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Metabolic | Lung Function | Body Composition



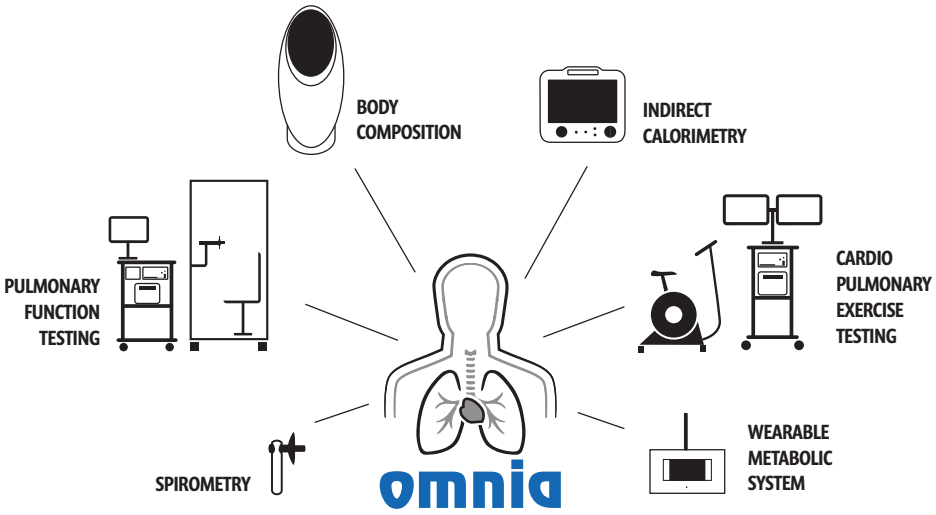
The most comprehensive Data Management Software for Metabolic, Lung Function and Body Composition

COSMED

The Metabolic Company

"When small details make a huge difference... From Usability to Networking OMNIA is a big step forward in data management for Metabolic, Lung Function and Body Composition Assessment"

- **Intuitive Workflow, Modern and Innovative Graphic User Interface**
- **Compliant with all major Scientific Guidelines (ATS/ERS, AHA, ACSM etc.)**
- **Extensive Customization for both Clinical and Research purposes**
- **One single Software Ecosystem for a Wide Selection of Product**
- **Available as Standalone, Small or Large LAN/WAN Network Environment**
- **Integrated with HIS/EMR Platforms via HL7 and DICOM**



OMNIA is the software platform developed by COSMED to help clinicians, researchers and Health Professionals in providing the highest standard of data management.

As a result of more than 40 years of experience in the cardiopulmonary and metabolic diagnostic market, OMNIA boasts an advanced and seamless workflow which minimizes time to testing and human errors.

The thoroughly designed graphical user interface (GUI) provides guidance tools and quality control feedback whereas the database structure ensures data safety and protection.

OMNIA offers one single solution to collect, analyse and share data, making the collaboration throughout a functional team real and efficient. The database as well as many user settings can be shared between different users over a local or geographically separated network, with the possibility to define specific users' roles and rights.

The whole testing workflow can be integrated with the existing Hospital Information System (HIS). OMNIA is compatible with the entire COSMED product range, from metabolic and lung function to body composition assessment.

Benefits

INTUITIVE. Save time in your daily practice guided by a streamlined and intuitive workflow.

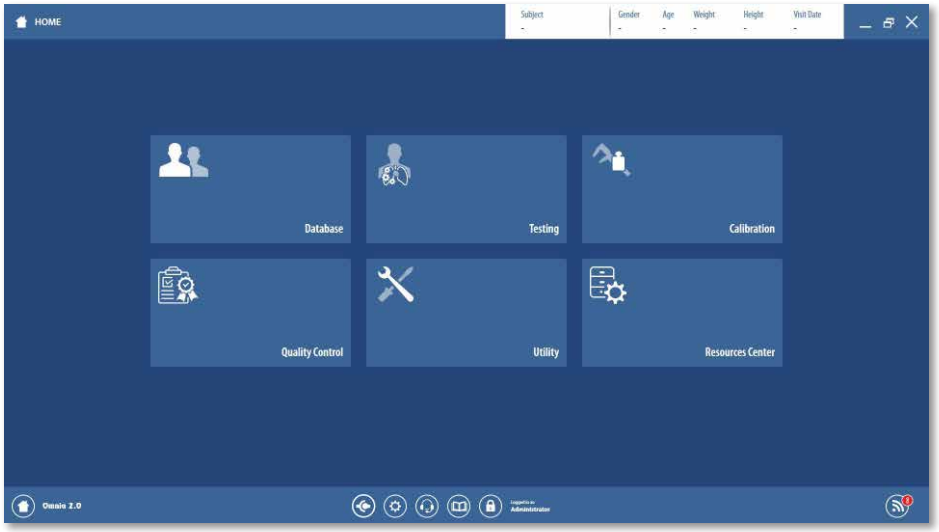
COMPLIANT. Designed in accordance with the latest scientific guidelines.

CUSTOMIZED. Configure GUI, reports, software settings and interfaced devices to meet your needs.

INTEGRATED. Expand your system functionalities thanks to a smart modular design.

CONNECTED. Share data over small or large network infrastructure and with the HIS.

SECURE. Keep sensitive patient information safe and protected.

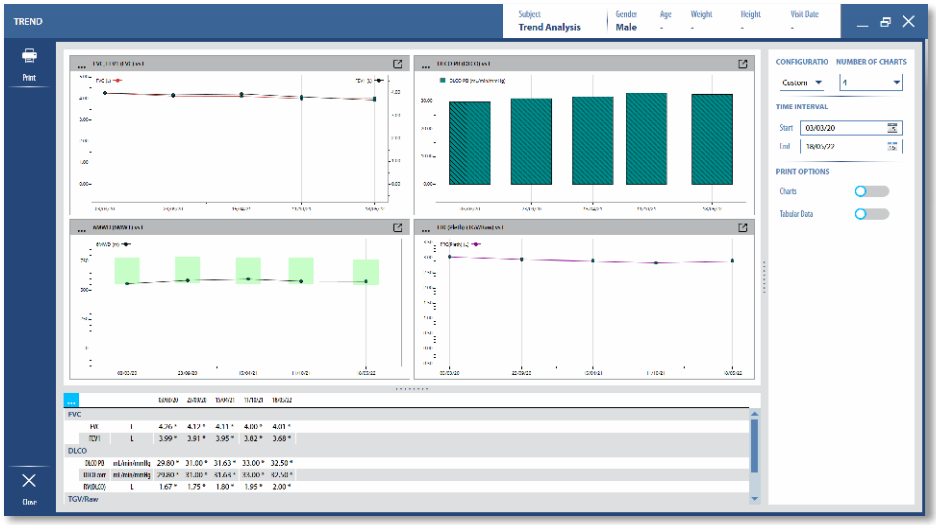


OMNIA Home page

Intuitive

Supported by an intuitive Graphical User Interface, OMNIA workflow naturally guides the user through his daily routine, from data entry to test interpretation, leaving no space to hesitation on procedural steps or data reliability.

- Friendly user experience turns complex tasks into easy procedural steps.
- Touchscreen-ready interface minimizes steps and reduces time to testing.
- Keyboard shortcuts facilitate and speed up the software navigation.
- User defined operator-free calibration routine to reduce downtime
- Coaching tools for users and patients available during the tests.
- Comprehensive, all-in-one-place test results page for quick and easy test review and interpretation.
- Available in several languages.
- Automatic and manual interpretation tools, including shortcuts (tags) to frequently used phrases to save time, with the possibility to use electronic signature.

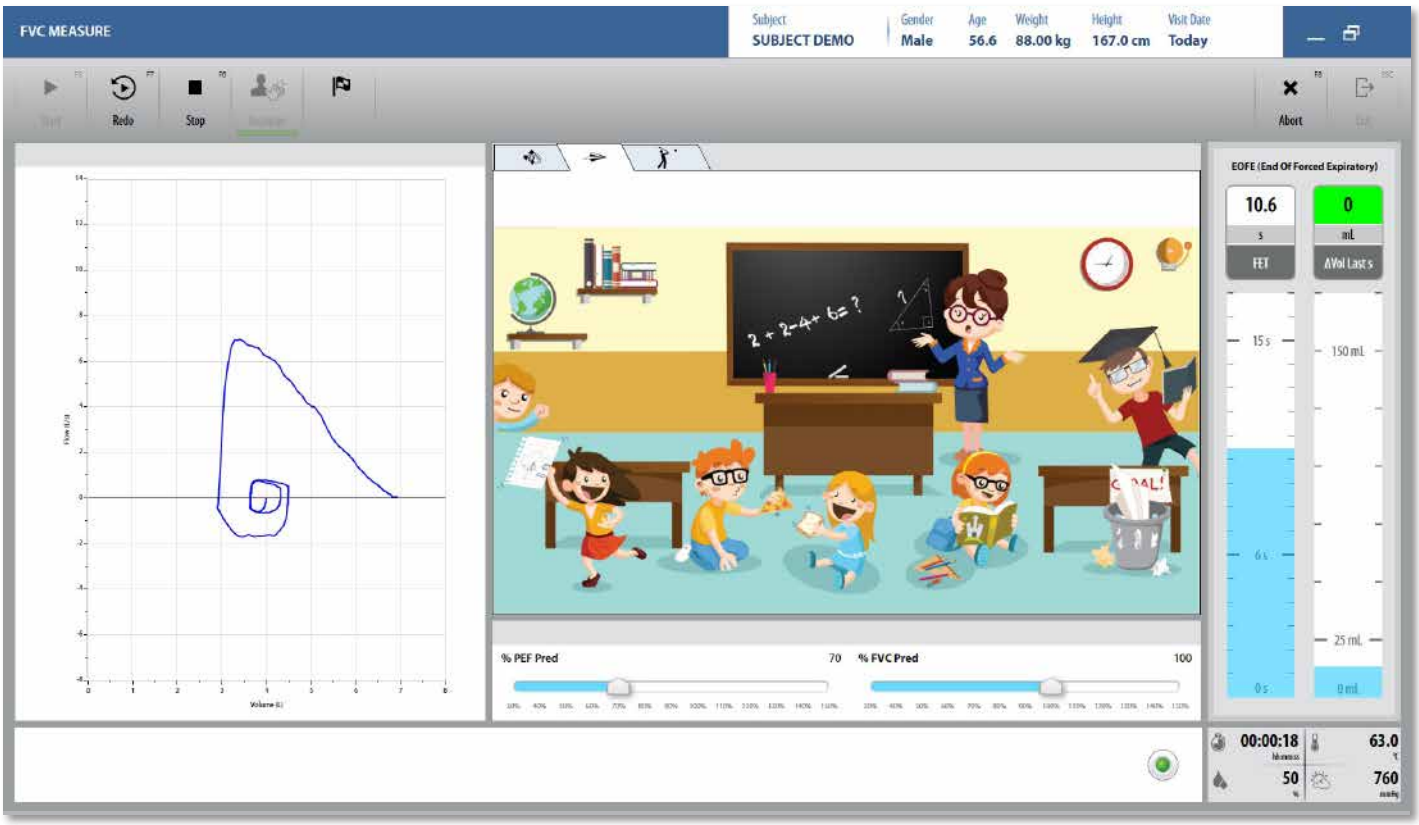


Trends

Compliant

OMNIA has been designed in agreement with the most recent international guidelines and provides necessary scientific adherence to ensure users the maximum compliance in all testing experiences.

- Adherence to the latest international guidelines including ATS Interpretation 2021, ATS Spirometry 2019, ATS DLCO 2017.
- Over 100 predicted sets to make test interpretation suitable for a diverse range of population.
- Calibration and quality control messages support users to achieve data reliability with minimum effort.
- Possibility to perform controlled simulated tests for objective verifications over quality of data.

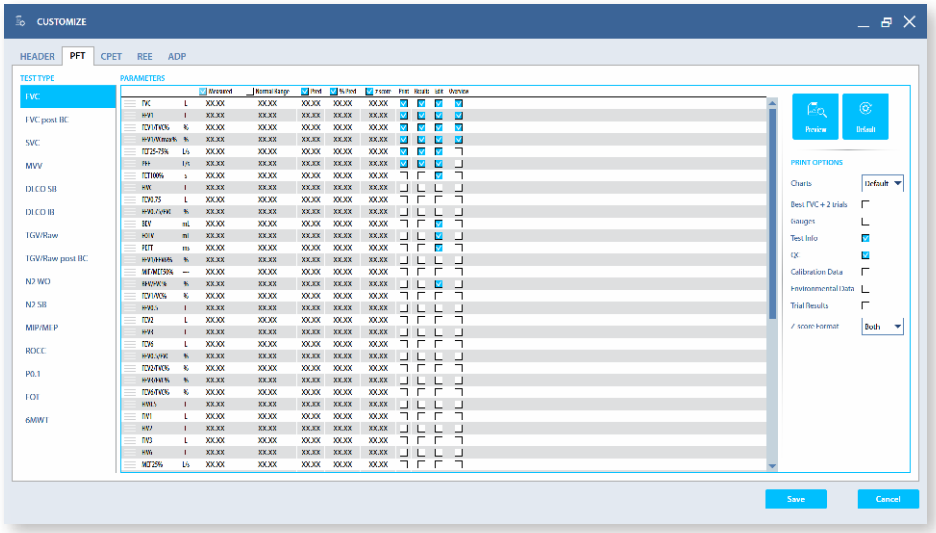


Pediatric Incentive during FVC testing: the dynamic animation based on set % pred PEF and % pred FVC makes it efficient for any child or elderly people. FVC End of Test criteria bars for intuitive and immediate test quality control.

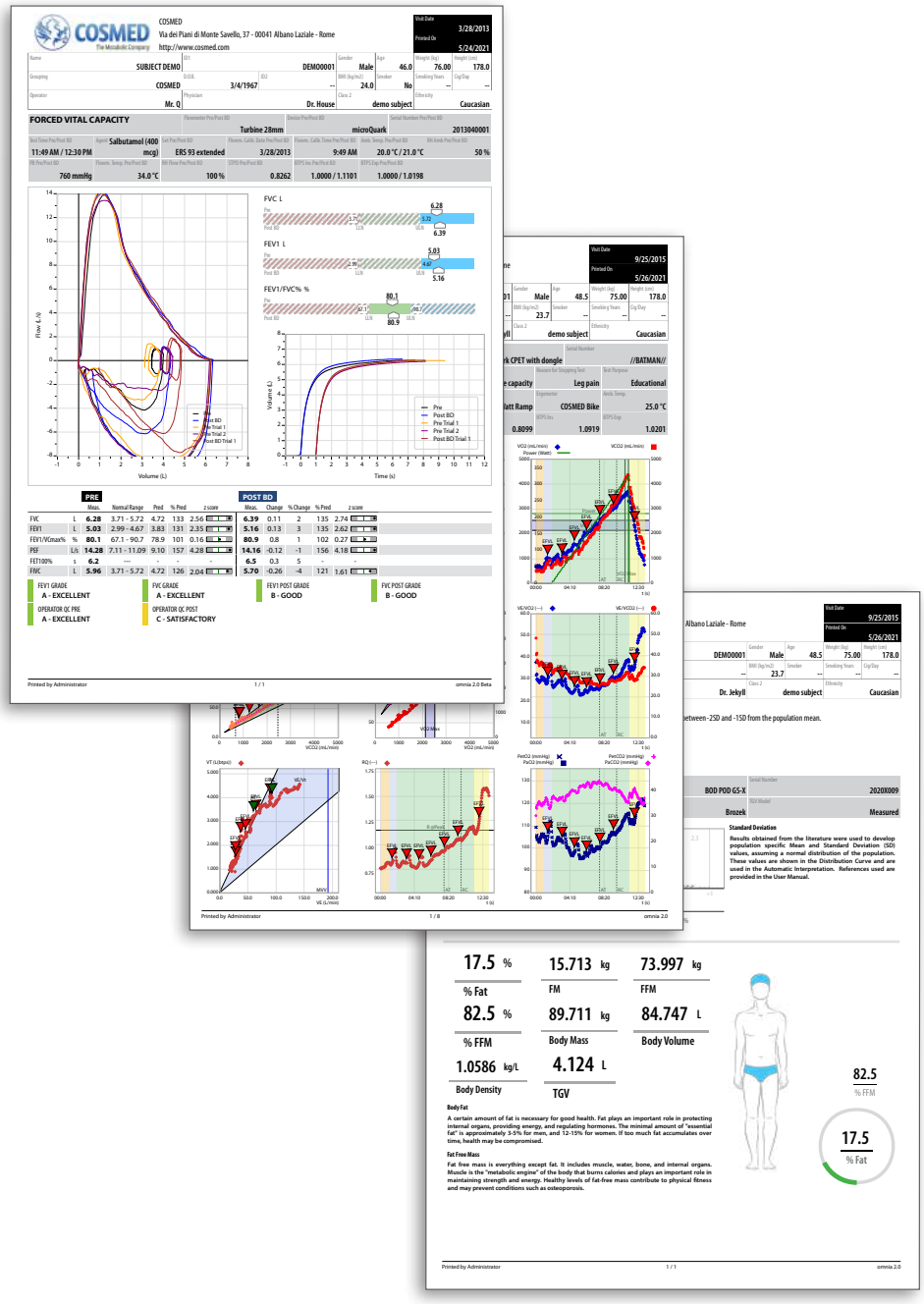
Customized

The software features can be configured to meet the needs of any user from small clinical settings to big hospital infrastructures, to research institutions.

- Define real time parameters and dashboards with the possibility to switch views while testing.
- Single test, multi test and trend report layouts configurable by the user at any time.
- Broncho-Challenge and Metabolic protocol manager for guided custom protocol creations.
- Training Zones tool for personalized exercise prescriptions.
- Energy Balance for the computation of daily energy intake based on subject's weight target.
- Tests, calibrations and options made available based on connected devices, license information and user settings.
- Architectural structure designed to be expanded at any time to fulfill the needs of small to large organizations.



Possibility to customize results, edit and printout views.



Logically organized, detailed and colored reports provide a professional image to both referring physicians and patients.

Integrated

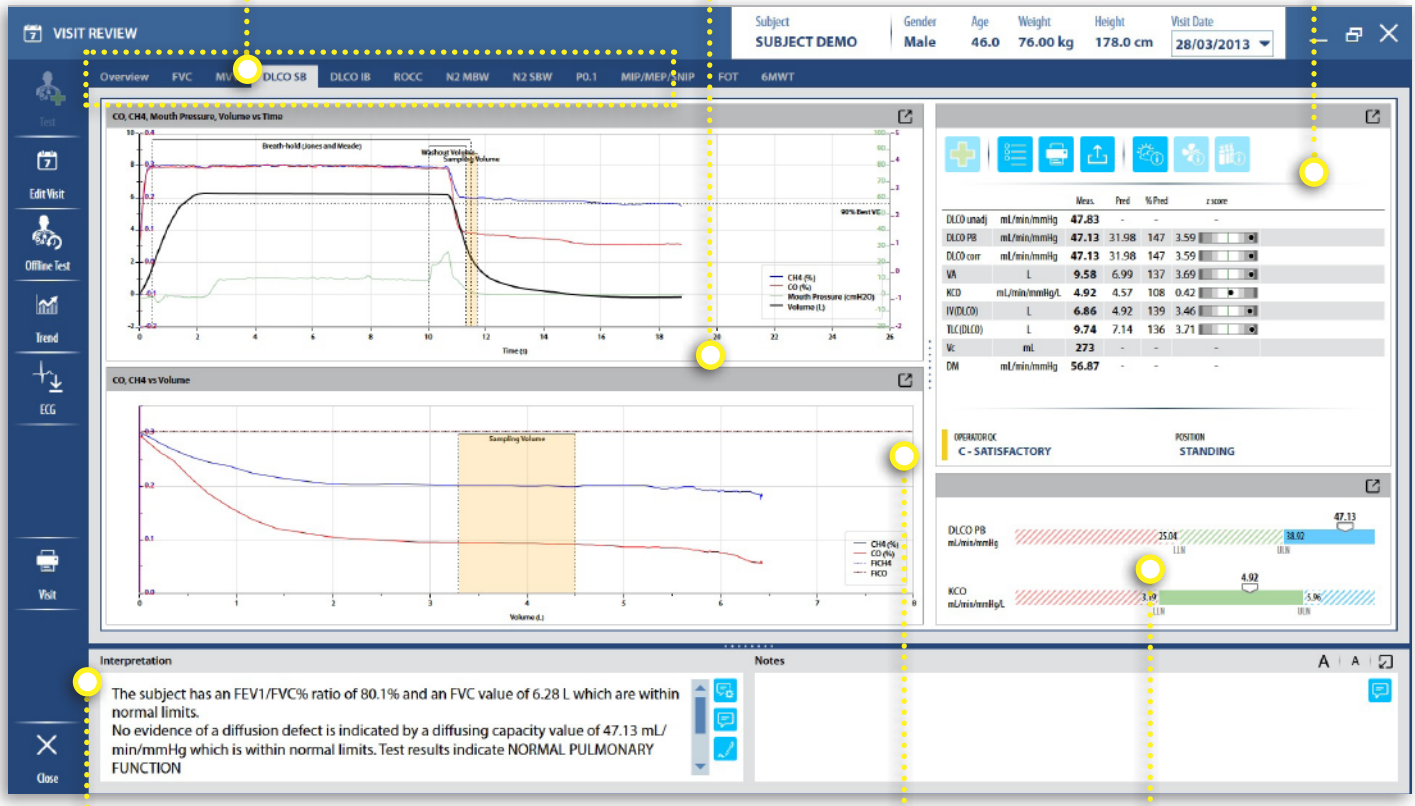
OMNIA can be connected to almost any COSMED products and additional auxiliary interfaced devices to offer a complete diagnostic solution. Different features can be implemented integrating multiple devices and adding software modules to allow the operator to expand functionalities.

- Add test modules at any time and manage multiple devices from the same software ecosystem.
- Seamlessly integrated with COSMED product range including spirometry, lung function testing, cardio-pulmonary exercise testing, ECG, indirect calorimetry and body composition systems.
- Possibility to Interface with a wide range of ergometers and other compatible peripherals such as ECG, Blood Pressure monitors, pulse oximeters, Cardiac Output monitors, ABG monitors and more.
- Possibility to interface with several Bluetooth Low Energy (BLE) sensors, from ergometers to trainers to motion sensors.

Visit Review screen shows all tests performed at a glance minimizing numbers of operations

Each test shows in evidence the most explicative chart for a quick overview

Intuitive icons for direct access to main functions



Interpretation and Notes always accessible while navigating trough visit results

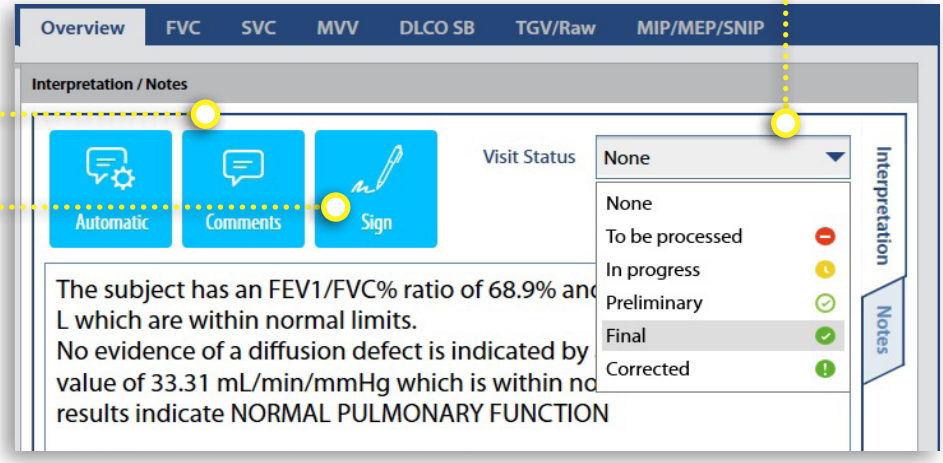
Quality control feedback for immediate analysis on reliabilty and patient compliance

Main parameters shown by means of comprehensive gauges

Visit status classification and transfer to HIS in one click

Direct access to custom interpretation comments, searchable by tags

Electronic signature

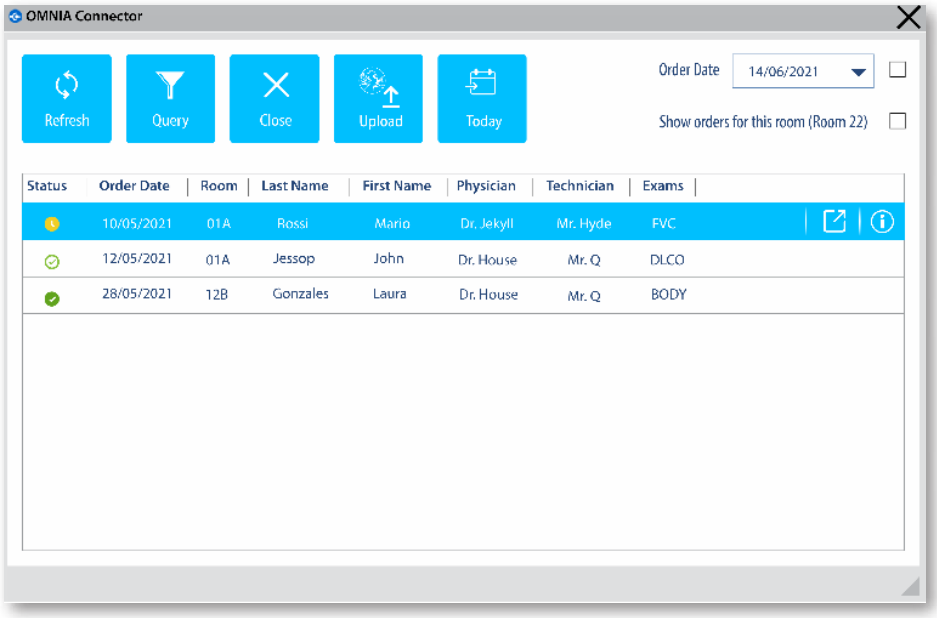




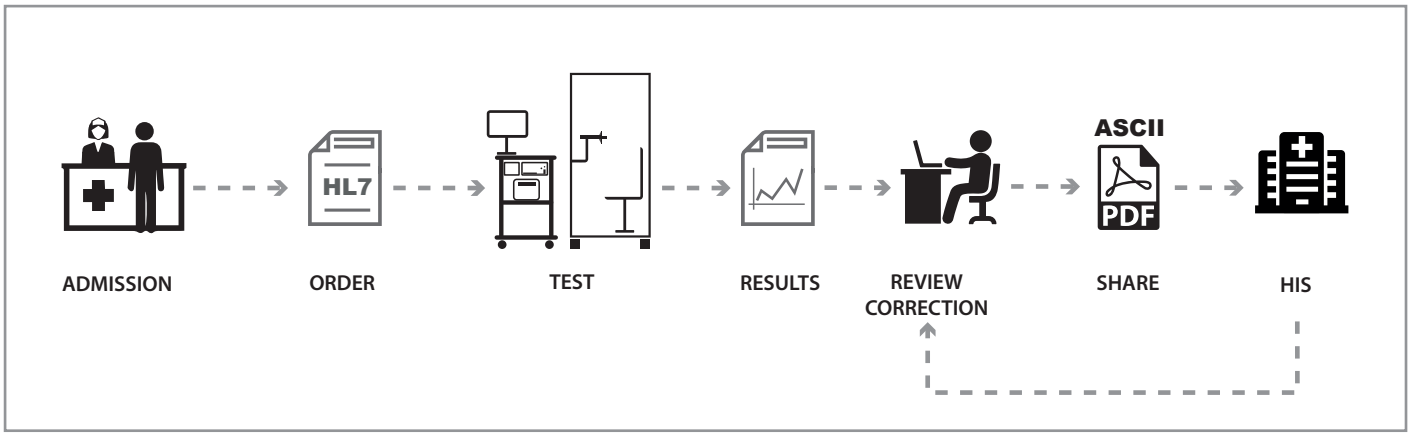
Connected

OMNIA database can be shared among different users including a straightforward communication with Hospital Information Systems (HIS). Implement a data workflow according to custom requirements and set rights according to different roles to reach the common goal of highest patient care.

- Combine multi-departmental data in the same database.
- Possibility to extend the connection with the central database to geographically separated workstation.
- One-time patient data entry.
- Remote review stations for referring physicians.
- Full integration with Microsoft Active Directory for user roles and rights management.
- Receive visit orders from HIS, perform test, review and send back test results in one click using HL7® protocol and DICOM.
- Compatibility with virtualized environments (Windows Virtual Desktop, Citrix, VMWare, ...).
- OMNIA is based on the SQL Database (Express or Standard) ensuring engine robustness and managing a virtually unlimited number of records without losing performance.



OMNIA Connector enables integration with HIS workflow thorught HL7® protocol.



OMNIA Connector workflow

Secure

OMNIA includes several features and tools to ensure that your patient data are always available, the risk of data loss is minimized to zero and privacy and data protection are achieved.

- Provided with Microsoft® SQL Database (Express Edition) with a maximum dimension of 10 GB. Upgrade to SQL Standard Edition in case of Network installations or Standalone installations requiring a larger database, up to unlimited records.
- Compliance with International privacy regulations (GDPR, HIPAA).
- Data encryption provided by Microsoft SQL Server for optimal data protection.
- Advanced user management tools to assign roles for each user and group, and define specific rights for accessing, editing or viewing specific software features.
- Full disclosure logs including alerts on failed logins.
- "Emergency Offline Mode" prevents data loss and ensures continuity in case of network outage. All data are automatically synchronized once communication is re-established.
- Decoupled architecture for an easy management of database migration and maintenance activities.
- Backup reminder messages and backup scheduler tools.

Feature	Standalone	Network
Manage all tests and data review for all devices connected to OMNIA (Spirometry, Lung Function, Metabolic, Body Composition)	●	●
Microsoft® SQL Database Express Edition (10GB max)	Included	Only for installation
Microsoft® SQL Database Standard Edition	Optional	Optional
Software Settings Management	Local	Centralized
Users & Roles Management	●	●
Integration with OMNIA Connector (HL7®/DICOM)	●	●
Offline Mode	--	●
Backup Scheduler	--	●
Compatible with WAN and LAN	--	●
Integration with Microsoft® Active Directory	Users	Users and Groups
Compatible with virtualized environments (WVD, Citrix, VMWare etc.)	--	●

OMNIA Standalone VS OMNIA Network specific features

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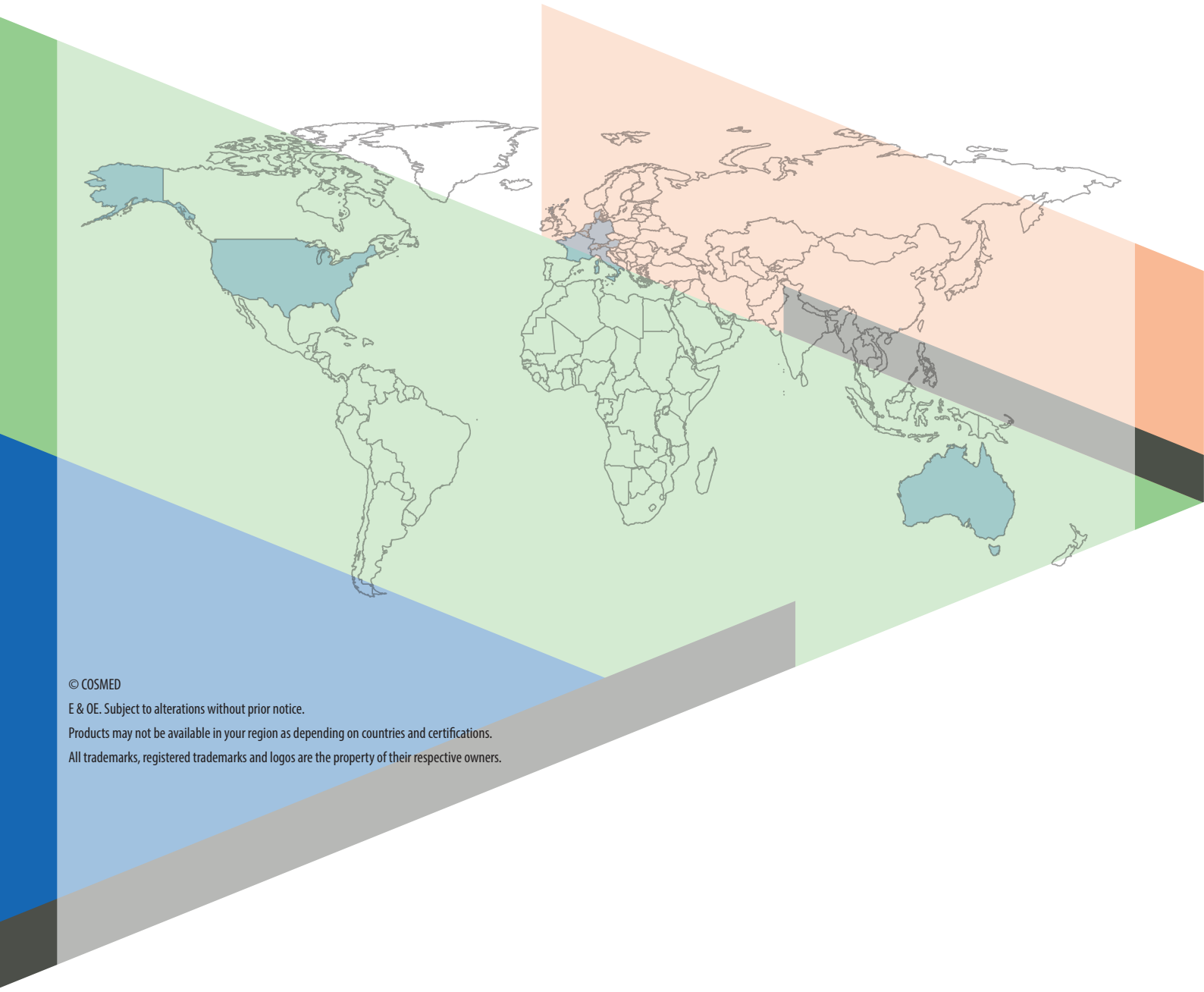

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