High-capacity AS/RS stacker crane controls

What is E’car®?

E’car® is Egemin’s standard crane control for AS/RS (Automatic Storage & Retrieval Systems). E’car® controls the movements of the cranes, such as: driving, lifting, and pick/drop, all automatically.

E’car® receives commands from the higher-level E’car® manager, which works together with the WMS (Warehouse Management System) to spread the available transport orders equally across the entire AS/RS. Egemin supports both pallet and mini-load crane systems.

Pallet & Mini-load Cranes

Pallet cranes transport, store, and retrieve pallets and larger loads. Mini-load cranes transport, store, and retrieve smaller product carriers such as bins, totes, or cartons. We control the following types of cranes:

- Fixed-aisle or aisle-changing cranes
- Double-mast or single-mast cranes
- Single & multiple-deep storage cranes
- Deep-lane storage cranes
- Multiple-load-handler cranes

Egemin has an extensive list of references for crane applications, including the most diverse environments, from deep-freeze warehouses to distribution centers. Not only do we control new cranes; we are also experts in retrofitting older crane systems.
E’car® Manager

The E’car® Manager is software used to control and manage the E’car® controlled (AS/RS) cranes at the supervisory / transportation control level. It provides a standard interface between the E’car® crane controls and the higher-level warehouse management system (E’wms®). The E’car® Manager has the following basic functions:

- Automatic (normal mode) and semi-automatic operation (for errors, manual generation of transport orders)
- Controlled start-up
- Buffered transport orders
- Transport optimization:
  - Perform controlled double cycles
  - Equal spreading of work across infeed stations or prioritize stations
- Intelligent restart after errors
- Visualization of crane status and alarm management
- Logging of historic, statistical data (performance, availability, transport tracing)
- Built-in simulation mode for tests with WMS

A wealth of benefits

- Different types of load handling devices on one E’car® crane are possible
- Compatible with several third-party crane manufacturers
- Reduced manual interventions due to intelligent order restarting
- Shorter implementation times thanks to modular software and simulation mode
- Compatible with European & US safety standards for machinery
- Retrofit of old crane controls
  - Complete retrofit with new control panel and equipment