TRACKING OF ITEMS SENT WITH PNEUMATIC TUBE CARRIERS
SCAN APP (SOFTWARE RT-WIN 4)

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Transparency through closed-loop medication and tracking of samples

Increasingly stringent regulations for the management of medicines and other materials in hospitals require greater **monitoring of any process involved in their distribution.** An important step in the distribution process is the in-hospital transport of medicines from the central pharmacy to the wards. This is often implemented using a pneumatic tube system. This means that the **material movements with the pneumatic tube system should also be tracked.** The collected information should then be **integrated with the information management system used by the customer.** With the Scan App of our RT-Win 4 pneumatic tube software, we provide you with the necessary tool to meet these requirements.

Scan App: Tracking of materials transported in the pneumatic tube carrier

The Scan App enables employees to **"check in" materials to be sent into the pneumatic tube system database using barcode scanners.** At the destination of the transport they are then "checked out" again as soon as the employee removes the respective carrier from the station.

- **Closed-loop tracking of materials such as medication and samples**
- **Digital real-time control of all steps of the transport process**
- **Cost reduction through fewer "lost" materials**
- **Integration of transport information with information management systems**

Scanning the barcodes on the materials inserted and on the used carrier links the two together in the database. In addition, further information on the materials and the transport process is stored. This can then be automatically forwarded to the information management system used by the customer via a data interface.

Information from the Scan App

This means that it is not only clear where which carrier is at any given time, but also what its contents are and where they are located. It also records which employee has removed the materials (in conjunction with an optional MIFARE reader at the station). This is essential, especially for controlled or expensive medications.

Pneumatic tube carrier with barcodes

- Which material is in which carrier?
- Where is the carrier with the material?
- Who shipped which carrier and which material to which location?
- When was the carrier picked up from the system and when did it arrive?
- Who received which carrier and which material at which location?

- When did the employee post the shipment and when did the pickup take place?
- Is the number of materials shipped the same as the number of items that arrived?

Having no tracking tool for the carrier content in place means that samples enter a „black hole" as soon as they enter the pneumatic tube system. Nobody has information about what happens with the sample until it gets out of the system and is further processed.

One typical problem that can be solved by using the Scan App is the question why the results for one specific sample took very long: Is it because staff at the ward took too long to send it? Or is it because it lay around at the lab waiting for the staff to analyze it? The Scan App helps closing this information gap.

Check-in view in the Scan App

RT-Win4 - Scan In App V 4.10.0.159 Rel12/2/17/417

Location: Int. Care Unit
Operator: E. Bennet

Change Operator

○ Host-Connection
☑ Database-Connection

Checkin | Content-Data

Scan-Order: 1:Scan Carrier 2:(Option) Scan Sub-Carrier / Bag 3:Scan Content

Carrier-ID: 3305   Sub-Carrier / Bag: ---

Contents:

#	Scan-Time	Sub-Carrier / Bag	Scan-Code

Cancel All

Cancel last Scan

Enter

22.03.2022 11:54:57

Check-in view after scanning the carrier

RT-Win4 - Scan In App V 4.10.0.159 Rel12/2/17/417

Location: Int. Care Unit
Operator: E. Bennet

Change Operator

○ Host-Connection
☑ Database-Connection

Checkin | Content-Data

Scan-Order: 1:Scan Carrier 2:(Option) Scan Sub-Carrier / Bag 3:Scan Content

Carrier-ID: 3305   Sub-Carrier / Bag: BAG0081542005

Contents:

#	Scan-Time	Sub-Carrier / Bag	Scan-Code
1	22.03.2022 11:56:17	BAG0081542002	0042 4711 0815
2	22.03.2022 11:56:19	BAG0081542002	0042 4711 0819
3	22.03.2022 11:56:21	BAG0081542002	0042 4711 0817
4	22.03.2022 11:56:41	BAG0081542005	0042 4711 0825
5	22.03.2022 11:56:43	BAG0081542005	0042 4711 0823
6	22.03.2022 11:56:53	BAG0081542005	0042 4711 0820

Cancel All

Cancel last Scan

Enter

22.03.2022 11:57:03

Check-in view after scanning of the content

RT-Win4 - Scan In App   V 4.10.0.159 Rel12/2/17/417

Location: Int. Care Unit
Operator: E. Bennet

Change Operator

Checkin | Content-Data

All | Not processed | Timeout | Refresh | ···

#	Scan-Code	State	Man. Checkout	CID	Sub-Carrier / Bag	TAN	Checkin-Location	Checkin-Operator	Scan-In-Time	Checkin-Complete	Carrier Departure	Carrier Arrival	Checkout-Location	Checkout-Operator	Scan-Out-Time	Checkout complete
257	0042 4711 0824	TAN; Scan-Out; Archived;		3305	BAG0081542002	9C00017E	Central Laboratory	MTA L.B. Johnson	22.03.2022 11:09:57	22.03.2022 11:11:13	22.03.2022 11:14:07	22.03.2022 11:17:56	Zentrallabor	MTA L.B. Johnson	22.03.2022 11:21:33	22.03.2022 11:21:39
258	0042 4711 0822	TAN; Scan-Out; Archived;		3305	BAG0081542002	9C00017E	Central Laboratory	MTA L.B. Johnson	22.03.2022 11:09:59	22.03.2022 11:11:13	22.03.2022 11:14:07	22.03.2022 11:17:56	Zentrallabor	MTA L.B. Johnson	22.03.2022 11:20:56	22.03.2022 11:21:39
259	0042 4711 0829	TAN; Scan-Out; Archived;		3305	BAG0081542005	9C00017E	Central Laboratory	MTA L.B. Johnson	22.03.2022 11:10:14	22.03.2022 11:11:13	22.03.2022 11:14:07	22.03.2022 11:17:56	Zentrallabor	MTA L.B. Johnson	22.03.2022 11:21:39	22.03.2022 11:21:39
260	0042 4711 0828	TAN; Scan-Out; Archived;		3305	BAG0081542005	9C00017E	Central Laboratory	MTA L.B. Johnson	22.03.2022 11:10:14	22.03.2022 11:11:13	22.03.2022 11:14:07	22.03.2022 11:17:56	Zentrallabor	MTA L.B. Johnson	22.03.2022 11:21:37	22.03.2022 11:21:39
261	0042 4711 0815	TAN; Scan-Out; Archived;		3305	BAG0081542002	9C00017F	Intensivstation	E. Bennet	22.03.2022 11:38:10	22.03.2022 11:39:04	22.03.2022 11:41:45	22.03.2022 11:45:37	Zentrallabor	MTA L.B. Johnson	22.03.2022 11:49:22	22.03.2022 11:50:38
262	0042 4711 0819	TAN; Scan-Out; Archived;		3305	BAG0081542002	9C00017F	Intensivstation	E. Bennet	22.03.2022 11:38:11	22.03.2022 11:39:04	22.03.2022 11:41:45	22.03.2022 11:45:37	Zentrallabor	MTA L.B. Johnson	22.03.2022 11:49:33	22.03.2022 11:50:38
263	0042 4711 0817	TAN; Scan-Out; Archived;		3305	BAG0081542002	9C00017F	Intensivstation	E. Bennet	22.03.2022 11:38:13	22.03.2022 11:39:04	22.03.2022 11:41:45	22.03.2022 11:45:37	Zentrallabor	MTA L.B. Johnson	22.03.2022 11:50:33	22.03.2022 11:50:38
264	0042 4711 0826	TAN; Scan-Out; Archived;		3305	BAG0081542005	9C00017F	Intensivstation	E. Bennet	22.03.2022 11:38:25	22.03.2022 11:39:04	22.03.2022 11:41:45	22.03.2022 11:45:37	Zentrallabor	MTA L.B. Johnson	22.03.2022 11:49:47	22.03.2022 11:50:38
265		Archived;		3305	BAG0081542005	9C00017F	Intensivstation	E. Bennet	22.03.2022 11:38:29	22.03.2022 11:39:04	22.03.2022 11:41:45	22.03.2022 11:45:37	Zentrallabor	MTA L.B. Johnson	22.03.2022 11:50:38	22.03.2022 11:50:38
266		Archived;		3305	BAG0081542005	9C00017F	Intensivstation	E. Bennet	22.03.2022 11:38:31	22.03.2022 11:39:04	22.03.2022 11:41:45	22.03.2022 11:45:37	Zentrallabor	MTA L.B. Johnson	22.03.2022 11:49:55	22.03.2022 11:50:38
267			Checkout	3305	BAG0081542002	00000000	Int. Care Unit	E. Bennet	22.03.2022 11:56:17	22.03.2022 11:57:46	--:--:--	--:--:--			--:--:--	--:--:--
268			Checkout	3305	BAG0081542002	00000000	Int. Care Unit	E. Bennet	22.03.2022 11:56:19	22.03.2022 11:57:46	--:--:--	--:--:--			--:--:--	--:--:--
269			Checkout	3305	BAG0081542002	00000000	Int. Care Unit	E. Bennet	22.03.2022 11:56:21	22.03.2022 11:57:46	--:--:--	--:--:--			--:--:--	--:--:--
270			Checkout	3305	BAG0081542005	00000000	Int. Care Unit	E. Bennet	22.03.2022 11:56:41	22.03.2022 11:57:46	--:--:--	--:--:--			--:--:--	--:--:--
271			Checkout	3305	BAG0081542005	00000000	Int. Care Unit	E. Bennet	22.03.2022 11:56:43	22.03.2022 11:57:46	--:--:--	--:--:--			--:--:--	--:--:--
272			Checkout	3305	BAG0081542005	00000000	Int. Care Unit	E. Bennet	22.03.2022 11:56:53	22.03.2022 11:57:46	--:--:--	--:--:--			--:--:--	--:--:--

22.03.2022 11:58:17

Overview of all transports and their contents

RT-Win4 - Scan In App   V 4.5.6.116 Rel11/1/25/451

Location: LAB ROOM
Operator: Tuan

Change Operator

Checkin | Content-Data

All | Not processed | Timeout | Refresh | ···

#	Scan-Code	State	Man. Checkout	CID	TAN	Checkin-Location	Checkin-Operator	Scan-In-Time	Checkin-Complete	Carrier Departure	Carrier Arrival	Checkout-Location	Checkout-Operator	Scan-Out-Time	Checkout complete
1	1377	Man. Checkout;		3316	00000000	KHOA XET NGHIEM	SÆ N	24.02.2021 15:34:56	24.02.2021 15:37:56	--:--:--	--:--:--	KHOA XET NGHIEM	SON	24.02.2021 15:52:21	24.02.2021
2	CD20-088768	Man. Checkout;		3316	00000000	KHOA XET NGHIEM	SÆ N	24.02.2021 15:36:59	24.02.2021 15:37:56	--:--:--	--:--:--	KHOA XET NGHIEM	SON	24.02.2021 15:52:28	24.02.2021
3	CD20-088768	Man. Checkout;		3316	00000000	KHOA XET NGHIEM	SÆ N	24.02.2021 15:38:38	24.02.2021 15:39:01	--:--:--	--:--:--	KHOA XET NGHIEM	SON	24.02.2021 15:52:29	24.02.2021
4	CD20-088768	Man. Checkout;		3317	00000000	KHOA XET NGHIEM	SÆ N	24.02.2021 15:41:18	24.02.2021 15:41:40	--:--:--	--:--:--		A.Son	24.02.2021 16:52:43	24.02.2021
5	1377	Scan-Out; Archived;		3317	00000000	KHOA XET NGHIEM	SÆ N	24.02.2021 15:41:20	24.02.2021 15:41:40	--:--:--	--:--:--		A.Son	24.02.2021 16:52:43	24.02.2021
6	CD20-088768	Scan-Out; Archived;		3319	00000000	LAB ROOM	Person 1	24.02.2021 15:46:54	24.02.2021 15:54:52	--:--:--	--:--:--	LAB ROOM	Person 1	24.02.2021 17:09:46	24.02.2021
7	1377	Scan-Out; Archived;		3319	00000000	LAB ROOM	Person 1	24.02.2021 15:46:59	24.02.2021 15:54:52	--:--:--	--:--:--	LAB ROOM	Person 1	24.02.2021 17:09:52	24.02.2021
8	CD20-088768	Man. Checkout;		3316	00000000	LAB ROOM	Person 1	24.02.2021 15:55:19	24.02.2021 15:55:53	--:--:--	--:--:--		A.Son	24.02.2021 17:15:22	24.02.2021
9	1377	Man. Checkout;		3316	00000000	LAB ROOM	Person 1	24.02.2021 16:36:35	24.02.2021 16:37:18	--:--:--	--:--:--	O.T Room	A.Son	24.02.2021 16:45:23	24.02.2021
10	1377	Scan-Out; Archived;		3316	00000000	O.T Room	A.Son	24.02.2021 17:05:08	24.02.2021 17:05:15	--:--:--	--:--:--		A.Son	24.02.2021 17:15:22	24.02.2021
11	1377	Scan-Out; Archived;		3316	00000000	O.T Room	A.Son	24.02.2021 17:16:35	24.02.2021 17:16:51	--:--:--	--:--:--	LAB ROOM	Person 1	24.02.2021 17:19:36	24.02.2021
12	CD20-088768	Man. Checkout;		3316	00000000	LAB ROOM	Person 1	24.02.2021 17:22:12	24.02.2021 17:22:27	--:--:--	--:--:--	LAB ROOM	Person 1	24.02.2021 17:27:11	24.02.2021
13	1377	Man. Checkout;		3316	00000000	LAB ROOM	Person 1	24.02.2021 17:22:21	24.02.2021 17:22:27	--:--:--	--:--:--	LAB ROOM	Person 1	24.02.2021 17:27:13	24.02.2021
14	CD20-088768	Man. Checkout;		3317	00000000	LAB ROOM	Person 1	24.02.2021 17:22:33	24.02.2021 17:22:45	--:--:--	--:--:--	LAB ROOM	Person 1	24.02.2021 17:27:14	24.02.2021
15	8934673700108	Man. Checkout;		3317	00000000	LAB ROOM	Person 1	24.02.2021 17:22:40	24.02.2021 17:22:45	--:--:--	--:--:--	LAB ROOM	Person 1	24.02.2021 17:27:15	24.02.2021
16	8934588063053	Man. Checkout;		3319	00000000	LAB ROOM	Person 1	24.02.2021 17:23:05	24.02.2021 17:23:19	--:--:--	--:--:--	LAB ROOM	Person 1	24.02.2021 17:27:16	24.02.2021
17	8934673700108	Man. Checkout;		3319	00000000	LAB ROOM	Person 1	24.02.2021 17:23:08	24.02.2021 17:23:19	--:--:--	--:--:--	LAB ROOM	Person 1	24.02.2021 17:27:17	24.02.2021
18	CD20-088768	Man. Checkout;		3319	00000000	LAB ROOM	Person 1	24.02.2021 17:23:12	24.02.2021 17:23:19	--:--:--	--:--:--	LAB ROOM	Person 1	24.02.2021 17:27:18	24.02.2021
19	1377	Man. Checkout;		3319	00000000	LAB ROOM	Person 1	24.02.2021 17:23:14	24.02.2021 17:23:19	--:--:--	--:--:--	LAB ROOM	Person 1	24.02.2021 17:27:19	24.02.2021
20	8934588063145	Man. Checkout;		3318	00000000	LAB ROOM	Person 1	24.02.2021 17:23:32	24.02.2021 17:23:42	--:--:--	--:--:--	LAB ROOM	Person 1	24.02.2021 17:27:21	24.02.2021
21	CD20-088768	Scan-Out; Archived;		3316	00000000	LAB ROOM	Person 1	24.02.2021 17:34:54	24.02.2021 17:35:53	--:--:--	--:--:--	O.T Room	A.Son	24.02.2021 17:37:55	24.02.2021
22	8934673700108	Scan-Out; Archived;		3319	00000000	LAB ROOM	Person 1	24.02.2021 17:40:07	24.02.2021 17:40:13	--:--:--	--:--:--	O.T Room	A.Son	24.02.2021 17:41:47	24.02.2021
23	8934673700108	TAN; Scan-Out;		3319	0C00007D	LAB ROOM	Person 1	24.02.2021 18:03:35	24.02.2021 18:03:44	24.02.2021 18:07:32	24.02.2021 18:08:12	O.T Room	A.Son	24.02.2021 18:11:18	24.02.2021
24	CD20-088768	TAN; Scan-Out;		3319	0C00000AD	LAB ROOM	Tuan	25.02.2021 13:52:12	25.02.2021 13:53:17	25.02.2021 13:53:30	25.02.2021 13:54:10	O.T Room	1	25.02.2021 14:05:51	25.02.2021
25		-Out;		3318	0C000081	LAB ROOM	Tuan	25.02.2021 14:00:37	25.02.2021 14:01:03	25.02.2021 14:01:14	25.02.2021 14:01:53	O.T Room	1	25.02.2021 14:07:23	25.02.2021
26		-Out;		3319	0C000085	LAB ROOM	Tuan	25.02.2021 14:19:20	25.02.2021 14:19:42	25.02.2021 14:19:55	25.02.2021 14:20:35	O.T Room	lao	25.02.2021 14:29:52	25.02.2021
27		-Out;		3319	0C000088	LAB ROOM	Tuan	25.02.2021 14:32:58	25.02.2021 14:33:02	25.02.2021 14:33:20	25.02.2021 14:34:00	O.T Room	lao	25.02.2021 14:34:26	25.02.2021
28		kout;		3319	00000000	LAB ROOM	Tuan	25.02.2021 15:15:55	25.02.2021 15:15:59	--:--:--	--:--:--	LAB ROOM	Tuan	25.02.2021 15:56:12	25.02.2021
29		-Out;		3319	0C00010C	LAB ROOM	Tuan	26.02.2021 11:26:28	26.02.2021 11:26:53	26.02.2021 11:27:08	26.02.2021 11:27:48	O.T Room	Long	26.02.2021 11:42:35	26.02.2021
30		-Out;		3319	0C00010C	LAB ROOM	Tuan	26.02.2021 11:26:34	26.02.2021 11:26:53	26.02.2021 11:27:08	26.02.2021 11:27:48	O.T Room	Long	26.02.2021 11:42:32	26.02.2021

Activate Windows
Go to Settings to activate Windows

Database list of scans that have been performed

How the Scan App works

The prerequisite for using the Scan App is the use of **pneumatic tube carriers with barcodes.** When preparing the shipment, the employee first scans the barcode on the pneumatic tube carrier used.

Then the employee scans the **barcodes on the materials to be shipped** (samples, blood bags, pharmacy items,...)

The carrier and its contents are now linked as information and **stored in the pneumatic tube database.** If desired, they are automatically **sent to the customer's information management system via a data interface.** In addition, the system stores further information, such as the time, location and name of the operating employee (if a MIFARE reader is installed).

The carrier is then placed in the pneumatic tube station and departs for the desired destination. Once there, **the receiving employee also scans the barcodes on the carrier and materials.** The system checks whether the number of materials checked in matches the number of materials checked out. The result is stored in the system and is visible to the employee on a screen.

Video of a hospital employee who uses the Scan App

1	2	3	4	5
SCAN BARCODE ON CARRIER	SCAN BARCODE ON ITEMS (MEDICATION, SAMPLE,...)	PUT ITEMS INTO CARRIER	SEND CARRIER	SCAN BARCODE ON CARRIER & ITEM
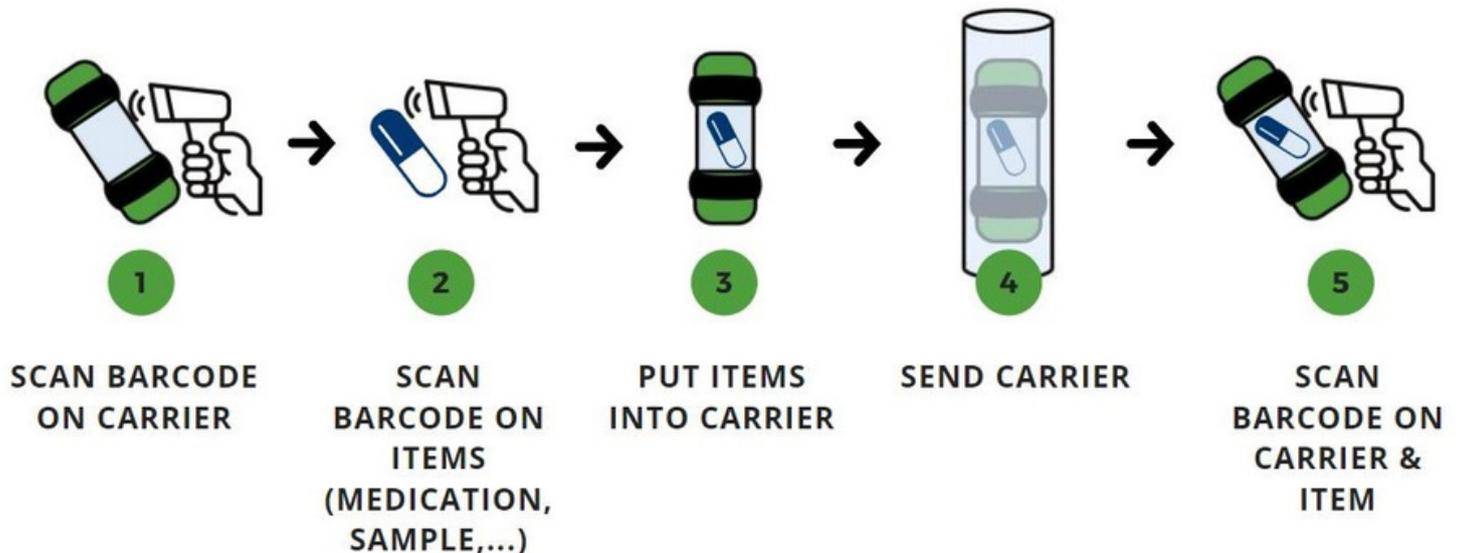
-> COMPARES WHETHER SENT ITEMS ARE THE SAME AS ARRIVED ITEMS
-> STORES DATA ABOUT ITEMS SENT AND ABOUT THE TRANSPORT PROCESS IN PNEUMATIC TUBE SYSTEM DATABASE AND TRANSFERS IT TO CLIENTS' INFORMATION MANAGEMENT SYSTEM
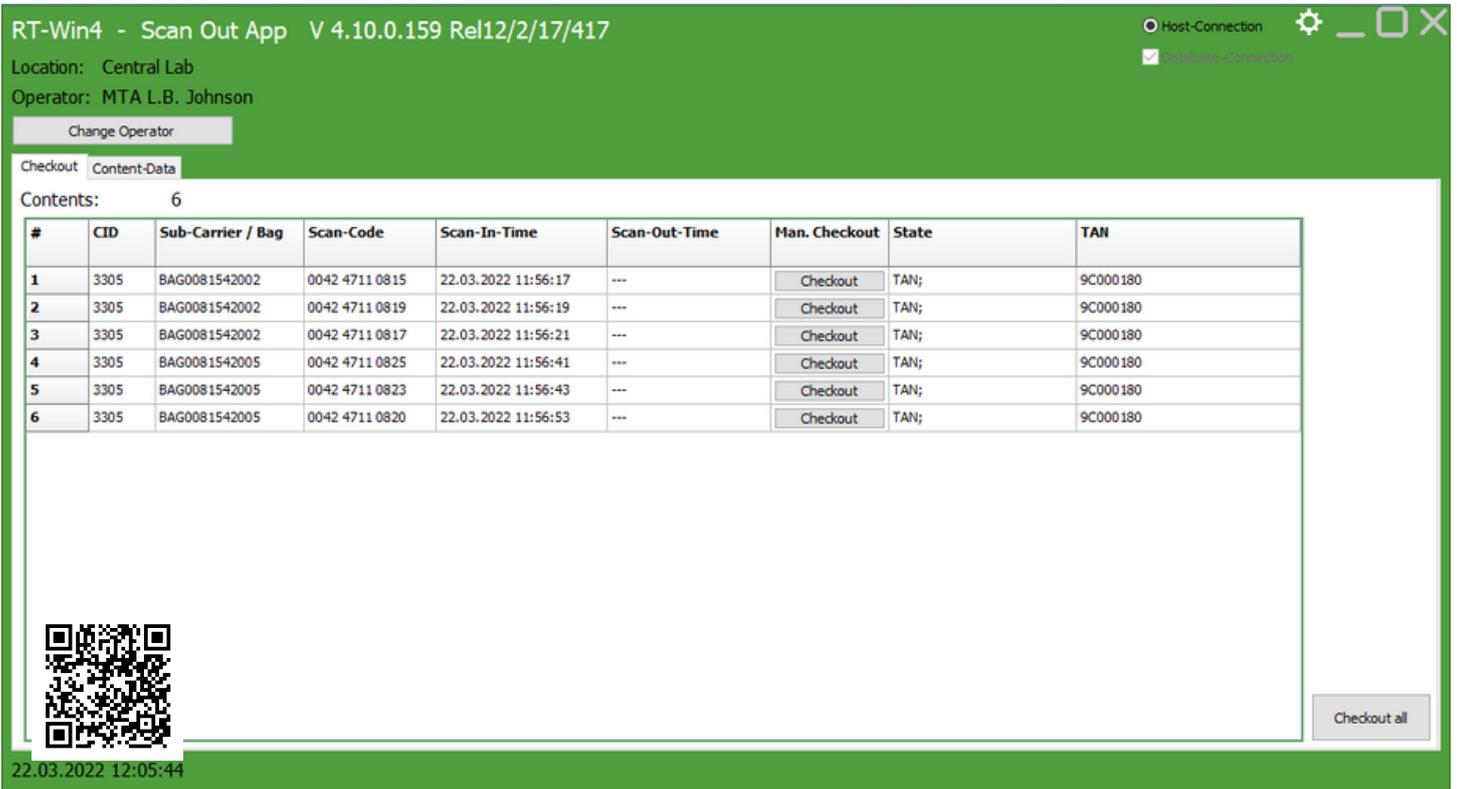
Check-out view in the Scan App

Arrive & Departure Screens as add-on for the Scan App

The Scan App unfolds its full potential in conjunction with installed screens at employee workstations. Our "Arrive & Departure Screens" show employees live and on site all currently arriving, departing and recently completed transports, including checked-in contents and the sending employee. This not only lets employees know that a carrier will arrive, but also how many materials it contains. You can find out more about the screens in our Arrive & Departure Screen brochure on https://rohrpost.de/software.

Other uses of the Scan App

Of course, the Scan App is not only relevant for hospitals, but can be used wherever the contents of pneumatic tube carriers need to be tracked.

Right: Screen besides the barcode scanner

You'd like to know more about our pneumatic tube software RT-Win 4 and other Apps? Then look onto our website for more insights: rohrpost.de/rohrpost-software