Comparison of UNICORN 5 and UNICORN 7 control software

This document summarizes the differences between UNICORN™ 5 and UNICORN 7 control software including added, changed, and removed features. The document describes systems supported by UNICORN 7, key features of the software, differences in setup between UNICORN 5 and UNICORN 7, and a walkthrough of the modules in the software. A section with frequently asked questions (FAQ) is included in section 10.

Contents

1. Supported systems

UNICORN 7 supports the following systems:

Current lab- and pilot-scale systems:
- ÄKTA™ go
- ÄKTA pure
- ÄKTA avant
- ÄKTA pilot 600

Current process-scale, cell culture, and filtration systems:
- ÄKTAprocess™
- ÄKTA ready
- ReadyToProcess™ WAVE™ 25
- ÄKTAcrossflow™
- UniFlux™
- ÄKTA readyflux™

Discontinued systems:
- ÄKTAexplorer
- ÄKTApurifier
- ÄKTApilot™

In UNICORN, users can create methods, perform runs, and evaluate results for the supported systems (with exceptions for some of the cell culture and filtration systems). It is possible to import methods and results from UNICORN 5 and UNICORN 6 to UNICORN 7.

Differences in functionality between the current lab- and pilot-scale systems, as well as current process-scale, cell culture, filtration, and discontinued systems are summarized in Table 1.

Table 1. Differences in functionality of UNICORN software

Features in UNICORN	Current lab- and pilot-scale systems	Current process-scale, cell culture, and filtration systems	Discontinued systems
Method phases	×		×
Method wizards		× (ÄKTAcrossflow)	×
Text methods	×	×	×
Predefined methods	×	×	×
Design of experiments (DoE)	× License included for ÄKTA avant, separate licenses needed for ÄKTA pure and ÄKTA pilot 600		
Column logbook	× License included for ÄKTA avant, separate licenses needed for ÄKTA pure and ÄKTA pilot 600	× Separate licenses needed	×
Improved interactive *Process picture*	×		
Evaluation module	×	×	×

2. Key differences between UNICORN 5 and UNICORN 7

The key differences between UNICORN 5 and UNICORN 7, including the benefits that UNICORN 7 brings (Table 2), is described in this section. General functions and details regarding modular features that UNICORN 7 provides is described to support an upgrade to UNICORN 7.

Table 2. Key differences between UNICORN 5 and UNICORN 7 and the relative benefits of UNICORN 7

UNICORN 5	UNICORN 7	Benefits of UNICORN 7
File-based data storage	Database storage	Easier data handling enables cross-result data analysis
Old technology that reached technical limitations	Modern technology	Improved robustness and support
Launched in 1992	Current platform used for further development	Access to innovation
Outdated design	Modern graphical user interface	Fewer number of clicks, intuitive design
Static user interface	Interactive user interface	Faster and easier interaction during method runs and executing manual instructions
Method wizard and text editing	*Phase editor* and text editing	More comprehensive method editing
No log off during scouting or method queues	Log off possible anytime	Feature requested by process development customers
Simple column list	*Column list* and *Column logbook*	Advanced column tracking based on usage rather than set time intervals
16 000 data points	Up to 180 000 data points	Longer runs at full sampling rate
Windows® XP and Windows 7*	Windows 7* and 10	Stay current with IT-environments
Authentication for only UNICORN	Active directory authentication	Easy user administration
User-based access control only	System access control for networked workstations	More control over accessibility
Key license	E-licensing	Increased cybersecurity
Preset password policy	Password policy rules can be changed	Increased and adjustable security
Supports UK English language and culture settings in Windows	Supports both US English and UK English language and culture settings (UNICORN 7.4 and later versions)	Can be run on Windows with both US English and UK English
Standard installation (wizard)	Standard installation (wizard) or Command line installation	Install with minimal user interaction
Only supports current process-scale, cell culture and filtration systems, and discontinued systems	Supports current lab- and pilot-scale systems and a few process-scale, cell culture, and filtration systems	Stay in line with the latest, and most modern chromatography systems

* Windows 7 is no longer supported by Microsoft®

3. Differences in system and software setup between UNICORN 5 and UNICORN 7

There are differences between UNICORN 5 and UNICORN 7 related to setup of the system and software. UNICORN 7, including communication with the system, includes improved performance, stability, usability, and efficiency (Table 3 and Fig 1).

Table 3. System and software setup differences between UNICORN 5 and UNICORN 7

Function	UNICORN 5	UNICORN 7
Instrument control	CU 950/960	Instrument server and softcontroller or CU 950/960
Data storage	File-based	Database
Configuration	Strategy	Instrument configuration
License-protected software	–	E-licensing
Independency of IT security solutions, Windows updates, and reboots	CU 950/960	Support of Real-Time Unit (RTU) for ÄKTA avant, ÄKTA pure, and ÄKTA go

Discontinued ÄKTA systems

UNICORN
• Client
• Instrument server

Ethernet/USB

CAN

CU950/960
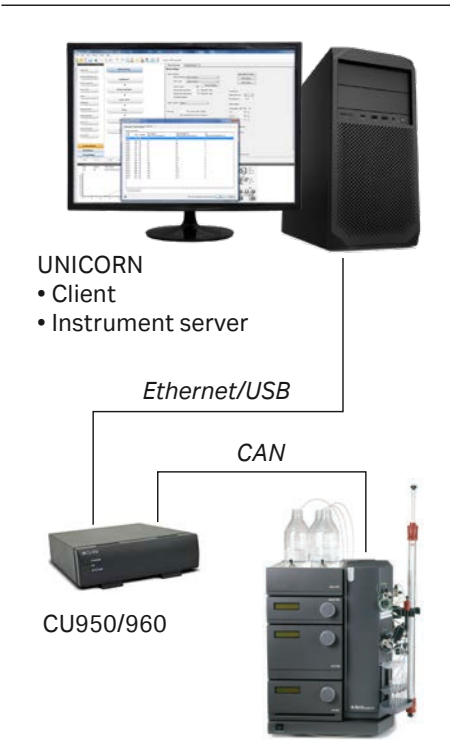
ÄKTA go, ÄKTA pure, and ÄKTA avant

UNICORN
• Client
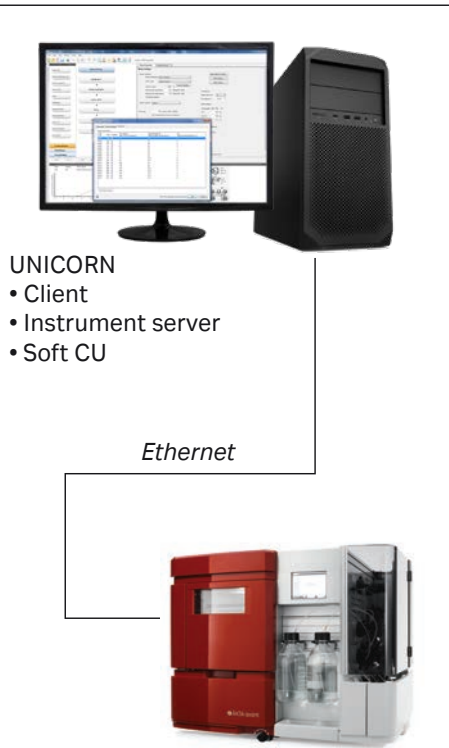• Instrument server
• Soft CU

Ethernet

Fig 1. Instrument control in UNICORN 7. Simple setup of the UNICORN 5 installation with instrument and external control unit (left) and corresponding setup with UNICORN 7, an instrument, and a virtual control unit (right).

4. Modules of UNICORN 5 and UNICORN 7

Like UNICORN 5, UNICORN 7 features modules; *Administration, Method editor, System control*, and *Evaluation*. Comparison of the UNICORN 5 and UNICORN 7 modules is described in this section. In addition, comparisons between a few other features are described such as: databases, licenses, and column handling.

4.1 Administration module

The *Administration* module handles users, system properties, group access, password policies, etc. The equivalent for UNICORN 5 lacks the browser view and only works as an administration program. In UNICORN 7, it is possible to control the password policies for users to adapt the level of security as needed. Further differences are listed in Table 4.

Table 4. Differences in the *Administration* module between UNICORN 5 and UNICORN 7

UNICORN 5	UNICORN 7
–	Active directory (LDAP) authentication supported
Browser view as well as Admin	UNICORN Manager changed to an administration program only
Access rights at individual level	Access rights at group level
-	Policy controlled passwords
User access control only	User and workstation access control
Audit trail	New names of audit trail: *System log* *UNICORN log* *Run log* *Evaluation log*
–	Database administration with possibility to schedule back-ups

4.2 Method editor

The *Method editor* differs between UNICORN 5 and UNICORN 7. Instead of using the *Method wizard* as in UNICORN 5, UNICORN 7 includes predefined phases in a *Phase library*. Phases can be "dragged-and-dropped" to create and edit methods, either by modifying predefined methods or starting from scratch. User-defined methods can be added to the *Phase library* , which can then be shared by all users using the same database. For advanced runs, it is possible to perform text edits in UNICORN 5 and UNICORN 7.

The *Method editor* in UNICORN 5 includes the command *AnyColumn* to achieve the same checks on pressure and flow limits as defined in the main block. This has been changed in UNICORN 7 and the command *AnyColumn* will disable flow and pressure warnings. Thus, use *AnyColumn* when there is no need to check flow and pressure limits. In UNICORN 7, when there is a need to have the same pressure and flow limit as in the main block, use the *ColumnSameAsMain* instruction. Differences between UNICORN 5 and UNICORN 7 related to the *Method editor* are described in Table 5.

Table 5. Differences in the *Method editor* module between UNICORN 5 and UNICORN 7

UNICORN 5	UNICORN 7 on current process-scale, cell culture, filtration, and discontinued systems	UNICORN 7 on current lab- and pilot-scale systems
Method wizard	*Method wizard* (ÄKTAcrossflow)	Phases with *Phase library*
–	User-defined phases	Predefined phases and user-defined phases
–	Generic methods with a column type for column individuals	Generic methods with a column type for column individuals
Text editor	*Text editor*	*Text editor*
–	–	*DoE* *
BufferPrep	–	*BufferPro* (ÄKTA avant)
–	*Scouting* • Horizontal orientation of runs • Variables in order of appearance	*Scouting* • Vertical orientation of runs • Variables in alphabetic order
Infinite loops is supported	The functionality of handling *Nested watch* recursion (sometimes referred to as "infinite loops") is supported only by UNICORN 7.4 and later versions	

* Included for ÄKTA avant, separate license needed for ÄKTA pure and ÄKTA pilot 600

4.3 System control

System control is used to control the ÄKTA system using manual runs, predefined methods, and *Method queues.* In UNICORN 7, it is not possible to have several *System control* windows open at once, but instead up to three instruments can be controlled or monitored from the same *System control* window. It is also possible to log off from *System control* during a run without stopping the run. Stacking several runs on top of each other can be done in *System control* as well as creating a *Method queue* directly in *System control*. The instant run and reference curve functions have been removed in UNICORN 7, *see* Table 6 for additional differences.

Table 6. Differences in the *System control* module between UNICORN 5 and UNICORN 7

UNICORN 5	UNICORN 7
Instant run	–
Reference curve	–
–	Interactive *Process picture* (ÄKTA go, ÄKTA pure, ÄKTA avant, ÄKTA pilot 600, ReadyToProcess WAVE, ÄKTA readyflux, and Xuri™ Cell Expansion System)
–	*Filter curves*
–	*Docking panes*
–	Linear and column flow in manual instructions
–	Run can be monitored in column volumes (CV), when the column volume is specified
–	Fraction-collector view
Record On	Possible to name results in manual instructions
Storage ON/OFF	Set number of data points Default 54 000 (dependent on instrument configuration)
Up to four *System control* windows (multiple ÄKTA systems can be connected to same computer)	One *System control* window that controls/views up to three different systems on one computer (provided that each instrument is connected to its own computer and connected to same database)
–	Method object browser added
Possibility to lock system	–
–	Log off possible at any time (also during scouting and *Method queue*)
Method queue • Create in *Method editor* • *Run* from *Admin*	*Method queue* • Create in *Method editor* or *System control* • Run from *System control*
–	Stacking started methods
Possibility to change pressure unit during run	–
Prompt for columns	Column prompt: updated and improved function

4.4 Evaluation

UNICORN 7 introduced a new tool for evaluating the chromatography results, called **Evaluation**. Benefits of **Evaluation** module:

- Simple and intuitive user interface that supports common workflows, and requires minimized learning period
- Flexible with adaptable comparison and layout
- Quick preview of results, instant feedback, and automated integration

It is also possible to use **Evaluation classic** in UNICORN 7. **Evaluation classic** requires an extra license, contains extended features similar to the evaluation tool used in UNICORN 5. In Table 7, a detailed comparison between the evaluation tool in UNICORN 5, **Evaluation classic** for UNICORN 7, and **Evaluation** for UNICORN 7 is shown.

Table 7. Differences in evaluation between UNICORN 5 and UNICORN 7, including **Evaluation**, and **Evaluation classic**

UNICORN 5	UNICORN 7 *Evaluation classic*	UNICORN 7 *Evaluation*
–	–	Single-click peak integration
–	–	Partial baseline
–	–	Align peaks to fraction limits
Fraction pooling	*Fraction histogram*	Possible to calculate amount and concentration
–	–	Calculate amount and concentration for a peak
Marker and *Set reference point*	*Marker* and *Set reference point*	*Marker*
–	–	Compare in tile view
–	–	Compare in CV
–	–	Sort according to scouting variables
Multifile peak comparison	Multiresult peak comparison	–
Quick view	*Quick view*	Preview including scouting variables
–	–	Optimized copy to presentation function
–	–	Display phases
–	–	Display scouting variables
–	–	Panning and miniature in zoom
–	*DoE*	-
–	*Column logbook* (trends in column performance)	*Column logbook* (trends in column performance)
Evaluation procedures	Evaluation procedures	–
Customize report	*Customize report* (landscape unavailable)	–
Operations • Normalize • Multiply	Operations – –	Operations – –
Normalize a curve compared to another curve	–	Normalize UV curves to 1 cm path length to easily compare results from runs with different UV path lengths
–	–	Possibility to adjust column bed height
–	–	Calculation of reduced plate height (h)
–	–	Logging of Reduced Plate Height (normalization of HETP values based on resin particle size) for individual columns, saved in *Column logbook*
Shift offset in y direction	Shift offset in y direction	Shift offset in both y and x axis direction
–	–	Autointegration -> result is integrated with default parameters when opened (can be disabled if not wanted)
Analysis module	–	–

4.5 Databases and licenses

To stay up-to-date with current technology, UNICORN 7 uses database storage (Microsoft SQL Server Database) instead of file-based data storage. This facilitates sharing data between different users, by connecting several instruments and computers to the same database. UNICORN 7 is license protected, increasing cybersecurity. It is possible to either purchase instrument specific licenses (node-locked) or licenses that can be used for several systems (concurrent). Instead of controlling the instrument with an external control unit, UNICORN 7 controls the instruments with an instrument server and a software control unit (only for current systems), making the connection between software and system stable. The differences between data storage and licenses in UNICORN 5 and UNICORN 7 is listed in Table 8.

Table 8. Main differences in data storage and licensing between UNICORN 5 and UNICORN 7

UNICORN 5	UNICORN 7
File-based data storage Locally or remote disc Proprietary file format	Microsoft SQL Server Database • Secure and consistent data storage • Freeware version of Microsoft SQL Server, possible to upgrade to SQL Server • Easy to share data
License key required	E-license protected
–	Two types of licenses available; concurrent (floating) and node-locked (not shareable)

4.6 Column handling

In UNICORN 7, it is possible to keep track of your columns using the ***Column logbook*** functionality. Using this function, you can track individual columns (either through the QR code on the column label or through UNI Tags), trend column performance, and configure notification for when it is time to replace the column and/or resin. This contributes to full control over the chromatography processes, which is important to avoid introducing unnecessary errors due to faulty or outdated columns. The data can be entered via a keyboard or by scanning the 2D barcode. Column handling is described in 5.4 and in Table 9.

Table 9. Main differences in column handling between UNICORN 5 and UNICORN 7

UNICORN 5	UNICORN 7
–	***Column logbook*** • Keep track of individual columns • Define notifications • Save column statistics • Generate column performance report • Ability to store individual bed heights and CVs for different columns of the same type
Simple column list	Column list with larger number of columns added

5. Features removed or changed in UNICORN 7

The purpose of this section is to quickly summarize the features in UNICORN 5 that have either been removed or changed in UNICORN 7 (most of them are mentioned earlier in their specific section). This will facilitate adaptions needed when switching to UNICORN 7. The changes are important to be aware of, since they affect how methods and instructions are performed by the software. Misinterpretation of the changes can result in poor performance. *See* Table 10 for a summary of the features removed or changed in UNICORN 7.

Table 10. Features in UNICORN 5 that has either been removed or changed in UNICORN 7

UNICORN 5	UNICORN 7
Administration	
Browser view as well as *Admin*	UNICORN manager changed to an administration program only
Audit trail	New names of audit trail: • *System log* • *UNICORN log* • *Run log* • *Evaluation log*
Method editor	
Method wizard	Phases with *Phase library*
AnyColumn command: used to achieve the same checks on pressure and flow limits as defined in the main block	*AnyColumn* command: disables flow and pressure warnings
–	*ColumnSameAsMain* command: used to achieve the same checks on pressure and flow limits as defined in the main block (replaces *AnyColumn* in UNICORN 5)
Scouting • Horizontal orientation of runs • Variables in order of appearance	*Scouting* • Vertical orientation of runs • Variables in alphabetic order
BufferPrep	*BufferPro*—only available in ÄKTA avant using the Q-valve *BufferPrep*—Not working on old ÄKTA systems using UNICORN 7, the recipes can however be viewed
Block view	–
System control	
Instant run	–
Reference curve	–
Possible to record manual runs using "*Record On*"	Possible to name results from manual runs in manual instructions
Up to four *System control* windows on one computer	One *System control* window that controls/views up to three different systems on one computer (provided that all systems are connected to one computer each and that they are on the same network)
Possibility to lock system	–
Method queues • Create in *Method editor* • Run from Admin	*Method queues* • Create in *Method editor* or *System control* • Run from *System control*
Possibility to change pressure unit during run	–
Evaluation	
Pool	*Evaluation:* Possible to calculate amount and concentration for a peak *Evaluation classic:* Fraction histogram
Marker + set reference point	*Evaluation:* Marker *Evaluation classic:* Marker + set reference point
Multifile peak comparison	*Evaluation:* – *Evaluation classic:* Multiresult peak comparison
–	*Evaluation:* – *Evaluation classic:* DoE
Evaluation procedures	*Evaluation:* – *Evaluation classic:* Evaluation procedures
Customize report	*Evaluation:* – *Evaluation classic:* Customize report
Operations • Normalize • Multiply	*Evaluation:* – *Evaluation classic:* –
Analysis module	*Evaluation:* – *Evaluation classic:* –

6. Why use a network installation?

When using more than one ÄKTA system, it is strongly recommended to use a network installation of UNICORN. Sharing data between different stand-alone installations is tedious and needs to be performed manually. A networked installation allows all users and systems to share a common database. This way, the database can be placed on a server handled by client IT security routines and data can be shared seamlessly as appropriate (user access rights can be used to control data sharing).

Advantages with network installation of UNICORN 7:

- **Easy user administration**
  Administrates users from one central location.

- **Easy data sharing**
  Save, organize, and exchange data over the network.

- **Easy data administration**
  Back up all data at once with automated, scheduled backups.

- **Secure networking**
  Control workstation access to each instrument; server controlled by IT security routines.

- **Improved equipment utilization**
  Make the instrument available to others, while evaluating from your office PC.

- **Improved equipment monitoring**
  Monitor the instrument from your office PC, with the possibility to create own your notifications.

7. UNICORN Service tool

In UNICORN 7, a new Service tool is included, for easier management of the UNICORN software. It becomes automatically installed when installing UNICORN 7 and can be used by clients to:

- Check computer system or software specifications.
- Check network ports and detect firewall issues.
- Configure and check connection to instrument, instrument server, database, and license server.
- Change database and license server, and search for available license.
- Run status for vital processes.
- General troubleshooting, for example, when restart of the system is not sufficient.
- Generate system error reports.

8. UNICORN 7 minimum requirements for software and system

For the latest UNICORN version and its compatibility, *see* the compatibility matrix on the web (cytiva.com/unicorncompatibility).

For minimum requirements on computer to run UNICORN, *see* computer specifications on the web (cytiva.com/UNICORNPCspecifications).

9. How to upgrade to UNICORN 7

With UNICORN 6.2 or later installed, the UNICORN installation tool can be used to easily upgrade to UNICORN 7. When using UNICORN 5, upgrade is not possible and re-installation is required. A short summary of how to upgrade and install different UNICORN versions is summarized in this section.

From UNICORN 5

- Back up methods and results or use Data Collection Utility*
- Uninstall UNICORN
- Install UNICORN 7
- Import methods/results in UNICORN 7

* Data Collection Utility is only available through Cytiva service.

From UNICORN 6.0/6.1

- Backup database
- Uninstall UNICORN
- Install UNICORN 7
- Restore and upgrade database

FROM UNICORN 6.2 or later

- Upgrade to UNICORN 7

To migrate data (such as methods and results) from UNICORN 5 to UNICORN 7, the Data Collection Utility service can be used. The workflow in Figure 2 describes briefly how to migrate data.

Data collection tool (service)
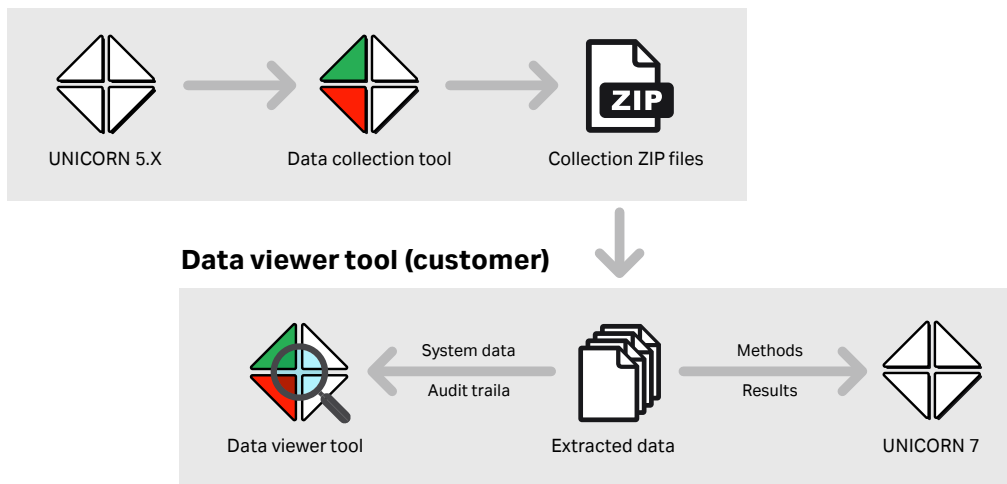

Data viewer tool (customer)

Fig 2. A simple overview of how to migrate data from UNICORN 5 to UNICORN 7 using the Data Collection Utility service.

After the data has been collected by the Data Collection Utility service and extracted to a new folder, it can be imported into UNICORN 7. Note that it is recommended to perform a backup of all data and databases before performing a re-installation or upgrade of the software, so that no data is accidentally lost during the process. When the database upgrade is performed, all UNICORN clients sharing that same database needs to be upgraded and have new licenses installed.

10. FAQ

The purpose of this sections is to capture frequently asked questions and answers regarding upgrading to UNICORN 7 and differences between UNICORN 5 and UNICORN 7.

Method editor

- What happens to migrated methods containing the command *AnyColumn*?

  Answer: The command *AnyColumn* found in a UNICORN 5 method is replaced by the command *ColumnSameAsMain* when imported to UNICORN 7.

- Is the command *AnyColumn* still used to achieve the same checks on pressure and flow limits as defined in the main block?

  Answer: No. The *AnyColumn* command <u>disables</u> flow and pressure warnings.

- Can methods including infinite loops be imported?

  Answer: No.

Evaluation

- Is it possible to import results from UNICORN 5 that were generated with a method containing infinite loop to UNICORN 7?

  Answer: No.

- Is the implementation of algorithms the same in UNICORN 7 as in UNICORN 5?

  Answer: Yes. The calculation algorithm and integration methods have not changed between UNICORN 5, UNICORN 6, and UNICORN 7. There are verification reports available for each release confirming retained functionality. If needed, verification reports and other documents can be reviewed at an onsite audit. The classic baseline algorithm is not available in UNICORN 7 *Evaluation*.

- What happens to results that were created in UNICORN 5 and are imported to UNICORN 7 that contain data related to the analysis module?

  Answer: Any analysis module-related data will not be migrated.

- What happens to results that were created in UNICORN 5 and are imported into UNICORN 7 that contain pooled fractions?

  Answer: The pooling curve will be included in the migrated results, but not the pooling table.

- Is it possible to recreate a method directly from a result file that has been migrated from UNICORN 5 to UNICORN 7?

  Answer: No, it is not possible.

- Will *BufferPrep* data from an ÄKTAexplorer run on UNICORN 5 be available after import to UNICORN 7?

  Answer: No.

General

- Does UNICORN 7 behave similarly to UNICORN 5?

  Answer: It is easier to work with UNICORN 7 compared to UNICORN 5. UNICORN 7 is focused on user workflows to make users efficient in their daily work:

  - It is intuitive
  - A minimal number of clicks are required to perform user workflows
  - New layout
  - Docking windows

- Is the user interaction with the system altered in UNICORN 7 compared to UNICORN 5?

  Answer: No.

- Can UNICORN 5 control strategies be used in UNICORN 7?

  Answer: UNICORN 6 and later versions uses a different database and file structure compared to UNICORN 5. When upgrading from UNICORN 5 to UNICORN 6 and later versions, it is necessary to "repackage" the original UNICORN Strategy file so that it is compatible with UNICORN 6 and later. The result is called "Instrument Configuration". There are verification reports available for confirming retained functionality. If needed, verification reports and other documents can be reviewed during an audit at Cytiva's facilities.

- What import formats are supported in UNICORN 7?

  Answer: For Evaluation: Zip files (.zip), UNICORN 5 result files (.res), UNICORN DoE/ Comparison files (.UDoE), UNICORN Filtration Analysis files (.Ucross) and UNICORN folders (.UFol). For Evaluation Classic: the same as for Evaluation, including ASCII files (.txt or .asc) for single Curve importing. For Method Editor: Zip files (.zip), UNICORN 5 Method files (.m??), Method queues (.UMQ) and UNICORN Files (.UFol).

- What external equipment has been successfully connected to UNICORN 7?

  Answer: External equipment can be connected to UNICORN 7 using the external equipment user interface, I/O box, for simultaneous control alongside an ÄKTA system. Among these external instruments are autosamplers, light scattering detectors, refractive index detectors, fluorescence measuring devices etc.

- Is it possible to import results and methods created in UNICORN 5 into UNICORN 7?

  Answer: It is possible to import methods and results to UNICORN 7 that were created in UNICORN 5.11 or later as long as they are valid for UNICORN 5 (can be opened without errors). This is available for results created for systems such as ÄKTApilot and ÄKTAprocess. Note: If a method or a result contains infinite loops, they cannot be imported. **BufferPrep** will not work but the recipes can be viewed.

Databases and licensing

- Are there any limitations of SQL Server Express?

  Answer: 4 or 10 GB storage depending on UNICORN version, single processor utilization.

- How is an upgrade to SQL Server performed?

  Answer: Microsoft provides upgrade procedures.

- When do I need to use the export/import function?

  Answer: When transferring methods/results etc. from UNICORN 5 to UNICORN 7. Or when transferring methods/results etc. between different databases, for example, to Cytiva for application support.

- Is it possible to monitor the license server?

  Answer: Yes, a specific tool is installed.

- Is it possible to start UNICORN without a license?

  Answer: No.

- Is it possible to start UNICORN 7 when having problems reaching the license server due to network problems?

  Answer: If the license server is not accessible (network problems) it is possible to start UNICORN 7 and get access to **System Contro**l with limited access. It can be used to monitor and control an ongoing run. For a node locked license, you can run the system even if the connection to the license server is broken.

- When is a node locked and a floating license to be selected?

  Answer: You should install a node locked license to all computers directly connected to a system, called workstation. A floating license can be used on computers not connected to systems and can be shared between users and their computers. One license can be used on several computers but only used by one user at a time.

- How many instruments can be remotely controlled from one UNICORN client at the same time?

  Answer: Three.

- How many Clients can be connected to an Instrument Server.

  Answer: Five (but only one in control).

- Can one computer be used to control several systems (as was possible in UNICORN 5)?

  Answer: One workstation computer (with instrument server) is required for each system. Once you have one workstation computer per system in a network, any client in the network can be used to control systems remotely (maximum three at once).

- How can backup and restoration of database functionality be shown to successfully pass verification?

  Answer: Verification reports and other documents can be reviewed during an audit at Cytiva's facilities.

Column handling

- Is it possible to use the **Column logbook** for other columns than Cytiva's?

  Answer: It is possible to use it for all columns in the **Column list**, including user-created columns.

- What kind of notifications can be used in the **Column logbook**?

  Answer: Need for column cleaning-in-place (CIP), column performance test, and when the expiry date has passed.

Network installation

- What is the expected amount of network traffic generated by UNICORN 7 when using the central server solution?

  Answer: This depends on the number of systems connected to the same database, the number of total users and simultaneous users, and how often methods and results are opened and closed.

Upgrading to UNICORN 7

- Can UNICORN 5 data be accessed if I upgrade to UNICORN 6 or 7?

  Answer: Yes, from UNICORN 6.2 and later versions.

- Are methods consistent after import from UNICORN 5 to UNICORN 7?

  Answer: In most cases. Not if infinite loop and/or **BufferPrep** is used in a method. If needed, verification reports and other documents can be reviewed during an audit at Cytiva facilities.

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