

NOTE: This technical service bulletin only applies to STAR analyzers manufactured after March 31, 2013.

A new version of the STAR operating software is now available. Please follow the installation procedure below to install the new software on your analyzer.

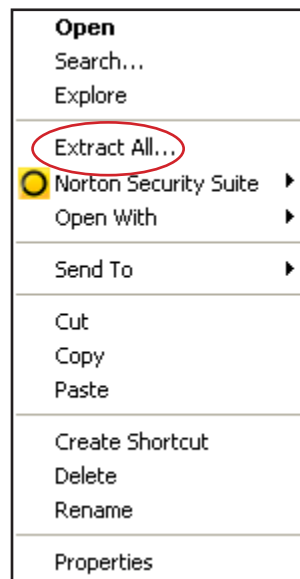
In order to update the STAR analyzer, the software file must first be uncompressed. NOTE: In order to follow the procedure below, Winzip software or 7-Zip software **MUST** be installed on the PC. If you have determined that Winzip software or 7-Zip software is not installed on the PC, they can be freely downloaded at the following URL's:

<http://www.winzip.com/> - Winzip software website

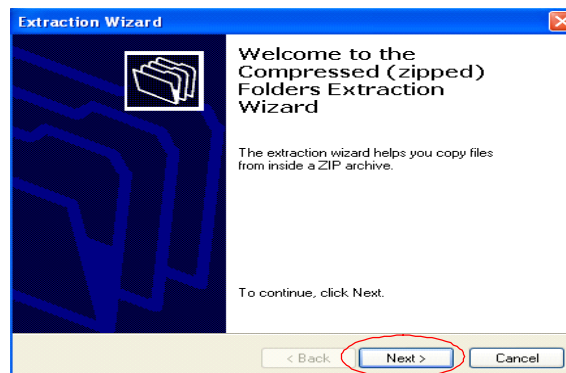
<http://7-zip.org> – 7-Zip software website

1. Uncompressing, Copying and Installation Instructions using Winzip Software

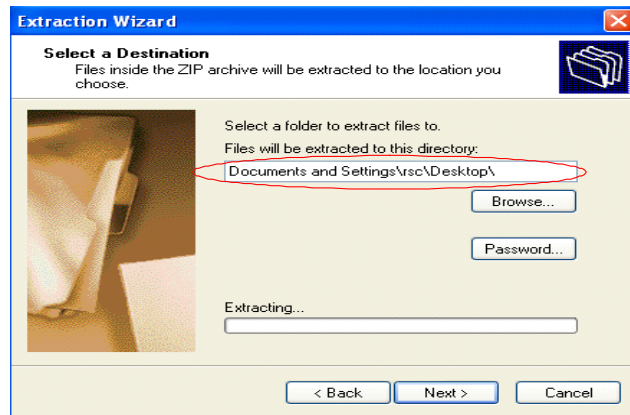
- A. Download the file labeled “qbcruntime.zip” to the desktop of your PC
- B. Right click the file and select “Extract All...”



- C. The Extraction Wizard dialog box will appear. Click “Next >”

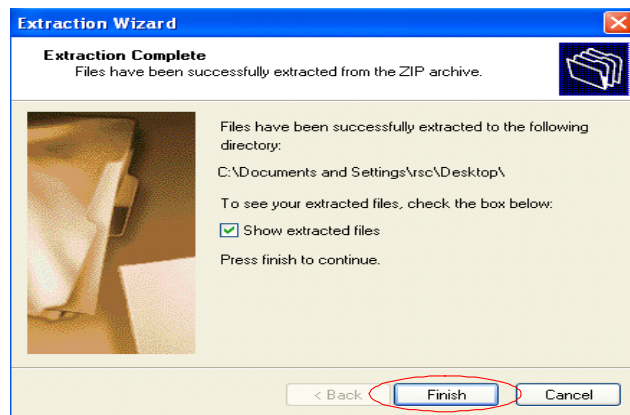


- D. Note the location where the file will be extracted.



- E. Click "Next >"

- F. The files will be extracted into a folder called ".qbcruntime"



- G. Click "Finish"

- H. Using the USB drive that was shipped with the analyzer, insert it into your computer.

- I. Copy the ".qbcruntime" folder to the USB drive. NOTE: Copy the entire folder.

- J. After the folder has been successfully copied to the USB drive, eject the drive. DO NOT remove the USB drive without following the correct ejection process.

- K. Ensure that the STAR analyzer is powered off.

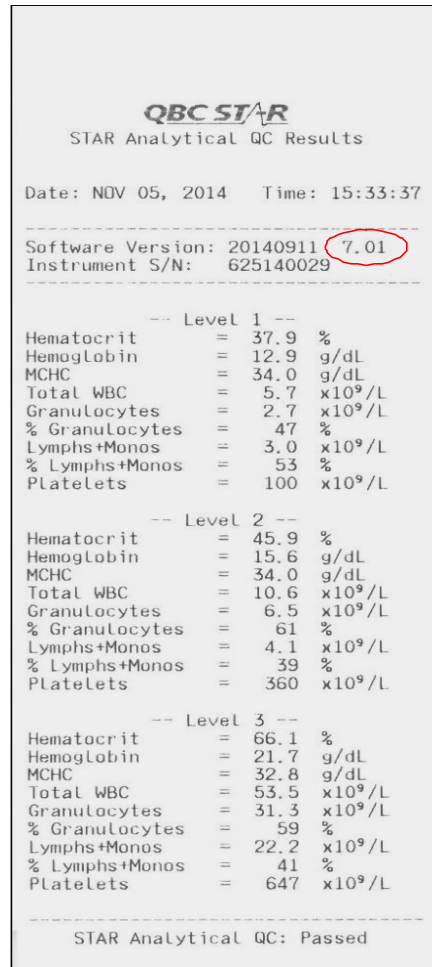
- L. Insert the USB drive into one of the available USB ports on the back of the STAR analyzer.

- M. Power on the STAR analyzer. The upgrade will automatically start.

- N. Once the software upgrade is complete, the USB drive may be removed from the USB port.

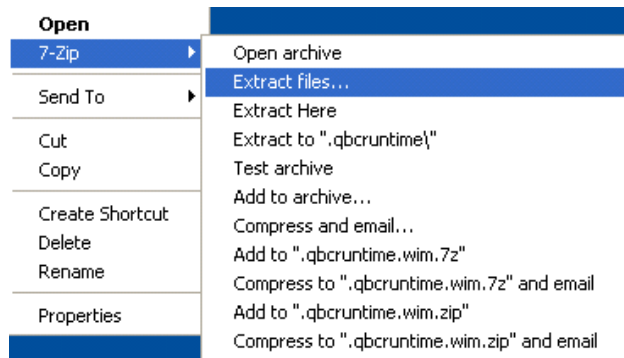
- O. Review the printout to confirm that the correct software version was successfully installed (see example below).

- P. The STAR analyzer is now ready for operation.

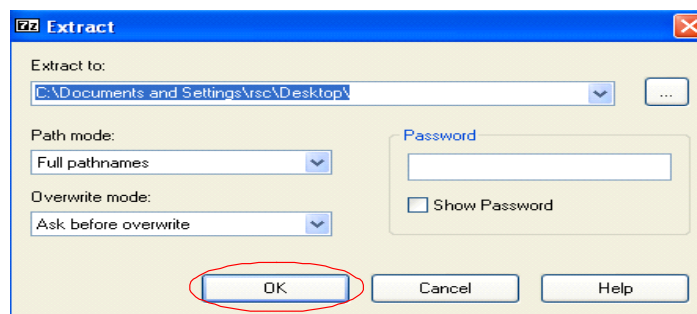


2. Uncompressing, Copying and Installation Instructions using Winzip Software

- A. Download the file labeled “.qbcruntime.wim” to the desktop of your PC
- B. Right click the file and mouse over 7-Zip. When 7-Zip is highlight, select “Extract files...”.



- C. The Extract dialog box will open. Save the file to your desktop by clicking “OK”.



- D. The files will be extracted into a folder called “.qbcruntime”
- E. Using the USB drive that was shipped with the analyzer, insert it into your computer.
- F. Copy the “.qbcruntime” folder to the USB drive. NOTE: Copy the entire folder.
- G. After the folder has been successfully copied to the USB drive, eject the drive. DO NOT remove the USB drive without following the correct ejection process.
- H. Ensure that the STAR analyzer is powered off.
- I. Insert the USB drive into one of the available USB ports on the back of the STAR analyzer.
- J. Power on the STAR analyzer. The upgrade will automatically start.
- K. Once the software upgrade is complete, the USB drive may be removed from the USB port.
- L. Review the printout to confirm that the correct software version was successfully installed (see example below).
- M. The STAR analyzer is now ready for operation.

QBC STAR	
STAR Analytical QC Results	
Date: NOV 05, 2014	Time: 15:33:37

Software Version: 20140911	7.01
Instrument S/N: 625140029	

-- Level 1 --	
Hematocrit	= 37.9 %
Hemoglobin	= 12.9 g/dL
MCHC	= 34.0 g/dL
Total WBC	= 5.7 x10 ⁹ /L
Granulocytes	= 2.7 x10 ⁹ /L
% Granulocytes	= 47 %
Lymphs+Monos	= 3.0 x10 ⁹ /L
% Lymphs+Monos	= 53 %
Platelets	= 100 x10 ⁹ /L
-- Level 2 --	
Hematocrit	= 45.9 %
Hemoglobin	= 15.6 g/dL
MCHC	= 34.0 g/dL
Total WBC	= 10.6 x10 ⁹ /L
Granulocytes	= 6.5 x10 ⁹ /L
% Granulocytes	= 61 %
Lymphs+Monos	= 4.1 x10 ⁹ /L
% Lymphs+Monos	= 39 %
Platelets	= 360 x10 ⁹ /L
-- Level 3 --	
Hematocrit	= 66.1 %
Hemoglobin	= 21.7 g/dL
MCHC	= 32.8 g/dL
Total WBC	= 53.5 x10 ⁹ /L
Granulocytes	= 31.3 x10 ⁹ /L
% Granulocytes	= 59 %
Lymphs+Monos	= 22.2 x10 ⁹ /L
% Lymphs+Monos	= 41 %
Platelets	= 647 x10 ⁹ /L

STAR Analytical QC: Passed	