



VARSKIN+ v1.3.1 Software Release Note

December 5, 2024



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VARSKIN+ v1.3.1 Software Release Note**Revision History**

Revision	Description
0	Initial release.
1	Updated limitations identified in Section 4.1 related to the functionality and use of RadToolbox in its present state.



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1.0 Introduction

This document outlines in detail the modifications, additions, and/or removal of features from VARSKIN+ v1.3 to VARSKIN+ v1.3.1.

This update only implements changes to correct dependency connections for RadToolbox, no other modules are modified. If users are not using RadToolbox, v1.3 and v.1.3.1 can be considered identical, and an update is not required.

See special install limitations and instructions in Section 4.1 based on legacy software RadToolbox.

Since modifications did not impact other modules, testing of those modules was not reperformed relative to v1.3.

All modifications are based on items entered in the RCD software issue tracker as a source for the basis of a change.

2.0 Abbreviations and Definitions

Table 2-1. Abbreviations and definitions.

Term	Definition
CP	change package number (gitlab version identifier)
DLL	dynamic-link library
GUI	graphical user interface

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3.0 Base Line Code

The changes identified here have been incorporated into the baseline of VARSKIN+ v1.3.1. Table 3-1 and Table 3-1 document the attributes of the software product with project dependencies as identified in Table 3-3.

Table 3-1. GIT attributes.

Git Location	Revision ID (Commit SHA)
https://gitlab.com/RCD-1/varskin/-/tags/varskin+v1.1	d2f7c94e0b144f9830f151307078c27f68d63a6e
https://gitlab.com/RCD-1/varskin/-/tags/varskin+v1.2	2295b4ef6963f161fdfa91868ded5419ff602121
https://gitlab.com/RCD-1/varskin/-/tags/varskin+v1.3	137adac8cb4c6ade81d4eb9c70018eeaa7c69fe2
https://gitlab.com/RCD-1/varskin/-/tags/varskin+v1.3.1	777ed573c8841bb9c7fa272cda3e50eab253314c

Table 3-2. Executable attributes.

Executable Name	VARSKIN+1.3.1.exe
MD5sum	6bdf89ad40a9bde5e5dcd593bbb34054
SHA256	bfdef36cf139f75f47f3dd89eba3b8f60062a4f9ee1b2c116e78f9b5fd529434
SHA512	bd4f79c3a9636a16f02bf56ed1d04661ee433b43f15d0f00cd6169a9d89885711ff15a0f5f7c12f63d8ca9e376aa410d0b3581bb5e787e3108edb3d9fbca6b65

Table 3-3. Dependency attributes.

Software	Version	Git Location	Revision ID (Commit SHA)
NRC-Graphing	1.0	https://gitlab.com/RCD-1/nrc-graphing	575af944ddf229c6ba033b4117f90d84117c9f49

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Software	Version	Git Location	Revision ID (Commit SHA)
RadToolbox	3.0.2 (with patch)	https://gitlab.com/RCD-1/radtoolbox	499592ffb31a96862df73d26b00a0d9bad3c46bd
Intel® Fortran Compiler Classic	2021.11.0	n/a	n/a
JDK	21	n/a	n/a

4.0 Changes

The following sub-sections outline the changes made from VARSKIN+ version 1.3 to VARSKIN+ version 1.3.1. A summary of changes is provided in Table 4-1.

Table 4-1. Summary of versions and resolved issues.

Version	Issue #	Description	Section(s)
1.3 (CP51)	-	Major Release.	-
1.3.1 (CP55)	99	Correction to dependency connections for RadToolbox, no other modules are modified. Major Release.	4.1

4.1. Issue 99: Repackage with Updated RadToolbox

The version of RadToolbox that was packaged with VARSKIN+ v1.3 was found to not fully function properly. This is attributed to multiple causes:

- (1) the existing RadToolbox package has limitations on the maximum path length of the install location (**see install note below**),
- (2) the version of RadToolbox that was packaged with VARSKIN+ v1.3 did not include a patch to the software (this is now included), and
- (3) the assembled manifest file was incomplete in terms of fully describing the external libraries and dependencies required by RadToolbox (this is now corrected).

These issues have been resolved by noting special install instructions, including the latest available patch of RadToolbox and updating the manifest file.

Install Note:

Due to RadToolbox being legacy software, it has some expected inherent limitations. One of those being related to the maximum allowed path lengths the program can handle. If the install path length is too long the program will not construct the correct file paths for the dependent databases used to look up information, causing the program to crash.

The default install path for VARSKIN+ (and its modules) has been shortened to help mitigate the occurrences of this issue. The default install location will work if the username is less than or equal to 13 characters. The VARSKIN+ maximum install length/format works as follows (Figure 4-1):

C:\Users\<1234567890123>\AppData\Local\V+1.3.1

If the username is longer than 13 characters, the user is recommended to install the software directly on C drive as shown in Figure 4-2.

There are known issues with the graphics display and export features that will not work and may cause the program to crash when trying to plot any information from any submodule. The following examples are provided:

- (1) Beta Spectrum plot in the Decay Data module (Figure 4-3),
- (2) Decay Chain Graphic display in the Decay Data module (Figure 4-4), and
- (3) Export of data directly to Microsoft Excel, this includes clicking Export buttons and double clicking on columns.

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In addition, the following non-related display issues are present:

- (1) displaying of tabulated data of photon cross sections for various materials is not functional and
- (2) web links located on the Supplemental Data may not function if web pages have moved or been deleted.

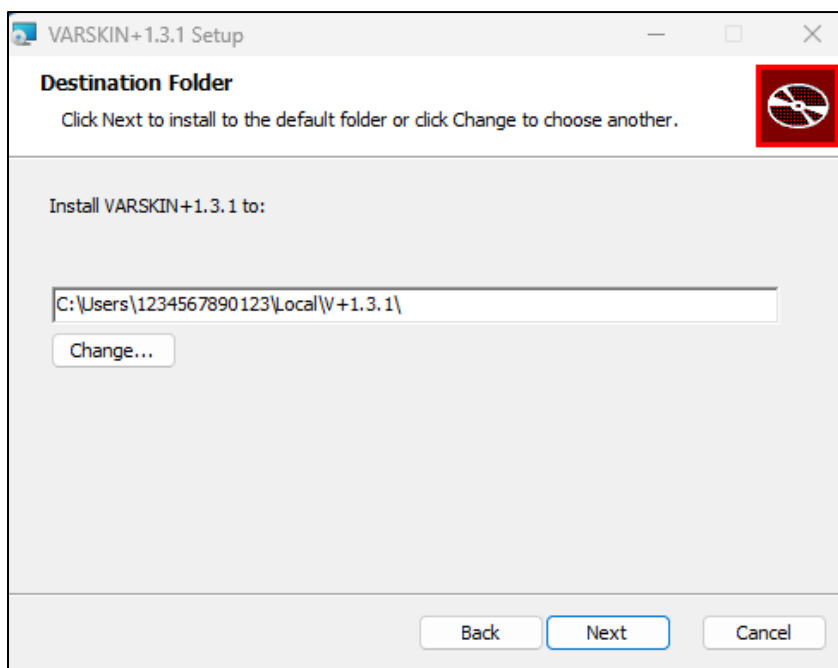


Figure 4-1. Install of VARSKIN+ path limitations for legacy program RadToolbox.

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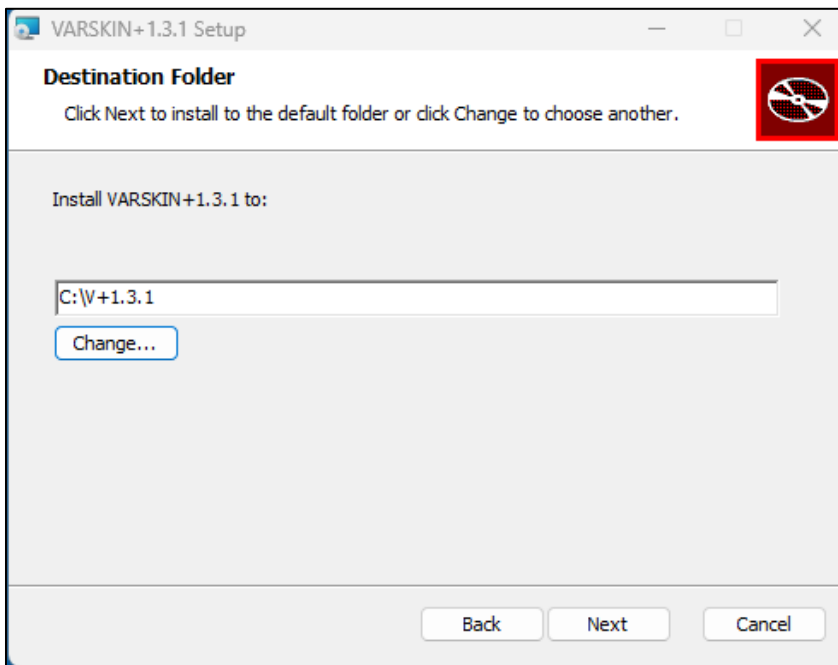


Figure 4-2. Install of VARSKIN+ directly on C drive.

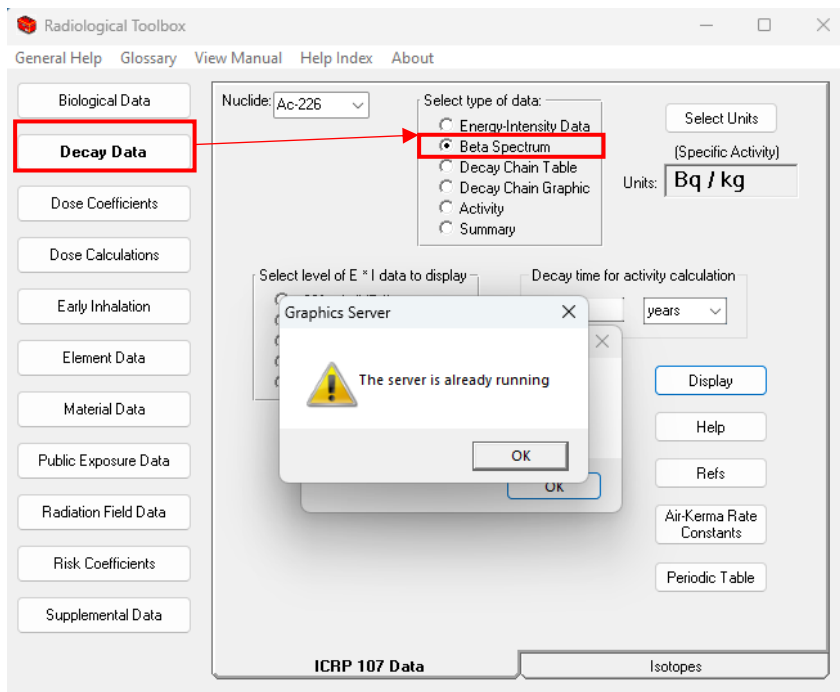


Figure 4-3. RadToolbox known issue with displaying beta spectrum plot in Decay Data module.

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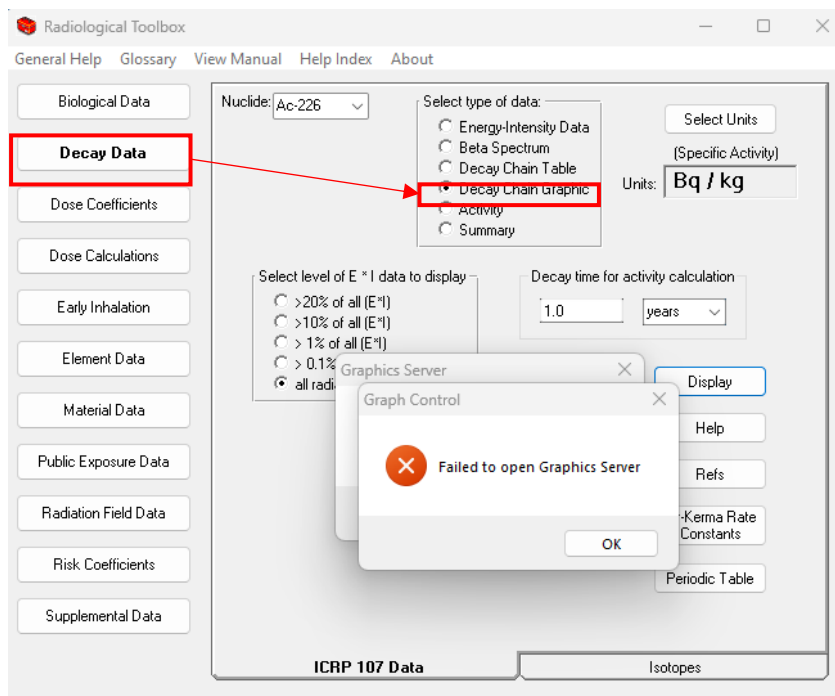


Figure 4-4. RadToolbox known issue with displaying a decay chain plot in Decay Data module.