



# CEREBRO

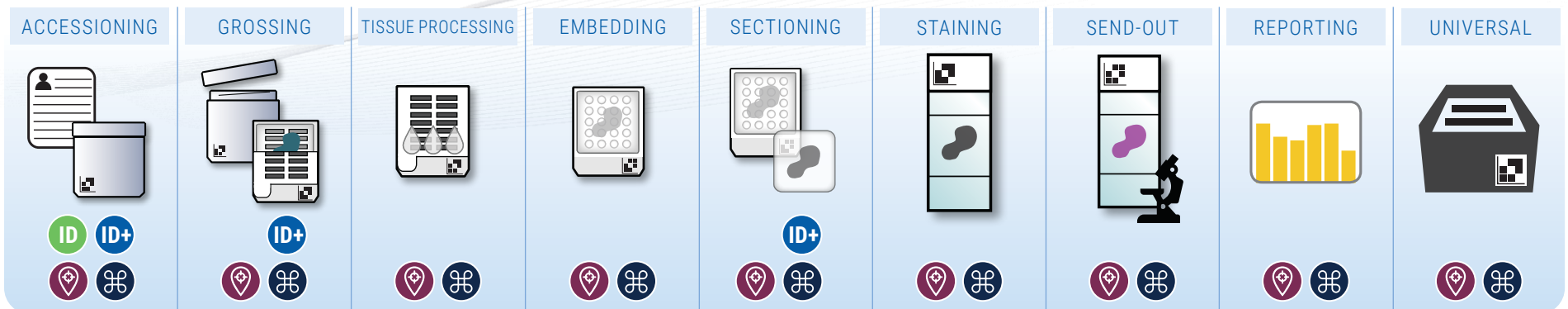
SPECIMEN TRACKING  
AND WORKFLOW MANAGEMENT



# WHAT IS CEREBRO?

CEREBRO is an integrated specimen identification, tracking, and workflow management solution for anatomical pathology labs with four cascading implementation options:

CEREBRO-ID	CEREBRO-ID+	CEREBRO-TRACK 	CEREBRO-COMMAND 
<ul style="list-style-type: none"> <li>» CEREBRO-ID: Batch print labels, cassettes, and slides at accessioning</li> <li>» CEREBRO-ID+: Upgrade to on-demand printing at grossing and sectioning</li> </ul>	<ul style="list-style-type: none"> <li>» Batch or on-demand print labels, cassettes and slides at accessioning, grossing, and sectioning</li> <li>» Track specimen through all different workflow steps</li> </ul>	<ul style="list-style-type: none"> <li>» Batch or on-demand printing</li> <li>» Track specimen progress</li> <li>» Control case integrity with checks at every step</li> <li>» Monitor and manage the workflow with reports and dashboards</li> </ul>	



# PATIENT SAFETY

## PROTECT THEIR HEALTH

Don't let identification errors lead to patient misdiagnosis. CEREBRO is a specimen tracking and workflow management system implementing a documented chain of custody. Now, you can go home at the end of each day confident that the correct slides will reach the pathologist for diagnosis.



### ID CONFIRMED – ALL SPECIMENS ACCOUNTED FOR – EVERY TASK COMPLETE

With CEREBRO, scanning the item ID actively verifies case details. At each stage you confirm the link between the item and the patient, make sure no items are overlooked, and ensure tasks are correctly completed.

### WHEN QUALITY AND PATIENT SAFETY IS PARAMOUNT

CEREBRO is an automated, standardized, lab management tool which cultivates accountability and adherence to critical processes in your specimen processing workflow.



### MAINTAIN SPECIMEN IDENTITY

Helps meet guidelines from accrediting bodies e.g., CAP, CLIA and ISO.

### FULL LIS CONNECTIVITY

Keeps everything in-sync and leaves nothing to chance.

### PREVENT READ AND TRANSCRIPTION ERRORS

Thanks to high quality label printing using Leica Biosystems printers.

### USE YOUR PREFERRED PATIENT ID

Share it with existing instruments and systems. Refer to the patient using a single identifier.

### FACILITATE COMPLETE TISSUE CARE USING SPECIMEN SPECIFIC NOTES

Use predefined or free text notes to pass-on detailed instructions.

# PRODUCTIVITY

## MAKE INFORMED DECISIONS WITHOUT COMPROMISING PATIENT SAFETY

- » Mistakes are costly. CEREBRO identifies potential errors as they happen, allowing them to be resolved quickly.
- » Maintaining a high quality and efficient operation is challenging. CEREBRO will help standardize your specimen processes and provide you data for continuous improvement.
- » Support lab growth and control expenditures. CEREBRO provides real-time information to make data driven decisions about costs, resources and throughput.



Reports and dashboards can display your workflow status whenever and wherever needed.

A suite of pre-loaded reports and dashboards with customization tools included. Schedule, email and export files in a variety of formats.

### OPTIMIZE YOUR STAFF ALLOCATION

The CEREBRO dashboard provides real-time performance updates to help you effectively allocate resources where they are most needed.

### FINISH MORE CASES EACH DAY

Automatic workflow-data collection and real-time reports help you to prioritize resources and increase throughput, while reducing costly overtime.



High quality printing using Leica Biosystems Printers makes labeling fast and efficient while eliminating a source of human error.

Advanced connectivity, wide compatibility and complete lab coverage save time by reducing repetitive data entry.

Monitor the status of any specimen. Anywhere, anytime.

Pinpoint where your specimen is immediately with the CEREBRO system's comprehensive audit trail.

ASK HOW ONE HOSPITAL SAVED  
**2800**  
HOURS A YEAR\*

\* Leica Biosystems CEREBRO automated sample tracking by Paul Williams MSc CSc FIBMS, Published in Hospital Healthcare Europe 2015. [www.hospitalhealthcare.com](http://www.hospitalhealthcare.com)

# SUPERIOR ADAPTABILITY

## DON'T COMPROMISE

Give your lab an advantage. CEREBRO dashboards provide real-time workflow status to help you effectively allocate people where they are most needed.

- » Use your preferred instruments. CEREBRO can integrate with Leica Biosystems and non-Leica Biosystems instruments and IT systems.
- » Just because you have the same type of specimens, doesn't mean your lab works the same way as other labs. CEREBRO allows you to set up your lab the way that suits you.



### DESIGNED WITH YOU IN MIND

CEREBRO has been designed specifically for the anatomical pathology lab, featuring familiar iconography which allows easier dissemination of information.



### ONE EASY-TO-LEARN SYSTEM

Highly visual and intuitive interface is easy to understand and is powerfully productive.

### CEREBRO IS DESIGNED FOR TOUCHSCREEN

Adaptable, regardless of space constraints.

### ADJUSTS TO YOU

Flexible mounting options for touchscreens adjust to each operator for ergonomic comfort, productivity and safety.

### ADAPTABLE PRINTING

Batch, on-demand or hybrid – it's your choice.

# CEREBRO-ID



## FOR EFFORTLESS PRINTING

CEREBRO-ID is a simple, yet comprehensive printing solution. It is purpose-built for printing barcodes on labels or directly onto slides and cassettes. It connects to your Laboratory Information System (LIS) as well as instruments.

Start your journey with CEREBRO-ID, then upgrade to more powerful lab automation applications in the CEREBRO suite when you're ready.



## CEREBRO-ID KEY FEATURES

- » Cassette, slide and label printing
- » Works with Leica Biosystems or 3rd party printers
- » Connects your LIS to pathology printers
- » Label designer is included
- » User-definable shortcuts and lists for fast data entry
- » Connects to lab instruments (e.g., BOND stainers)
- » Secure access and encrypted data storage



## CONFIGURE TO SUIT YOUR SPECIFIC LABORATORY

- » **STANDALONE MODE:**  
Accessioning Client used for data entry and printing
- » **LIS DIRECT PRINTING MODE:**  
LIS is used for data entry and data is sent to the printer via CEREBRO
- » **LIS FULL INTEGRATION MODE:**  
LIS case data is saved in the CEREBRO application for subsequent downstream printing modalities as well as interoperability with other instruments



# CEREBRO-ID+

## FOR ON-DEMAND PRINTING

Move from batch to on-demand printing via a simple addition of CEREBRO-ID+ workstations wherever you need on-demand printing (e.g., at microtome).

Have as many, or as few, CEREBRO-ID+ workstations as you need. CEREBRO-ID+ can grow with you, every step of the way.

## CEREBRO-ID+ KEY FEATURES

In addition to the CEREBRO-ID features, CEREBRO-ID+ offers:

- » On-demand printing wherever it is needed
- » Initiate on-demand printing of cassettes and slides or slide labels simply by scanning a barcode on the specimen jar or cassette
- » Combine in-advance printing with on-demand printing (e.g, cassettes and slides)
- » Server functionality via Accessioning client for sharing data, centralized data storage, and easy administration

CEREBRO-ID and ID+ Printing Solutions can also be used to connect your other Leica Biosystems instruments. You can connect the BOND stainers to the image management software and slide scanners using CEREBRO as the middleware between the systems.



# CEREBRO-TRACK

## KNOW THE STATUS OF ANY SLIDE, ANY TIME

Adding tracking capability is a natural progression from the ID or ID+ printing solution. CEREBRO-TRACK creates a complete specimen audit trail that can be viewed at any time.

Continue to leverage your investment in ID or ID+ and use your existing workstations for printing. But now, they will also store the tracking information - no need to collect it manually. Additional workstations can be placed wherever you need to track specimen processing.

## CEREBRO-TRACK KEY FEATURES

In addition to all CEREBRO-ID and ID+ features, CEREBRO-TRACK offers:

- » Purpose-built workstations for tracking accessioning, grossing, tissue processing, embedding, sectioning, case assembly (send-out)
- » Generic tracking station for tracking specimen archival and workflow deviations, e.g., decalcification step
- » Web-based reports and dashboards to display case item-specific audit trail and tracking information
- » The Case History tab is available in all workstations showing a detailed audit trail for specific case items
- » Report and dashboard designer available for ad-hoc reporting needs





# CEREBRO-COMMAND

## THE ABILITY TO DRIVE EFFICIENCY AND PATIENT SAFETY

CEREBRO-COMMAND is a full-featured specimen identification, tracking, and workflow management system for histology and cytology. It adds specimen identification safety checks and workflow management features on top of all functionality inherited from ID, ID+, and TRACK versions.

CEREBRO-COMMAND alerts users if steps are missed or cassettes or slides are lost. It safeguards transcription steps at grossing and sectioning, confirming that the tissue ends up in the correct cassettes and slides.

The data collected with each barcode scan can be used to generate dashboards and reports that show key performance indicators, work pending for any step, and urgent work. Collection and delivery of statistics can be automated with scheduled reports.

## CEREBRO-COMMAND KEY FEATURES

In addition to the full suite of CEREBRO-ID, ID+, and TRACK features, CEREBRO-COMMAND offers:

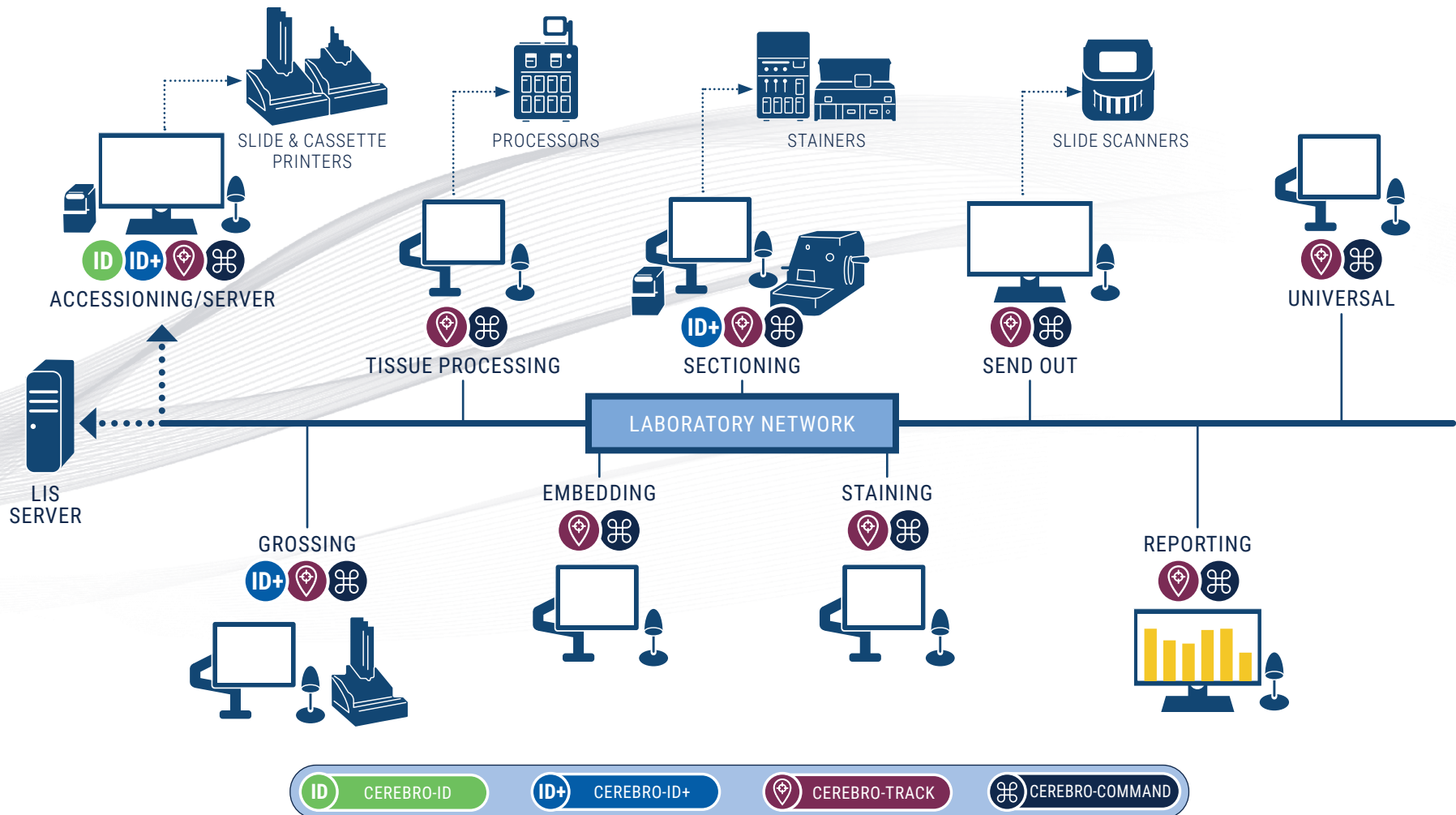
- » Step-specific counters indicating remaining work, e.g., slides ordered and slides already sectioned
- » Active step-specific missing work warnings, e.g., if all slides have NOT been sectioned
- » Integrity check at grossing and sectioning alerting if a wrong slide or cassette is scanned
- » Screen for each workflow step and workstation to show pending work
- » Reports and dashboards for showing pending and completed work
- » Turnaround-time reports and dashboards



WARNING MESSAGE SCREEN



# CEREBRO & THE ANATOMICAL PATHOLOGY LABORATORY WORKFLOW



Not a medical device. Not intended to diagnose, treat, cure, or prevent any disease or health condition.

# WHAT IS THE RIGHT CEREBRO FOR ME?

	CEREBRO-ID	CEREBRO-ID+	CEREBRO-TRACK	CEREBRO-COMMAND
LIS CONNECTIVITY	✓	✓	✓	✓
INSTRUMENT CONNECTIVITY	✓	✓	✓	✓
BATCH PRINTING	✓	✓	✓	✓
ON-DEMAND PRINTING		✓	✓	✓
TRACKING AND AUDIT TRAIL			✓	✓
STORAGE ALLOCATION			✓	✓
REPORTS AND DASHBOARDS			✓	✓
CASE NOTES, USER-DEFINED AND FREE TEXT				✓
CASE INTEGRITY CHECKS				✓
WORKFLOW INSIGHTS				✓

START SIMPLE, UPGRADE GRADUALLY TO FULL TRACKING AND WORKFLOW MANAGEMENT SOLUTION



ACCESSIONING



GROSSING



TISSUE PROCESSING



EMBEDDING



SECTIONING



SEND OUT



24" WORKSTATION/SERVER



15" WORKSTATION

**OPTIONS**

- » Keyboard and Mouse
- » LIS connectivity
- » Instrument connectivity
  - BOND Staining Systems
  - Image Management Systems
  - Roche instruments
  - Agilent instruments
  - Other 3rd party instruments

**SOFTWARE**

- » Accessioning
- » Grossing
- » Processing
- » Embedding
- » Sectioning
- » Staining
- » Case Assembly
- » Administration, Universal

**WORKSTATIONS**

- » 24" PC with Touchscreen
- » 15" All-in-one Touchscreen PC

**MOUNTING**

- » Desk, freestanding
- » Desk, flexible arm
- » Desk, flexible arm, dual screen
- » Wall, flexible arm

**PRINTING**

- » IP C Cassette Printer
- » IP S Slide Printer
- » PERMA S Slide Printer
- » Cognitive CXi Label Printer
- » Zebra Label Printer

**BARCODE SCANNERS**

- » Scanner, USB cable, with stand
- » Scanner, wireless, with cradle