epMotion® Software

epBlue™ – Simplify Your Programming
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Description
The epBlue™ software features an intuitive interface that allows for fast mastery and rapid method design while maintaining versatility and usability. The easy to use drag and drop visual interface makes setting up new methods fast and simple. A variety of smart commands are available each with its own set of preset parameters that the user can modify to fit particular needs. Comments give the option to leave notes when multiple users work on the same protocol. Features such as the ability to reuse tips and a multidispense mode minimize tip consumption leading to reduced costs per sample can be activated with a few clicks. The optional barcode reading tool allows for easy tracking of samples throughout your whole process.

Customization
> Optional epBlue ID software allows sample tracking throughout any protocol through barcode reading
> Optional epBlue GxP software for GMP and GLP labs complies with 21 CFR part 11 regulations and provides full transparency and accountability through maintenance of log files and digital signatures

Application support
Get up and running quickly even with the most complex protocols by utilizing our optional expert application support. Over 1700 labware definitions from a large array of manufacturers and the ability to customize new labware allows the epMotion to work with a large array of protocols.

Product features:
> Intuitive drag and drop programming for easy method setup
> Copy/Cut and paste feature allows for fast method modification and adaptation
> 3D view of workstation and run simulation for easier method optimization
> Protocol setup using CSV files allows for easy setup of normalization and cherry picking protocols
> Create, edit and simulate applications on any Windows 7, 8, or 10 PC with epMotion Editor 40 software
> Pierce function allows the use of foil sealed plates reducing the risk of contamination
> User management with different user levels enables structured use in a shared environment
> The ability to leave comments makes it easy to collaborate on methods
> Surface teaching allows for the user to identify the bottom tolerance of labware
> Unlimited virtual deck positions increases the versatility of the system
Flexibly Choose the Labware You Need

Labware and application versatility

> Whether you are using kit specific tubes, plates, or other vessels, the eP Motion allows you to work with almost any labware to fit your workflow.
> The visual interface makes setting up and navigating work decks easy.
> Unlimited «Parking positions» increase programming flexibility by allowing for complex protocol setup with unlimited tips, tubes, plates, and reservoirs. The discrete user intervention steps allow you to add tips or plates to your deck during the run, increasing the capabilities of your system.
> Stacking capability for plates and tip boxes (10 µL, 50 µL, 300 µL) allows for more efficient use of deck space and long method runs thus improving walk-away time.

Flexibility to customize to your needs

> The easy-to-use drag & drop labware editor allows you to customize racks to your specific needs.
> Unique Reservoir Rack concept allows for a multiple of reservoirs (10, 30 and 100 mL) and tubes (0.2–50 mL) to be used in one SBS-size deck-space position to maximize flexibility.
> Tube racks can be customized to use tubes from different manufacturers or reagent kits as well as tubes of different volume sizes in one rack to maximize instrument flexibility and increase capabilities within the available deck space.
> Easily export the newly defined labware file to be used on any eP Motion system.
> Fully customized made on-demand racks and adapters available on request.
Versatile Software Gives You Control

Simple yet powerful commands make setting up protocols easy and intuitive

Drag and drop programming of methods get you up and running quickly

Mouse over text clearly identifies all commands and parameters making programming easy

Cut and paste feature allows for fast method modification and adaptation

Liquid handling command options
- Each command comes preset with the most commonly used parameters to fit most standard applications
- For more complex methods, the epBlue™ software allows the user to modify pipetting parameters to fit specific requirements for demanding applications
- In addition to Tip Handling options and Liquid Type settings, the command allows you to define Aspiration/Dispensing characteristics, Mixing parameters as well as Rinse options

Pipetting pattern recognition
- Pipetting from tubes and reservoirs to plates, plates to tubes and reservoirs, and any plate format to any other tube or plate format makes reformatting and cherry picking easy
- Automatic recognition of pipetting patterns allows for fast and easy setup of pipetting protocols from any combination of source and destination vessels

Tip handling options
- Options such as "Reuse tips" decrease tip usage while increasing the versatility of the system. Reused tips will only be used to pipette from the same source well eliminating the chances of cross contamination.
- Rinse tip option allows the user to wash a tip before discarding it improving waste management
- Discard tips to empty tip box increases the waste management options
- "Dip Tip" option allows after aspiration or dispensing to dip off hanging droplets or bubbles when working with viscous or foaming solutions to avoid carryover

Predefined liquid classes
- The most common liquid classes are predefined in the software ensuring maximum pipetting accuracy
- User defined parameters are available to further optimize liquid handling for a wide variety of liquids, e.g., Aspiration speed, Dispensing speed, Blow delay, Blow speed, Blow movement, Immersion depth Aspiration, Immersion depth Dispense, Initial stroke, and Prewetting

3D run simulation
- Optimize the speed and efficiency of new protocols with the help of the 3D simulation tool that is available with all MultiCon™ PC versions. Together with the "Check Method" function of the epBlue software, the 3D run simulation allows you to verify that your method was programmed correctly. The visual representation as well as the possibility to run the method in fast forward speed can also help you identify inefficiencies and potential contamination issues. Once issues are identified, the epBlue drag and drop function allows you to easily reposition labware while the actual method adjusts to the changes automatically.
Advanced Features for Demanding Applications

Pipetting versatility through height adjustment
- Define the height of aspiration and dispensing from either the bottom of labware or from the meniscus for added liquid handling versatility
- Allows for optimal magnetic bead cleanup, supernatant removal, media exchange, and many other applications

Teaching function to define bottom tolerance
- Change the bottom tolerance for labware in a given command without effecting the labware handling outside of the given protocol allowing for more method development versatility
- Surface teaching allows you to optimize bead based cleanups, aspirating from filters, seeding plates, and many other applications

Empty vessel function
- Allows for the complete emptying of vessels
- Command provide possibility to define aspiration height as well as the positions of the tip within the vessel to maximize aspiration efficiency
- Ideal for use in magnetic bead (e.g. NGS library preparation), Nucleic Acid Purification (NAP) or cell culture applications where remaining liquid after washing steps can be removed more effectively to prevent carryover that could be detrimental to subsequent reactions

Software Upgrade Options

**epBlue ID-Secure barcode scanning-tracking-documentation**
epBlue ID software module allows for safe data exchange with laboratory information management systems (LIMS) and simplifies external communication. The barcode scanner enables the user to record barcodes on all tube types and microplates. Reagents can be documented with type and lot number. After manually scanning the barcodes, epBlue ID will store the IDs in its database from which data can be verified at any time. A result file containing sample IDs and their final location is generated by epBlue ID when the liquid handling process is completed. The result ID list can then be exported to a network drive and uploaded to a LIMS.

- Visual guidance of the scanning process
- Documentation of reagent type and batch
- Compatible with LIMS generated worklists

**epBlue GxP – 21 CFR part 11 compliant software**
The GxP solution was developed according to GAMP 5 and tailored for organizational and process requirements of 21 CFR part 11, 58, 211 and 820, GLP, GMP and GCP. The epBlue GxP solution consists of the epMotion automated pipetting system, software and services that are designed to significantly shorten the timeline of your process validation and qualification.

- Complete electronic documentation
- User level management and access control
- Audit trail and log file
- Revision management
- Configurable workflow management
- Export and archiving of digitally signed documents
- epBlue ID tracking using bar codes (optional extension)
Enhanced Feature Set: Tackle Complex Methods

Enhanced Feature Set 1 increases the ease-of-use of the epBlue software—especially when using long and complex methods and includes the following features:

- **Automatic Sample Number calculation**
  > Allows for easy scalability when different number of samples are being processed within a single method. Number of Samples step can be correlated to previous commands via mathematic equation.

- **Intelligent Tool Selection**
  > Intelligent Tool Selection automatically switches between tools (single or 8-channel) within a command for fastest run time. Ideal when sample numbers change frequently or are not a multiple-of-8.

- **Command X start**
  > Possibility to start an application at any given step within a method during protocol optimization or to allow for a quick restart after a method was aborted.

- **Email notification**
  > Receive notification via email about device status, upcoming user-intervention steps, run completion or error messages to allow for short reaction times.

Enhanced Feature Set 2: Normalization Now Faster and Easier

Drag and drop the new normalize command in your existing methods or use it as a stand-alone method.

The new data layout editor is easy to use and allows handling data sets directly coming from your plate reader.

Same Performance... Shorter Runtimes!

Reliable Normalization results
Normalization of human gDNA present in a 96-well plate at 8 concentrations in triplicates (24 wells) to a target value of 0.1 ng/µl. Measurement of the gDNA concentrations in the destination plate by fluorometric quantification. Fluorometric method results in ~10% lower concentration measurements systematically.

Fast processing of samples
Processing time comparison of for the normalization of 96 samples using water. Transfer from source 96 well plate to target 96 well plate. Diluent is presented in a reservoir.
### Ordering information

<table>
<thead>
<tr>
<th>Description</th>
<th>International Order no.</th>
<th>North America Order no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>epBlue™ ID barcode software module, modular expansion of epBlue™ for barcode support. Incl. manual barcode reader with stand. Must be ordered together with the epBlue™ software. Compatible with all epMotion® PC versions except epMotion® 5075 MC PC version. Not compatible with the epMotion® operator panel versions.</td>
<td>5075 002 000</td>
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<tr>
<td>epMotion® PCR assistant software for epBlue v40.1 or higher, user guided software add-on facilitating easy access to PCR set-up tasks for automation, requires epBlue version 40.1 to 40.5.</td>
<td>5075 002 255</td>
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<tr>
<td>epBlue™ ID software and hardware modification kit, for 5070 and 5075 PC versions (SN &lt; 4000), barcode support includes software, barcode reader and stand, compatible with all epMotion® PC versions except epMotion® 5075 MC PC version, not compatible with the epMotion® operator panel or EasyCon versions</td>
<td>5075 000 830</td>
<td></td>
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<tr>
<td>epBlue™ GxP software, for use in supporting process environments (according to GLP, GMP, 21 CFR part 11), as configuration option or for pre-installed epMotion® MultiCon versions with epBlue™ version 40.1 to 40.5, with epBlue™ GxP software, corresponding firmware, certificates.</td>
<td>5075 002 288</td>
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<td>epMotion® Editor, incl. editor key, software package for creating and editing applications, runs on the PC, compatible with epBlue™ 10.x versions</td>
<td>5075 014 009</td>
<td>940000269</td>
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<tr>
<td>epMotion® Editor 40, software CD ROM with instructions, used to create, edit and simulate application on a PC, compatible with epBlue™ version &gt; 40.x</td>
<td>5075 014 200</td>
<td>940000308</td>
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<tr>
<td>epMotion® Editor, incl. editor key, for creating and editing applications, runs on the PC, compatible with epBlue™ 10.x versions, additional license</td>
<td>5075 015 200</td>
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<tr>
<td>epMotion® Editor 40, additional software license</td>
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<tr>
<td>Enhanced Feature Set 1, license for epBlue™ additional features: Calculated, samples; Automatic tool selection; Start at command; Email notification, requires service visit and epBlue &gt;40.6</td>
<td>5075 000 964</td>
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<td>Enhanced Feature Set 2, license for epBlue™ feature: Normalization, requires Service visit and epBlue 40.8 or higher</td>
<td>5075 000 981</td>
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