Case and Image Data Management

Optimize Your Workflow and Enhance the Quality of Routine Imaging
**Neon**, a tool for flexible and consistent image and case data management, represents the backbone of MetaSystems workstations. Neon was designed to collect data from different sources and integrate them into an efficient and well-structured workflow. Neon reliably manages cases, images, and results of Metafer systems, individual Ikaros and Isis workstations, as well as large multi-user installations. It guarantees that all relevant information is visible whenever and wherever it is needed. Neon’s powerful and flexible workflow settings integrate seamlessly with existing routines and can be applied to the complete range of MetaSystems imaging applications.

**Data and Workflow Management**
Neon organizes and displays information in an extremely productive and efficient way. Neon users always have access to exact information on case status, history of images, analysis results, and much more. Data import and export, even with customized data fields and global, cross-application reports facilitate daily routine work. Neon provides maximum control over all imaging and data handling procedures. Patients, physicians, and technicians benefit from consistent documentation, secure handling of sensitive data, and user-friendliness in all procedures.

Neon’s flexibility assures seamless integration of the system with existing procedures. Analysis steps, for example, can be individually defined, and then composed to represent the complete workflow. In analysis, each stage of the workflow can be assigned to a case either interactively (by authorized users), or automatically based on predefined conditions.

**Image Management**
Images generated by MetaSystems devices in the Neon network are automatically indexed and immediately available on any connected Neon station. Previews, image galleries, and image metadata can be used to quickly find, select, and edit images. Images
acquired by Metafer can be identified based on the information in their bar code labels: Neon ensures that the sample information is automatically merged with the respective case.

Each Neon image comes with detailed metadata, including the slide and cell culture information, the acquisition time and date, and the user who has captured the image. Users can add information later, for example by editing status flags which allow images to be categorized. Additional information is added to the image data during analysis (for example the designation of the users who have done image processing and analysis).

**Results Documentation**
Neon also offers two powerful tools to summarize and report all data: the case statistics package and the reporting engine with graphic template editor. The statistics package can be used to query all data and to summarize the results in graphical and tabular forms. Results of queries can also be implemented in report templates and in the customizable dashboard that summarizes the case data.

Query results, images, and other data can be summarized in professional reports. Neon reports may be printed, saved as PDF or Microsoft Word™ files, or exported as XML files. The sophisticated but easy-to-use tools of the integrated report template editor enable creation of highly customized report appearances with just a few clicks of the mouse. This library of report templates is permanently stored for continuous use.

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**Neon Highlights**

- **Process Optimization**
  Neon seamlessly integrates in existing workflows and optimizes data handling and throughput.

- **Data Organization**
  Neon collects internal and external case data and images and presents them in a fully customizable, convenient way.

- **Data Security**
  Neon comes with a multi-level access control that allows for fine tuning user groups and roles.

- **Workflow Management**
  Neon displays and monitors all aspects of the lab’s entire routine workflow.

- **Records and Logs**
  Neon ensures complete documentation of editing, image processing, and parameter changes in the case history records and audit trails.

- **Reporting and Statistics**
  Neon contains a powerful reporting engine, including a graphical report template editor. It also offers a statistical query engine, allowing generation of swift and comprehensive summaries of large case portfolios. Reports and query results can also be integrated in Neon’s convenient dashboards.
A click on the magnifier icon opens the NAVIGATION SIDEBAR. This part of the Neon screen allows the user to search for cases, navigate to recent or bookmarked cases, and to get direct access to the settings, to the search view, and to the trash.

The envelope icon is the gateway to the MESSAGE CENTER, a sidebar that allows text messaging to single users, selected user groups, or to all users in the current Neon network.

Different case data VIEWS are accessible via the tab bar on the left of the Neon window. Case data views provide in-depth data summary functionality such as statistics queries, a sophisticated case search, grouping of cases, and the option to check and solve data integrity problems.

The cases of the selected DATA FOLDER are listed in a configurable table. Colored labels indicate the current workflow state for each case. All other data fields can be shown as separate, sortable columns. That way, the relevant information is right at hand when starting Neon.
**REPORTING**
Neon comes with a powerful REPORT ENGINE. Report formats are created with the integrated, graphical report editor. Neon reports may contain data, images, and case statistics. The final report can be sent to the printer, to a PDF file, Microsoft Word™, or to data files (e.g., XML).

**CASE LIST FILTERS**
Neon users can create their own data FILTER definitions. All filters are accessed through the filter bar above the case table. The case list can be refined by selecting users, workflow states, creation dates, groups... - in principle by every data field that is available.

**USERS**
Neon manages different user groups and access levels, which can be determined by the administrators. Neon automatically protects data and images against unauthorized manipulation, and a complete case history records every single step of the workflow.
All relevant information about a case can be accessed using the single case VIEW tabs. The numbers of available scans, digital slide images, and cells are displayed. Additionally, the case history, the case structure, and of course the case metadata can be displayed and edited.

The GALLERY of cells represents the case's image repository. The footer of each image displays additional information including cell statuses which are visualized with a colored square-shaped flag. The gallery of cells can be filtered and sorted by many criteria.
The workflow bar illustrates the current status of the case. Workflow states can be set by authorized users, or automatically based on preset conditions. Cases can be selected by their workflow statuses. Sub-workflows are available to manage more complex procedures.

Depending on the system’s configuration, a number of software modules for analysis may be available. The module bar is a launch pad for all available instances of karyotyping, imaging, review and scanning modules.
For more information about the Intended Use of our products please refer to
www.metasystems-international.com/support/intended-use