

Mobile Application for Process Control



Using smartphones to access process data safely and conveniently...

- Wireless monitoring of process parameters
- Convenient on-site operation of all reactors (server/client architecture)
- Platform-independent, Web browser-based solution for tablets and smartphones
- Reduced costs and space requirement, fewer PCs in the lab
- Central monitoring of all of the systems that run overnight, for example
- Future-oriented, next-generation workstation solution (lab of the future)

Highly simplified

RemoteX makes it easy to operate and control all of your SYSTAG applications due to its revolutionary integration of mobile devices into the FlexySys environment. Improved utilization of the infrastructure, convenient support in your daily tasks and central monitoring of all of your systems are just a few of the benefits that result.

The latest technologies

RemoteX communicates with the FlexySys computer using the latest wifi technology or a tried and tested LAN connection, if you prefer. The highest levels of security are permanently guaranteed, since all of the control functions and data acquisition are carried out on the central FlexySys PC. Integration in the FlexySys network allows RemoteX remote access via a VPN.

Convenient everyday working

The browser-based RemoteX solution integrates into individual workflows on a seamless basis. You group all of the relevant process parameters by dragging and dropping on a clear dashboard.

You maintain the overview at all times simply by swiping quickly between the different plants or dash-

boards. The online diagram that you configure intuitively informs you permanently about the current course of your process.

All functions (temperature control, dosing, pressure control etc.) can be configured, started and stopped using RemoteX on your mobile device.

RemoteX doesn't just give you information about the current status of ongoing recipes; rather, it also allows you to select, start or interrupt them.

Image logging

This makes it possible to use the camera that is integrated into most mobile devices for logging in an optimum way. The photos that you take in this way are archived on an experiment-specific basis and you can add your own comments if you want. Apart from this, FlexySys documents all interventions continuously in the E-Journal.

Reduced costs and space requirement

Since RemoteX is wireless and can access reactors on a site-independent basis, placement of the FlexySys computer becomes secondary. This means even several independently operated "workstations" can be

grouped together on a central computer, which reduces costs and, increasingly important, saves space in the lab.

Simple integration

RemoteX uses an Access Point and wifi to access the existing FlexySys network. If desired, you can also use your tried and tested Ethernet ports. No additional IT infrastructure is needed apart from this.

Single-user / multi-users

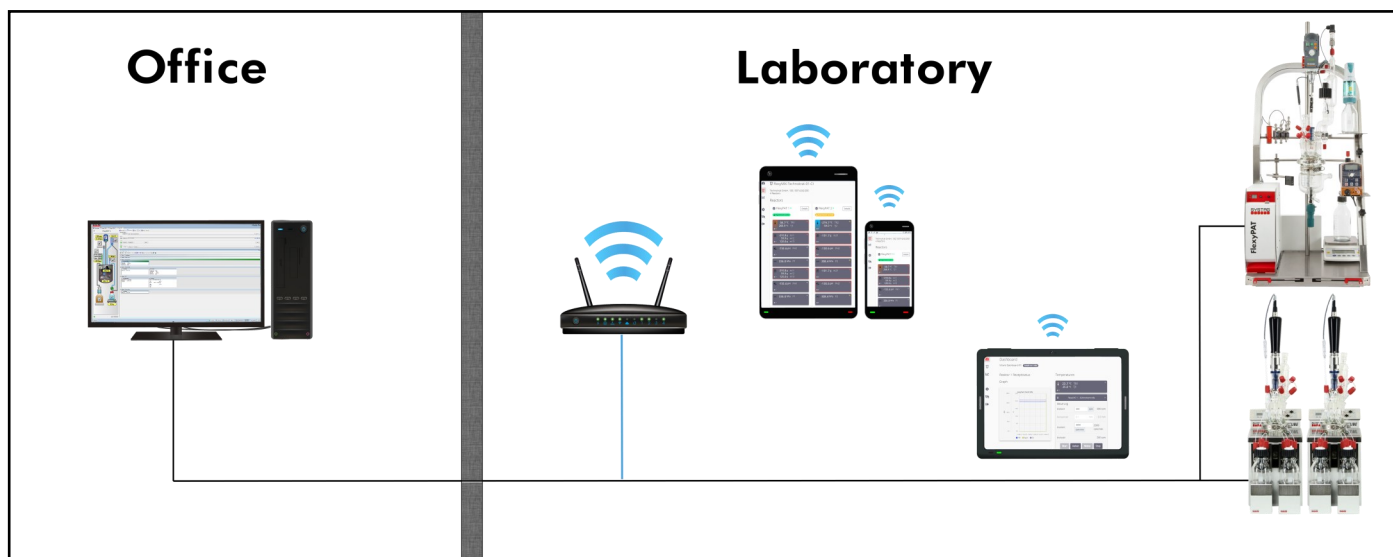
Single-User-License: One mobile device controls all reactors within a FlexySys system.

Multi-User-License: Several mobile devices control all reactors within a FlexySys system simultaneously.

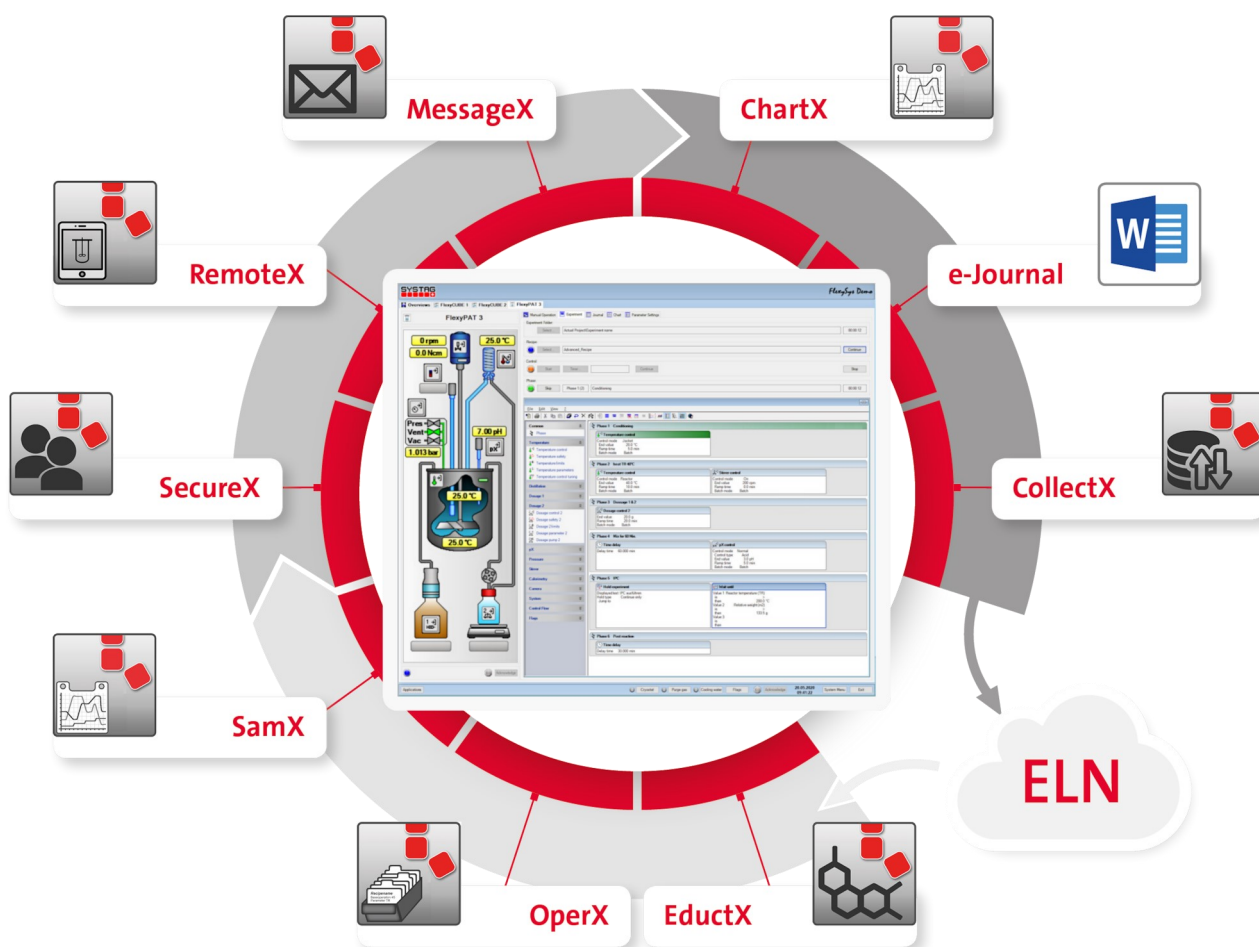
Always informed

With RemoteX you are not only mobile, but also informed at all times. Allow defined users (user-accounts settings) to monitor or access all reactors, even across laboratories or workgroups.

It is possible to integrate RemoteX in all SYSTAG applications from Release 3.1 onwards.



The modular Software platform



Preparation of your experiment

- ❏ **EductX:** Automated integration of reactant specific data from an ELN (data base).
- ❏ **OperX:** Create your recipe wherever from you want.
- ❏ **SamX:** Your assistant to switch peripheral devices easily.

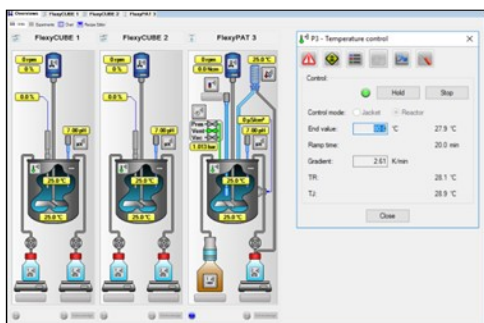
Compliance, comfort and safety

- ❏ **SecureX:** Makes your software GMP compliant (CFR 21 part 11).
- ❏ **RemoteX:** Control your reactor from wherever you want.
- ❏ **MessageX:** Your email alert.

Data Management

- ❏ **ChartX:** Graphical view (trend) of your experiment.
- ❏ **e-Journal:** Automatic generated lab journal of your experiment.
- ❏ **CollectX:** Automatic data transfer to an ELN, LIMS, cloud etc.

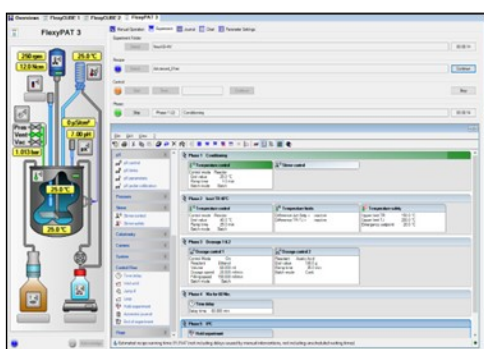
FlexySys - The modular software platform for your laboratory application



FlexySys — simplicity and flexibility through structured functions

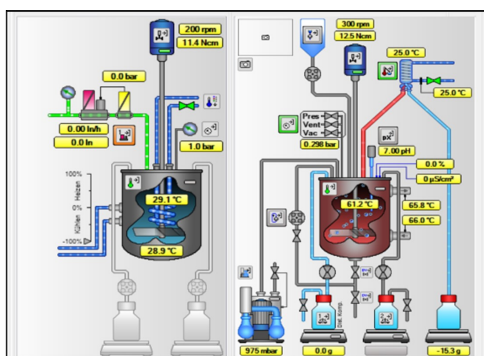
Simplicity: Thanks to intuitive functions, experiments can be carried out safely and without extensive training.

Flexibility: Thanks to a wide range of standardized functions, we can offer you a solution tailored to your own process, so that you can conduct your work as efficiently as possible. Existing equipment can also be integrated into the software. This way, you not only save money, but also increase the system's availability.



Efficiency, safety and reproducibility thanks to recipe control

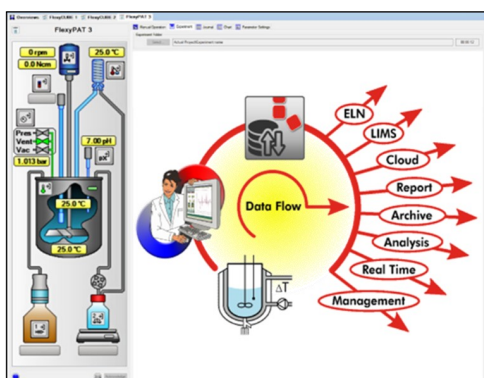
Using recipes, sub-processes such as inerting or even complete experiments can be carried out reproducibly and efficiently, even without supervision. Maximum flexibility is guaranteed by the combination of manual interventions, fully automatic recipe operation and the “edit on the fly” function. Alongside all the necessary safety limits, which the system immediately regulates into the previously defined safety state, a variety of process limits can also be defined. These include, for example, the maximum permissible temperature rise during dosing.



Customer-specific adjustments

The software can be tailored to a large number of different processes. For example, distillations, filtrations or pressure controls can be automated via the software using standardized functions, while reaction energies can be measured (calorimetry) or analysis devices such as turbidity measurements and particle size analyzers can be implemented.

Customer-specific turnkey solutions, combined with services in the field of plant design and plant qualification in the GMP environment (IQ/OQ), protect your investments, thanks to the modular way that they can be adapted.



Data management and eJournal

During an experiment, all the events and data are recorded automatically. This also applies for any integrated analytical instrument. In addition, all the data along the workflow, such as the numbers of manual weighings of solids or the batch numbers of educts, can be managed via the software. All the data and information is compiled in Word format in an automatically generated e-journal, which can then be centrally archived in higher-level data management programs (ELN or LIMS) using the “CollectX” add-on. This way, the traceability of all the experiment related data is ensured and data analysis is also guaranteed across departments.

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