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Your reference:
Your letter of:
My reference: 6.3-RB
My letter of:

To all users of the
Beta Secondary Standard 2 (BSS 2)

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Information for the users of the Beta Secondary Standard 2 (BSS 2)

Dear Sir or Madam,

Dear user of the Beta Secondary Standard 2 (BSS 2),

We would like to inform you about a new version of the software (version 4.0) and of the file "BetaFakt.ini" (version 7.4) to be used with your BSS2. When using both several extensions will be available in your BSS 2, details are explained in a paper available at the PTB's webpage: www.ptb.de/en/org/6/63/f_u_e/bss2cons.pdf:

1. The possibility of using a $^{106}\text{Ru}/^{106}\text{Rh}$ beta source was added (not yet available).
2. The (small) contribution due to photon radiation was included in the dose (rate) reported by the BSS 2, as this was missing in the past.
3. The quantity personal dose equivalent at a depth of 3 mm, $H_p(3)$, was implemented for $^{90}\text{Sr}/^{90}\text{Y}$ and $^{106}\text{Ru}/^{106}\text{Rh}$. Thus, you may perform irradiations in terms of $H_p(3)$ using your (old) $^{90}\text{Sr}/^{90}\text{Y}$ source.
4. The correction for ambient conditions was improved in order to adequately handle the quantity $H_p(3)$ and in order to extend the range of use beyond 25°C.
5. A checksum test was added to secure the calibration data against (un)intended changes.
6. It is possible to connect the BSS 2 either via serial and parallel interface (as it was in the past) or via Ethernet (only new devices).

The new software version is described by a new version of the manual (as of April 2013) which is distributed together with this new BSS 2 software itself.

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To **implement the new version of the software**, you have to perform the following steps:

1. Simply copy the software “*.exe” to any folder on your computer. This new software works with WinXP and Win 7 (32 bit and 64 bit). Depending on the Windows version the following “*.exe”-file and driver have to be installed:

Windows version	Executable file	Driver version
Older than WinXp	To use the new software, you have to upgrade your system either to WinXP or to Win7	
WinXp	Beta3240Xp.exe	Ksetup7.exe (on your system in case you already ran a former version of the BSS2-software using Win XP; if not on your system supplied by the manufacturer)
Win 7 (32 bit and 64 bit)	Beta3240Win7.exe	Ksetup9.exe (supplied by the manufacturer in case needed)

2. You also have to **implement the new version (7.4) of the file “BetaFakt.ini”**. For this, you simply have to copy the file into the same folder you chose for the new software version.
3. Finally, you have to **prepare your “BetaSek2.ini”** file for the new software version (a checksum has to be inserted). For that, the special program "BetaSek2Chk.exe" is distributed together with the BSS 2 software itself. The following steps have to be performed:
 - a. Copy the program "BetaSek2Chk.exe" also to the folder in which you copied the new version of the software.
 - b. After starting the program "BetaSek2Chk.exe", you have to press “Open BetaSek2.ini” to open your "BetaSek2.ini" file (if you used the former version of the software on the same computer the file is located in the Windows folder – if not you have to copy the file from the Windows folder of your old computer to any folder of your new computer). If you copied the file “BetaSek2.ini” to the same folder as the program "BetaSek2Chk.exe" a pop up window asks you to replace the existing file – you have to confirm this with “yes” (a backup copy of your file will be kept, see below).
 - c. After pressing the button “Insert checksum”, the program confirms this step with the following message “BetaSek2.ini is protected by checksum!”.
 - d. After clicking “OK”, finally press “Close”.

In addition to the introduction of a checksum, the uncertainties of the reference dose rates are enlarged as the uncertainties supplied formerly were too small (see paper mentioned above). By now both the new protected version of "BetaSek2.ini" and the original version named “BetaSek2.#01” are located in the folder where you copied the software.

4. Now, you can use the new software and both “BetaSek2.ini” and “BetaFakt.ini” are checksum protected.

Kind regards,
Dr. R. Behrens