IPC 2.2 "What’s New"

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June 2018
IPC – The Operator Experience

IPC is made for operators, by operators. Long distance view, icon based graphical communication, intuitive navigation and personalization are all elements made to support the operator ease of use.

User Experience is also about making it simple like replace complex manual tasks with automation, introduce new and smart production methods or accurately estimate & report. IPC 2.2 enhances all of these great benefits.
NEW - Camera based reverse operation for Print Side Down production

- Register the print (regmarks) & corners with the tool head camera – Print side up
- Flip the sheet – read corner and produce in perfect registration

This feature can be combined with all relevant table presets like Multi-Zone and Sheet Feed.

- Easy to set up
- Guided by IPC interface
- Reduction in setup time
- Reduction in errors
Feeder/Stacker & Robot Support

- Support for the C64 with Board Feeder (i-BF) and Material Stacker (i-MS)
  - Smart Simultaneous cutting sequence for highest throughput
  - Support for Underside Camera for printside down registration

- Improved support for the highly automated Robot Material Handler.
IOT Enabled in IPC 2.2

- We connect the Kongsberg tables (C & X) to the Cloud to enable monitoring with iPC 2.1/2.2
- Data captured via tables can be analyzed & utilized to improve our offerings to customers

What information do we get back?

Maintenance
- Maintenance event history
- Maintenance due alerts
- Machine run time and usage

Milling unit
- Spindle Power / RPM
- Spindle temperature
- Trend lines on Power/RPM

Service
- Current status
- Error logs
- Machine info
  - serial number
  - software version

Machine status
(list of machines, idle/running, error state)

Production stats
(machine % utilization, job queue, job status)

Temperature & Current
(spindle & traverse status, alerts)

Maintenance
(service reports, error log, recommendations)
Improved line type Mapping – Use customer specific ARD line types

- It is now possible to enter custom made line types for ARD files.
  - Free text can be used in ARD mapping presets – no longer restricted to those predefined in iPC.
  - Allowing all Structural lines from ArtiosCAD to be mapped in iPC in order to assign tools automatically (using Tooling Presets)
Support for non-Unicode languages & improved localization

iPC has been extended to support non-Unicode character sets.

**New Default PDF mapping** to support all 16 languages for standard set of line types are included in the release and will now seamlessly integrate with AI-Cut.

(Previously layer names were typically displayed with lots of ? and mapping failed, as a result no tooling presets were applied correctly.)

Dialogs have been extended or otherwise modified to give space for translated versions of iPC.
Automated Arc to Line conversion

- Arc to Line function extended to a layer feature so that no operator intervention is required. (Done manually in 2.1)
  - Arcs smaller than a given value are converted to small line segments.
  - A knife lift will be introduced between each segment with the purpose is to avoid arcs cut in thick rigid material from being distorted and knife breaking.
  - This feature introduces the possibility to be included in Tooling Presets for automatic setup.
Improved support for jobs longer than table

- Improvements to Full Compensation (for best print to cut alignment) to make cut lines meet across feed lines.
- Improvements to Register Curve and Placement to keep original size regardless of material stretch or shrink.
Edge recognition for Multiple Stacks (Step and Repeat)

- It is now possible to register multiple sheet per table using edge recognition.
  - The Feature is enabled by selecting the option, Multi Stack in Step & Repeat tab in Production tab.

- This feature can be utilized with manual load as well as sheet feeding.
Selection of temporary custom size material

It is now possible to enter the size of the material directly in a job, handy for non-standard sizes that will not be reused in other jobs. “Custom Size” can be entered in addition to selection of predefined sizes for the material used in the job.
Measure tool height with regular intervals

- Checks for tool height, ensures you that the knife will cut through.
  - This additional check will reduce the potential for errors and increase overall quality.
  - Allow for increased unattended operation

Tool check is carried out by the ATL (automatic tool levelling) device.
New material appearance setting for "Low Quality Print"

- A new selection of Appearance for camera registration has been added.
  - The "Low Quality Print" will accept less perfect circles as registration marks than the Default appearance.
Improvements in the Flexo workflow

Allow cutting of arcs for bevel knife U20
Cutting of arcs with bevel or V-notch knives has been blocked due to lack of power to control the rotation of the blade. This block is now based on request from “the flexo community” removed for the bevel U20 knife, as this tool is only used for cutting in soft flexo clichés.

Increased range in percent allowed for depth settings
Cutting depth can be specified in mm, inches or percentages (of measured or defined material thickness). For certain applications like flexo there is a need to cut a bit deeper than material thickness to achieve consistent through cut. With this change number of materials maintained in DFS can be limited to a minimum as cutting depth can now be specified in % rather than a fixed (mm or inch) value.

New mapping / tooling presets for flexo jobs
To improve the workflow from Digital Flexo Suite (DFS) to iPC new flexo mappings and corresponding tooling presets are also included with the installer.
General Improvements

- Support for barcodes in JDF Files
- Continuous improvements in Edge Recognition
- Updating tooling preset did not save new layers
- Material not applied properly when adding via a Hot-Folder
- Cut across gap – User can now defined value for gap size.
- Simplified import of zip /dfscut files
- Integrated Repair Tool for simplified recovery

And many many more ..........................................................