

History

Girard, Annette

Data

Structure

Scans 8

Cells 20

VSlide

Files 2

Counters

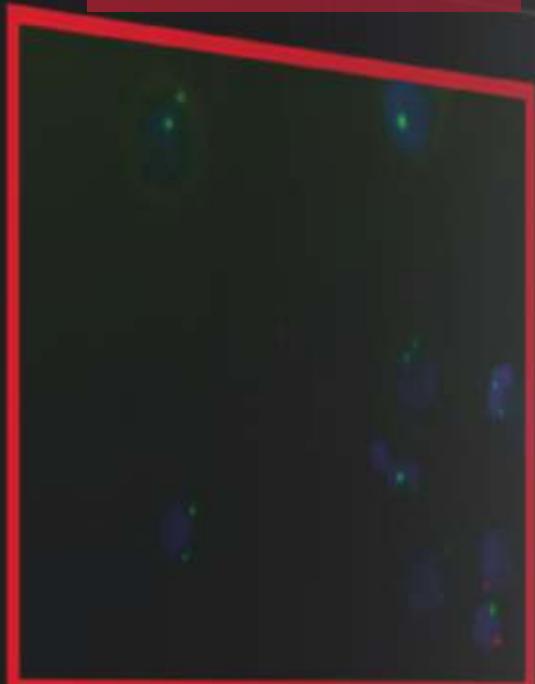
Cell Gallery

Cell List

Combined Karyograms

# Case and Image Data Management

Optimize your workflow and enhance the quality of routine imaging



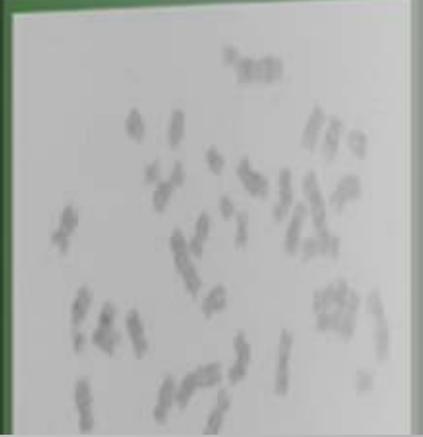
020 1  
Cu SpotCount • SI 3 Sc B



006 5  
Cu - • SI - Sc A



014  
Cu -



# NEON



# YOUR ENTIRE WORKFLOW AT A GLANCE

*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

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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).

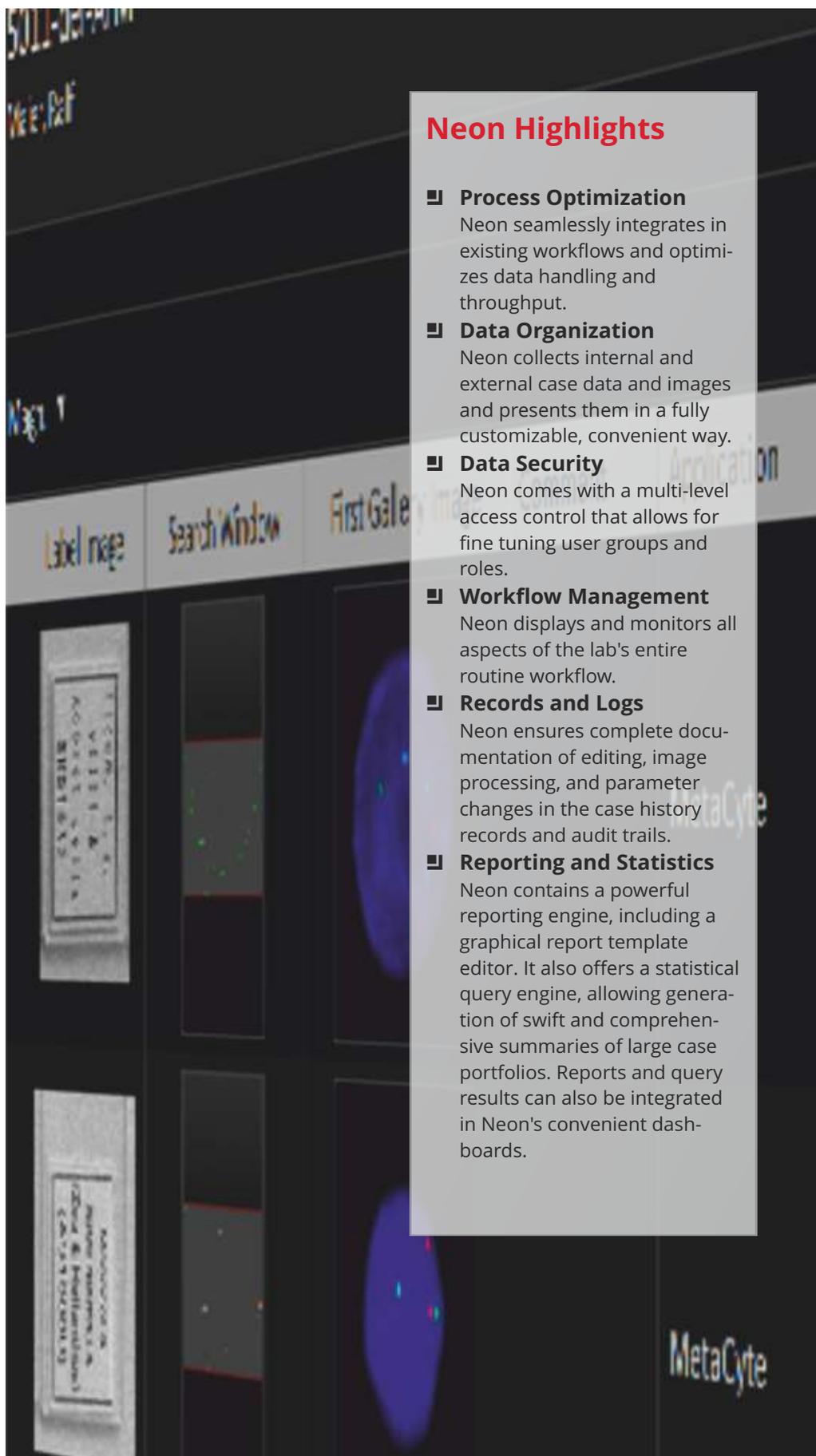
### Results Documentation

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.

## 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.



# MAIN WINDOW

### NAVIGATION BAR

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.

### MESSAGE CENTER

The envelope icon is the gate 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.

### MAIN VIEW TABS

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.

### CASE LIST

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.

The screenshot shows the Neon application interface. On the left is a sidebar with navigation options: Dashboard, Cases, Create Case, Statistics, Search, Groups, Events, and Problems. The 'Cases' option is selected. The main view displays a table of cases with columns for Case ID, State, Specimen, and Created. A search bar is visible at the top of the main view.

Case	State	Specimen	Created
02256	In Analysis	B	24.04.2017 15:1
03037	In Analysis	BM	24.04.2017 15:1
03590	Captured	CVS	24.04.2017 15:2
08120	Captured	BM	24.04.2017 15:2
22533-LY17	Checked	Blood	28.11.2017 14:3
26550	Created	BM	25.04.2017 09:4
29871	Captured	CVS	25.04.2017 08:2
33453	Checked	FBS	25.04.2017 08:1
34930	Checked	BM	25.04.2017 10:5
37720	Checked	B	25.04.2017 10:0
37886	Created	B	25.04.2017 09:4
45928	Captured	AF	25.04.2017 08:1
47161	Captured	B	25.04.2017 10:4
49296	Created	B	25.04.2017 09:5
5011-del-ATM	In Analysis		11.04.2017 12:3
5055-del-DLEU-LAMP-12cen	In Analysis		11.04.2017 08:3
53736	Created	B	25.04.2017 08:1
54019	Created	B	25.04.2017 09:5
55334-LY17	Created		28.11.2017 14:3
55896-BM17	Checked		28.11.2017 14:3
60185	Captured	B	25.04.2017 08:0
65449	Captured	B	24.04.2017 15:3

# 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 send 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... - principally 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.

The screenshot shows the Neon software interface. At the top, there is a navigation bar with a 'Report' button, a 'More' dropdown, a user profile icon labeled 'CS', and a 'Data' dropdown. The MetaSystems logo is in the top right corner. Below the navigation bar is a filter bar with dropdown menus for 'State', 'Specimen', and 'Any', along with a '+ Create Case' button and icons for search, refresh, and help. The main area contains a table with the following columns: Creation User, Checked Date, Checked User, Patient No, First Name, Last Name, and Birthdate. The table lists various cases, with the row for Yolanda Bechley (01.04.1979) highlighted in red. On the right side of the table, there is a sidebar with 'Open Case' and 'Delete' buttons.

	Creation User	Checked Date	Checked User	Patient No	First Name	Last Name	Birthdate
5:30	ADM				Evangelina	Locket	26.08.1995
9:17	ADM				Ringo	Letty	04.10.1960
3:04	ADM				Brigitta	Steptoe	22.01.1975
6:51	ADM				Lauritz	McGrudder	17.03.1965
4:49	CS	30.11.2017 12:26:41	CS		Hanne	Bukovski	11.08.1989
7:23	ADM				Theodor	Marlen	28.04.2001
3:41	ADM				Jeri	Dimic	10.10.1984
9:19	ADM	30.11.2017 12:28:16	CS		Yolanda	Bechley	01.04.1979
1:15	ADM	30.11.2017 12:28:21	CS		Peterus	Slade	06.05.1970
0:36	ADM	30.11.2017 12:28:26	CS		Bethany	Finlason	08.09.1963
3:00	ADM				Melli	Hingeley	08.10.1947
0:30	ADM				Patty	Crake	18.10.1982
2:32	ADM				Jerald	Simonetto	12.05.1972
6:12	ADM				Carline	Bolzen	25.10.2010
3:50	RD				Ralf	Maier	25.04.1956
0:09	RD				Theodore	Steinman	11.06.1965
4:53	ADM				Michel	Vockings	05.12.1953
1:48	ADM				Mickie	Greene	20.06.1948
6:40	CS				Jenny	Hansmayer	15.07.1977
7:01	CS	30.11.2017 12:29:46	CS		Paula	Arkans	08.05.1996
6:00	ADM				Delilah	Worham	11.05.1949
0:43	ADM				Stanislaw	Teck	23.02.2006

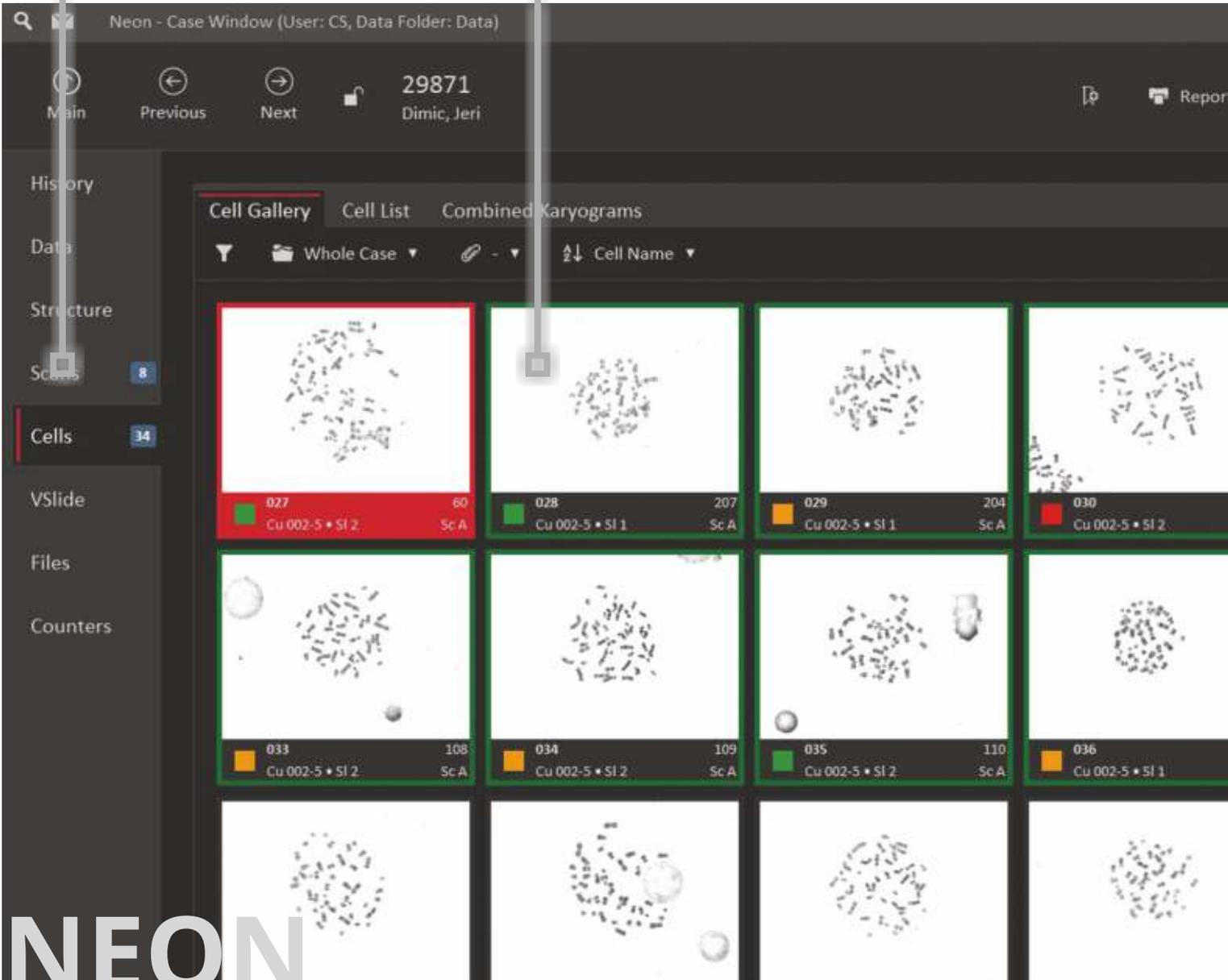
# CASE

### CASE VIEW TABS

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.

### CELL GALLERY

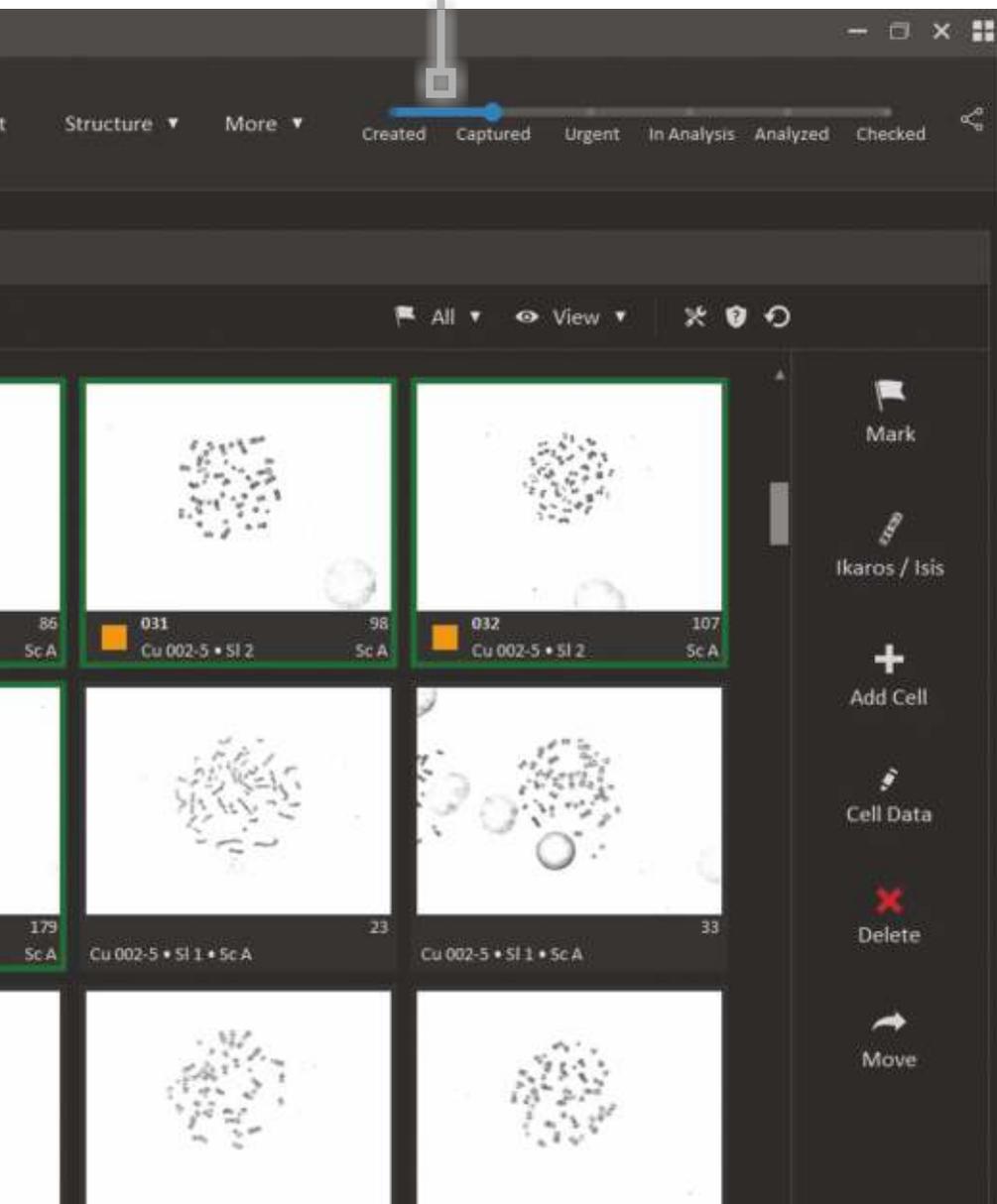
The GALLERY of cells represents the case's image repository. The footer of each image displays additional information including cell statuses which are visualized with a colored square-shaped flag. The gallery of cells can be filtered and sorted by many criteria.



# CASE WINDOW

## WORKFLOW BAR

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.



## MODULES BAR

Depending on the system's settings, 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.



## MetaSystems Worldwide

MetaSystems believes that a global company should foster a community of partners and customers to achieve a climate of collaboration and friendship. Our headquarters and the subsidiary offices in USA, Italy, India, and Hong Kong with their trained and motivated staff allow us to work very close to our customers. We know that communication is crucial to achieve our main goal: to continuously improve our understanding of demands, requirements, and wishes of lab professionals everywhere in the world.

MetaSystems is very proud having established a worldwide network of competent sales and servicing partners. Please feel free to contact your local MetaSystems representative or MetaSystems directly to learn more about the community.



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