Thomas Lübke
Product Manager Workflow Innovation
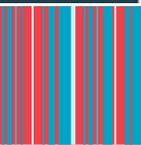thomas.lubke@axlab.dk

SLIDE MANAGER

AGENDA

INTRODUCTION
WAYS OF MANAGING SLIDES
BENEFITS

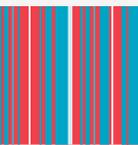**Axlab**

Slide Manager - Introduction

The Slide Manager is a fully automated system for

- Handling

- Retrieving

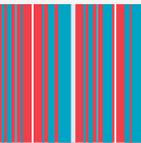- Sorting

- And archiving microscope slides

Originally developed for the Pathology lab at Odense Univeristy Hospital in Denmark
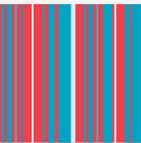
First unit up and running in 2021

Now 5 units in DK (Number 6 in 2026)

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Slide Manager - Construction

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SO WHAT DOES IT ACTUALLY DO?

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Slide Manager Introduction – a multipurpose instrument
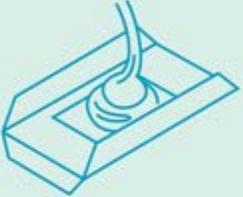

1. OPERATING ROOM/CLINIC
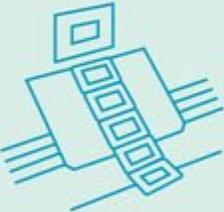
2. RECEPTION & GROSSING

3. CASSETTE & SLIDE PRINTING

4. CRYOTOMY

5. TISSUE PROCESSING & EMBEDDING

6. MICROTOMY

7. STAINING & COVERSLIPPING

8. DIGITAL SCANNING & AI

9. ARCHIVING

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Slide Manager – Slide Repository

Store those extra unstained slides for additional IHC etc.

Workflow

- Slides are produced during microtomy

- Inserted into Slide Manager

- Retrieve, when additional stains are ordered

Benefits

- Keeps slides safe – both physically and no misplaced / lost unstained slides

- Easy, fast and convenient retrieval when needed

Slide Manager Introduction – a multipurpose instrument

1. OPERATING ROOM/CLINIC   2. RECEPTION & GROSSING   3. CASSETTE & SLIDE PRINTING   4. CRYOTOMY   5. TISSUE PROCESSING & EMBEDDING
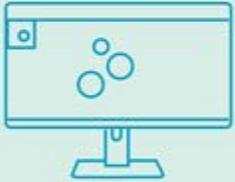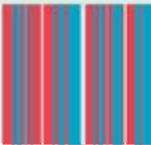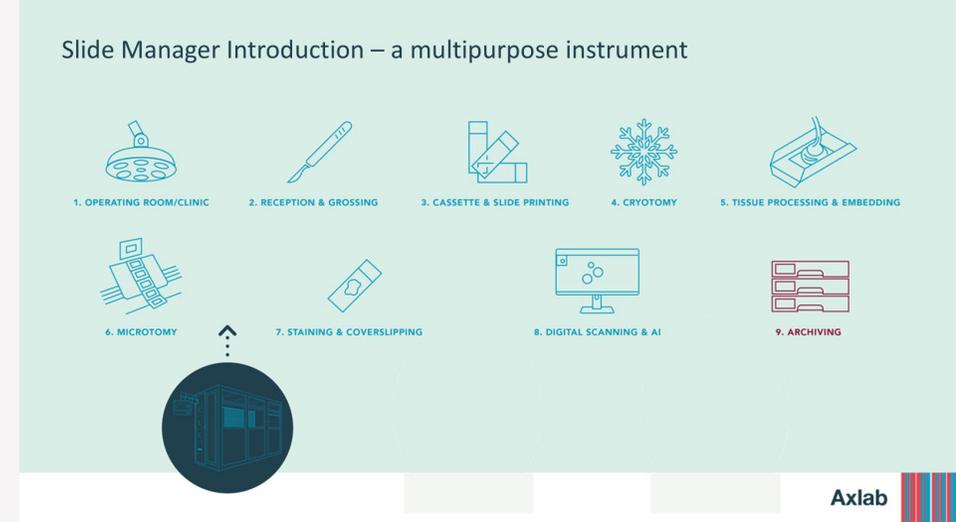
6. MICROTOMY   7. STAINING & COVERSLIPPING   8. DIGITAL SCANNING & AI   9. ARCHIVING

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Slide Manager Introduction – a multipurpose instrument
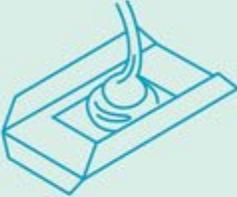
1. OPERATING ROOM/CLINIC
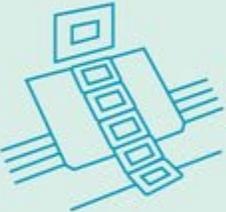
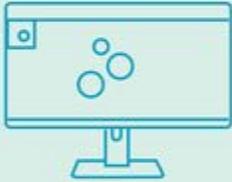2. RECEPTION & GROSSING

3. CASSETTE & SLIDE PRINTING

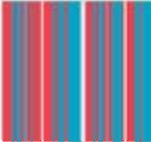4. CRYOTOMY

5. TISSUE PROCESSING & EMBEDDING

6. MICROTOMY

7. STAINING & COVERSLIPPING

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Slide Manager – Case Assembly

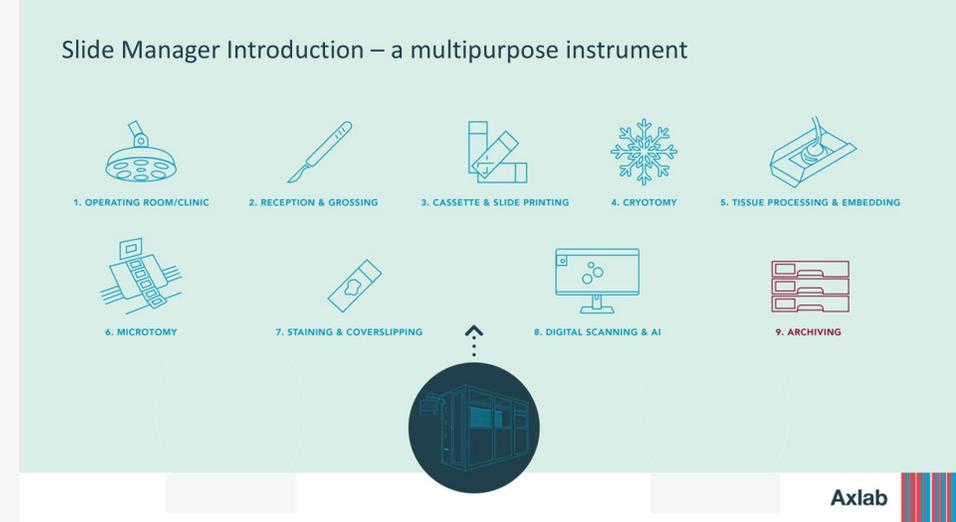Slide Manager Introduction – a multipurpose instrument

Free up time by automatically assembling patient cases for microscopy
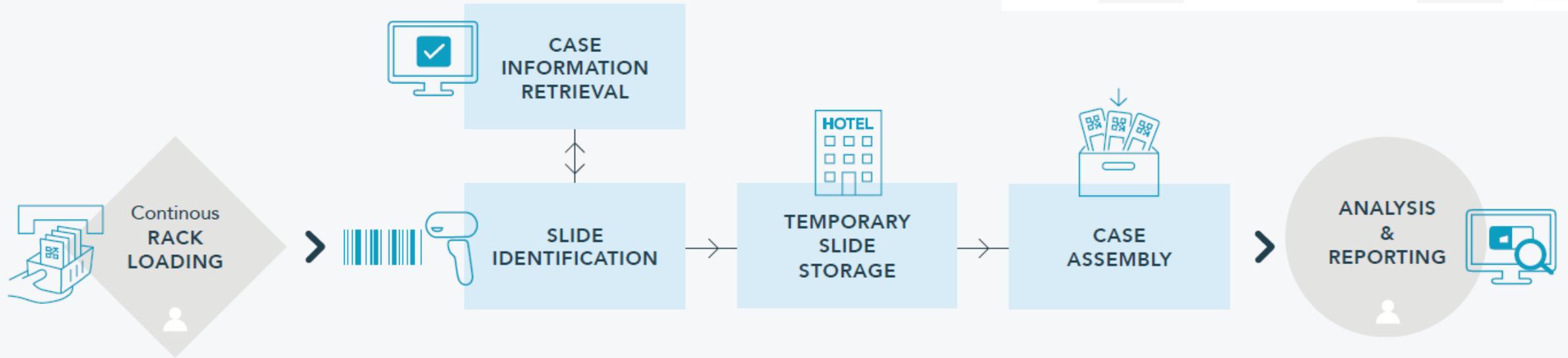
Workflow

- All slides are inserted into Slide Manager after staining

- Instrument assembles slides from each individual patient case

- When case is completed, it's outputted ready for microscopy

- After microscopy slides are reinserted and Slide Manager Sorting / Archiving takes over

Benefits

- Free up hands and minds

- No patient case mix-ups

- No cases delayed

- Automatic alarm on missing slides

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Slide Manager – Case Assembly

Slide Manager Introduction – a multipurpose instrument
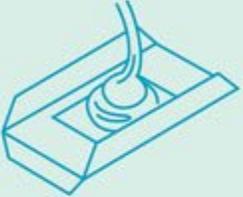
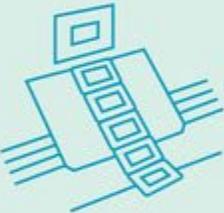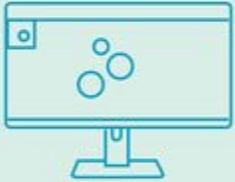1. OPERATING ROOM/CLINIC   2. RECEPTION & GROSSING   3. CASSETTE & SLIDE PRINTING   4. CRYOTOMY   5. TISSUE PROCESSING & EMBEDDING

6. MICROTOMY   7. STAINING & COVERSLIPPING   8. DIGITAL SCANNING & AI   9. ARCHIVING

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CASE INFORMATION RETRIEVAL

Continous RACK LOADING

SLIDE IDENTIFICATION

HOTEL

TEMPORARY SLIDE STORAGE

CASE ASSEMBLY

ANALYSIS & REPORTING

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Slide Manager Introduction – a multipurpose instrument
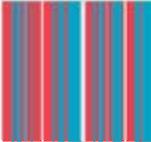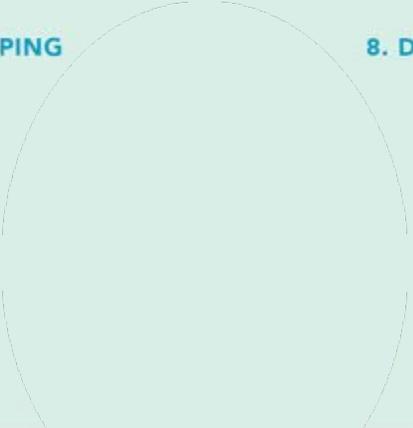
Slide Manager – Sorting / Archiving

Automate slide handling, sorting and archiving

Workflow

- Slides are scanned (digital lab) or examined under a microscope

- Slides are inserted into Slide Manager

- Slide Manager stores slides for a few weeks, before sorting and outputting for archiving

Benefits

- Free up hands and minds

- No mis-archived slides

- Easy and fast retrieval in the initial period

Slide Manager Introduction – a multipurpose instrument

1. OPERATING ROOM/CLINIC 2. RECEPTION & GROSSING 3. CASSETTE & SLIDE PRINTING 4. CRYOTOMY 5. TISSUE PROCESSING & EMBEDDING

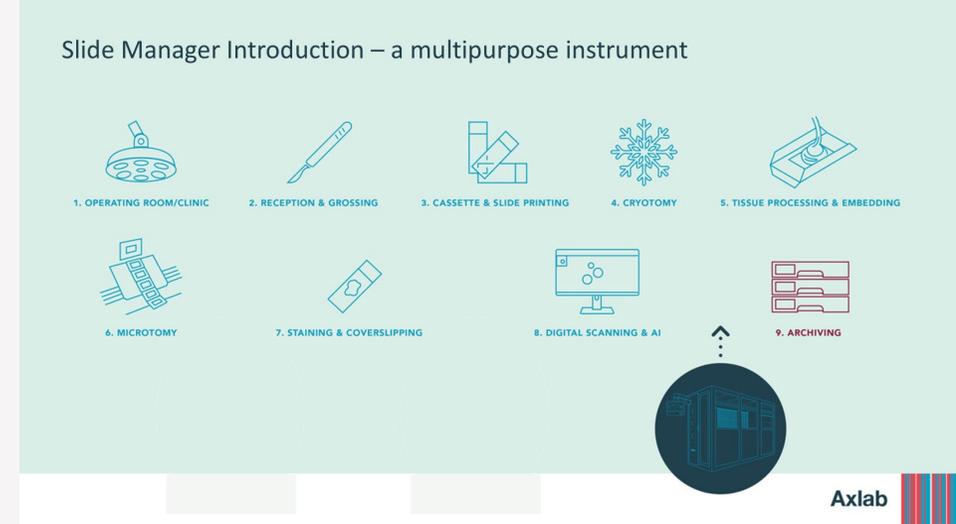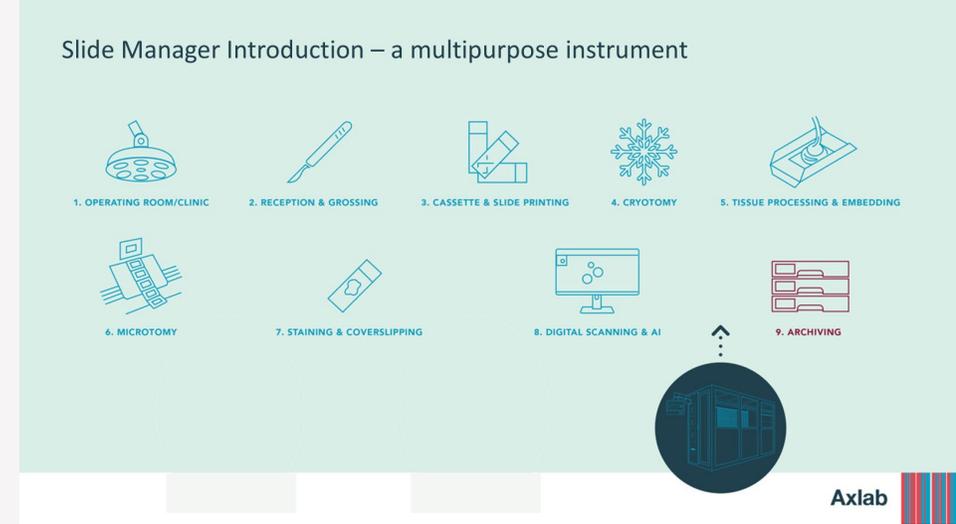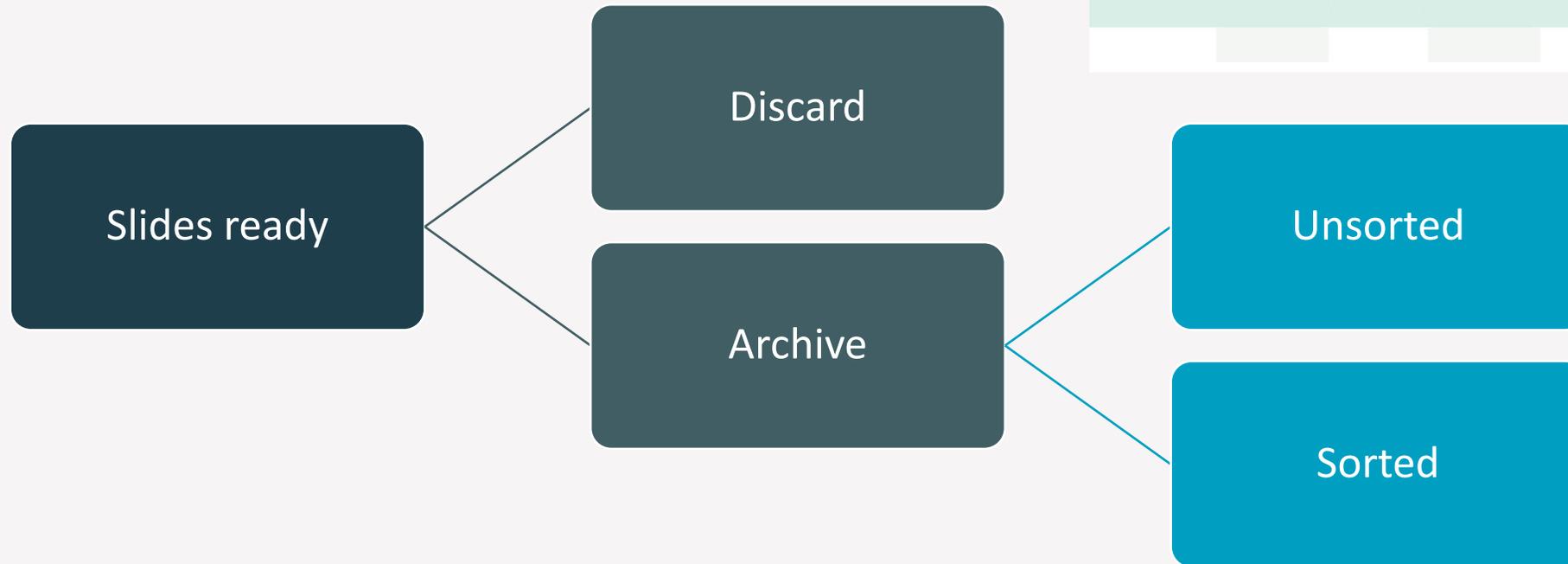6. MICROTOMY 7. STAINING & COVERSLIPPING 8. DIGITAL SCANNING & AI 9. ARCHIVING

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Sorting / Archiving – HOW?

Slide Manager Introduction – a multipurpose instrument

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Slides ready

Discard

Archive

Unsorted

Sorted

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Sorting / Archiving – HOW?

Slide Manager – Sorted archiving

**Automate sorting and archiving duties**

What does the Slide Manager actually do?
- Slides are stored randomly
  - Optimising storage capacity
- When it's time to archive
  - Slides are placed into racks (+200 slides pr. rack)
  - Sorted by
    - By patient case – all slides belonging to one patient
    - Numerically ascending (26-00001, 26-00002, 26-00003 etc.)
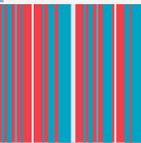
Benefits
- Free up hands and minds
- No mis-archived slides
- Easy and fast retrieval in the initial period (x weeks)

ARCHIVE
Archive slides organized
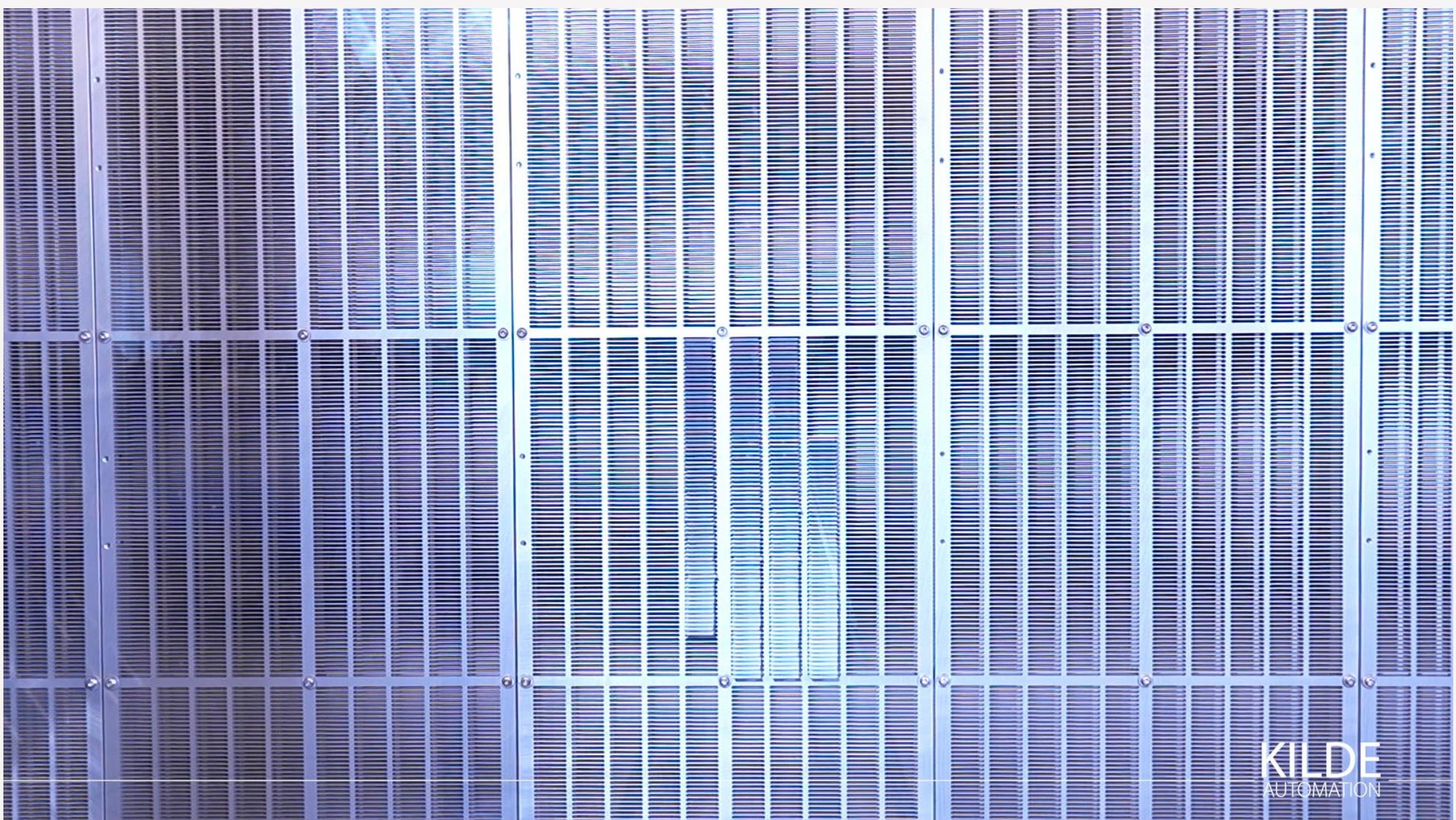
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Slide Manager – How to operate

Loading slides into the system

1. Open door – take out empty slide-baskets
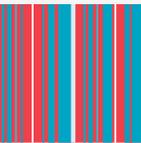
2. Load new slide-baskets – close door

3. Walk away

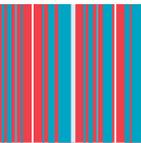**Retrieve a slide - manually**

1. Scan barcode and wait a moment

2. Open door – retrieve requested slide

3. Walk away

Archiving

1. Open archiving door – take out full racks

2. Put in new / empty racks – close door

3. Walk away

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Slide Manager – Modular construction
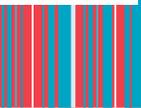
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Slide Manager – Standard sizes

Archive 34.000

Glass slides: 34.320

Archive 24.000

Glass slides: 24.960

Archive 15.000

Glass slides: 15.600

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Slide Manager – FAQ
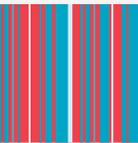
Open system – Compatible scanners

- 3DHistech

- Hamamatsu

- Leica

- Philips

- Olympus

Speed

- 280 slides pr. hour

24/7 operation

- Input and retrieve during the day

- Sort and archive by night

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Slide Manager – QUESTIONS?

1. OPERATING ROOM/CLINIC
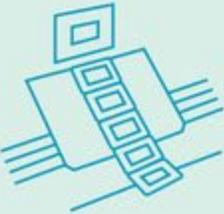2. RECEPTION & GROSSING
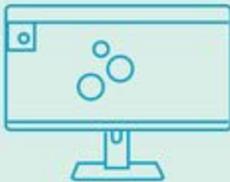3. CASSETTE & SLIDE PRINTING
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SLIDE REPOSITORY – UNSTAINED SLIDES

CASE ASSEMBLY

SORTING ARCHIVING

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