

# PALLETSOLVER

## COMPREHENSIVE PALLETIZING SOFTWARE SUITE

### KEY BENEFITS

Fast development and deployment of complex palletizing workcells

Offline (PC-based) pallet pattern generation and cell definition

Online (controller-based) execution and optimization of the palletizing operations

### COMPATIBILITY

YRC1000

YRC1000micro

DX200

MLX300

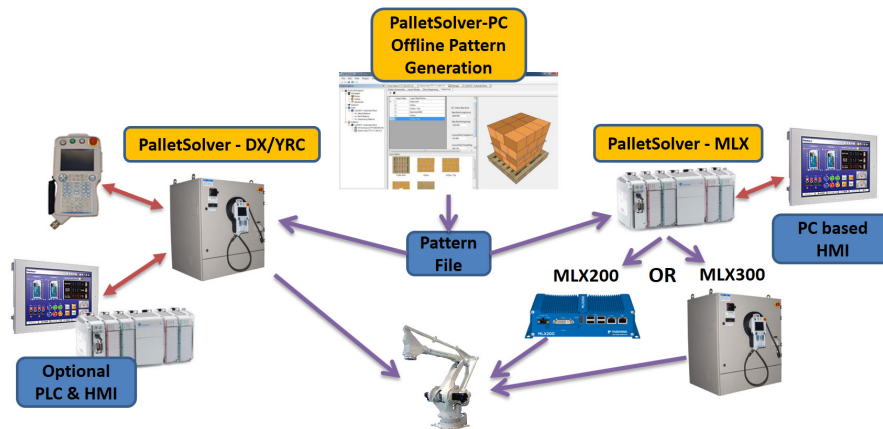
MLX200

 PalletSolver®



- Extensive configuration, setup and customization routines enable development and integration of robotic palletizing systems.
- Two components – PalletSolver-PC and PalletSolver-Online – separate the definition and configuration on the PC from the execution on the controller.
- Scalable architecture easily handles single and complex multi-line palletizing, as well as single and multiple workcells.
- Interference zones can be designed to limit arm movement, avoiding collisions with surrounding equipment.
- Offline pattern development and sequencing is separate from production which facilitates quick changeover of patterns or products without system downtime.
- Compatible with industrial or collaborative robots.
- Multiple gripper types (fork, vacuum, clamp, bag) can be accommodated.
- Dynamic gripper zones enable flexibility for handling various product sizes.
- Adaptable for various end-of-line processing requirements, such as a single infeed to multiple build stations or single infeed with multiple products to multiple build stations.
- Support for smart conveyors.
- Label placement flexibility.
- Accommodates virtually unlimited SKUs (Stock Keeping Units).
- Pattern files, in XML format, are transferred to the controller via network or USB thumb drive.
- Directly import pallet patterns from third party tools (CAPE/TOPS).

## TYPICAL ARCHITECTURE



## END OF LINE OPTIONS



PalletSolver-Online Features	YRC/DX	YRCmicro	MLX
Number of infeeds	8	2	4
Number of build stations	8	2	4
Number of pallet dispensing stations	2	1	2
Number of slip-sheet dispensing stations	2	1	2
Dynamic robot path adjustment to ensure optimum production rate	✓	✓	✓
Pre-Mapped I/O to communicate with PLC/supervisory control for status and monitoring	✓	✓	✓
PLC - Robot messaging interface for operations control	✓	N/A	N/A
Intuitive guided setup and configuration using robot pendant or HMI	✓	✓	✓
PLC-less operation in case robot controller is the only controller	✓	Limited	N/A
Network-enabled for importing of pattern files	✓	✓	✓
Granular control over palletizing operations	✓	✓	✓
4 sequencing options for infeed pick cycles: round robin, priority, ratio balancing, override	✓	✓	✓
Automatic reject of parts with no operator intervention	✓	✓	✓
Adjusting pick-place height as package changes due to environmental conditions	✓	✓	✓
Integrated customization library - customize applications for unique gripper handling, error handling or pick-place handling	✓	✓	✓
Support for vacuum, clamp, fork and bag grippers Gripper I/O capacity: 8 zones, 32 grip areas, 32 sensors	✓	✓	✓
5 dropped box recoveries: re-pick, continue, reset layer, adv. cycle, next layer	✓	✓	✓
Pick and place height adjustments for each station	✓	✓	✓
Reject drop station - automatic drop box recovery (with no operator intervention) by removing unwanted boxes still in gripper	✓	✓	✓

Minimum Requirements
PalletSolver PC
Windows® 7, 8, 10 or 11
Microsoft® .NET Framework 4.5
1GHz or faster processor
1GB RAM for 32-bit, 2GB RAM for 64-bit
30 MB hard disk space
1280 x 1024 screen resolution
YRC1000, YRC100micro and DX200 Controllers
Controller software with MotoPlus™ support
Standard programming pendant
USB flash drive, CF Card (DX200 only) or SD Card (YRC1000/YRC1000micro only) with minimum of 256 MB available space
MLX-Series
CompactLogix™, ControlLogix® or GuardLogix® processor with Ethernet I/P port (L3x, L7x, L7xS)
3 MB memory on PLC
Studio 5000 Logix Designer® V 24 minimum
FactoryTalk® View ME Station version 7; 75 display activation