

Using USB-ITN in Combination with the Optional Spreadsheet Software

Although measurement data can be simply loaded directly into an Excel spreadsheet by connecting the instrument and input tool to a computer, using the optional USB-ITPAK software enables time-saving operations and procedures that significantly improve reliability and efficiency.

Measurement data collection software: USB-ITPAK® Order No. 06ADV386

This setup and data collection software is used to input data from one or more measuring instruments (connected by way of USB-ITN) to any Excel sheet. (This software package cannot be used with IT-012U.)

USB-ITPAK



USB dongle



Software use requires USB dongle.

Major features

- Excel input settings: The input destination (a workbook, sheet, or cell), cell-fill direction (right or down), cell-fill interval, and other settings can be specified.
- Measurement method selection: Any of the following three methods can be selected: Sequential measurement, batch measurement, or individual measurement. (For details, see the measurement examples.)
- Data input control: Data can be requested, canceled, or skipped by using mouse buttons, function keys, or foot switch.
- Character string input by the USB foot switch adapter, USB-FSW: Any previously specified character string can be input using the foot switch. Examples: *pass* or *fail*
- Number of units that can be connected (total number for both USB-ITN and USB-FSW): Up to 20 units can be connected for Windows Vista or Windows 7, and up to 100 units can be connected for Windows 2000 or Windows XP. However, the above numbers might be less depending on the system configuration.
- Data importation time: About 0.2 to 0.3 seconds per unit. However, this value differs depending on the connected measuring instruments and measurement environment.
- Driver software: The VCP (virtual COM port) drivers for USB-ITN and USB-FSW are individually recognized using a built-in COM number. • Patent pending (Japan)

These types of measurement are made possible by using the USB-ITPAK optional software

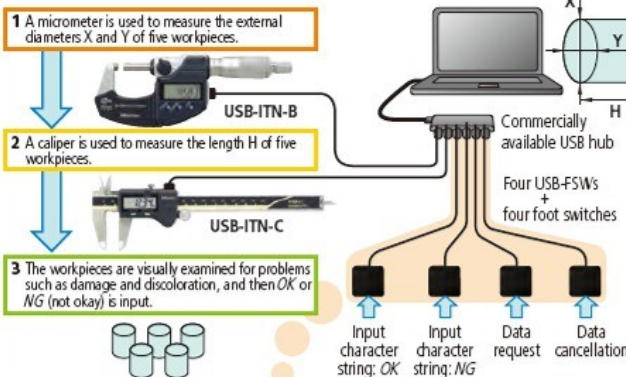
Various measurement patterns are supported by the three measurement modes of USB-ITPAK. Data input and cancellation can also be performed with a single button press using the foot switch.

USB-ITPAK measurement examples

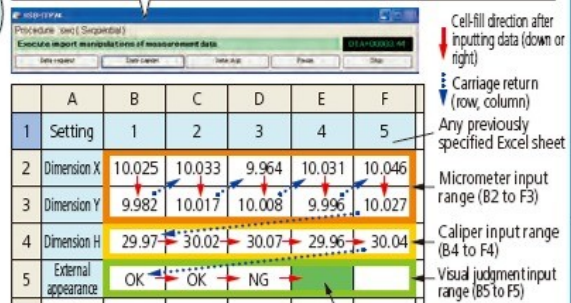
Sequential measurement

For this measurement method, one or more measuring instruments (connected by way of USB-ITN) are used to sequentially input one data item at a time according to a procedure stored in advance.

Measurement example Sequentially measuring the external diameters X and Y and length H, shown in the figure at the right, of five workpieces at a time, and then visually judging whether the external appearance is acceptable (based on damage, discoloration, and other problems)



While executing a measurement procedure, the following window is displayed, and Data Request*, Data Cancellation*, Data Skip*, Pause, or Stop can be selected by using the mouse. Operations marked with * can be assigned to a function key or foot switch (by way of USB-FSW).



	A	B	C	D	E	F
1	Setting	1	2	3	4	5
2	Dimension X	10.025	10.033	9.964	10.031	10.046
3	Dimension Y	9.982	10.017	10.008	9.996	10.027
4	Dimension H	29.97	30.02	30.07	29.96	30.04
5	External appearance	OK	OK	NG		

The cell into which the next data item will be input is shaded in green.

USB foot switch adapter: USB-FSW

No.06ADV384



Major specifications

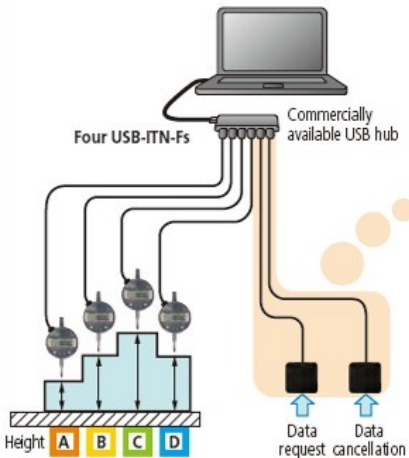
The foot switch function can be specified with USB-ITPAK and used accordingly.

- 1 Data control: Data Request, Data Cancellation, and Data Skip
- 2 Inputting any character string: Examples - *pass*, *fail*, *OK*, *NG*

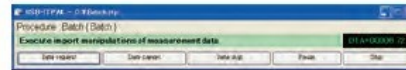
Batch measurement

For this measurement method, data is imported in batches from multiple measuring instruments (connected by way of USB-ITN).

Measurement example Measuring the height of a workpiece at the four positions A to D in batches (at the same time) as shown in the figure below



External appearance of USB-FSW



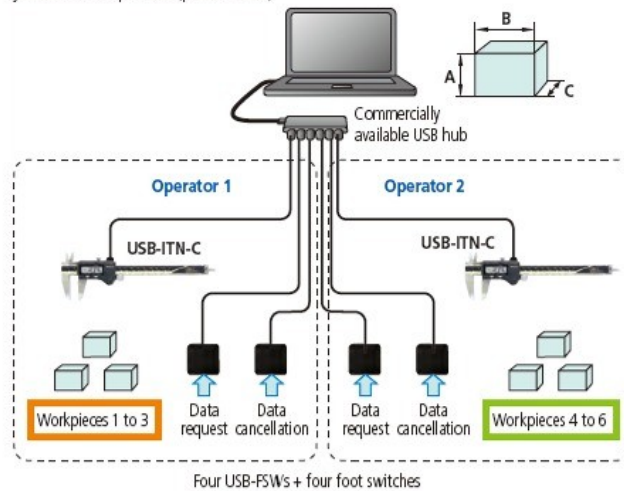
	A	B	C	D	E
1		Height A	Height B	Height C	Height D
2	1	5.02	8.03	9.96	6.03
3	2	4.98	8.02	10.01	5.99
4	3	4.97	8.04	10.07	5.96
5	4				
6	5				

First measurement (complete)
 Second measurement (complete)
 Third measurement (complete)
 Fourth measurement (awaiting the next input)

Individual measurement

For this measurement method, multiple operators make random measurements, and then data is input from the corresponding measuring instruments (by way of USB-ITN) according to individually specified input procedures. • Patent pending (Japan)

Measurement example Dividing six workpieces into two groups of three, one of which is measured by each of two operators (parallel work)



Because multiple operators are making measurements in parallel, the operation buttons in the following window and function keys, of which the system has only one, cannot be used. Only foot switches, for which multiple measuring instruments can be used, are available (by way of USB-FSW).



	A	B	C	D	E	F	G
1	Setting	1	2	3	4	5	6
2	Dimension A	10.02	10.03	9.96	10.15	10.23	10.04
3	Dimension B	9.98	10.01	10.07	9.99	9.78	
4	Dimension C	10.15	10.14		9.96	10.27	

Operator 1
 Operator 2
 Next cell into which to input a measurement
 Next cell into which to input a measurement

Notes on using USB-ITPAK

- Do not merge the cells within the range of cells specified as input destinations for measurement data.
- During measurement, do not perform operations on the Excel sheet you are using other than data input work stored in the measurement procedure. To write data, the measurement Pause or Stop button must be clicked.