



Release Notes
Bartrack R4C

Ericsson Infotech

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Introduction

Background Information

The first release of Bartrack R1A was done in September 1997, soon to be followed by the R1B release in October 1997.

RSA Kista (Sweden) requested the R2A release and they performed a successful SAT (Site Acceptance Test) in early January 1998.

The R2B release had one new function and some minor corrections. It was installed in Nynäshamn, Kista and Gävle in mid 1998.

The R3A release had nine new functions and the first installation was Gävle.

The R4A release had five new functions and some minor corrections.

The R4B release had four new functions and some minor corrections.

This release, R4C, contains several new functions and some corrections.

Release Information

Bartrack is fully tested for Y2K compliance and found to have no Y2K-related problems. For a full statement, including tests and environment, please contact Ericsson Infotech.

Bartrack R4C is verified to work in the following environment:

- OpenVMS 7.1 and Rdb 7.0-13 and BMQ 4.0A
- ObjectBroker 3.04 or ObjectBroker 4.01
- NT4 SP4

Known deviations

No known deviations from specification.

For a list of pending issues (Trouble Reports), please refer to the World-wide Integrated Helpdesk (WIH) system.

New Features in Bartrack R4C – Short Version

There are several new major functions and some minor corrections implemented in Bartrack R4C.

New Functions

- Print label after shipping now allowed
- Prolonged retention period to 999 days
- Optional structure validation for external serial numbers
- Backup routines for Bartrack database and SSN database
- Headers on structure reports are now centred
- File copy of label files removed
- Improved error message when children are missing
- Handles PARI, PARK, IPEI and Ethernet codes
- Handles external SSN:s
- Allows 200 labels
- Possible to keep product number and R-state in Change Data
- Label files may be split into two different files

Corrections

- No space in label name allowed
- Unformatted product numbers corrected
- Swedish error messages from ObjectBroker removed
- Privileges in the PC interface corrected
- Wrong focus in the Print Label tab corrected
- External B-records not sent to TRACY corrected
- Decimal range for an origin notation corrected
- Barcode reader and COM-port corrected
- New date format in the Pack module
- PC-client is now installed in the Program Files directory by default.
- The Bartrack icon is now included in the executable
- Less DLL and OCX files are installed by Bartrack
- No stray rows in the Assemble tab
- Selection and focus works in the User Administration tab

- Correct focus when changing product number
- Correct error message at Create Label
- The SFT interface now handles STORE and SCRAP correct
- The SFT message IdInfo now includes the correct product number
- The SFT interface structure check now functions correct
- Copying products now includes SSN-Families
- Some SSN-Types are delivered with the SSN module
- The SSN is printed correctly when Print Label is used to print a label.
- The error message "4075" is now displayed properly as text
- The database transaction handling is improved to avoid deadlock in the database
- The SSN start-up is included in the Bartrack start-up
- A printer queue name is now null-terminated
- The DMQ start-up is tuned
- It is now possible to remove the OLDBT printer.
- Assorted corrections to the user interface for PC-clients. For example, the font in fields is changed to Courier, the key-combinations Ctrl+TAB and Shift+Ctrl+TAB switches between tabs, new labels will have the correct printer group.
- Sped up print function
- The Pack Module now handles up to 100 individuals in a list
- The Pack Module now handles missing individuals at print-out correct
- The Pack Module has a new environment variable, PACK_DMQ_PACK that handles the DMQ queue name
- The Pack Module's error messages are improved
- The Pack Module has a new report file
- The Pack Module's installation file creates the C:\DMQMRS directory
- The Pack Module's DMQ communication can now use the CLS version of DMQ
- The MMUF interface now allows up to 5 SSN:s

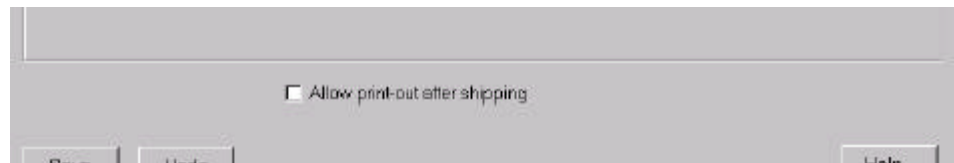
New Functions in Bartrack R4C – Long Version

New Functions

Print label after shipping now allowed

To ensure that no duplicates is printed by mistake, it was not allowed to print labels for an individual once it was shipped.

It is now possible to allow printing of labels after shipping. A setting in the **Site Parameters** tab can enable or disable printing after shipping.



If you mark **Allow print-out after shipping**, it is possible for all users or user categories to print labels after an individual is shipped. The only limitation is that the user must have access to the **Print Label** tab.

If you leave **Allow print-out after shipping** un-marked, it is never possible to print labels for shipped individuals.

When the individual is deleted (after the preservation period), it is not possible to print any labels at all.

Prolonged retention period to 999 days

It is possible to set a preservation period. During this period, Bartrack preserves individual information. When the time is up, scrapped or shipped individuals are deleted from the Bartrack database. The time limit was 999 hours in Bartrack.

It is now possible to enter time periods up to 999 days (equivalent of 142 weeks or 2.7 years). This ensures that SSN information or individuals are kept in Bartrack until the information can be handled in other systems.

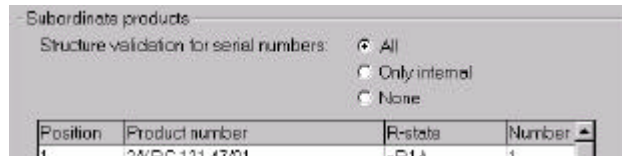


Note: A high value in these fields in addition to a high volume production may cause performance problems in Bartrack.

Optional structure validation for external serial numbers

Bartrack handle serial numbers in two ways; internal or external. The internal serial numbers are generated by the Bartrack system itself, while the external ones are generated elsewhere.

It is now possible to perform structure validation and assembly validation depending on the origin of the serial number.



By choosing **All** [serial numbers], the origin of the serial number does not matter. Individuals of the product are always validated against the product structure.

By choosing **Only internal**, the origin of the serial number must be internal. Individuals of the product meeting this criteria are always validated against the product structure.

By choosing **None**, no structure validation is performed for individuals of the product.

Internal serial numbers: Serial numbers starting with a factory code that has **Start**, **Stop** and **Next number** defined in the Bartrack **Origin Notation** tab.

External serial numbers: Serial numbers starting with the factory code of an external site in the Bartrack **Origin Notation** tab.

Backup routines for Bartrack database and SSN database

The backup routines included with Bartrack now also handles the SSN database.

The backup is performed in three steps. First, the database is verified. Second, a backup of the journal files is made. And third, a backup of the database is made.

Any errors or messages are sent to the system account. A log file, **BAR:LOG:BAR_BACKUP.LOG**, is generated.

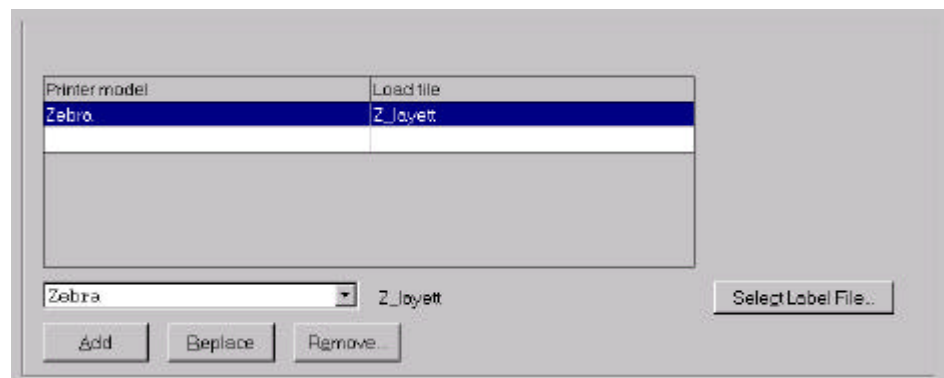
The backups for the last 5 days are saved.

File copy of label files removed

It was possible to copy a label file from the PC-client to the server by selecting a load file in the **Label Data** tab.

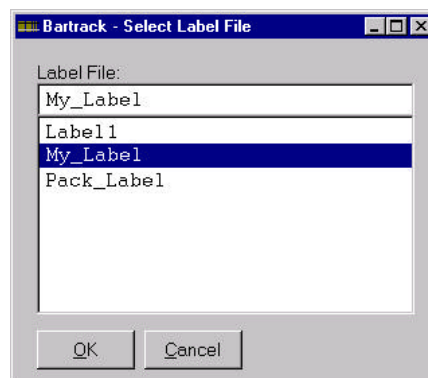
Now, the possibility to copy files have been removed. It is the responsibility of the Preparer or label designer to make sure that the correct label files are present on the server.

The list in the **Label Data** tab now looks like this:



To assign a load file, you have to do the following:

1. Create a label according to the Bartrack user's manual, page 75. Follow steps 1 through 5.
2. Select the printer model.
3. Click **<Select Label File...>**.
4. In the dialog box **Select Label File** you can choose between the available label files on the server. Select the label file that corresponds with the printer model you have selected.



5. Click **<OK>**.
6. Click **<Add>** to add the printer model/label file pair to the list.
7. Continue to add more printer model/label file pairs if you like.

8. Click **<Save>** to save your changes.

Note: The list of labels in the **Select Label File** dialog box contains all names of files ending with **.DAT** in the server **BAR_LAYOUT_DIR** directory.

Improved error message when children are missing

The error message displayed by Bartrack when a structure is not complete has been improved.

Bartrack now also states the parent of the missing child and the product number and R-state required.

If several children are missing, only the first one is reported.



- ID:** The serial number of the parent
- P.nr.:** The product number required (of the child)
- Rev:** The R-state required (of the child)

Handles PARI, PARK, IPEI and Ethernet codes

It is possible to print and convert the SSN stored in Bartrack. In addition to the normal markers (ID, SSNA, PRODNO etc.) five new markers are introduced. In co-operation with the **^FX** command (Zebra Programming Language, ZPL) they control the way SSN:s are converted and printed.

Table of ZPL-markers

Marker	Appearance in ZPL-file	Explanation	Legend
PARI	^FXPARI^FS	The following ^FD or ^FV field will be converted to PARI format. Example: HHHHHHHHHHHH Will be converted to OOOOOOOOOOOO	H=Hexadecimal O=Octal
BAR_PARI	^FXBAR_PARI^FS	The following ^FD or ^FV field will be converted to PARI format. The fact prefix 22S will be inserted at the start of the field. Example: HHHHHHHHHHHH	H=Hexadecimal O=Octal

		Will be converted to 22S0000000000000	
PARK	^FXPARK^FS	The following ^FD or ^FV field will be converted to PARK format. Example: NNNNNNNNNNNN Will be converted to 36000000000000M	H=Hexadecimal O=Octal M=Modulo 11 check sum
IPEI	^FXIPEI^FS	The following ^FD or ^FV field will be converted to IPEI format. Example: HHHHHHHHHHHH Will be converted to DDDDDDDDDDDDM	H=Hexadecimal D=Decimal M=Modulo 11 check sum
ETHER	^FXETHER^FS	The following ^FD or ^FV field will be stripped from any dashes (-) in the field. Example: XX-XX-XX-XX-XX-XX Will be converted to XXXXXXXXXXXXXX	X=Any symbol
BAR_ETHER	^FXBAR_ETHER^FS	The following ^FD or ^FV field will be stripped from any dashes (-) in the field. The fact prefix 3C will be inserted at the start of the field. Example: XX-XX-XX-XX-XX-XX Will be converted to 3CXXXXXXXXXXXXXX	X=Any symbol

- ^FX** The ZPL equivalent of a comment. Ignored by all Zebra printers.
- ^FS** The ZPL command Field Separator
- ^FV** The ZPL command Field Variable data
- ^FD** The ZPL command for Field Data

To make use of the markers, the corresponding label file has to be edited. The label file should end in .DAT and contain the definition for a label. Bartrack uses this file to scan for the Bartrack markers. Any occurrence will be replaced with real individual data, and the file is then is sent to the printer queue.

Example .DAT file

```
^XA^MCY^XZ^XA
^FXPARI^FS^FO001,000^A0,20,20^FV#SSNA,0018#^FS
^FXPARK^FS^FO001,40^A0,20,20^FV#SSNB,0018#^FS
^FXIPEI^FS^FO001,80^A0,20,20^FV#SSNC,0018#^FS
^FXETHER^FS^FO001,120^A0,20,20^FV#SSND,0018#^FS
^FXBAR_PARI^FS^FO001,160^A0,20,20N^FV#SSNE,0010#^FS
^FO001,200^A0,20,20N^FV#SSNE,0010#^FS^FXBAR_ETHER^FS
^PQ#*QUANT,04#,0,#*COPIES,04#,N^XZ
```

The **^FX** marker must be on the line where the value to be converted exists. The first **^FD** or **^FV** field found on the row will be converted.

A process called **BAR_<queue>** will intercept the file and apply the Flextronic formatting, and then redirect the file to another printer queue.

You must create a copy of the **BAR_LABEL_CONV_<queue>.COM** file for each printer you need to print the special formats on. Each file must be edited and the following lines changed:

```
$ P1 = "ZEBRAL1"    Change ZEBRAL1 to original
                    (stopped) queue
$ P2 = "ZEBRAL2"    Change ZEBRAL2 to converted
                    queue (running)
```

You can also change the receiver of mails from the process. The **<queue>** in the filename is preferably the name of the original queue (to be intercepted).

A sample command might look like this:

```
$ @BAR_LABEL_CONV_ZEBRA9.COM
```

To start all the edited files, you have to issue the following command for each and every one:

```
$ @BAR_LABEL_CONV_DETACHED_START.COM <queue>
```

Where **<queue>** is the name used in the corresponding **BAR_LABEL_CONV_<queue>.COM** file. The command must be entered into the start-up procedure of the Bartrack node if the function is to be used regularly in production.

Each started process will have the name **BAR_<queue>** in the system process list.

Handles external SSN:s

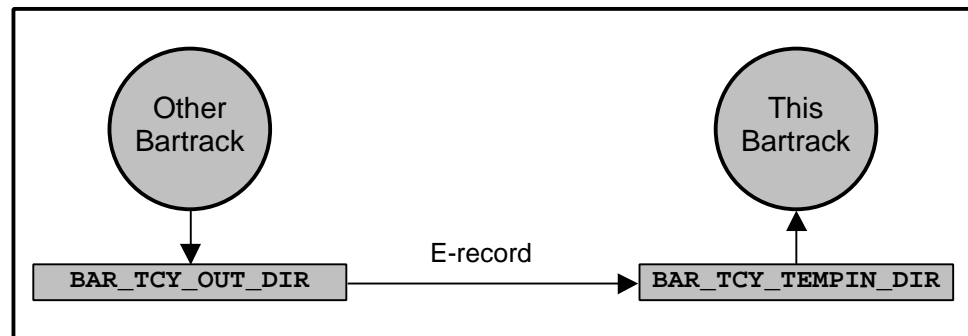
There is a message called the E-record that is used for sending SSN data from Bartrack to TRACY. The same message is used to register SSN:s created on another site.

The messages from the other site must be delivered to the **BAR_TCY_TEMPIN_DIR** where the normal Bartrack/TRACY communication will handle the messages, and read them into Bartrack.

The E-record does not contain information regarding the family or type of the SSN. The read SSN:s will get the family of the target product, if a family exists in position A. If the target product has no family defined for position A, then Bartrack will assign the SSN family EXTERNAL to the individuals SSN.

The family SSN family EXTERNAL is now reserved, and can not be used for other purposes than the above description.

Picture of SSN transfer



For more information on TRACY communication and the E-record, please refer to "Bartrack R4B System Administrators Manual" (doc. No EN/LZT 108 228 R4B) pages 24-28.

Allows 200 labels

It is possible to have up to 200 labels in the label list.

Possible to keep product number and R-state in Change Data

It is possible to keep the settings for product number and R-state in the Change Data tab in Bartrack. Consecutive changes to several individuals is made a lot easier.

For example, a change in R-state (a repair) can be registered in Bartrack without selecting the new R-state more than once.



Traceability Data

Keep Product Number and P-State for next Individual

Product number: FAB 820 03/003 P-state: PIA

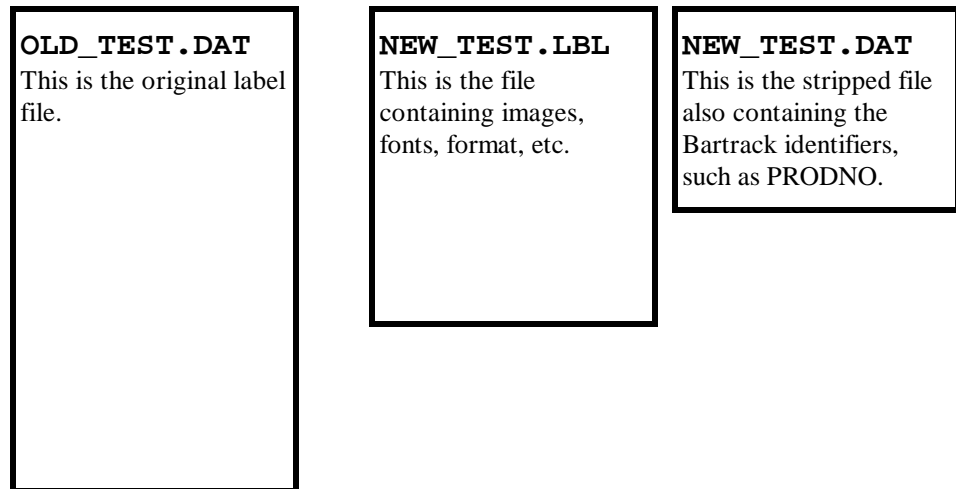
Label files may be split into two different files

Bartrack handles label files using one file format: **.DAT**. This format is read as a template from the directory **BAR_LAYOUT_DIR**. The template is modified with the data for the current label, and then saved in the **BAR_LABEL_DIR** directory where it is sent to the printer queue.

This approach is not desirable when the **.DAT** files contain fonts, images or other large blocks of data which will increase the delay between labels.

To avoid unnecessary downloading to the printer, it is now possible to split the **.DAT** file into two different files. The file containing font, images etc. is now possible to download first, and then the remaining data is sent for each label. The normal operation, described above, still applies. The new file is called **.LBL**.

The new file type contains the data not wanted in the **.DAT** files:



The **.LBL** file is sent once for each label to a specific printer, unless the previous label was the same as the current one.

In order to use this split file approach, just create a pair of matching files called **NAME.DAT** and **NAME.LBL** and the rest is handled automatically by Bartrack.

Note: The old **.DAT** files still work without modifications, and can be used simultaneously with new ones.

An example of a label print-out:

Follow this example to see how the label printing works in Bartrack:

1. A user or external system triggers a printout of the label **TEST**.

2. Bartrack finds out that the operator requesting the printout will be using the **ZEBTEST** printer for this label.
3. Bartrack scans through the **BAR_LAYOUT_DIR** directory for files called **TEST.DAT** or **TEST.LBL**. The **.DAT** file is mandatory, and if it can not be found, an error is shown to the operator. The **.LBL** file, however, is optional. It contains the definitions needed by the printer.
4. The previous label printed on the **ZEBTEST** printer was the label **OTHERLABEL**.
5. Bartrack knows that the **TEST.LBL** has not previously been sent to that printer, so it is sent. The printer is now initialised with the correct format for the **TEST** label.
6. Bartrack uses the **TEST.DAT** as a template when it compiles the actual print file (called **TEST<serial_number>.DAT**) and then sends it to the printer **ZEBTEST**.
7. Bartrack now stores the label name **TEST** for the printer **ZEBTEST**. This way, Bartrack always knows the last **.LBL** file (if any) sent to the printer.
8. The next label to be printed is the **ANOTHERLABEL** label. Since the file **ANOTHERLABEL.LBL** was replaced by the **TEST.LBL** in step 4, it is necessary to download the file once more.
9. The labels are created and sent to the printer, and the new label name, **ANOTHERLABEL**, is stored for the printer.

A graphic presentation of the above example:

