# *SonarWiz 6 Frequently Asked Questions*

*Revision 6.0,12/12/2016*

Chesapeake Technology, Inc.

eMail: support@chesapeaketech.com
Main Web site: http://www.chesapeaketech.com
Support Web site: http://www.chestech-support.com

1605 W. El Camino Real, Suite 100
Mountain View, CA 94040

Tel: 650-967-2045
Fax: 650-450-9300

**Table of Contents**

1 SonarWiz 6 - The New SonarWiz ..... 3
2 SonarWiz 6 - Questions and Answers ..... 3
2.1 Does SonarWiz 6 run on WINDOWS 10? ..... 3
2.2 Why are you creating SonarWiz 6? ..... 3
2.3 What is the timeframe of the transition, and who can use SonarWiz 6? ..... 3
2.4 Does SonarWiz 6 mean that SonarWiz 5 is obsolete? ..... 4
2.5 What's the difference between SonarWiz 5.08 and SonarWiz 6.01? ..... 7
2.6 Are SonarWiz 5 and SonarWiz 6 projects compatible? ..... 9
2.7 SonarWiz 6 was listed as a BETA evaluation version for a month. Why? ..... 10
2.8 Maintaining use of a network dongle sub-bottom license in SonarWiz 6 ..... 10
2.9 What SonarWiz 5 work will upgrade into a SonarWiz 6 project ..... 11
3 SonarWiz 6 Post-Processing Issues and Answers ..... 12
3.1 MML File Issue - UNKNOWN Coordinate System - When Project opens ..... 12
4 Document Revision History ..... 14

# 1 SonarWiz 6 - The New SonarWiz

SonarWiz 6 began in August, 2014, as a completely revised bathymetry post-processing engine, in the transition between SonarWiz 5.06, and SonarWiz 5.07. The plan called for a complete revision of the GUI look, in terms of GUI button and icon design, as well as a more flexible architecture to support sidescan, sub-bottom, and magnetometry post-processing too. SonarWiz 6 was officially presented at US HYDRO conference in Maryland, USA, in April, 2015. It was used in training at Ocean Business 2015 in the UK in mid-April, 2015, and is gradually becoming the preferred SonarWiz to use. This document explains answers to many questions, which we have received recently, from the SonarWiz user community. We hope it answers yours, but if you have a new question, which we do not answer here yet, please send us an eMail at support@chesapeaketech.com, and we will include your question in the next version of this document.

# 2 SonarWiz 6 - Questions and Answers

## 2.1 Does SonarWiz 6 run on WINDOWS 10?

Yes, you need 4GB RAM minimum (post-processing), and it helps to have DirectX11 support, but Windows7 or Windows10 both run SonarWiz well. Please see section 1.3 in your SonarWiz User Guide for more details.

## 2.2 Why are you creating SonarWiz 6?

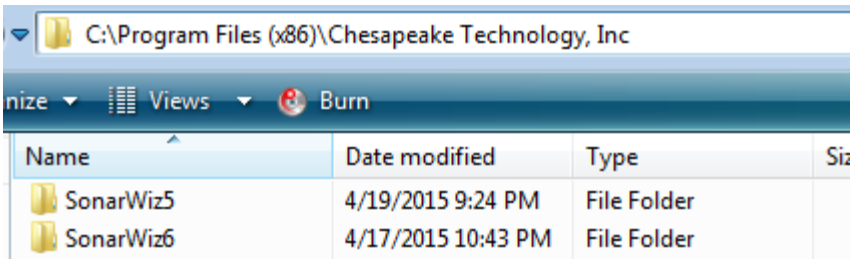
In a high-level view, SonarWiz 6 was created to handle many new feature requests. It became clear that new design would be needed - beyond the architecture of SonarWiz 5. Necessity being the mother of invention, SonarWiz 5 design had to evolve in a dramatic way to handle the new feature plans. We've tried to do this gradually, and in a seamless way, so that existing customers feel minimal impact.

## 2.3 What is the timeframe of the transition, and who can use SonarWiz 6?

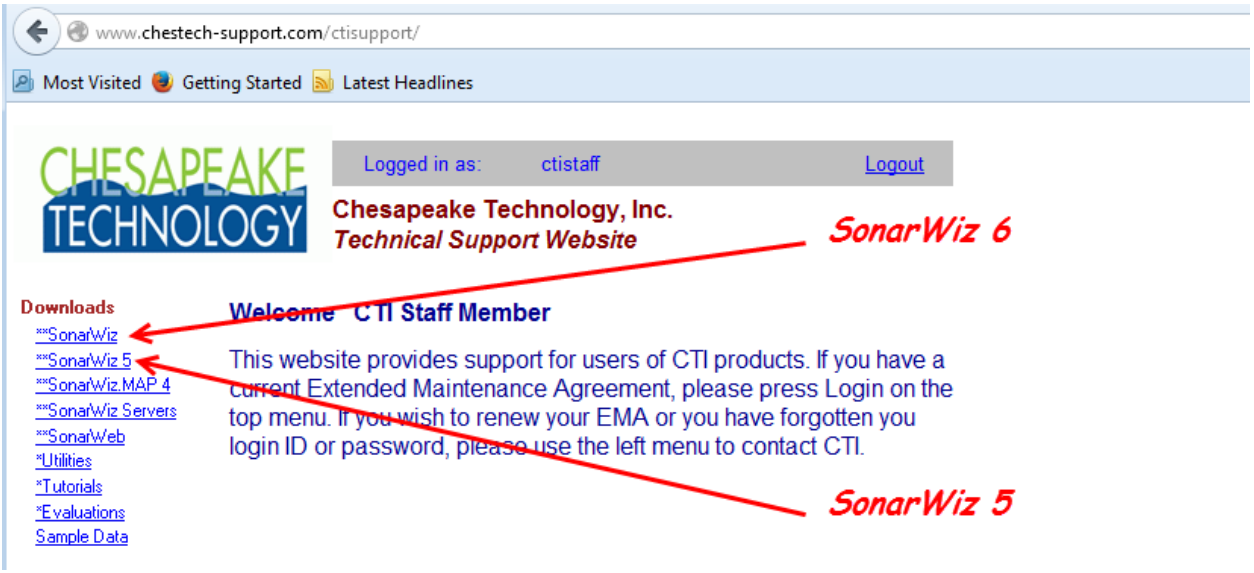
SonarWiz 6 BETA version for your evaluation experience was offered in March, 2015, in parallel with the existing SonarWiz 5.08 series software. Anyone with a current EMA on their license key can log in to http://www.chestech-support.com and download BOTH versions, and have them installed IN PARALLEL on their PC - they do not interfere with one another.

There is no extra cost or charge to use SonarWiz 6 - anyone with a SonarWiz 5 license, and a current EMA, can download and use it.

The SonarWIz 5 and SonarWiz 6 Program Files folders can co-exist on the same PC like this:




You can see the SonarWiz 6 area, just above the SonarWiz 5 version, in the downloads area of www.chectech-support.com here:

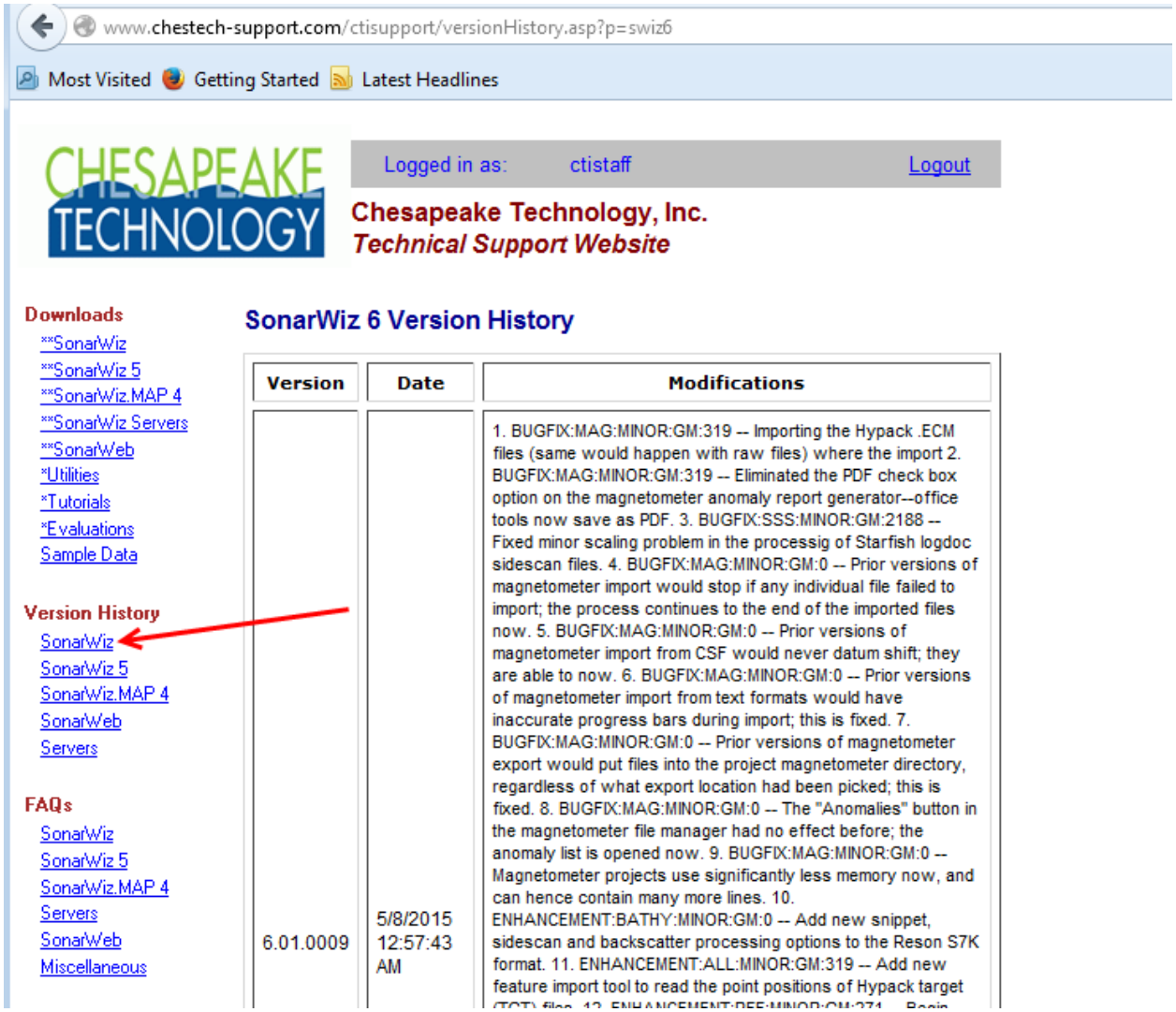



As of mid-May, 2015, SonarWiz 6 is no longer listed as a BETA product.

## 2.4 Does SonarWiz 6 mean that SonarWiz 5 is obsolete?

Not at all! You can continue to use SonarWiz 5.06, 5.07, 5.08 series versions for as long as you like, and they are fully supported. They are starting to diverge though, from SonarWiz 6 feature set, and new features will only be added to SonarWiz 6 moving forward. You can see this in the final SonarWiz 5.08.0012 version, versus the most recent SonarWiz 6.01.0007 version.

VERSION HISTORY is maintained separately for these two series of software, and can be seen at www.chesteech-support.com here: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SonarWeb
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FAQs
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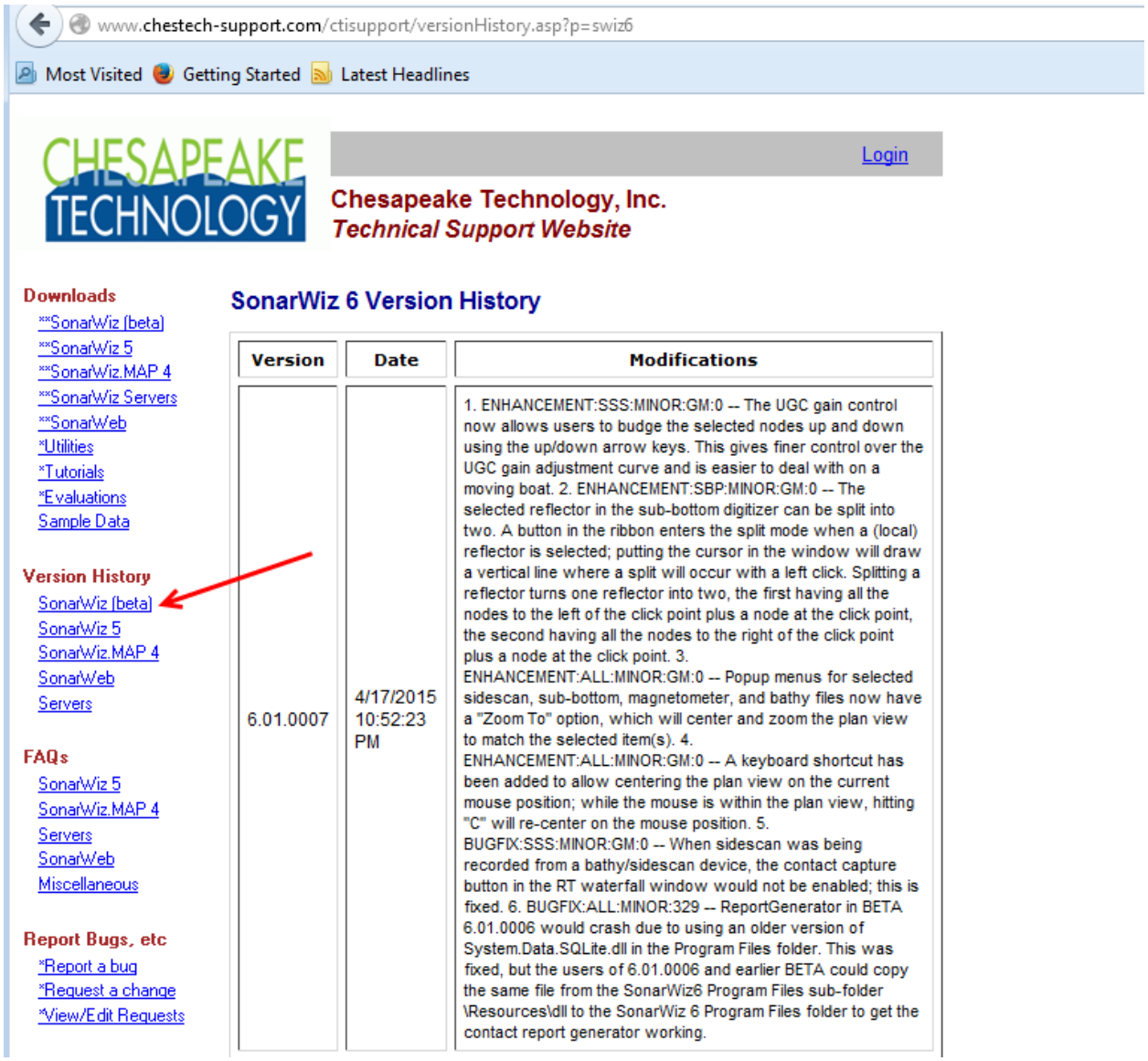
SonarWiz 5
SonarWiz.MAP 4
Servers
SonarWeb
Miscellaneous
SonarWiz 6 Version History
Version
Date
Modifications
6.01.0009
5/8/2015 12:57:43 AM
1. BUGFIX:MAG:MINOR:GM:319 -- Importing the Hypack .ECM files (same would happen with raw files) where the import 2. BUGFIX:MAG:MINOR:GM:319 -- Eliminated the PDF check box option on the magnetometer anomaly report generator--office tools now save as PDF. 3. BUGFIX:SSS:MINOR:GM:2188 -- Fixed minor scaling problem in the processig of Starfish logdoc sidescan files. 4. BUGFIX:MAG:MINOR:GM:0 -- Prior versions of magnetometer import would stop if any individual file failed to import; the process continues to the end of the imported files now. 5. BUGFIX:MAG:MINOR:GM:0 -- Prior versions of magnetometer import from CSF would never datum shift; they are able to now. 6. BUGFIX:MAG:MINOR:GM:0 -- Prior versions of magnetometer import from text formats would have inaccurate progress bars during import; this is fixed. 7. BUGFIX:MAG:MINOR:GM:0 -- Prior versions of magnetometer export would put files into the project magnetometer directory, regardless of what export location had been picked; this is fixed. 8. BUGFIX:MAG:MINOR:GM:0 -- The "Anomalies" button in the magnetometer file manager had no effect before; the anomaly list is opened now. 9. BUGFIX:MAG:MINOR:GM:0 -- Magnetometer projects use significantly less memory now, and can hence contain many more lines. 10. ENHANCEMENT:BATHY:MINOR:GM:0 -- Add new snippet, sidescan and backscatter processing options to the Reson S7K format. 11. ENHANCEMENT:ALL:MINOR:GM:319 -- Add new feature import tool to read the point positions of Hypack target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SonarWiz 5
SonarWiz.MAP 4
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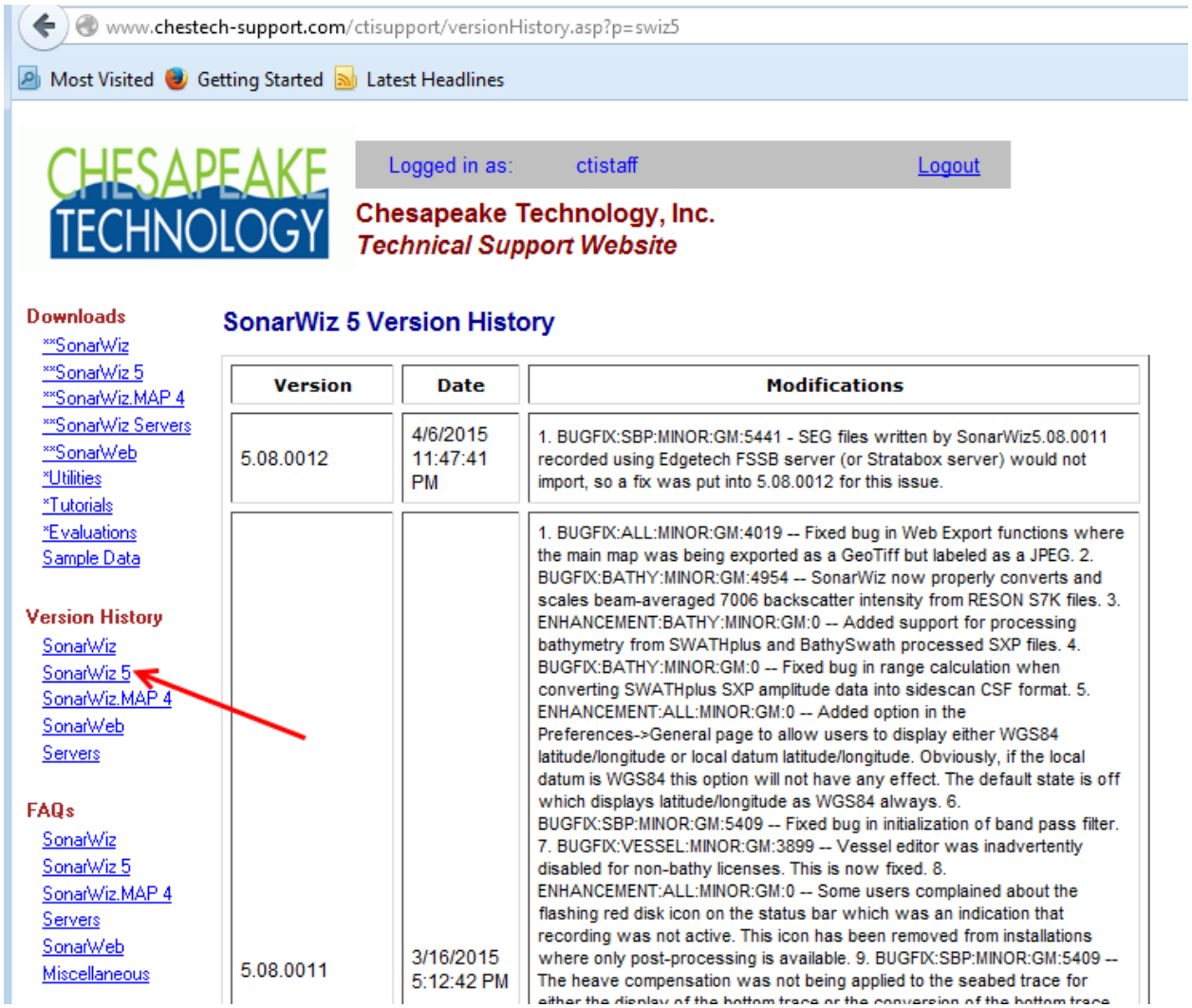
SonarWiz.MAP 4
Servers
SonarWeb
Miscellaneous
Report Bugs, etc
*Report a bug
*Request a change
*View/Edit Requests
SonarWiz 6 Version History
Version
Date
Modifications
6.01.0007
4/17/2015 10:52:23 PM
1. ENHANCEMENT:SSS:MINOR:GM:0 -- The UGC gain control now allows users to budge the selected nodes up and down using the up/down arrow keys. This gives finer control over the UGC gain adjustment curve and is easier to deal with on a moving boat. 2. ENHANCEMENT:SBP:MINOR:GM:0 -- The selected reflector in the sub-bottom digitizer can be split into two. A button in the ribbon enters the split mode when a (local) reflector is selected; putting the cursor in the window will draw a vertical line where a split will occur with a left click. Splitting a reflector turns one reflector into two, the first having all the nodes to the left of the click point plus a node at the click point, the second having all the nodes to the right of the click point plus a node at the click point. 3. ENHANCEMENT:ALL:MINOR:GM:0 -- Popup menus for selected sidescan, sub-bottom, magnetometer, and bathy files now have a "Zoom To" option, which will center and zoom the plan view to match the selected item(s). 4. ENHANCEMENT:ALL:MINOR:GM:0 -- A keyboard shortcut has been added to allow centering the plan view on the current mouse position; while the mouse is within the plan view, hitting "C" will re-center on the mouse position. 5. BUGFIX:SSS:MINOR:GM:0 -- When sidescan was being recorded from a bathy/sidescan device, the contact capture button in the RT waterfall window would not be enabled; this is fixed. 6. BUGFIX:ALL:MINOR:329 -- ReportGenerator in BETA 6.01.0006 would crash due to using an older version of System.Data.SQLite.dll in the Program Files folder. This was fixed, but the users of 6.01.0006 and earlier BETA could copy the same file from the SonarWiz6 Program Files sub-folder \Resources\dll to the SonarWiz 6 Program Files folder to get the contact report generator working.

and



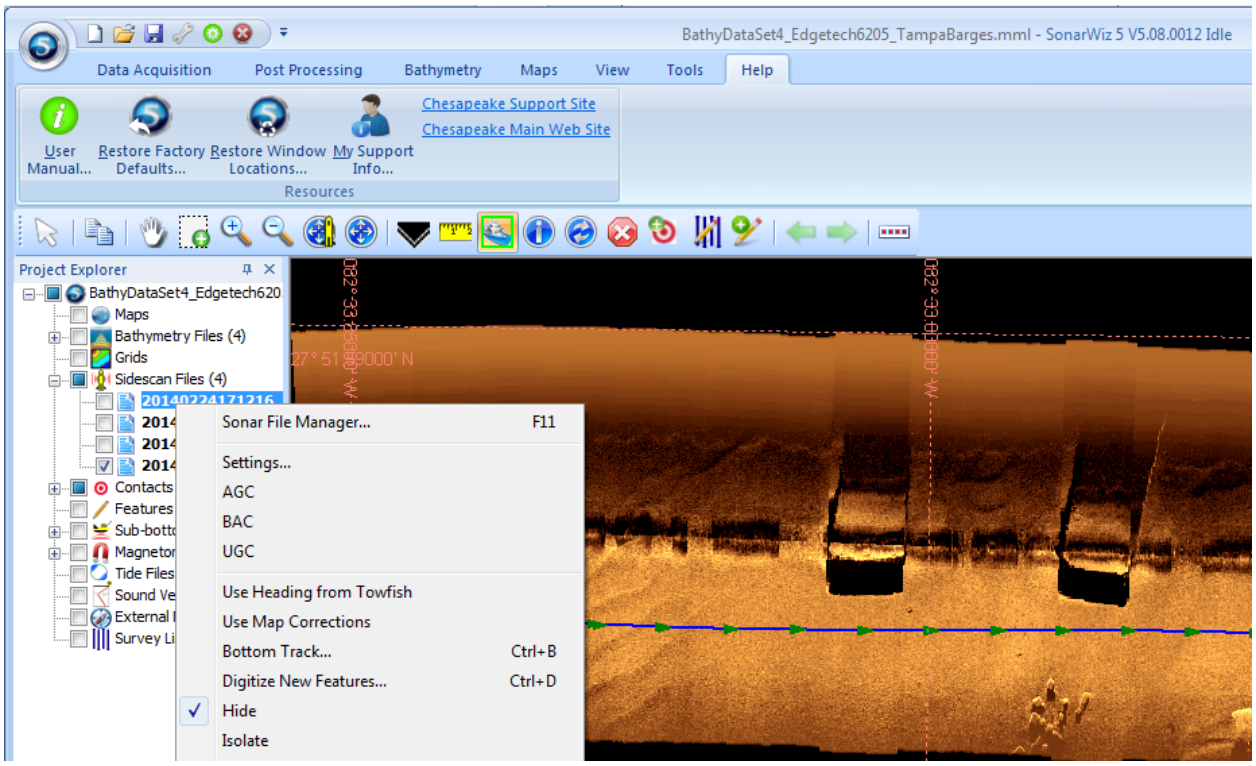

## 2.5 What's the difference between SonarWiz 5.08 and SonarWiz 6.01?

Let's answer that in two ways:

(1) terms of recent enhancements to SonarWiz, and

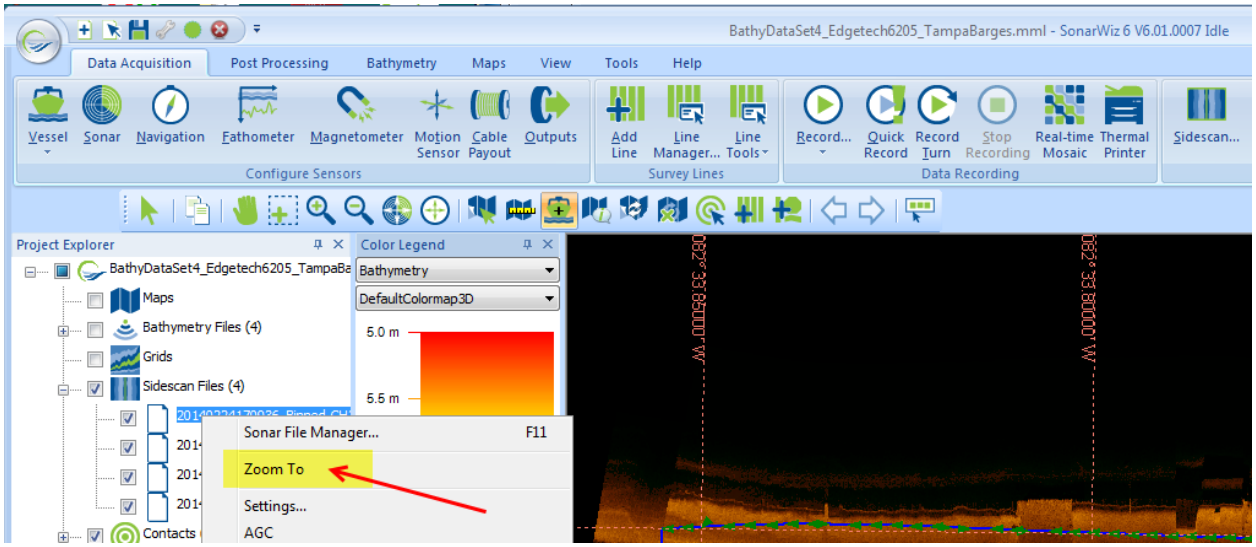
(2) planned design extensions of SonarWiz 6

Answer (1) : In terms of enhancements, the final 5.08-series version was created 4/6/2015, and shows a right-click drop-menu like this:




The drop-menu shown, appears when you right-click on a sonar line, in the left-side ProjectExplorer sidescan-files list.

In contrast, here's the same drop-menu in 6.01.0007:




The ZOOM TO feature enables you to isolate a single ProjectExplorer sonar line, and have the Map View zoom to that file, in isolation among the other lines, to help you focus on a single line, amongst what may be many others, in a complex mosaic. This, and the other enhancements in SonarWiz 6.01.0009, were added to SonarWiz 6, but

have not been added to SonarWiz 5.08. So from April 17, 2015 onward, there will be reasons to prefer SonarWiz 6 - because it will be getting new enhancements and fixes, that have not been included in SonarWiz 5.08.

Answer (2): Specific design plans in which SonarWiz 6 will diverge from, and improve upon SonarWiz 5.08 design, include these feature changes:

1. In bathymetry, the specific new dramatic feature is backscatter post-processing. This is only in SonarWiz 6. It's a fascinating new way to see data in SonarWiz, and requires a bathymetry license. Sidescan data presents accurate amplitude-based data display within the limits of a range-angle. The exact depth of the response is not known precisely, but you get a fairly good idea of the angle of the response, and how far away it is (range).

In contrast, backscatter is recorded during a bathymetry survey, in which interferometry can determine the exact depth where the amplitude response (backscatter) occurs - so your ability to map and display the backscatter has distinct advantages over sidescan displays of the same place - and you need SonarWiz to be able to take advantage of that. Backscatter displays share the same palette choices as sidescan, but offer a different level of detail and accuracy.

2. A second area of design change is the vessel editor. This becomes a very important part of bathymetry set-up definition initially, but it will gradually become as important too, to sidescan, sub-bottom, and magnetometry post-processing. Sensor definition via the SonarWiz 6 vessel editor will eventually replace the legacy sheave-offset definition dialogs of SonarWiz 5.

There are more changes, but those are a good first-step towards getting a feel for the new SonarWiz 6.

### 2.6 Are SonarWiz 5 and SonarWiz 6 projects compatible?

Our recommendation on this is to try moving forward, and plan on that. So if you have a project created in SonarWiz 5.08, and want to start working with it in SonarWiz 6, it's best to plan on continuing the work in SonarWiz 6. This is because gradually you will find that work details, project parameters, and project data, begin to evolve into SonarWiz 6, in a way that would not be backward compatible.

The development team has stated this even more strongly: **"The trip from SonarWiz 5 to SonarWiz 6 is one-way. There's no return ticket to SonarWiz 5. Once a project has been worked on in SonarWiz 6 we do not support going backwards to SonarWiz 5 again."**

### 2.7 SonarWiz 6 was listed as a BETA evaluation version for a month. Why?

This was clearly a statement about the evolving nature of SonarWiz 6 at that time. SonarWiz 6 was introduced in February, 2015, and was listed as a BETA version for 3 months. When we introduce a new version, we expect a short period of beta-test use, beforethe developers think it is ready to share and try for production use. SonarWiz 6 was in beta-test mode and used by developers, sales representatives, and select customers, since February 28, 2015. It is no longer a BETA product now.

Comparing that to SonarWiz 5, which was released in March 2010, and has been in use over 5 years, SonarWiz 5 is clearly the more stable product with the most customer use-hours on it, and the most problems discovered and fixed. There's no reason not to start using SonarWiz 6 now, but you can expect to find more issues getting corrected in the first few months of use, than you would in a more stable product. The new usage phase of any product is when you find the most issues. But we encourage you to try it, and take advantage of the new features! The only way to get the advantage of the new stuff is to give it a try.

The general post-processing enhancements that 6.01.0009 contains, which go beyond the features in 5.08.0012, are the beginning of a new phase of enhancements that will just grow in time.

Our recommendation at this time (late May, 2015) is to start your projects in SonarWiz 5.08.0012, but make a copy and work it in SonarWiz 6.01 as well, to start getting used to the differences, and take advantages of the 6.01 enhancements. Please do let us know of any new issue you see in SonarWiz 6.01, which needs to be corrected, and send us an eMail at support@chesapeaketech.com explaining!

Please note the incompatibility issue of starting a project in SonarWiz 6, and then going back to SonarWiz 5 (Issue 2.5 above). This is not recommended.

### 2.8 Maintaining use of a network dongle sub-bottom license in SonarWiz 6

Issue: We had sub-bottom post-processing in SonarWiz 5, but it's gone!

Answer: This will only happen to you if you are using a network dongle, because the special licensing step of modifying your SonarWiz 5 Program Files folder to add this line to the SonarWiz.ini file:

GET_SBP_LICENSE = 1

only affected your SonarWiz 5 program. The SonarWiz 6 Program Files folder is a separate folder here, typically:

C:\Program Files (x86)\Chesapeake Technology, Inc\SonarWiz6

So go ahead and modify the SonarWIz.ini file there too, and you will be able to use sub-bottom post-processing using your network dongle, in SonarWiz 6, if sub-bottom post-processing is supported by your license key.

This information is explained in Section 5.3 of the Network Dongle Reference, here:

www.chestech-support.com/download/ctisupport/SonarWiz_5/UserDocs/NetworkDongleReference.pdf

### 2.9 What SonarWiz 5 work will upgrade into a SonarWiz 6 project

Issue: What is the upgrade process for moving a SonarWiz 5 project into SonarWIz 6? E.g. hat is the best way to copy project files (side-scan data bottom tracked with optimized gain and layback settings) from V5 to a V6 project with data also partially processed? I tried just copying the V5 CSF folder files from 5 to 6 but was unable to add to V6 project.

Answers:

(1) Sidescan projects upgrade well, and all of the work will upgrade. The best bet would be to just make a complete copy of your V5 project folder and copy it to a V6 project folder. Then once you open the project in V6, there will be stuff put in there that V5 won't know anything about, so you can't move back and forth between V5 and V6. Making a complete copy is the safest way if you still want to open your original V5 project.

(2) Sub-bottom projects are best left in the version of software in which they were created, e.g. finish the project in SonarWiz 5, if work had progressed to the file import stage. Creating a new project for your sub-bottom import and post-processing entirely in SonarWiz 6 seems to work best. Bottom-tracking and annotation of features like digitizer reflectors seem to need to be re-done if you upgrade to SonarWiz 6, so to save from deleting and re-entering work, just start fresh in SonarWiz 6.

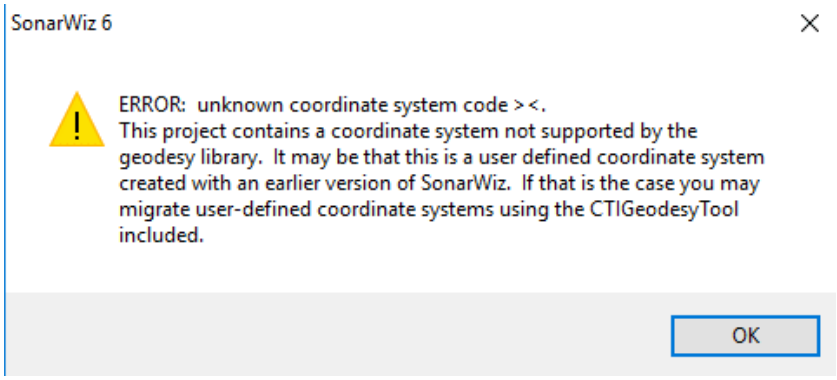
(3) Bathymetry projects are having fairly good results in the upgrtade process. You simply open the project in SonarWIz 6 (after making a backup safe copy of the project), and SonarWIz 6 performs and shows in progress bars that it is doing so, an upgrade conversion process.

(4) Magnetometry projects, created in SonarWiz 5, can also just be opened in SonarWiz 6, and imported CMF files, editing settings, and anomalies will carry over to SonarWiz 6.

# 3 SonarWiz 6 Post-Processing Issues and Answers

## 3.1 MML File Issue - UNKNOWN Coordinate System - When Project opens

**Issue:** When I restarted SonarWiz to open a previously working project, I got this error message:



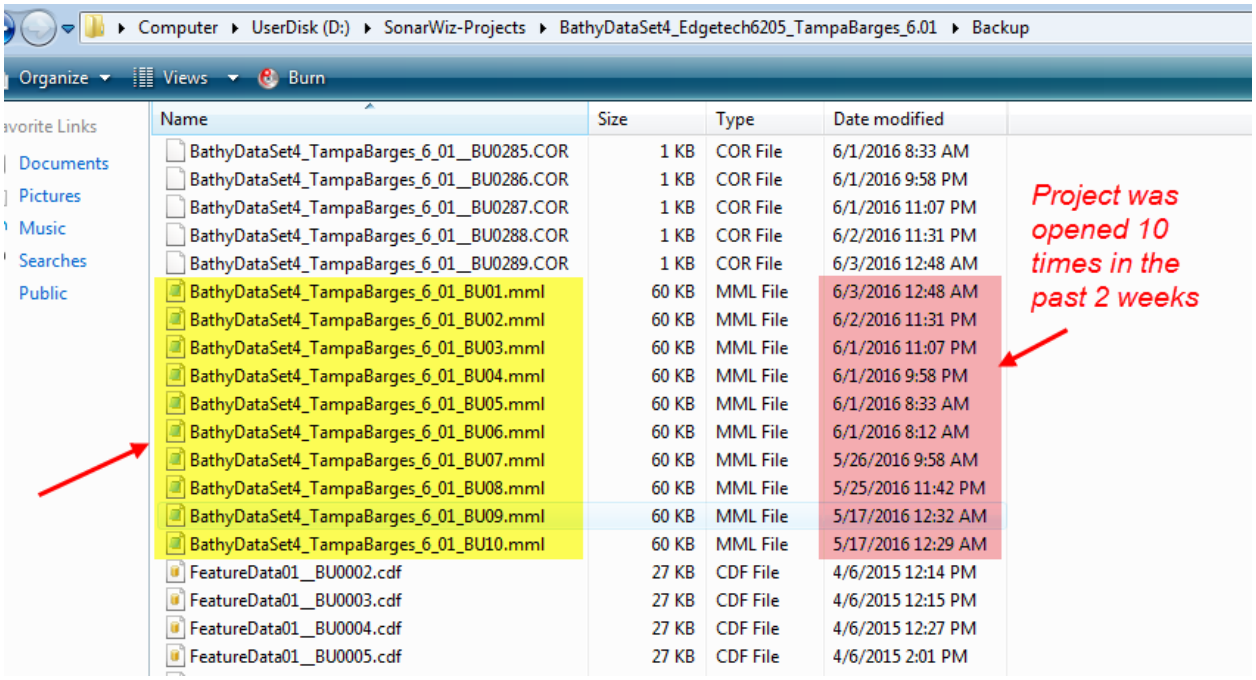

**Answer:** The www.chestech-support.com SonarWiz 5 FAQs has some good introductory sections (sections 1.6, 1.7) explaining the project MML file, and all that still applies in SonarWiz 6. If for some reason, the MML-file-write operation did not work, then you may get a project restart error message like the one shown above.

The good news is that we have a good repair option in place, since this fix in version 6.02.0008 (see www.chestech-support.com SonarWiz VERSION HISTORY for this entry):

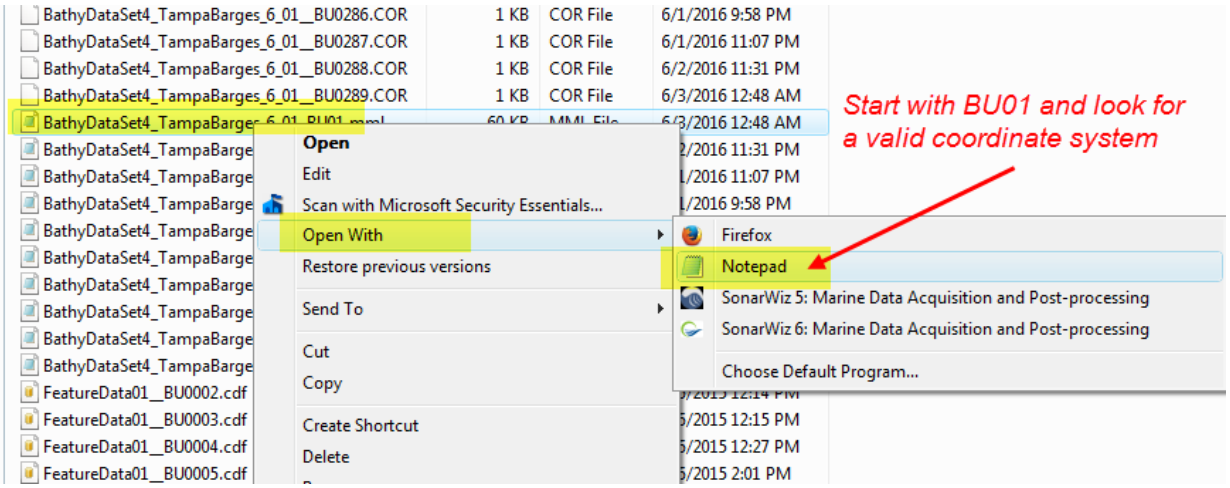
| | | |
|---|---|---|
| 6.02.0008 | 1/11/2016 8:30:42 PM | SonarWiz: 3. ENHANCEMENT:ALL:MINOR:GM:3300 -- MML file is now backed up to BACKUPS folder in a circular-queue type naming, where a configurable (default=10) number of previous-session MML files are saved. This will dramatically improve project recovery capabilities, when an MML-file-loss occurs. |

So the first thing to do when you see the error is - stop SonarWiz and don't restart SonarWiz. Use NOTEPAD to open your project MML file, verify the coordinate system "0" code, then find a better version of the MML file, and replace it.

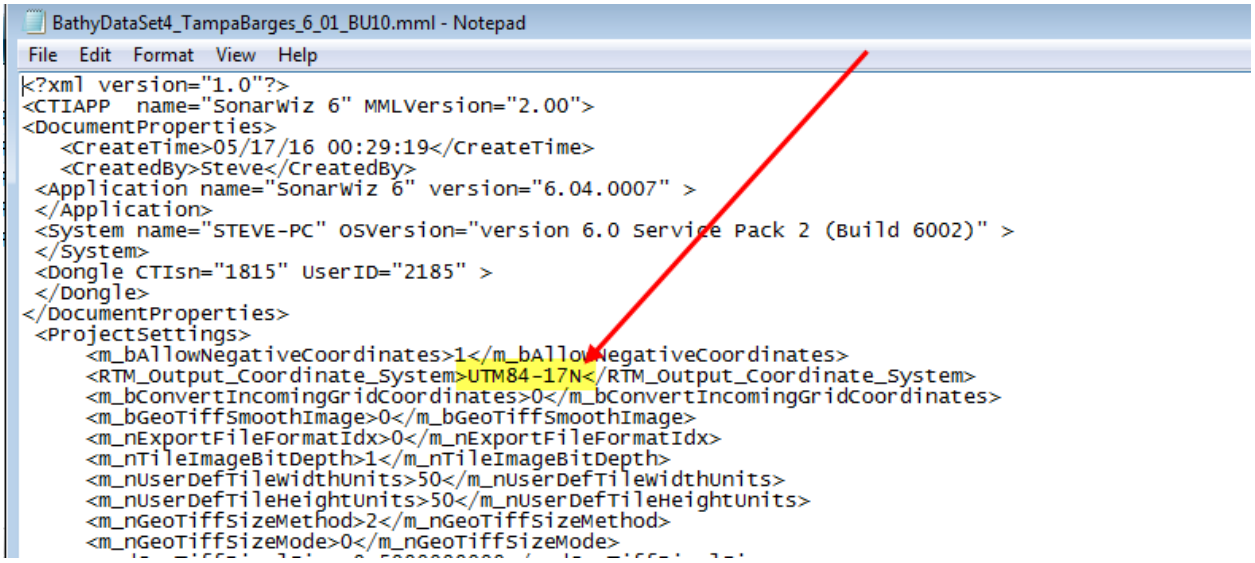
The BACKUP folder of the project is the place to look. Here is my most recent set of 10 backup MML files in a favorite project:




One by one, starting with the most recent, look for the version with a valid coordinate system. This one will represent your most recent work which was saved properly:




Example good coordinate system:




Then replace the <project-name>.MML files in the project folder, with the backup-MML file and rename it to the same name ; <project-name>.MML, then restart SonarWiz.

## 4 Document Revision History

Rev 5, 10/20/2015 - Addition of section 3.1 added explaining new MML-file repair option, available since 6.02.0008 version.

Rev 4, 10/20/2015 - Addition of section 2.8

Rev 3, 5/13/2015 - Clarification of section 2.6 - 6.01 is no longer BETA. Also, addition of section 2.7, describing the need to duplicate your SonarWIz.ini file changes in the SonarWiz 6 Program Files folder, to support sub-bottom post-processing on a network dongle.

Rev 2, 5/11/2015 - Clarification of section 2.5.

Rev 1, 4/20/2015 - initial version