Easy on-PC Version History

This document lists all Easy on-PC software releases. Some versions have not been distributed at all or only for selected customers. The changes made are cumulative, which means that changes introduced in one version are also included in later versions.

Version Date	Description

(EOPC)
V03.09.02.04
 	
November 2021
 	
Compatible with EasyOne Air Firmware V1.17.0
	• Bug fixes:
	
	    ○ Grading for DLCO2017 A+ is now obsolete in XML-Export
	    ○ Fixed issue: system was recognizing a Silabs device
	    ○ UncPath for SQLite patient database is now savedto configuration
	
	• Features:
	
	    ○ Added feature in EMR/XML: "perform test"-command with AgeOnly-studies and FirstContactDate
	    ○ Add message number parameter to spirometry tests (ATS/ERS spirometry standard 2005), MBW and DLCO
	
	• Improvements:
	
	    ○ Shows %predicted for ratio parameter
	
	    ○ Shows parameter PEF [L/min] in best selection

(EOPC)
V03.09.00.10
 	
June 2021
 	
Compatible with EasyOne Air Firmware V1.16.0
	• Reworked incentive animations to remove the dependency on Adobe Flash Player.
	
	• Integrated the flow sensor firmware update v2.0.1.0.
	
	• Bug fixes and improvements:
	
	    ○ Calibration check: Acceptability of Cal-Check trials can no longer be overridden.
	
	    ○ Provocation test: if FVL instead of FVC is the chosen test type, the dialogue for entering environmental conditions is shown prior to the tests.
	
	    ○ SQL Server database selection: a warning message is displayed if the user cannot access the selected database.
	
	    ○ EMR order handling: improved order loading mechanism when a significant number of open orders are present.

Version Date	Description

(EOPC)
V03.08.00.11
 	
January 2021
(Internal release only)
 	
Compatible with EasyOne Air Firmware V1.15.0
	• Spirometry Standard 2019 update:
	
	   o User can switch between 2005 and 2019 spirometry standard for FVC/FVL test
	   o Updated acceptability and usability rating of FEV1 and FVC parameters under 2019 standard setting
	   o Updated quality grading for FVC/FVL test under 2019 standard setting
	   o Updated quality grading for SVC test according to 2019 standard
	   o Updated test report with actual values shown first in result columns
	   o Cal-check error tolerance reduced from 3.5% to 3%
	
	• Enhanced EMR features*:
	
	   o Add support for merging patients based on HL7 messages.
	   o Allow patients to have alternative display IDs.
	   o Allow the current hospital to be defined in the setting. Allow location filtering based on the hospital, to which the order is assigned.
	
	* Please contact connectivity@ndd.ch for detailed information and instructions.

(EOPC)
V03.07.02.02
 	
October 2020
 	
Compatible with EasyOne Air Firmware V1.15.0
	• Improved UI localization for all available languages
	
	• Integration of EOA V1.15.0 update
	
	• New design of EasyOne Connect Smart Installer
	
	• Improved user handling:
	
	   o Only privileged users can deactivate user handling
	
	   o User group can be deleted once all member users have been deleted

(EOPC) **V03.07.01.09** **June 2020** Compatible with EasyOne Air Firmware V1.14.0	• Compatibility update for EasyOne Pro/LAB software release V03.07.01.09 **Important note:** When Easy on-PC and EasyOne Pro/LAB devices use a shared database, all products must have the same version of software installed.

(EOPC)
V3.07.00.02
 	
March 2020
 	
Compatible with EasyOne Air Firmware V1.14.0
	• Harmonization with lung function standards and new predicted values:
	
	   o Introduction of Z-score graph according to the ATS report guideline 2017
	
	   o New predicted values "Kainu (Finland)"
	
	• Improved usability and functionality for lung function testing:
	
	   o Improved recognition of exhalation for SVC tests
	
	• Centralized User Management and Improved Cybersecurity:
	
	   o Ability to integrate with your Active Directory for secure & central user management
	
	• General improvements and bug fixes:
	
	   o Fixed an issue where autocompletion incorrectly completes age entry
	
	   o Fixed an issue where HL7 orders cannot be sent to EasyOne Air

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Version Date	Description

(EOPC)
V3.06.00.23
 	
December 2019
 	
Compatible with EasyOne Air Firmware V1.13.0
	• General Improvements and bug fixes:
	    o Fixed an issue where for high resolution displays the scaling was not adapted correctly
	    o Fixed a synching issue with EasyOne Air, where in some rare cases trials were not synchronized to EasyOne Connect

(EOPC)
V3.05.01.07
 	
March 2019
 	
Compatible with EasyOne Air Firmware V1.10.2
	• Improved Cybersecurity
	    o Possibility to define your own database password
	    o Option to enforce strong passwords for user logins
	    o Option to enforce password expiration for user logins
	• Improved FVC and FVL Testing Functionality
	    o New setting to enforce 6s expiration
	    o New setting to show a warning prompt if end of test criteria is not fulfilled
	    o Generally improved messaging (for details see "AppNote MessageNo V08R.pdf")
	• General Improvements on Usability
	    o Tutorial movies can now be played directly in the software
	• General Improvements and bug fixes
	    o Danish and Norwegian are now supported as software language
	    o Fixed an issue where the PDF report was empty for Chinese language
	    o Fixed an issue where the VC pre value is used in the FVC post test
	    o Extended number of saved error codes from three to seven
	    Attention: this might affect your XML interface (for details see "AppNote MessageNo V08R.pdf")

(EOPC)
V3.04.00.23
 	
April 2018
 	
Compatible with EasyOne Air Firmware V1.9.1
	• Improved data handling and performance
	    o Keep your historic data by automatically importing existing tests as pdf's and attach them to the patient history in EasyOne Connect
	    o Further increased database performance to handle extremely large databases containing more than 100'000 patients
	• General Improvements and Bugfixes
	    o Fixed an issue where the user feedback was not correct on SVC tests with heavy tidal breathing
	    o Better allignement of FV and VT curve on standard report
	    o Generally improved workflow of online tests in combination with EasyOne Air

Version Date	Description

(EOPC)
V3.03.00.11
 	
November 2017
 	
Compatible with EasyOne Air Firmware V1.8.0
	• Improved Provocation Testing Functionality
	
	    o Define and modify provocation protocols
	
	    o Added exercise provocation as new standard protocol
	
	• Improved Reporting and Trending Capabilities
	
	    o Enter and trend external FeNO, MIP, MEP, SpO2 values add them to spirometry report and or transfer the values to the EMR system
	
	    o Automatically trend parameters of the last 5 tests on the standard PFT reports
	
	    o Possibility to visualize more parameters on the standard report
	
	    o Show Z-Score and %predicted simultaneously on all standard reports
	
	    o Generally improved report layouts by dynamically arranging graphs and tables
	
	• Improved Functionality with EasyOne Air
	
	    o Send EMR orders to EasyOne Air and process orders offline on EasyOne Air
	
	    o Improved ease of use for EasyOne Air firmware updates
	
	    o Fixed issue where in some cases EasyOne Air updates failed
	
	    o Fixed issue where in some rare cases results could not be synchronized with EasyOne Air
	
	• General Improvements and Bugfixes
	
	    o Support Thai Calender Format
	
	    o Fixed in the GDT interface where returning post tests with best trial setting failed
	
	    o Fixed an issue where changes in the configuration were only applied after a restart of the application

(EOPC)
V3.02.00.06
 	
July 2017
 	
Compatible with EasyOne Air Firmware 1.7.0
	• Improved reporting capabilities:
	
	    o Comments can be added much faster
	
	    o Define standard text blocks and quickly add them to the report when needed
	
	    o The highlighting color used to show abnormal results can now be defined in the configuration (e.g. black, red, etc.)
	
	• Connectivity performance improvements:
	
	    o Increased the speed of an EasyWare database import
	
	    o Fixed an issue with the import of very large EasyWare databases
	
	    o Drastically increased the speed of loading the EMR order list
	
	    o Fixed an issue where EMR orders could not be closed, when certain special signs were used in the comment section
	
	    o EasyOne Air Firmware can now easily be updated via EasyOne Connect

Version Date	Description

(EOPC) V3.01.00.01
 	
May 2017
	• Connectivity to EasyOne Air
	
	    ○ Full data synchronization with EasyOne Air
	
	    ○ Online curve display using EasyOne Air is now available
	
	    ○ Renaming of Easy on-PC software to EasyOne Connect with adjusted icon and installation path
	
	    Important Note: *The name change might affect existing interfaces to third party solutions. In case of a software update the installation path and file name remain unchanged. In case of a fresh installation the new installation path and file name will be set as default option. It is possible to change the default installation path during the installation process.*
	
	• Improved Calibration Check functionality
	
	    ○ Flow targets now also meet the OSHA disability standard
	
	    ○ Additional multi flow calibration check option requiring only one trial
	
	• Improved performance and bug fixes
	
	    ○ Faster patient database search
	
	    ○ Better handling of patients with birthday 29th of February
	
	    ○ Individual patients can now be exported from MS SQL server database
	
	    ○ Fixed an issue where in some cases the calibration check data could not be exported

Version Date	Description

(EOPC)
V2.02.00.14
 	
August 2016
	• Z-score and improved reporting functionality:
	
	    o Z-score is now available on the display and on the report
	
	    o It is now possible to only show acceptable trials on the report
	
	    o Trial time can now be shown on the report
	
	• Improved data handling:
	
	    o It is now possible to directly export and import individual patients with all tests
	
	• Improved cyber security:
	
	    o In order to better control access, permissions of different user groups can now be adjusted directly
	
	    o User can set custom installation path for Easy on-PC
	
	    o Additional logging of patient search activity
	
	    o Improved traceability in audit trail
	
	• Bug fixes
	
	    o Easy on-PC compatibility with Windows XP
	
	    o Fixed report error when all trials have been deleted
	
	    o Fixed error when searching patients in Allscripts
	
	    o Fixed unwanted duplication of patient records during import

(EOPC)
V2.01.00.08
 	
March 2016
	• Improved connectivity:
	
	    o 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.
	    o Summary interpretation of several tests is now available in the HL7 message
	    o "% Pre/Post" change is now available in the HL7 message
	    o Extended XML export (Technician, Reviewer, Modified)
	    o Bug fix in EMR review workflow
	    o Bug fix when SQL server is not connected during software start up
	
	• Improved performance:
	
	    o Faster loading time for biological quality control

Version Date	Description

(EOPC) V2.00.01.04
 	
Sept. 2015
	• Improved data performance and patient data encryption
	   o Support of MS SQL Server database
	   o Improved performance for large databases and heavy multi user-access
	   o Improved encryption and support of SSL connections (MS SQL Server)
	   o Faster merging of databases
	
	• Windows 10 Ready
	
	• Support of new predicted publications and improved usability
	   o New publication: JRS (Japan)
	   o New publication: Ip (Hong Kong)
	   o New publication: Chhabra (India)
	   o Fixed "out of memory" issue when updating predicted of tests
	
	• Additional language support
	   o Added Chinese language
	   o Added Swedish language
	
	• Improved XML export
	   o Added system interpretation
	   o Fixed "out of memory" problems for xml export of large databases

(EOPC) V1.9.0.18
 	
Sept. 2014
	• Improved Design & Usability
	   o New clean and simple user interface
	   o Improved test acceptability & test messaging
	
	• More Functionality
	   o Delete individual tests
	
	• Improved Connectivity
	   o Improved XML connectivity workflow (direct printing)
	   o Concurrent message handling improved for XML and HL7 connectivity
	   o Support EasyOne screen connector and cradle for Windows 8
	   o Fixed connectivity issue with EasyOne
	   o Fixed connectivity issue with Allscripts Professional / Touchworks

V1.8.0.14 March 2014	• HL7 supported • Redesigned report layouts • The trend graph is now available for custom reports • New spirometry predicted set Separ 2013, extended NHANES-III extrapolation up to age 95 • Fixed bug where predicted values were not available for ethnicity NE/SE-Asian • USB 3.0 for hand held sensor supported
V1.7.6.4 Sept. 2013	• Option to automatically lock screen when user is inactive for X minutes (21 CFR part 11) • Option to enter a patients year of birth instead of full Date of Birth • Latest Screen-Connector and Cradle drivers supporting Windows 8 • Fixed: Software not responding after flow sensor was connected

V1.7.4.8
June 2013
	• Redesigned DLCO screen
	• Improved User Login supports
	   o UserID and password
	   o User roles with different privileges
	• Allow loading predefined configuration
	• Also test data of previous SW versions can be imported
	• Option to enter age instead of Date of Birth

Version Date	Description
V1.6.0.10 February 2013	- Pediatric specific improvements - Automatically zoom small spirometry curves "Birthday cake" children incentive added - Acceptability criteria simplified for children <8 years of age (End-of-Test Warnings: Abrupt End / Blow Out Longer) - Spirometry screen improved - Layout and information presentation improved - Curves adapt to window size (enlarged flow-volume and volume-time curves) - Added full screen view of curves and result grid via double click - Volume-time curve zooming added - New LCI predicted (Sylvia Verbanck, Thorax 2012) - Russian translation improved
V1.5.0.18 December 2012	- Bronchoprovocation (Challenge testing) - Mannitol - Methacholine - Balloon incentive with automatic ethnicity and gender selection - Predicted - Additional Sets: e.g. Quanjer 2012 (GLI), Falaschetti 2004, Zapletal 2003 - Additional FRC predicted values - Patient Height: allow more precise patient entry and predicted calculation (e.g. 170.7 cm) - Database size reduced - Additional language: Italian - Open/review/export a test in "Raw Data Format" WBreath - Speed improvement when adding a trial - User interface improvements - Windows 8 ready (32 and 64bit): Attention: Tablets with Windows RT and Windows 8 look almost identical, but our software only supports the 'full' Windows 8 version.
V1.4.1.2 June 2012	- Added new textual spirometry interpretation (JRS) which corresponds with existing graphical interpretation - Fix: SVC end of test criteria with automatic test end was in some cases too early - Improved test comment when updating an existing test, e.g. when weight was not correctly entered. New comment contains units of changed values (e.g. kg or lb for weight)
V1.4.0.4 Jan. 2012	- New Predicted Sets - Pérez Padilla 2001: Spiro, Mexican Workers - Pérez Padilla 2003: Spiro, Mexican Children - Pérez Padilla 2006: Spiro, PLATINO study, adults >40 - Klement, Russia: Spiro - Klement, Russia: Lung Volumes - Allows FRC test reviews "Don't hesitate" message appears less often. BEV criteria has been extended - Monkey incentive runs also on old (slow) PCs - Interpretation tree: localized parameter names

Version Date	Description
V 1.3.4.2 Oct. 2011	• New Incentive supporting inhalation (Monkey) • Optionally show large incentive • New patient entry fields: ordered by, referred by, smoker pack-years • New pediatric predicted sets (Nystad, Vilozni) • Optionally show FEV1/FVC in % (all ratio parameters) • Print Volume-Time curve with 1:1 aspect ratio by default • Improved fonts and layout of user interface • Restore last selected patient list order • Merge (import) databases
V 1.3.1.8 Apr. 2011	• Fixed GDT review bug • Allow user to return results to EMR even when standard EMR mode is finished • Allow user to activate DLCO settings (for DLCO test review)
V 1.3.0.4 Feb. 2011	• New Spirometry predicted values: Stanojevic 2009 and Langhammer
V 1.3.0.0 Dec. 2010	• Synchronize with EasyOne data • Customizable EMR connection available (PlugIn) • Change Patient Data and recalculate previous performed tests • Change Predicted Sets and recalculate previous performed tests • Add comments to patient, printed with report • Patient search by ID • Selectable system created Patient ID • Improved birth date entry • Optional Smoker status • Spirometry tests with very low flows and volumes • Optional non smoker Lung age feature • Merge patient feature • Multi line comments • New 2 page report • Summary report for 'Best Trial' configuration improved • Last calibration check date available on customized reports • Default settings (Predicted Sets) selected by region • Export of single test in XML format • New Spirometry predicted values: Gutierrez et al. (Canada).; Mengesha et al. (Ethiopia); : Gutierrez et al. (Chile); Eigen et al. (USA); Rosenthal (UK) • New language: Russian DLCO test review constraint: do not change collection bar

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V 1.2.3.10
May 2010
	• Delete patient
	• User ID (Technician ID)
	    o User handling with simple Log-On functionality
	    o User ID on report (if test was performed with a valid user Log-On)
	• XML export
	• SVC with expiration only is accepted (configuration flag)
	• Updated manuals (help button opens manual on context specific page)
	• Direct FVC or FVL test selection in Perform Test menu
	• Test procedure starts directly ("Add Trial" after "Perform Test" click is skipped)
	• Calculation of Best (Reported) column adapted (recalculate ratios; take best for volume parameters; report IC, IRV, VT, ERV parameter as average values / to be consistent within the Best column)
	• COPD interpretation graph on standard spirometry report
	• Summary report adaptations:
	    o Includes FVC/FVL, SVC and DLCO (within 12 hours) independent on order of test execution and test selection
	    o Show selected predicted sources
	    o Fits on one page
	• New predicted source: Austrian 1994

V 1.2.0.6
February 2010
	• Children Animation available as well for tidal and manual test end
	• The FV-curve is no more covered by the child animation graphic when reviewing an old test
	• New added patient is selected by default (shown in the bottom left corner, as well in GDT mode)
	• Removed USB stick does no more influence saving test data
	• Improved display of Vietnamese texts
	• Additional Interpretation: Gold/Hardie 2008 without "at risk for COPD"
	• GDT: additional data transferred
	    o contains post test measurement data
	    o exports single measurement data with setting best trial

V 1.2.0.0 November 2009	• Basic children incentive • New Languages (French and Vietnamese) • Support Screen with 1024x600 • GDT with PDF integration • Draw predicted curve instead/additional to points • Optional patient fields (name, weight, Asthma, DLCO) • Allow rejecting last trial • GDT: single measurement list includes Predicted (8460) and LLN (8461) • Print Preview: selected report is shown in the drop down list • Bio Cal Checks listed as well in the patient history • Spiro Results Grid expands on double click • Shown precision specific for each parameter BugFix: • Cal Check report contains test date EOPC only • Newest USB drivers (Windows 7) • Ready for Windows 7 64Bit

Version Date	Description

V 1.1.2.3
End July 2009
	• Improved Report handling, Report designer, allows e.g. show best column only
	• Report template contains BMI and LLN column
	• Birth Date format on the patient entry form according to the PC culture settings
	• Allow altitude entry in feet
	• Entry of longer comments (65000 chars)
	• MEF Parameter added
	• New DB functions (new, copy)
	• User can define the name of ethnicity "Other"
	• Added Spanish, Dutch, Portugues, Turkish
	• NLHEP, NICE Interpretation added
	
	BugFix:
	• new Predaut (remote application start error)
	• GDT
	    ○ allow selection of character set
	    ○ allow longer Paths
	    ○ Handling empty string for patient height and weight
	• Show graph in the Excel export

V$_B$1.0.0.7 09.06.2009	• English manual with improved cleaning instruction
V$_A$ 1.0.0.7 25.09.2008	• First official release of EasyWare