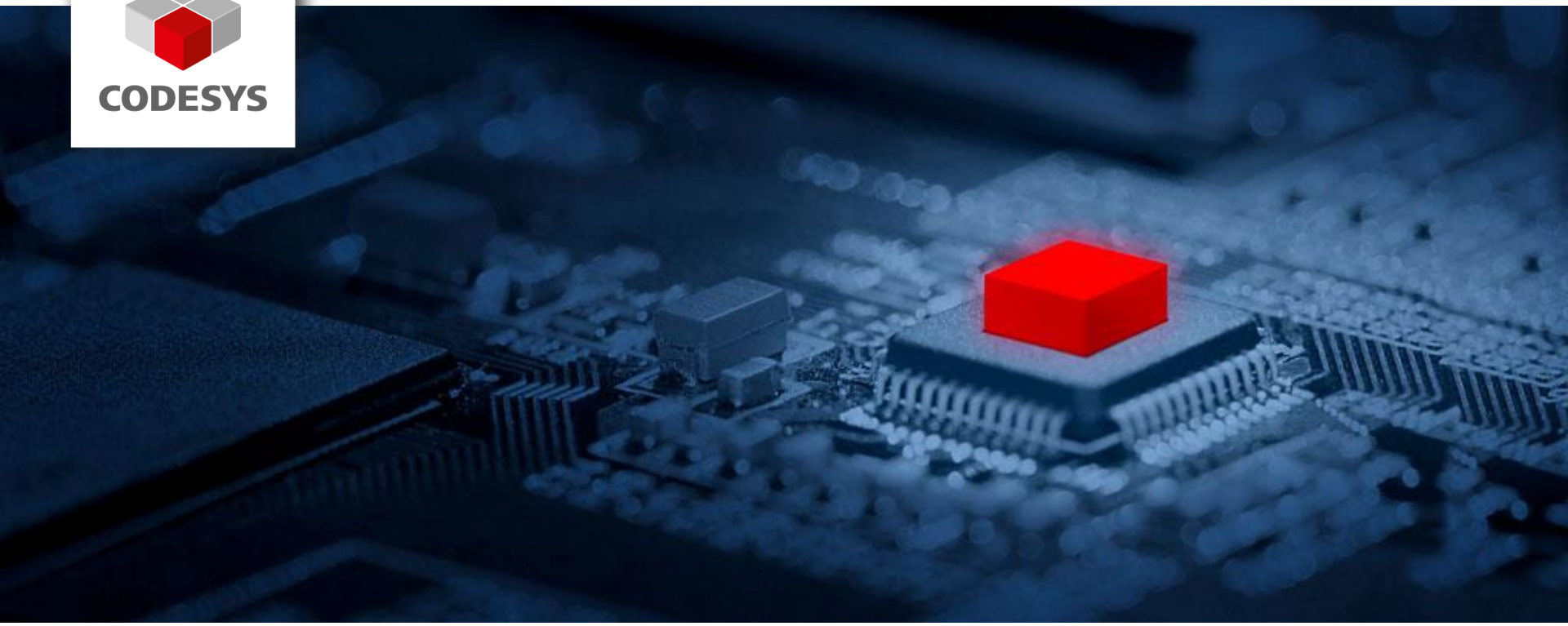

# Features & Improvements
# CODESYS V3.5 SP8

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# Agenda


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## Focus of CODESYS V3.5 Service Pack 8

- Quality initiative:
  - Total of > 1500 improvements, reported previously as requests/bugs/minor flaws
- Scope of development
  - All CODESYS products (CODESYS Development System, Visualization, Runtime system, etc.)
  - Reported issues of all severity levels
  - Strategy: last in, first out
- Goal
  - Fix all recently reported issues
  - Fix all issues that end users have been waiting for a long time


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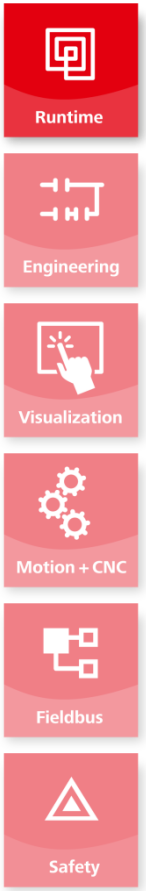
# Runtime

## Summary

- Backup and restore of applications: Backup file generated by a single command
- Link files to application needed to separate them from kernel files
- PLCopen OPC UA Information Model now supported
- Reset of user management on target device by “Reset Origin”
- Quality initiative:
  - 219 issues (bugs / improvements) fixed





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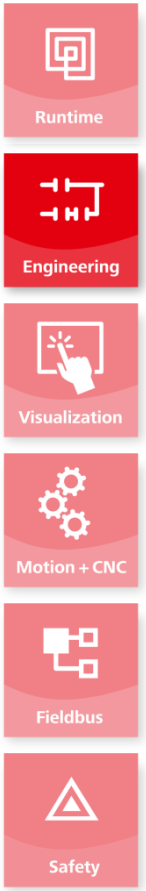
# Engineering

## Summary

- Arrays of variable length
- Drag-and-drop feature in trace editor
- CODESYS Composer improvements
- Further improvements





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## Arrays with variable length

- Functions (FUN) with array of variable length as input:

```
FUNCTION SUM: INT;
VAR_IN_OUT
        A: ARRAY [*] OF INT;
END_VAR;
VAR
        i, sum2 : DINT;
END_VAR;
```

- Feature conforms to IEC 61131-3, 3 Ed.


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## CODESYS Composer improvements

- Online view for mapping editor
- Online view for module instances (parameters and I/Os)
- Navigation from module instance to function block instance and vice versa


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## Further improvements

- Resolve placeholder libraries in the POU tree in the context of the referenced device
- Refactoring: re-sort variables


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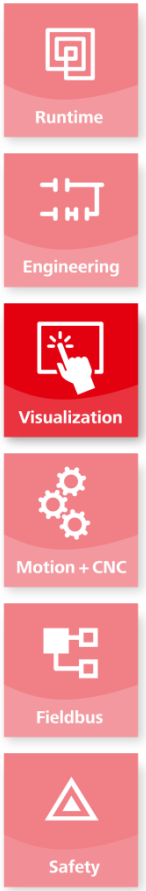
# Visualization

## Summary

- Alarm configuration: Additional message columns and latch variables can be added
- Alarm table: Multiple minor improvements
- FrameBuffer visualization: Dynamic download of free fonts to systems with FrameBuffer, such as TargetVisu FrameBuffer and TargetVisuLight
- New visualization element: analog clock
- TargetVisuLight: Support of Unicode strings
- Quality initiative:
  - 336 issues (bugs / improvements) fixed





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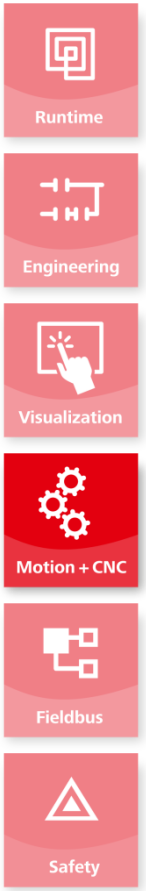
## Summary

- New CODESYS SoftMotion drivers for
  - CMZ IBD
  - KEB “IT Motor B”
  - Festo EMCA
  - Beckhoff EL72x1-0011
- SMC_SmoothPath now supports more steady smoothing of elements.
- Improved support for generated G-code from CAD / CAM systems with multiple linear segments
- Quality initiative:
  - 87 issues (bugs / improvements) fixed





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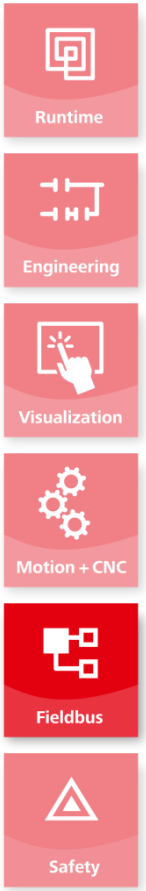
# Fieldbus

## Summary

- CANopen support slave-to-slave communication
- CANopen support for 64-bit systems
- EtherCAT support for sync units
- New Product
  - **CODESYS EtherCAT PROFINET device gateway (for EL6631-0010)**
- Quality initiative:
  - 178 issues (bugs / improvements) fixed





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