♦ CP1E FEATURES

❖ **Cost-Effective, Easy Application, Application to Many Systems**

❖ **Exceptional Cost**

❖ **Responding to Global Competition with More Device Control Possibilities**

❖ The CP1E provide high cost performance to further reduce costs by allowing you to select the optimal CPU Unit from the E[][]S-type Basic Models or N/[][]S(1)-type Application Models.

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❖ **Simple and User Friendly**

❖ Intuitive control with "Smart Input."

❖ **Easy to use input editor with smart input function [All Models]**

❖ When you begin typing an instruction from the keyboard in Ladder Editor Mode,suggested instructions are displayed and the addresses are automatically entered.
Connecting lines are added automatically based on the cursor position, enabling intuitive ladder programming.
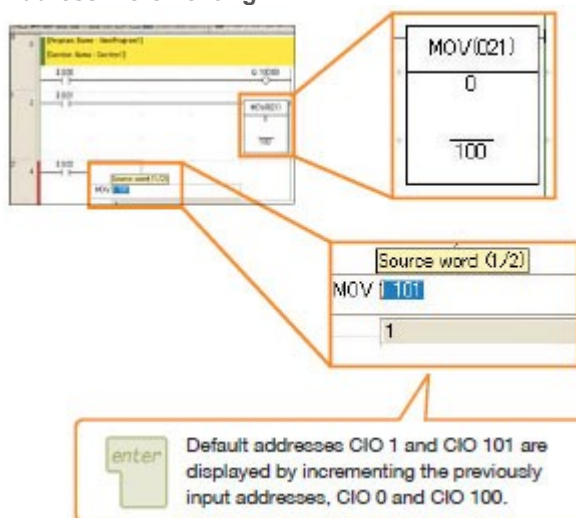
❖ **Easy Input Editor**

❖ **Instruction and Address Input Assist Functions**
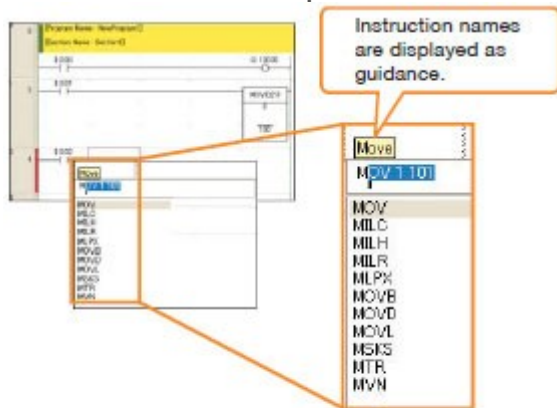
❖

❖ When you begin typing an instruction from the keyboard while in the Ladder Editor Window, suggested instructions are displayed. All you have to do is select the instruction from the list for easy input even if you do not remember the entire mnemonic.

❖ **Address Incrementing**

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❖ The address of the next operand, including input bits and output bits, is incremented by one and displayed as the default. This enables easily inputting consecutive addresses.

❖ **User-friendly Ladder Program Input**
❖ **Automatic Connecting Line Insertion**
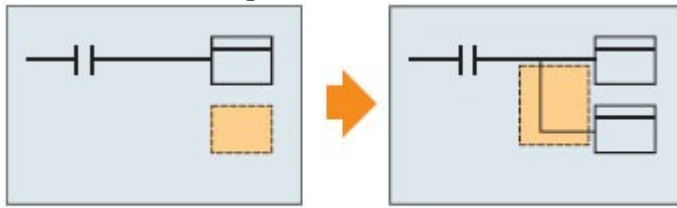
When an instruction is input at the curser,
a connecting line is automatically inserted.

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❖ With the automatic connecting line insertion function the necessary connection is added automatically based on the curser position.
❖ **Automatic Column Insertion When Inserting Instructions**
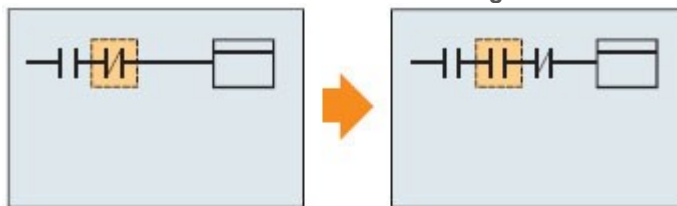
When an instruction is input at the curser,
a column is automatically inserted for the instruction.

❖
❖ The column is automatically inserted when an instruction is added even if the curser is above another instruction.
❖ **Easy to reuse ladder programming**
❖ **Copying with Address Incrementing**

Offset set to 5 bits...
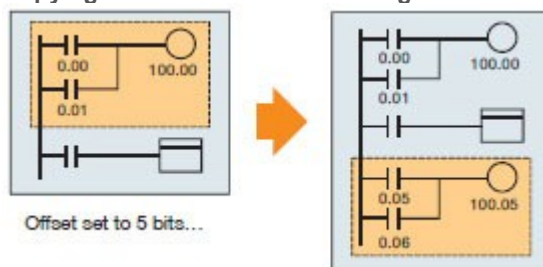
❖
❖ To create the same group of ladder instructions more than once with the address addition copy function, the instructions can be reused simply by inputting an address offset.
❖ **Intuitive Menu Structure**
❖ **Intuitive Menu Display**


The function required for
process is grouping.
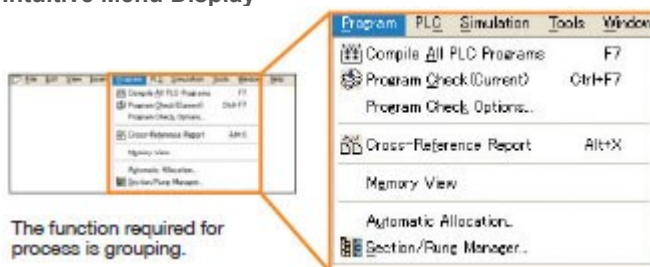
❖
❖ An intuitively designed menu structure makes it easy to see the overall system simply by looking at the menu for smooth operation without referring to a manual.
❖ **Only commercially available USB cables required [All Models]**
❖ All CP1E CPU Units use high-speed USB for the peripheral port. Support software (computers) can be connected using commercially available USB cables. Without the need for USB conversion cables or special cables, connection is easier and cable cost is low.
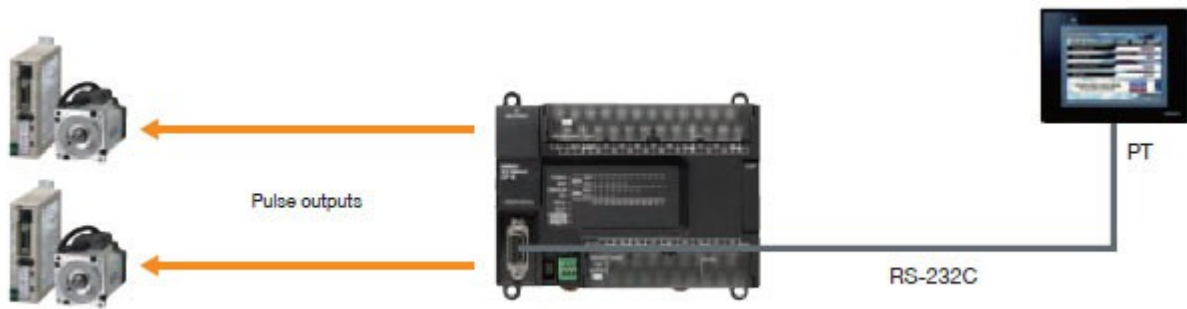
Support Software — Commercially available USB cable

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❖ **The depth of CPU Units with RS-232C connectors is reduced by 20 mm [Renewal type]**
❖ 6 mm slimmer than the normal type.

125mm
85mm
79mm

Normal type

Renewal type
CP1E-N□□S(1)

20 mm slimmer

When using XW2Z-□00T-□

105mm
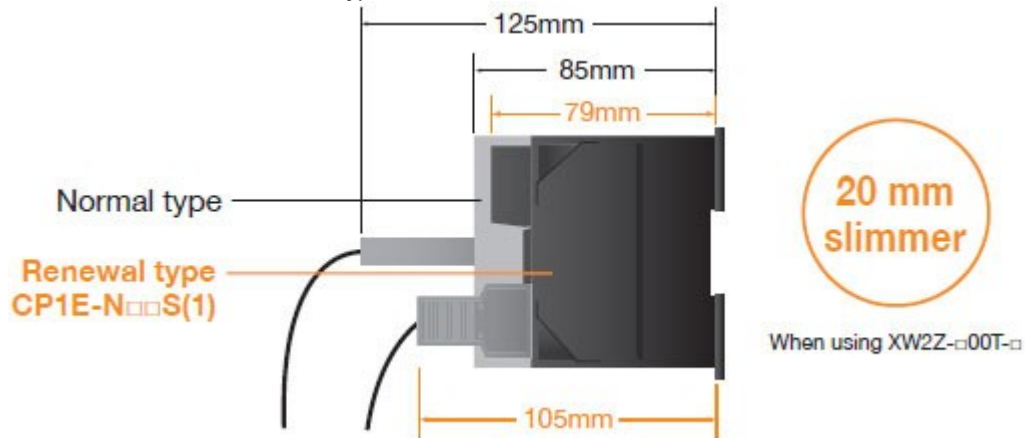
❖
❖ **Efficient and Effective**
❖ Flexibly handle even small-scale systems.
Various Option Units available for increased expandability.
❖ **More Applications with AdvancedControl Capabilities and Functionality [Application Models]**
❖ The Application Models (CP1E-N[][]/N[][]S(1)) are equipped with high-speed counters, pulse outputs, and a built-in serial port(s).
In addition, using the Expansion Unit and Option Board, you can control a wide range of devices.
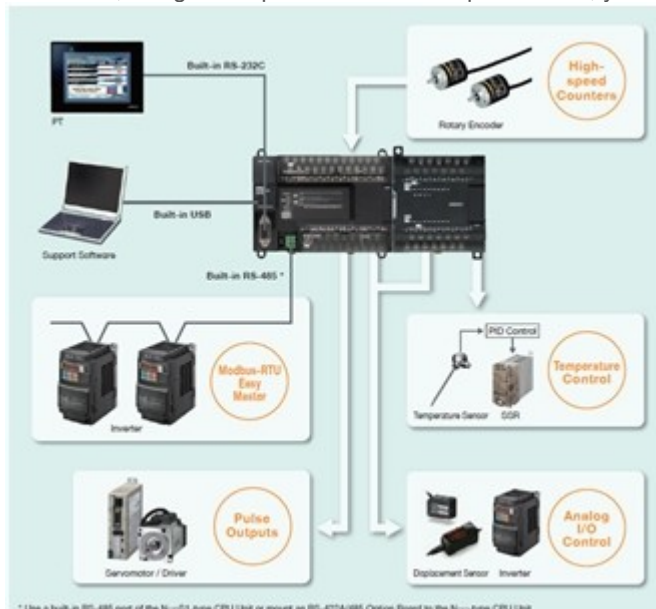
* Use a built-in RS-485 port of the N□□S1-type CPU Unit or mount an RS-422A/485 Option Board to the N□□-type CPU Unit.

❖
❖ Please click image to enlarge (open in a new window).
❖ **Pulse Outputs [Models with transistor Output]**
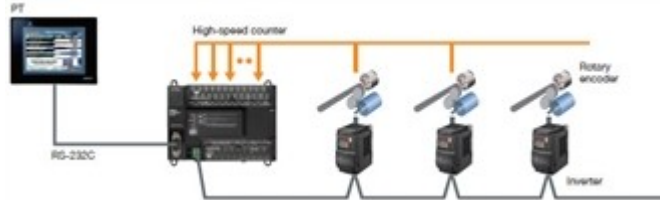❖ Two 100kHz pulse outputs for high-precision position control.

❖

Pulse outputs

Servomotor / Driver

RS-232C

PT

❖ **High-speed Counters***
❖ Control multiple axes with one PLC using the two 100kHz and four 10kHz, single-phase high-speed counters.
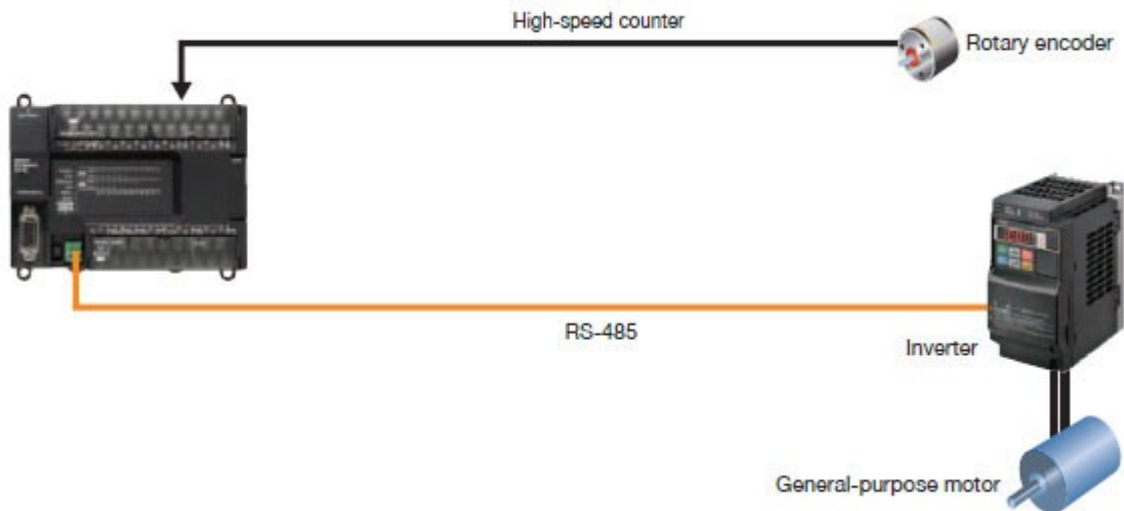 * The Basic Models are equipped with six 10kHz, single-phase high-speed counters.

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❖ **Modbus-RTU easy master**
❖ Specify Inverter speeds via RS-485
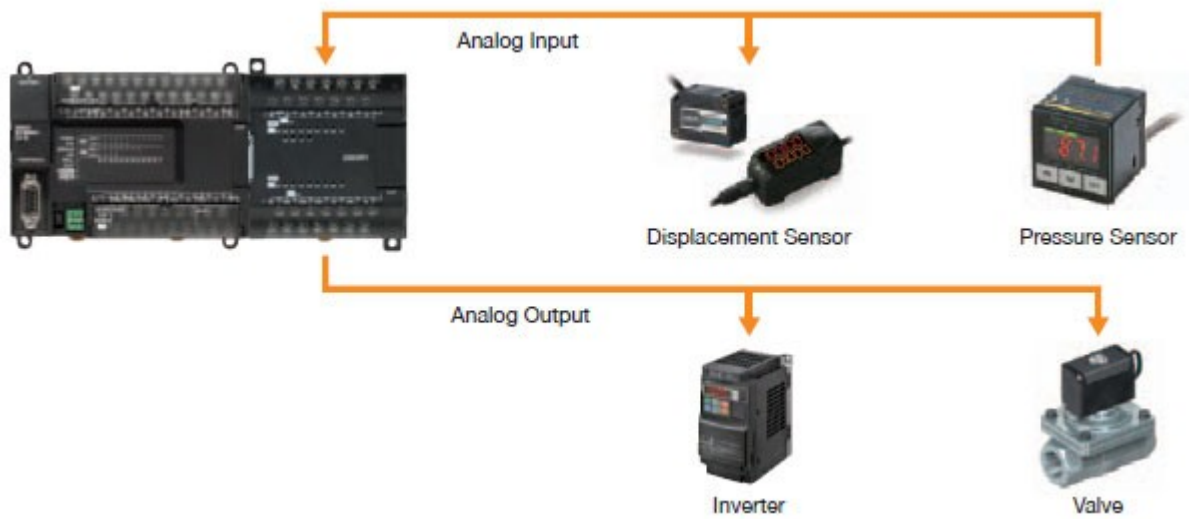

High-speed counter

Rotary encoder

RS-485

Inverter

General-purpose motor

❖
❖ **Analog I/O Control**
❖ High-accuracy analog I/O control with a resolution 1/12,000.
  You can add up to 4 analog I/O by mounting an Analog Option Board and up to 24 analog I/O by connecting Expansion Units.
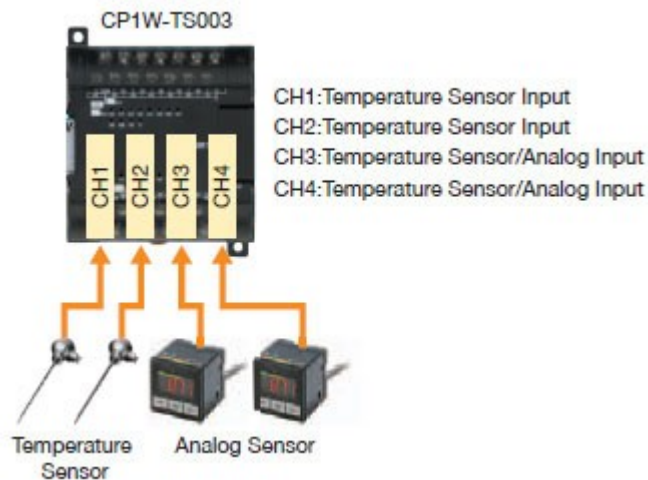
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Analog Input

Displacement Sensor

Pressure Sensor

Analog Output

Inverter

Valve

▌ ❖ **Temperature Control**
❖ The combination of the Temperature Input Unit with the PID instructions enables temperature control.
Up to 12 thermocouple inputs per Unit for CP1W-TS004.

PID instructions
with autotuning
PIDAT
S
C
D
TPO
S
C
R

PT

RS-232C

Heater

SSR

Temperature
Sensor
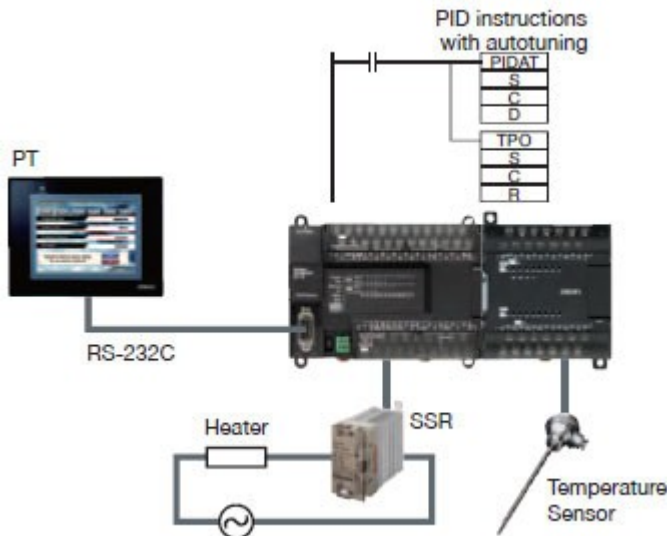
❖
❖ The CP1W-TS003 has two inputs that can be used for temperature sensor or analog inputs.
Both temperature sensor and analog inputs can be achieved with only one Unit.

CP1W-TS003

CH1:Temperature Sensor Input
CH2:Temperature Sensor Input
CH3:Temperature Sensor/Analog Input
CH4:Temperature Sensor/Analog Input

CH1 CH2 CH3 CH4

Temperature
Sensor

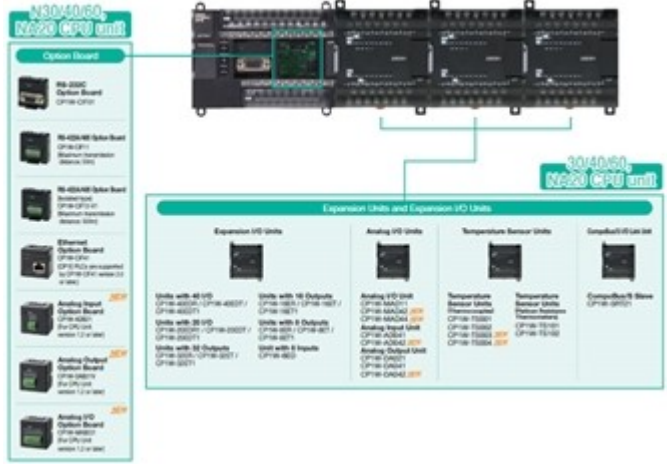Analog Sensor

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▌ ❖ **Serial PLC Links**
❖ Link data with up to 10 words between up to nine CP1E-N CPU Units when controlling a device with multiple
CP1E-N PLCs.

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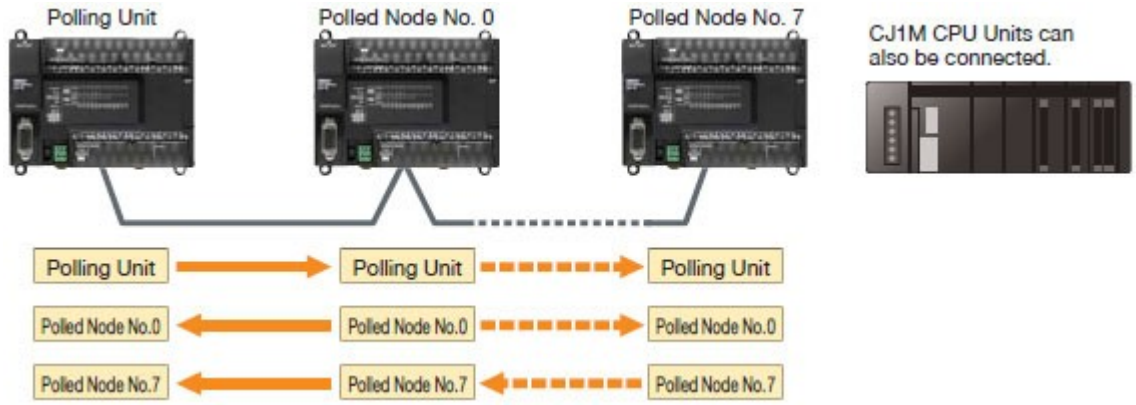
❖ **Ethernet Communications**

❖ Mount a CP1W-CIF41 Ethernet Option Board to an option board slot on the CP1E-N/NA type CPU Unit. Perform monitoring and programming with CX-Programmer,or communicate with a host computer via Ethernet.(server function only)

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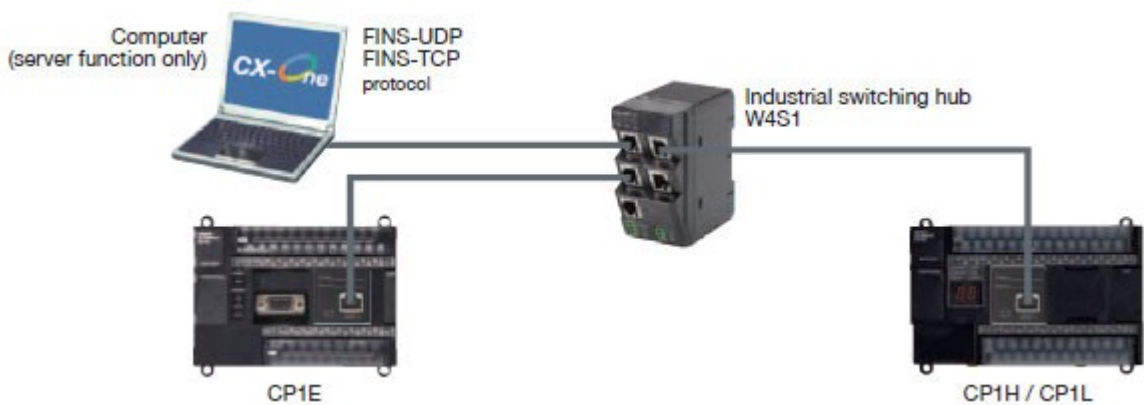
❖ **Optional units for more flexibility**

❖ An option board for an additional Serial or Ethernet communication port can be added to the N30/40/60 and NA20 CPU Unit. Three expansion units are available.
  * The Option Board cannot be mounted to the CP1E-N□□S/N□□S1.

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