windows version that still receives mainstream support from Microsoft.

Services

We would be glad to support your effective work with CIROS Planner:

- Software maintenance and professional support
- Standard trainings for beginners and advanced users
- Consulting for all your questions dealing with cycle time planning

Licenses, Prices, and Distributors

Are you are interested in using CIROS Planner? This is how to go on:

- For Germany-based customers, one license of CIROS Planner costs 1,900 EUR plus 19 % VAT.
- Please inquire for your price if your company is not in Germany.
- We deliver licenses on a license plug (USB dongle). You can use it on a local computer as a single license or in a network as a floating license for alternating use by multiple persons on different computers.
- For individual quotes or orders, please contact us directly by e-mail.

Links

Here, you can find further information on the Internet:

- Introductory getting-started videos: https://youtube.com/playlist?list=PL3ADnDrmzi7WCmY3aHpVIrObtkeY1RI-m

Downloads

Here, you can download information:

- The product information as a PDF – suitable for printing
- All pictures in HD quality as a ZIP
- A demo version (37 MB) with restrictions: test period 30 days, session length 60 minutes, no saving, for some elements the maximum number is limited