UPGRADE E- TO F-SYSTEMS

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From time to time, pneumatic tube systems should be optimized and improved to meet the latest technological standards. Only in this way can they ensure future-proof and safe intralogistics.

+ Efficient design

+ Clever stations

+ Thinking software

Version	E	F
Keyboard	Membrane with 12 keys	Membrane with 19 keys
Design	0 function keys, 3 LEDs	3 function keys, 3 LEDs
Display resolution	LCD display (backlight green-yellow) 122 x 32 px	LCD display (backlight black-white, much brighter) 126 x 64 px
Content on the display	Cumbersome, not self-explanatory menu navigation	Dialog and station names, LEDs indicate the status of the station, understandable menu navigation, Easy operation: request container, switch off station, info, RFID test Display of station history (last 10 entries)
Software	RT-Win 2	RT-Win 3 RT-Win 4

Advantages of upgrading the E-version to the F-version

Savings in maintenance due to:

- Reduced maintenance requirements
- Software-supported wear detection
- Lower service costs
- Improved diagnostic tools in the control system

Savings in energy costs due to:

- Reduced energy consumption of the control system

Savings in personnel costs due to:

- Almost no loss of use
- Less time required by the responsible maintenance personnel
- Optimum utilization with automatic empty container return transport - with simple user guidance, for deciding whether to take the container home or to another destination
- Color coding: specific containers are assigned to specific destination options - cross contamination and faster dispatch/avoidance of errors
- Automatic restart after power failure including recovery of all states and completion of last shipments
- Carrier Manager: Ability to change the home address of a container without having to hold the container itself - Remote Maintenance

Savings on extensions/conversions due to:

- Less expensive installation, due to simplified cabling
- Better utilization in case of partial shutdowns

Savings in IT connection:

- Ethernet connection to RT-Win - technically very easy to set up, enables virtualization of RT-Win host systems

Left: E version, Right: F version - The two pneumatic tube stations look very similar,. On closer inspection, it is noticeable that the keyboards of the stations are different. Not shown on the pictures: The interior of the stations. The electronics of the stations differ significantly, ensure higher system availability and increase the performance of the system.

Planning an upgrade from E to F

1. upgrade of the control system

a. The new and modern control system will be installed in each station. If RFID reading technology is used for logging, the system will support both the new RO tags (Read Only) and the old RW tags (Read Write) after the upgrade.

b. Tasks:

  i. Replace the station controllers and the switch controller.

  ii. Conversion of cable ends to the new connector system.

  iii. Change of the station internal wiring

  iv. Conversion of adapters

  v. Conversion of contactor connections and variable frequency drives and addition of a blower control card.

  vi. Replacement of central control units and power supplies to F

  vii. Upgrade from RT-Win 2 to RT-Win 4

  viii. Ethernet cabling from RT Win PC to central controller.

2. RFID tracking

a. Shipments are scanned at the beginning and at the end of each trip.

b. Tasks:

  i. Stations receive X2 card with RFID reading function.

  ii. Stations receive two antennas

3. improved reception of transmissions in the laboratory

a. Conversion of stations in the lab to soft reception of bins

b. If needed: Installation of multisend stations and multicarry zones, for faster return of containers to origin.
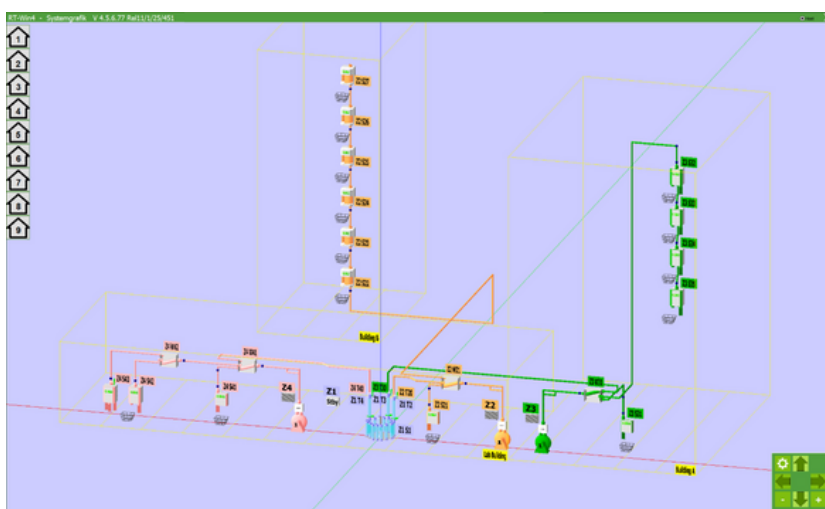
c. Tasks:

  i. Addition of conveyor belts

  ii. If needed: replacement of stations

4. installation of information screens in lab,

Pharmacy and blood bank

a. Tasks:

  i. Conversion to RT-Win 4

  ii. Ethernet cabling to PCs and monitors.

View into the RT-Win 4 software - To see: The graphical representation of the plant.

Arrive Screen: Information of the pneumatic tube consignments becomes more transparent and can be made available to the user clearly.