FloWare
What’s New

10.01.2019
FloWare 2019 Q1

• Barcode Generator
  – Now supporting Data Matrix in addition to Code 39, Code 128 and QR Code

• Fixes/Enhancements
  – Advanced Testpoint Check
  – AOI Check
  – Quick Symbol Edit
Barcode Generator support for Data Matrix

- De facto standard for product identification, tracking and other data-driven applications in the industry
FloWare 2018

• **New modules**
  – Advanced Testpoint Check
  – AOI Check
  – SVG Export

• **Fixes/Enhancements**
  – Design Compare
  – Shield Router
  – ZDRC
  – Panelization
Advanced Testpoint Check

-Addresses various rules for testpoint checking
  - Testpoint to Testpoint check
  - Testpoint to Component check taking component height into account
  - Visualization of restriction areas
  - DRC marker generation
  - Constraints reuse through configuration files
Advanced Testpoint Check

• Spacing rules may be specified
  – As fixed spacings
  – Using rulesets, which account for component height
AOI Check

- Helps users to check AOI related rules directly in **PCB Editor**
- Shadowing can cause serious issues in verification process
AOI Check

• Shadows can be calculated in various directions based on specified camera angles taking component height into account

• Special rules apply to 3D inspection systems
SVG Export

- Generates SVG data out of PCB Editor
- Export SVG from current drawing
- Export SVG's for a complete footprint library including HTM report generation
- Profile support
  - Content (layers) and styles (e.g. colors, opacity, non-vectorized texts etc.) can be specified using predefined profiles
SVG Export

• Example for HTML library report
Shield Router enhancement

- Support for via pattern sharing
FloWare 2017

• FloWare Installer
  – New module
  – Executable which guides users through the installation

• Silkscreen
  – New module
  – Silkscreen generation including DRC check

• Shield Generator
  – New module
  – Generate ESD rings and shield boxes including via pattern

• Padstack Usage
  – New module
  – Library report utility
Installer Support

- Executable which guides users through the installation
- Toolbox & Translators
- PCB Editor FloWare
- Capture FloWare
Silkscreen

- Powerful silkscreen utility
- Configuration
  Objects to silk e.g. lines and labels can be configured as well as obstacles which require silk objects to be cut e.g. soldermask, keepout areas
- Rules
  Clearances and minimum segment length can be defined
Silkscreen

• DRC
Before generating silkscreen data, a DRC check can be performed, indicating all violations helping users to identify problems and fix them before actual data is generated.
Shield Generator

- Facilitates the generation of shape and via pattern for shielding purposes
  - ESD rings
  - Shield boxes for RF circuits
- Different modes for shield generation
  - Select Boundary
  - Draw / Place Rectangle
  - Derive from Line
- Shape parameters
- Via parameters
- Mask generation and cutting capabilities for solder mask and paste mask
- Ability to create groups or symbols
Padstack Usage

• Generate padstack reports by extracting data from **PCB Editor** symbol libraries (*.dra). Different reports are available

• Report types
  - Where-Used
    A report which lists all footprints that use a given padstack
  - Padstack Standard
    A report that lists the padstack definitions for a given footprint
  - Padstack Detailed
    A report which lists detailed information for a given footprint. This information includes number of pins, vias and mechanical pins, pin numbers, xy coordinates etc.

• Report format
  - HTML
  - Excel
  - Text
Padstack Usage

Report examples