

# SIMATIC S7-200 Tips

## 1. General Applications

| Tip No. | Topic   | Ver | # Pgs |
|---------|---|-----|-------|
| 0       | Master Listing of S7 Application Notes                                    | 3.2 | 2     |
| 16      | How to track how long a device has been operating                         | 3.3 | 5     |
| 17      | Timing for Staircase Lighting   | 3.3 | 4     |
| 18      | Step Sequence (Event Drum Timer)  | 3.3 | 7     |
| 21      | Dimming a Light Bulb with the Integrated DC Pulse Outputs of the S7200    | 3.3 | 4     |
| 31      | Creation of OFF-Delay, Pulse, and Extended Pulse Timers                   | 3.3 | 4     |
| 33      | Handling of the S7-200 Timers   | 1.3 | 6     |
| 43      | Emulating an External Potentiometer                                       | 1.1 | 5     |
| 44      | Using Micro/DOS with the HP Palmtop                                       | 1.1 | 4     |
| 46      | Using Multiple Thermocouples with an S7-200 CPU                           | 1.1 | 3     |
| 47      | Using Multiple Resistance Temperature Detectors (RTDs) with an S7-200 CPU | 1.1 | 4     |

## 2. Integrated Functions

| Tip No. | Topic  | Ver | # Pgs |
|---------|--|-----|-------|
| 1       | Handling Timed Interrupts                                  | 3.3 | 6     |
| 2       | Handling Event Interrupts                                  | 3.3 | 6     |
| 3       | Analog-Potentiometer of the S7-200                         | 3.5 | 9     |
| 4       | How to use High Speed Counters of the S7-200               | 3.3 | 8     |
| 6       | Different possibilities for setting bits or bytes          | 3.4 | 6     |
| 7       | Handling Pulse Width Modulation with the S7-200            | 3.3 | 6     |
| 8       | How to Read and Write to the Real Time Clock of the S7-200 | 3.3 | 5     |
| 9       | Edge Detection of Input Signals                            | 3.3 | 4     |
| 24      | How to play music using the Integrated DC Pulse Outputs    | 4.1 | 18    |

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| <b>3. Communication</b> |   |            |              |
|-------------------------|---|------------|--------------|
| <b>Tip No.</b>          | <b>Topic</b>  | <b>Ver</b> | <b># Pgs</b> |
| 5                       | Simple Applications using Freeport Mode   | 3.3        | 5            |
| 19                      | Connection of a Parallel Printer with a S7-200 in Freeport Mode                     | 3.3        | 8            |
| 20                      | Receiving of Information from a Bar Code Reader via Freeport Mode                   | 3.3        | 8            |
| 25                      | Connection of a S7-200 to a TI505-System via Field Interface Module (FIM)           | 3.4        | 13           |
| 26                      | Application of Hayes Modem with a S7-200 via Freeport Mode                          | 3.4        | 11           |
| 27                      | Connection of several S7-200 CPUs in a Remote I/O Network using Freeport Mode       | 3.4        | 25           |
| 35                      | Connection between S7-200 and PC: Reading from a Windows Application                | 1.3        | 10           |
| 37                      | Connecting an RS485 Encoder to the S7-200 PPI Interface                             | 1.1        | 24           |
| 41                      | Modbus RTU Slave for S7-200   | 1.1        | 43           |
| 42                      | S7-200 PPI Network Notes  | 1.1        | 12           |
| 48                      | Using NETRs and NETWs with the S7-200   | 1.1        | 10           |
| 49                      | Using a Modem to Remotely Program and Monitor an S7-200 PLC through a PPI Interface | 1.0        | 5            |
| 51                      | Using the TD200 Operator Interface with the S7-200 PLC                              | 1.0        | 23           |
| 52                      | Using XMT and RCV instructions to communicate to an operator interface              | 1.0        | 19           |
| 55                      | Integration of ASI- I/O Data into the S7 200  | 1.0        | 8            |
| 56                      | General notes about Profibus and CPU 215  | 1.0        | 16           |
| 57                      | Interfacing a S7-300(Master) with a S7-200(Slave) by Profibus                       | 1.0        | 12           |
| 58                      | Fault Alarm Recording with S7-200   | 1.0        | 15           |

| <b>4. Motor-Control</b> |   |            |              |
|-------------------------|---|------------|--------------|
| <b>Tip No.</b>          | <b>Topic</b>  | <b>Ver</b> | <b># Pgs</b> |
| 10                      | Reversible Motor Starter Circuits for Changing the Rotational Direction of Three-Phase A.C. Induction Motors  | 3.3        | 6            |
| 11                      | Reversible Motor Starter for Pole-Changeable Three-Phase Induction Motors with Rotational Direction Selection | 3.3        | 9            |
| 12                      | Star-Delta Starter without Acknowledgment   | 3.3        | 6            |
| 13                      | Star-Delta Motor Starter with Starter Acknowledgment  | 3.3        | 7            |
| 14                      | Wound Rotor   | 3.3        | 8            |
| 15                      | Stator-Resistance Starting Circuit  | 3.3        | 5            |
| 28                      | Freeport Communication Interface to SIMOVERT Motor Drive  | 3.4        | 24           |
| 40                      | Using the S7-200 AC Inputs with 220VAC to Control the Three Phase Motor of a Crane                            | 1.1        | 8            |

| <b>5. Positioning</b> |   |            |              |
|-----------------------|---|------------|--------------|
| <b>Tip No.</b>        | <b>Topic</b>  | <b>Ver</b> | <b># Pgs</b> |
| 22                    | Triggering a Stepper Motor Drive, using Integrated DC Pulse Outputs with the S7-200 CPU | 3.3        | 7            |
| 23                    | Controlled Positioning with a Stepper Motor Drive using Integrated Pulse Outputs        | 3.4        | 12           |
| 30                    | Control Positioning with Position Monitoring and Position Correction                    | 3.3        | 20           |
| 50                    | Using a PTO Ramp with the S7-200 PLC  | 1.0        | 8            |

| <b>6. Regulatory Control</b> |  |            |              |
|------------------------------|--|------------|--------------|
| <b>Tip No.</b>               | <b>Topic</b>   | <b>Ver</b> | <b># Pgs</b> |
| 29                           | Using a HSC Input for Recording Analog Values by means of an Analog/Frequency (A/f) Converter    | 3.3        | 6            |
| 32                           | Handling PID on the S7-200   | 2.1        | 21           |
| 34                           | Handling Analog Inputs   | 1.3        | 7            |
| 36                           | Measuring and Monitoring Temperature with a PT100 Resistance Temperature Detector                | 1.3        | 10           |
| 38                           | Scaling Analog Values  | 1.1        | 11           |
| 39                           | Measuring and Monitoring Temperature with the S7-200 using Linearized Temperature Detector PT100 | 1.1        | 13           |
| 45                           | Temperature Measurement using Digital Inputs   | 1.1        | 8            |
| 53                           | Using the PID-Instruction  | 1.0        | 7            |
| 54                           | Demo using the PID-Instruction   | 1.0        | 20           |