

## EasyOne Pro Software Version History

This document lists the most recent EasyOne Pro Software releases. The changes are cumulative, that means that changes introduced in a version are also included in later versions.

Version Date	Description
<p>(EOP) <b>V3.05.01.07</b>  March 2019</p>	<ul style="list-style-type: none"> <li>• Improved MBW &amp; DLCO Testing Functionality <ul style="list-style-type: none"> <li>○ Improved the automatic test end for DLCO tests</li> <li>○ LCI at airway opening is now supported as parameter (LCIao)</li> <li>○ The breathing rate is now displayed online during the MBW test for better usability and easier quality control</li> </ul> </li> <li>• Improved Cybersecurity <ul style="list-style-type: none"> <li>○ Possibility to define your own database password</li> <li>○ Option to enforce strong passwords for user logins</li> <li>○ Option to enforce password expiration for user logins</li> <li>○ New Windows operating systems patches for improved cybersecurity</li> </ul> </li> <li>• Improved FVC and FVL Testing Functionality <ul style="list-style-type: none"> <li>○ New setting to enforce 6s expiration</li> <li>○ New setting to show a warning prompt if end of test criteria is not fulfilled</li> <li>○ Generally improved messaging (for details see “AppNote MessageNo V08R.pdf”)</li> </ul> </li> <li>• General Improvements on Usability <ul style="list-style-type: none"> <li>○ Tutorial movies can now be played directly on the device</li> <li>○ The device database can now be easily deleted, and the factory settings easily restored using the factory reset option</li> </ul> </li> <li>• General Improvements and bug fixes <ul style="list-style-type: none"> <li>○ Danish and Norwegian are now supported as software language</li> <li>○ Fixed an issue where the PDF report was empty for Chinese language</li> <li>○ Fixed an issue where the VC pre value is used in the FVC post test</li> <li>○ Extended number of saved error codes from three to seven <b>Attention:</b> this might affect your XML interface (for details see “AppNote MessageNo V08R.pdf”)</li> </ul> </li> </ul>

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<p><b>(EOP)</b> <b>V3.04.00.23</b></p> <p>April 2018</p>	<ul style="list-style-type: none"> <li>• Improved data handling and performance                             <ul style="list-style-type: none"> <li>○ Keep your historic data by automatically importing existing tests as pdf's and attaching them to the patient history in EasyOne Connect</li> <li>○ Improved database performance to handle extremely large databases containing more than 100'000 patients (SQL Server)</li> </ul> </li> <li>• General Improvements and Bugfixes                             <ul style="list-style-type: none"> <li>○ Fixed an issue where the user feedback was not correct on SVC tests with heavy tidal breathing</li> <li>○ Better alignment of FV and VT curves on the standard report</li> </ul> </li> <li>• New Windows operating systems patches for improved cybersecurity</li> </ul>
<p><b>(EOP)</b> <b>V3.03.00.11</b></p> <p>Nov 2017</p>	<ul style="list-style-type: none"> <li>• Improved Provocation Testing Functionality                             <ul style="list-style-type: none"> <li>○ Define and modify provocation protocols</li> <li>○ Added exercise provocation as new standard protocol</li> </ul> </li> <li>• Improved Reporting and Trending Capabilities                             <ul style="list-style-type: none"> <li>○ Enter and trend external FeNO, MIP, MEP, SpO2 values add them to spirometry report and or transfer the values to the EMR system</li> <li>○ Automatically trend parameters of the last 5 tests on the standard PFT reports</li> <li>○ Possibility to visualize more parameters on the standard report</li> <li>○ Show Z-Score and %predicted simultaneously on all standard reports</li> <li>○ Generally improved report layouts by dynamically arranging graphs and tables</li> </ul> </li> <li>• Added new predicted equations and Operator's Manual languages                             <ul style="list-style-type: none"> <li>○ Added the reference equations "Stanojevic (GLI, 2017)" for DLCO and lung volumes</li> <li>○ Included additional translations of the EasyOne Pro/LAB Operator's Manual</li> </ul> </li> <li>• General Improvements and Bugfixes                             <ul style="list-style-type: none"> <li>○ Fixed an issue where changes in the configuration were only applied after a restart of the application</li> <li>○ Applied operating system security patches for better cybersecurity protection</li> <li>○ Extended configuration of "minimally required number of pre-washout breaths"</li> <li>○ Fixed an issue where for older device generations an update of the software caused DLCO tests to be unavailable</li> </ul> </li> </ul>

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<p>(EOP) <b>V3.02.00.06</b>  July 2017</p>	<ul style="list-style-type: none"> <li>• Improved reporting capabilities:                             <ul style="list-style-type: none"> <li>○ Comments can be added much faster</li> <li>○ Define standard text blocks and quickly add them to the report when needed</li> <li>○ The highlighting color used to show abnormal results can now be defined in the configuration (e.g. black, red, etc.)</li> </ul> </li>   <li>• Connectivity performance improvements:                             <ul style="list-style-type: none"> <li>○ Increased the speed of an EasyWare database import</li> <li>○ Fixed an issue with the import of very large EasyWare databases</li> <li>○ Significantly increased the speed of loading the EMR order list</li> <li>○ Fixed an issue where EMR orders could not be closed, when certain special signs were used in the comment section</li> </ul> </li>   <li>• User interface improvements for Multiple Breath Washout:                             <ul style="list-style-type: none"> <li>○ The MBW test incentive can now be switched between a larger target inspiratory volume and smaller target inspiratory volume</li> <li>○ For MBW tests two lines are added on the screen that indicate 4 and 6% CO<sub>2</sub>, for better visibility of a physiological range</li> <li>○ For MBW the last breath used for the calculation of LCI is now indicated on the display</li> <li>○ For MBW tests, when zooming into the displayed curve, the visible breaths are indicated in the breath chart</li> <li>○ Fixed an issue, where in some cases the volume curve would move outside of the visible range</li> </ul> </li> </ul>

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<b>(EOP) V3.01.00.01</b>  May 2017	<ul style="list-style-type: none"><li>• Improvements in MBW:<ul style="list-style-type: none"><li>○ Better review capability by adding the ability to zoom into curve data for MBW tests</li><li>○ Better review capability by automatic scaling of the volume axis for MBW tests</li><li>○ Automatic adjustment of target inspiratory volume based on patient height</li><li>○ Better detection of patient hyperventilation by adding the ability to show the CO2 concentration of each breath</li><li>○ Better export capabilities by adding the MBW curve data to the xml export</li><li>○ Improved standardization by taking the N2 start concentration of MBW tests from the expiratory breath instead of the inspiratory breath</li></ul></li> <li>• Improved Calibration Check functionality:<ul style="list-style-type: none"><li>○ Flow targets now also meet the OSHA disability standard</li><li>○ Additional multi flow calibration check option requiring only one trial</li></ul></li> <li>• Improved performance and bug fixes:<ul style="list-style-type: none"><li>○ Faster patient database search</li><li>○ Better reporting capabilities by adding the possibility to show Z-score and % predicted at the same time on custom reports for DLCO and MBW tests</li><li>○ Better handling of patients with birthday 29th of February</li><li>○ Individual patients can now be exported from MS SQL server database</li><li>○ Fixed an issue where in some cases the calibration check data could not be exported</li></ul></li></ul>

Version Date	Description
<b>(EOP)</b> <b>V2.02.00.15</b>  August 2016	<ul style="list-style-type: none"><li>• Z-score and improved reporting functionality:<ul style="list-style-type: none"><li>○ Z-score is now available on the display and on the report</li><li>○ It is now possible to only show acceptable trials on the report</li><li>○ Trial time can now be shown on the report</li></ul></li> <li>• Improved user interface for MBW test:<ul style="list-style-type: none"><li>○ Added volume curve for the entire test</li><li>○ Increased visibility of inhalation volume</li><li>○ Rearranged the user interface during the test for better visibility</li></ul></li> <li>• Support of new predicted values:<ul style="list-style-type: none"><li>○ New DLCO predicted values “Perez-Padilla / ALAT 2016” including altitude</li></ul></li> <li>• Improved data handling:<ul style="list-style-type: none"><li>○ It is now possible to directly export and import individual patients with all tests</li></ul></li> <li>• Improved cyber security:<ul style="list-style-type: none"><li>○ In order to better control access, permissions of different user groups can now be adjusted directly</li><li>○ Additional logging of patient search activity</li><li>○ Improved traceability in audit trail</li></ul></li> <li>• Bug fixes:<ul style="list-style-type: none"><li>○ Fixed report error when all trials have been deleted</li><li>○ Fixed error when searching patients in Allscripts</li><li>○ Fixed unwanted duplication of patient records during import</li><li>○ Fixed wrong error message during MBW test</li></ul></li></ul>

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<p><b>(EOP)</b> <b>V2.01.00.09</b></p> <p>March 2016</p>	<ul style="list-style-type: none"> <li>• Improved usability of MBW measurement: <ul style="list-style-type: none"> <li>○ Easier completion of MBW tests through better handling of irregular breathing patterns.</li> <li>○ Improved usability by showing the N2 washout curve live on the screen during tests.</li> </ul> </li>   <li>• Improved connectivity: <ul style="list-style-type: none"> <li>○ Switching from EasyWare to EasyWare Pro (Easy on-PC) is now much easier. EasyWare databases can now be imported in Easy on-PC and EasyOne Pro / LAB.</li> <li>○ Summary interpretation of several tests is now available in the HL7 message</li> <li>○ “% Pre/Post” change is now available in the HL7 message</li> <li>○ Extended XML export (Technician, Reviewer, Modified)</li> <li>○ Bug fix in EMR review workflow</li> <li>○ Bug fix when SQL server is not connected during software start up</li> </ul> </li>   <li>• Improved performance: <ul style="list-style-type: none"> <li>○ Faster loading time for biological quality control</li> </ul> </li> </ul>
<p><b>(EOP)</b> <b>V2.00.01.05</b></p> <p>Sept. 2015</p>	<ul style="list-style-type: none"> <li>• Improved data performance and patient data encryption <ul style="list-style-type: none"> <li>○ Support of MS SQL Server database</li> <li>○ Improved performance for large databases and heavy multi user-access</li> <li>○ Improved encryption and support of SSL connections (MS SQL Server)</li> <li>○ Faster merging of databases</li> </ul> </li>   <li>• Support of new predicted publications and improved usability <ul style="list-style-type: none"> <li>○ New publication: JRS (Japan)</li> <li>○ New publication: Ip (Hong Kong)</li> <li>○ New publication: Chhabra (India)</li> <li>○ Fixed “out of memory” issue when updating predicted of tests</li> </ul> </li>   <li>• Additional language support <ul style="list-style-type: none"> <li>○ Added Chinese language</li> <li>○ Added Swedish language</li> </ul> </li>   <li>• Improved XML export <ul style="list-style-type: none"> <li>○ Added system interpretation</li> <li>○ Fixed “out of memory” problems for xml export of large databases</li> </ul> </li> </ul>

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<b>(EOP)</b> <b>V1.9.0.19</b> Sept. 2014	<ul style="list-style-type: none"><li>• Improved Design &amp; Usability<ul style="list-style-type: none"><li>○ New clean and simple user interface</li><li>○ Improved test acceptability &amp; test messaging</li></ul></li> <li>• More Functionality<ul style="list-style-type: none"><li>○ DLCO curves included in XML export</li><li>○ Delete individual tests</li></ul></li> <li>• Improved Connectivity<ul style="list-style-type: none"><li>○ Improved XML connectivity workflow (direct printing)</li><li>○ Concurrent message handling improved for XML and HL7 connectivity</li><li>○ Support EasyOne screen connector and cradle for Windows 8</li><li>○ Fixed connectivity issue with EasyOne</li><li>○ Fixed connectivity issue with Allscripts Professional / Touchworks</li></ul></li></ul>