

YASKAWA



PalletSolver-PC

Release Notes

DOCUMENT VER.: 1.7.1.1
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1 Overview

1.1 About this document

This document is intended to provide information about the latest release of the PalletSolver application, including new features, enhancements, known issues, fixed issues and installation instructions.

1.2 System Requirements

- Microsoft Windows 7 or Windows 10
- Microsoft .Net Framework 4.5
- 400 MHz processor, recommended 1 GHz
- 128 MB of RAM, recommended 1 GB
- 30 MB hard disk space
- 1280 x 1024 screen resolution

1.3 Install Instructions

- Uninstall the current version of PalletSolver via Add/Remove programs.
- Run setup.exe to install the new version of PalletSolver application.
- Follow instructions on the PalletSolver PC installation wizard to complete installation.

2 Release Notes

Version 1.7.1.1 (Nov 17, 2023)

Improvements

- Added Polish language option.

Version 1.7.0.0 or 1.6.2.0 (March 25, 2022)

Improvements

- Option to add post-processor of XML pattern output.
- Option to configure the maximum number of stations.

Version 1.6.1.6 (July 30, 2019)

Improvements

- Removed limit on the number of virtual grippers.

Fixed Issues

- Fixed copying Max Approach Magnitude value when copying a pattern.
- Fixed issue with multirow of product overlapping when turned boxes exceed infeed interference area.

Version 1.6.1.5 (May 24, 2019)

Improvements

- Increased number of virtual grippers to 20.

Version 1.6.1.4 (Mar 25, 2019)

Improvements

- Keep boxes orientation when a new solution is required on the last pick cycle.
- During place sequencing, when no solution can be found for boxes 0 deg on the in-feed, turn the box 90 deg instead of turning the gripper 90 deg.
- Improvement of pick selection algorithm.
- Improved 3D build representation.

Fixed Issues

- Fixed issue causing application error when exporting some project XML database.
- Fixed update issue when changing infeed stations value.
- Fixed issue with saving the Max Build Height value.

Version 1.6.1.3 (Mar 28, 2018)

Improvements

- Keep gripper and boxes orientation when deleting all steps of the Place Sequencing.

Version 1.6.1.2 (Mar 2, 2018)

Improvements

- Compiled for .NET 4.5 and added check in installer for the .NET 4.5 installation prerequisite.

Fixed Issues

- Fixed issue in setting the number of forks on clamp or fork grippers.
- Fixed bag overlap resetting on first bag.
- Fixed when multiple slipsheets are available, the same slipsheet was being selected for Slipsheet1 and Slipsheet2 of the Pattern Components page.
- Fixed case where during the pattern predefined pattern generation an error message is being displayed for every pattern of the library.

Version 1.6.1.1 (Nov 27, 2017)

New Feature

- User defines values that can be added to the Pattern file and pass to the controller to be used in user customized job.
- Project password protection to prevent changes to cell and gripper definition by unauthorized users.

Improvements

- Separated settings into “Application” and “Project” category. “Project” settings are now saved with project information so that the settings are transferred with the project when copied to another computer.
- Added automatic filtering of predefined patterns to display only patterns that can fit on the pallet based on the product size.

Fixed Issues

- Fixed slipsheet place coordinate miscalculation when its orientation is changed and the output file is generated without saving and closing the project.
- Fixed build layer ordering when a layer in the middle of the build is deleted using the right mouse menu.

Version 1.6.0.0 (May 29, 2017)

New Feature

- Added “Bag” package type that allows the concept of “bag overlap” and “bag high drop” properties.

Improvements

- Change label position display from value 0, 1, ..., 15 to “None”, “0”, “90”, “180”, “270”, “0, 90”, “0, 180”, ..., “0, 90, 180, 270”
- Change default setting for ProductID and PackageID type to Alphanumeric.
- Change of default values for Package Center Control.

Version 1.5.0.3 (Nov 16, 2016)

Fixed Issues

- Correction in solution research to center the gripper on the boxes when using the fork gripper.

Version 1.5.0.2 (Nov 4, 2016)

Improvements

- Modified the PackageCenterControl parameters so they range from -50% to 50% instead of -100% to 100%.
- Modified the PackageCenterControl algorithm accordingly.
- Added a message to the user specifying the file format is invalid upon opening an invalid project file.

Fixed Issues

- Correction in solution research to center the gripper on the boxes when the PackageCenterControl parameters are negative.
- Correction to avoid an exception being thrown upon importing data files that were exported using an earlier version of PalletSolver.

Version 1.5.0.1 (Oct 12, 2016)

Fixed Issues

- Correction of the initial position of the robot Icon in PlaceSequencingEditor
- Correction in solution research to center the gripper on the boxes when the Gripper interferences are not symmetrical.
- Correction in Gripper editor to avoid converting the PackageCenterControlX and PackageCenterControlY parameters upon changing the units from mm to inches and vice versa.
- Correction in option form to convert the current default max build values upon changing current units.

Version 1.5.0.0 (Sept 1, 2016)

Note: Must be used with matching PalletSolver-DX or MLX version 1.5 or later.

New Features

- Allow the modification of the number of component in a cell.
- The creation of project and cell directory is now optional.
- Added package orientation parameter in the station
- Added robot position parameters in the station, and display an icon of a robot in
- PlaceSequencingEditor to show the relative position of the robot to the station.

Improvements

- Added default values for Standard units.
- Keep the last added pick when deleting a cycle.
- In LayerDesingEditor, review of the snapping algorithm. Editor now displays a circle on both corners that will be aligned.
- Added delete popup menu in all lists.
- Modification of the Add New menu for consistency.
- Display the gripper tab upon double-clicking on “grippers” in the Project Explorer.
- Disregard of all GripAreas that are not included in Virtual Gripper in validation process.
- Added a warning saying the layers will be deleted if the used unselect a slipsheet in the PatternComponentsEditor.

Fixed Issues

- Correction of a Zooming bug in PlaceSequencingEditor
- Correction of a bug in handling square boxes
- Correction into patternComponentEditor to avoid an exception being thrown when the selected pallet in the pattern is not in the database (was deleted from the packages list).

Version 1.2.2.0 (Oct 13, 2015)

New Features

- Gripper orientation restrictions were added in infeed stations and build stations parameters.

Improvements

- Tags “PackageCoordinates” and “OrientationOfPackages” were removed from the output xml pattern file.
- Minors UI corrections in some editors.
- Added last version of user manual.

Fixed Issues

- Correction in PlaceSequencingEditor to avoid overlapped “click to drop zone” buttons.
- Correction upon generating a new cycle when the remaining number of box to place in the pattern is lower than the last cycle number of box. If the selected virtualgripper is not able to pick the remaining number of boxes, program will scan all virtualgrippers to find another valid pick.
- In Gripper Editor, package center control help image is displayed correctly upon clicking on the parameter.

Version 1.2.1.0 (Aug 8, 2015)

Fixed Issues

- Correction in project file V3 to V4 converter.

Version 1.2.0.0 (Aug 3, 2015)

New Features

- Multi-Row support.
- Collision detection is now considering the approach vector.
- Added restrictions of gripper orientation in build station parameters.

Improvements

- Improvements and modifications in several editors
- New layout for Pattern Component Editor
- “PackageCoordinates” information was removed from the “PlacementInformation”.

Version 1.1.4.0 (Aug 7, 2015)

Fixed Issues

- Infeed conveyor offset was added to the Pallet and Slipsheet layer styles pick coordinates when the infeed station alignment was set to Left or Right.

Version 1.1.3.0 (May 21, 2015)

NOTE: First official version release to end-users

New Features

- Gripper orientation restrictions were added in infeed stations and build stations parameters.

Improvements

- In place sequencing editor, automatically move to the next valid drop position upon clicking on a box. If there is no valid position, gripper will shift by one box as before.
- In place sequencing editor, Automatically generate a new cycle upon:

- Dropping the last box of a cycle
 - Deleting a cycle
 - Deleting all cycles
- Reset of the pallet or slipsheet dispenser used in patterns upon changing the product ID of these dispensers in the cell editor.

Fixed Issues

- Rounding of positions values is causing boxes collisions of is preventing user from dropping boxes.