

## ServoOne-iPlc – "Maximum applications capability"

### **Flexible deployment of electronic cam plates with integrated iPlc.**

The ServoOne high-performance drive system from LTi DRiVES offers maximum application solutions capability thanks to the integrable single-axis and positioning control iPlc. The iPlc is programmable with the latest version CoDeSys V3 in the languages of IEC 61131-3. As the iPlc shares the microcontroller platform of the servocontroller with that of the drive control, a low-cost solution is provided. Extensive libraries enable fast commissioning.

The 'electronic cam plate' function can also be flexibly deployed and configured with function blocks of the iPlc. This enables applications such as cross-cutters or 'flying saws' to be rapidly implemented.

The cam segments are calculated on the basis of analytical functions deriving from the motion laws of VDI 2143. The key advantage of analytical calculation of the position and pre-control setpoints over a table-based cam plate is that the synchronized pre-control values permit higher dynamism of the following axis to be guaranteed. This in turn permits shorter cycle times in the machining process.

The cam plate profiles can be switched online at varyingly definable points of a cam plate cycle. This may be at the end of the current active cam plate segment, at the end of the current cycle or at the end of a pre-defined master cycle. Positioning inaccuracy at the switching point is minimized by synchronous processing of the cam plate in a 125 µs position controller cycle and by prediction. So switching a cam plate cycle during synchronous running can be used to change the cutting length or to approach a park position without shutting down the axis in the interim. Overlaid positioning commands for tracking and balancing of the master and slave positions even enables material slip to be compensated.

The motion profiles can easily be adapted to the cam plate or additional cam segments inserted. Smooth starting and stopping of the cam plate is also obligatory. Different coupling and decoupling modes as well as freely definable start and stop cycles can be selected.



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