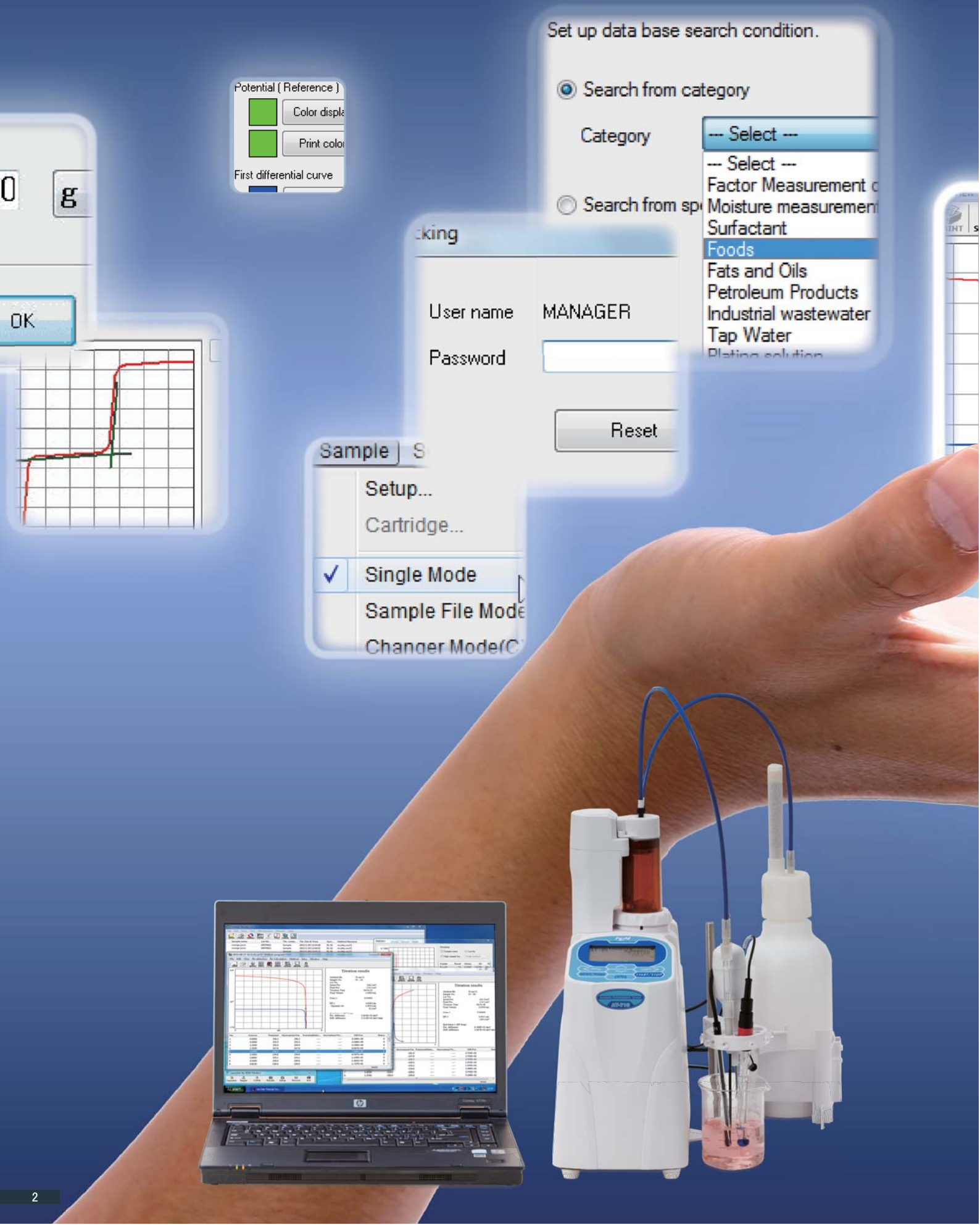
Software for Automatic Potentiometric Titrator

AT-Win

KYOTO ELECTRONICS MANUFACTURING CO., LTD.

Summary


Set up data base search condition.
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--- Select ---
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Factor Measurement
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Foods
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Petroleum Products
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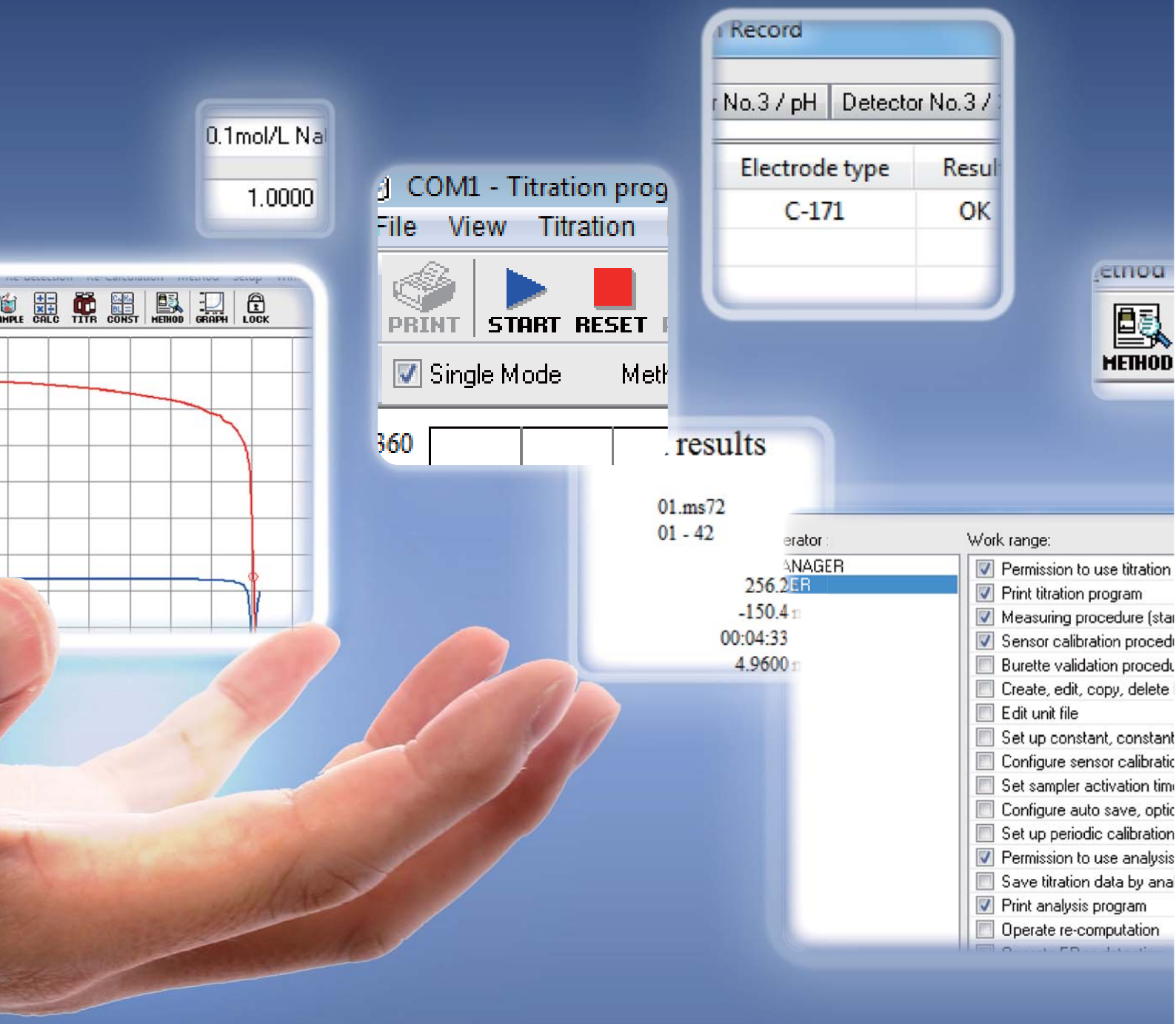
Single Mode
Sample File Mode

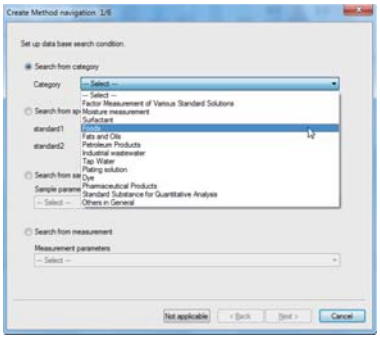


AT-Win software enables your PC to control KEM's automatic potentiometric titrators including AT-710B, AT-700, AT-510 and AT-500N. AT-Win is designed to control the titrator unit including start and reset of it, and set conditions and parameters of titration or sample materials from the PC. AT-Win works on Microsoft® Windows®.

FEATURE

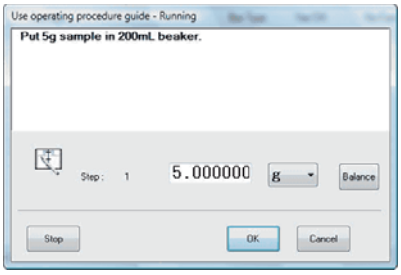
Navigation function

This function automatically configures measurement conditions from sample type, analytical objective and measurement range. Navigation supports your setting up measurement conditions in simple dialogue form.



Subsequent instructions on display

While measurement, instructions appear on display to prompt subsequent procedures like solvent addition and entry of sample size. The instructions can reduce operational error to implement complex analytical procedures.

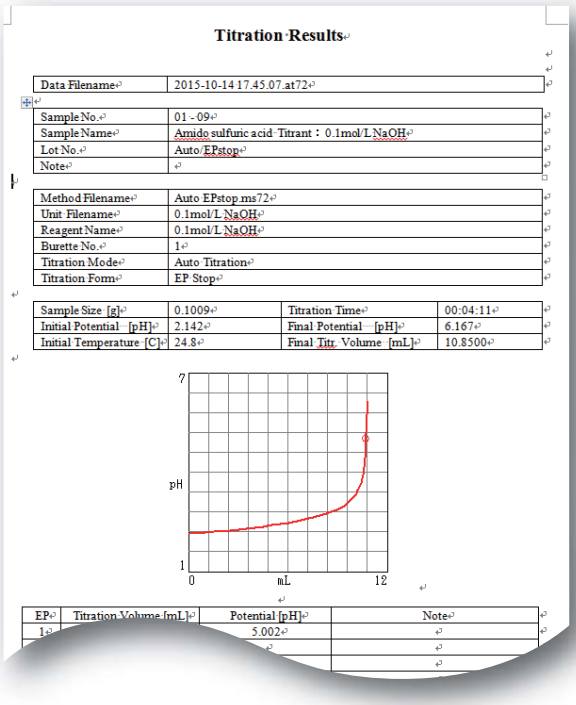


Fully GLP conformed

Electrode and sensor : notice of periodical calibration date, record of calibration
Burette validation : notice of periodical validation date, record of burette validation, notice of piston head change date
Check with standard substance : notice of periodic check date, check record
Other function : setting of operation permission for each operator, error record

Full and versatile documentation

CSV format is now available as a titration data format, which is ever offered as its own format of the titrator. CSV can be used in many other application tools like Microsoft® Excel®, Microsoft® Access® or Microsoft® Word® for quick analysis and effortless documentation.



Titration Results

Data Filename	2015-10-14 17.45.07.at72

Sample No.	01 - 09
Sample Name	Amido sulfuric acid Titrant : 0.1mol/L NaOH
Lot No.	Auto/EPstop
Note	

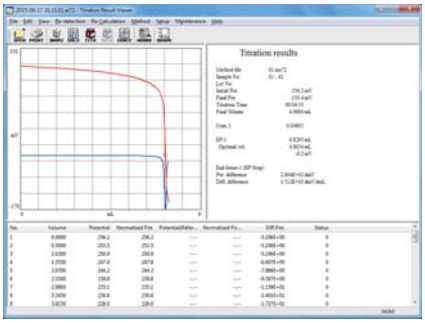
Method Filename	Auto EPstop.ms72
Unit Filename	0.1mol/L NaOH
Reagent Name	0.1mol/L NaOH
Burette No.	1
Titration Mode	Auto Titration
Titration Form	EP Stop

Sample Size [g]	0.1009	Titration Time	00:04:11
Initial Potential [pH]	2.142	Final Potential [pH]	6.167
Initial Temperature [C]	24.8	Final Titr. Volume [mL]	10.8500

EP	Titration Volume [mL]	Potential [pH]	Note
1		5.002	

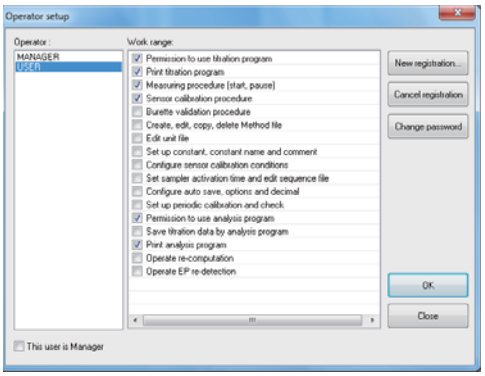
Titration result viewer program

New viewer program can show titration results recorded by AT-Win. This viewer program can not only show all of titration results but also recalculate or simulate the data of these results. It is also possible on any computer connected through LAN to the main computer directly connected to the titrator by installing the viewer program.



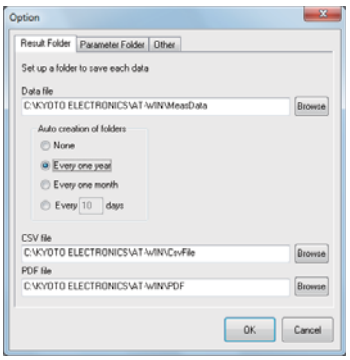
Operation permission defined for each user

This system requires user name and password to start the titration program and the administrator can define which operation is permitted for each user. This function is designed to prevent a user from affecting entire measurement settings.



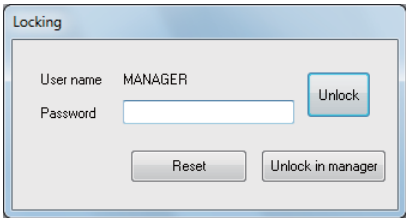
Auto creation of folders

Folders named daily, monthly or annually can be created and titration result files can be sorted into the folders automatically. It helps you to organize huge data.



Operation lock

You can lock the AT-Win when you leave the titrator during titration process. The lock function can prevent the titration from being operated incorrectly by other operators. It is helpful for the circumstance where several operators use the same computer.



Settings of Sample Changer made by AT-Win

AT-Win / AT-710B or AT-510 can set several standard rinse sequences and user defined rinse sequences of CHA-600, Sample Changer. Users can save the user defined sequences in a file for easy selection from different cleaning sequences corresponding to the sample type.
AT-Win / AT-710B or AT-700 can set several standard rinse sequences of CHA-700.

CHA-600

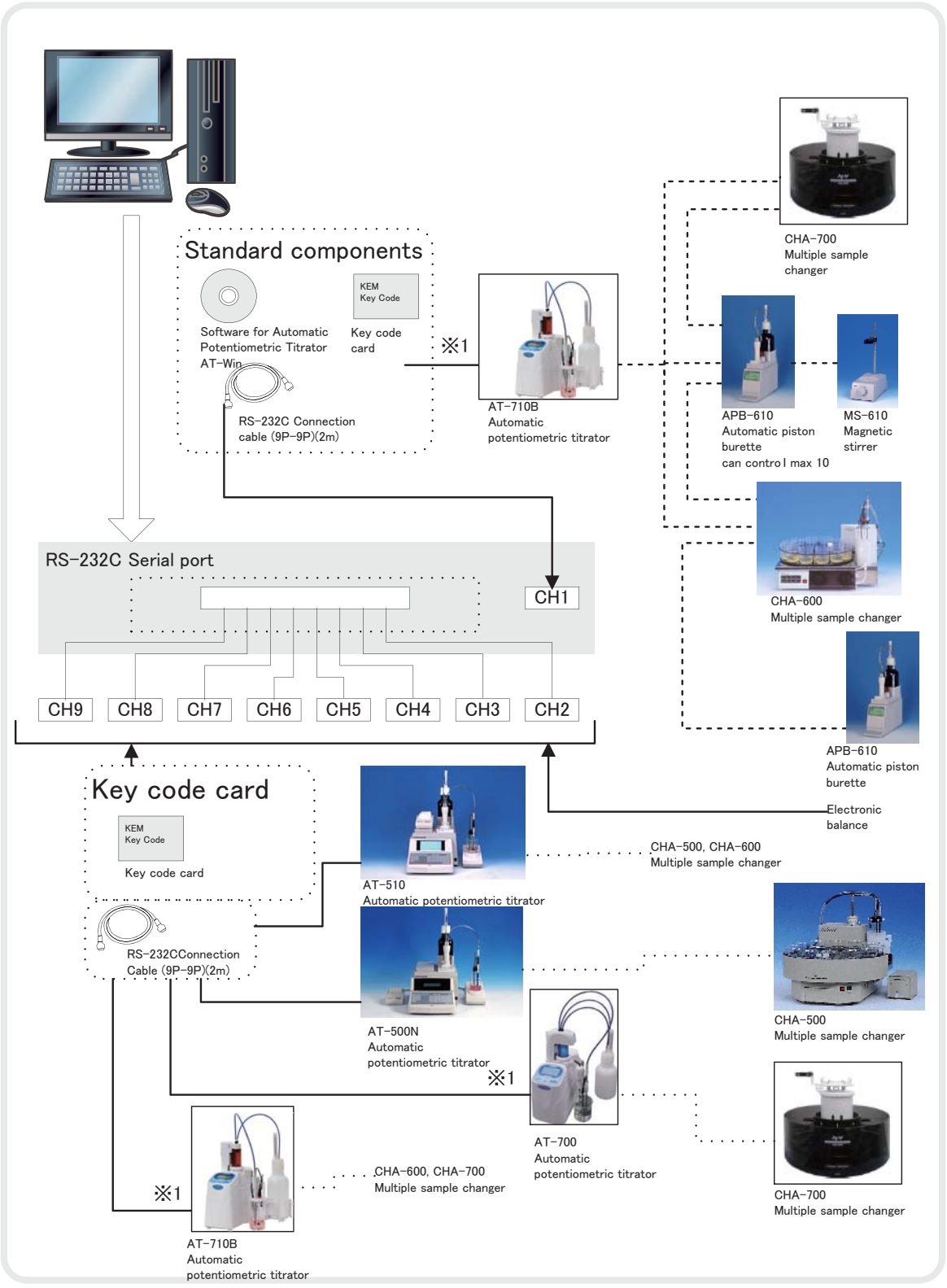
Connection of bar code reader

With the bar code reader connected to PC, it makes easy to input lot number or sample ID. A commercially available bar code reader can be used.

PDF output

Various data including results and methods can be output in PDF format. It enables you to manage titration results in a common electronic file and to show results on any PC without installation of additional software.

SYSTEM CONFIGURATION



※1 In case of connecting AT-710B or AT-700, MINIDIN8P-DSUB9PM cable is necessary.

AT-Win standard supplied parts

	Part name	Qty
1	AT-Win software CD including the operation manual	1
2	Connection Cable (9P-9P) 2m	1
3	Key code card ※2	1
4	AT-Win Installation manual	1

The following parts are needed to connect the second and additional equipment.
Key code card ※2
Connection Cable (9P-9P) 2m
Connection Cable (MINIDIN8P-DSUB9PM) (in case of connecting AT-710B or AT-700)

※2 It is necessary for issuance of a Key code card for a user to notify the serial number of a titrator to KEM. (no notification needed to if you purchase the titrator and AT-Win software at the same time)

SPECIFICATION

Specification		Description			
Model name		Software for Automatic Potentiometric Titrator Model AT-Win			
Method		AT-710B	AT-700	AT-510	AT-500N
	Normal method file	yes	yes	yes	yes
	Combined method file	yes	no	yes	no
Titration form	Full titration (EP Stop)	yes	yes	yes	yes
	Auto EP Stop	yes	yes	yes	yes
	EP Level Stop	yes	yes	yes	yes
	Auto Intersect	yes	no	yes	no
	Stat titration	yes	yes	yes	no
Special titration	Dissociation constant (pKa), Auto preamplifier change-over				
Display	Measurement screen	Real time titration curve, titration mode and form, burette No., sample No., Lot No., titration volume and potential			
	Parameter screen	Method parameter (conditions, formula, etc.), sample parameter (sample size, method file name, Lot No., sample name and constant, etc.)			
	System information	Connected condition of titrator, electric burette, multiple sample changer			
Print	Measurement results, data list, method parameters, sample parameters. Printout into one sheet (4 data, 2 data, 1 data/sheet)				
Calculation	Up to 5 concentration formulas for each method. Individual name for each constant, temperature compensation of titration liquid				
Data files	Measurement results and parameters saved in hard disk. Number of files depends on capacity of hard disk				
Data processing	Statistics	Mean, standard deviation, relative SD			
	Re-calculation	Sample size, constant, factor, etc.			
	EP re-detection	Auto EP, manual EP, Auto Intersect, Manual Intersect, Limited EP			
	Transfer data	Report in Word, Data saving in CSV or MDB format, External output to PC			
Security	Identify with user ID and password. Management by operated item and level				
Operating guide	Guiding messages like prompting steps, sample size input or commenting				
GLP/GMP	Electrode	Notice of calibration date and record of results			
	Periodic check	Notice of check date with standard and record of results			
	Burette	Notice of burette capacity validation and record of results alarm of remaining reagent and piston head replacement			
	Operational record	Record of operation by AT-Win			
Alarm message	Key entry, calculation error, malfunction alarm, etc.				
Compatible model	AT-710B, AT-700, AT-510, AT-500N				

Required systems

Specification	Description
Computer	Able to run Windows 7 Professional (SP1 or later)
Operating system	Windows 7 Professional (SP1 or later) 32bit or 64bit
Others	Internet Explorer 8.0 or later, Adobe Acrobat Reader 9.0 or later
Memory	More than 1GB RAM
Hard disk	More than 40GB RAM for installation
Display	More than 1024*768 display
Disk driver	CD-RW driver or DVD-RAM
Serial port	RS232C D-sub male 9-pin or USB port with serial converter : 1 additional port for each titrator※1 ※2

※1 1) Each Automatic Potentiometric Titrator requires its individual serial port. It is the same as an electric balance or a bar code reader is connected to the PC.

2) Up to 4 titrators can be connected to one computer.
Note that internal serial port may already be occupied with internal modem.

3) Serial port(s) can be added by RS232C expansion board (option).
Note: more than 1 slot for PCI bus, and PCI bus of Low Profile type may not be able to install.

※2 A USB serial converter is required via USB.

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