

information SHEET



Using the Sedona Project Backup and Restore Utility

Introduction

The Sedona Project Backup and Restore utility program (BASbackup) provides a convenient way of saving and restoring a BAScontrol project to a desktop or laptop computer. With the BAScontrol, a project consists of the following files:

- Sedona Framework binary application file (app.sab.target)
- Sedona Framework source application file (app.sax)
- BAScontrol configuration file (bas_cfg.xml)
- BAScontrol Scode file (kits.scode)
- BAScontrol web component file (webc.xml)



These files are sufficient to completely backup a BAScontrol project without the need of a Workbench tool. Although Sedona files can be backed up and restored using the Workbench tool using the Get and Put commands, the BAScontrol configuration and web component configurations are ignored. Therefore the Sedona Project Backup and Restore utility is the best and simplest way to store BAScontrol projects. The BASbackup program is applicable to BAScontrol20 firmware 3.0.28 and later or BAScontrol22 firmware 3.1.0 and later.

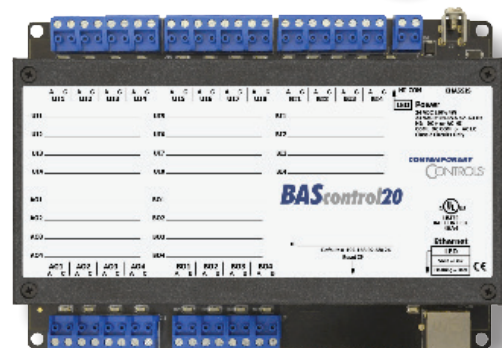
Installation

BASbackup is a Java program (version 7_51 or later) and is intended to run on a Linux, Windows® 7 or later computer. The latest version can be downloaded as a zip file (BASbackup Utility version 1.0.x) from our website at:

<http://www.ccontrols.com/support/bascontrol20.htm>

Place the downloaded file anywhere on your computer. — we suggest your desktop for unzipping. Extract the files from the zip file and choose a location that would be convenient for you. We suggest the root directory of your main drive (for example C:). Make a folder called BASbackup during the extracting process and extract the contents of the zip file into this folder. You will see the following files:

 BASbackup
 Component_Bundle_BASC_1.0.x



BAScontrol20

BASautomation®

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The Java utility is BASbackup and for convenience a Component Bundle for the latest version of the BAScontrol is provided. The Component Bundle provides kit information on the component types that can be used with the BAScontrol. You can always download later versions of BAScontrol bundles if necessary from the same web site page. Simply replace the current bundle with the latest if a later BAScontrol version is to be supported. Later bundle versions include support for both current and previous versions of the BAScontrol so having the latest poses no harm. Leave the Component Bundle zipped.

Double-click the BASbackup icon and the program will open up as shown below with a default IP address of a factory-set BAScontrol. A configuration file for the program along with a backups folder will be created in the same BASbackup folder. The backups folder will be the location of your backup files. The **Unit Status** will indicate **UNKNOWN** until a connection is made to a BAScontrol.

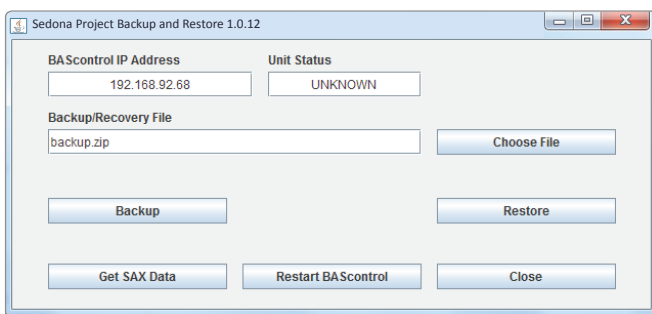


Figure 1 — The Default BASbackup Screen

Backing up a Sedona Project

Enter the correct BAScontrol IP Address of the BAScontrol that is to be backed up if it has been changed from its default address. This utility program will attempt to communicate with a device at the address entered. Make sure your computer is on the same subnet as the target controller. The target controller must be powered with Sedona enabled and

accessible. The utility provides you a default backup file location. If you want something different you can edit the location on the screen. It is not necessary that the file exists. The utility will create the file you named and append the zip extension as well. If you have a previous file which you want to overwrite, you can use the *Choose File* button to find it. The utility will first look for it in the backups folder but you can use the navigation buttons if the file location is somewhere else on your computer. Once you are ready, click *Backup*.

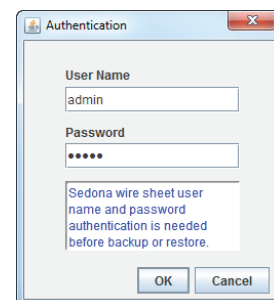


Figure 2 — The Authentication Screen

With the correct BAScontrol IP Address entered, click the *Backup* button and a credentials window will appear from the targeted controller. Enter the *User Name* and *Password* of the Sedona Framework application in the BAScontrol20. The default credentials are *admin/admin*. The *User Name* and *Password* of the web pages are unnecessary and cannot be used.

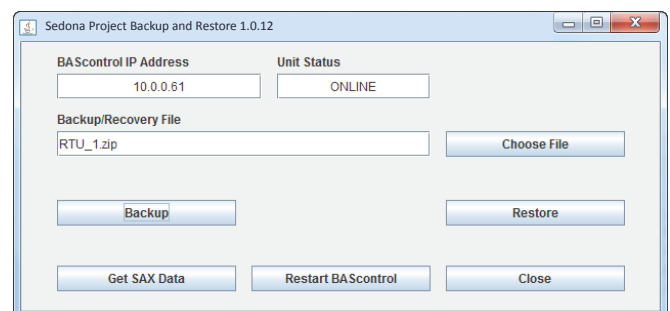


Figure 3 — Specifying a New IP Address and Backup File Name

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In our example and as shown in Figure 3, we changed the IP address and renamed the backup file. If you are successful no error messages will appear. Once the red progress messages cease on the main page you can look at the contents of your backup zip file by double-clicking it in the backups folder. You should see the five files that were identified earlier.

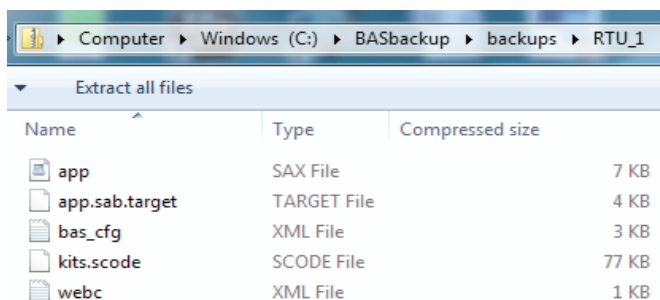


Figure 4 — Content of the RTU_1 Backup ZIP File

Restoring a Sedona Project

Restoring a Sedona Project is just as easy. Before you begin the restore process, set the IP address on the main page to the location of the controller to be restored. The controller must be powered up and accessible. You will need to select the appropriate backup file by first clicking *Choose File* on the main page and selecting the file.

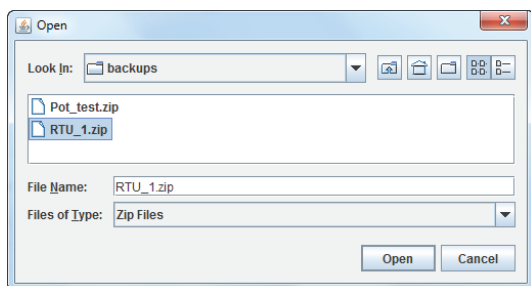


Figure 5 — Choosing a Restore ZIP File

In this example we are going to restore RTU_1.zip to controller 10.0.0.61. Once you have the correct backup file and IP address as shown in Figure 6, click the *Restore* button on the main page to get the screen of Figure 7.

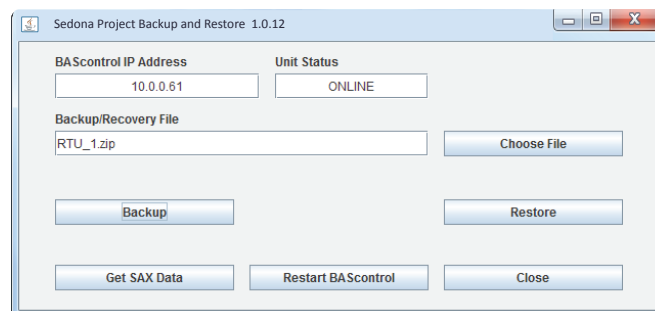


Figure 6 — Restoring to 10.0.0.61

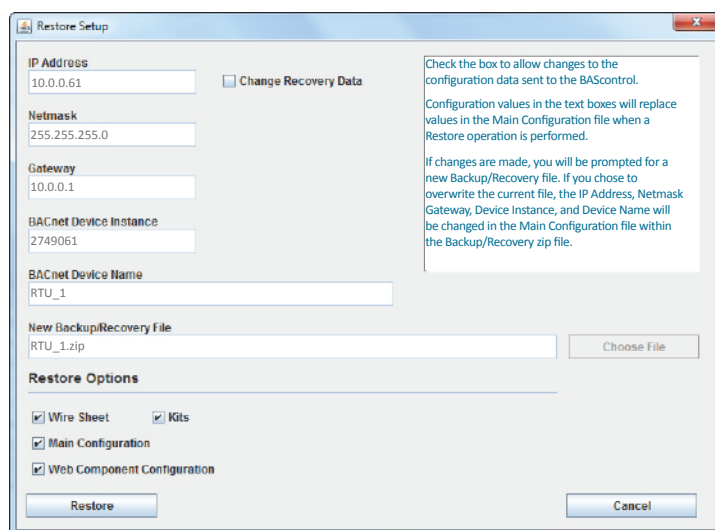


Figure 7 — Restore Setup Screen

First notice the location of the Backup/Recovery file. Is this the file you want restored? Second, look at the top of the screen and you will see the following parameters:

- IP Address
- Netmask
- Gateway
- BACnet Device Instance
- BACnet Device Name

These five parameters will be loaded into the controller being restored. Are these five parameters that come from the saved zip file what you want? Is the IP address of the target controller the same as shown on this page? If so, study the *Restore Options*.

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There are some options available before restoring a controller. Under the *Restore Options* there are four boxes:

- Wire Sheet
- Main Configuration
- Web Component Configuration
- Kits

By un-checking boxes you can control what individual files are being restored. Consider this an advanced feature because under normal conditions you want to make sure that all files you saved in the project backup file are going to be reflected in the restored controller.

Once you are convinced the settings are correct, click the *Restore* button.

Once the Restore operation is completed, evidenced by the completion of progress messages, the application program in the target controller continues to run the old program. In order to run the newly restored program, a controller Restart is required. You will be prompted for an immediate restart. You can do it now or later.

If you want to restart the controller later, this can be accomplished by clicking the *Restart BAScontrol* button on the BASbackup main page or by restarting from the controller's web page. Regardless of what method is used, care should be exercised when restarting the program on an active controller. The controller and application should be in sight of the systems integrator initiating the restart to confirm a safely functioning restart of the application.

Cloning a Sedona Project

It is also possible to direct a saved program to a different controller that needs to run the identical saved program. However, the IP address, netmask and gateway address stored in the saved backup file need to reflect the target controller otherwise there will be an IP conflict. In addition, the BACnet Device Instance and BACnet Device Name must be unique so it must be changed from what is in the stored in the saved file.

On the BASbackup main page (Figure 8), set the IP address of the target controller and choose the backup file that is to be used for cloning. In this example we are going to use RTU_1.zip for cloning to the 10.0.0.62 controller. Once the information is correct click *Restore* to get you to Figure 9.

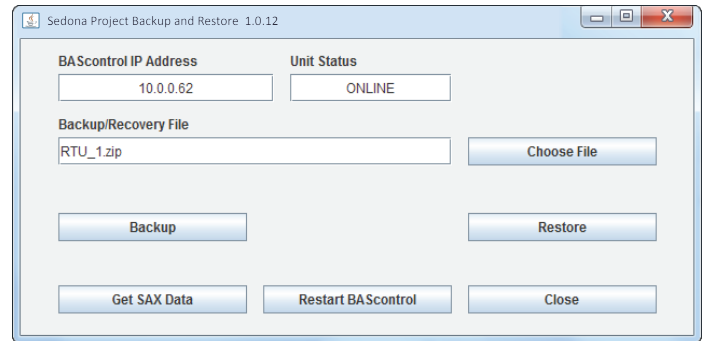


Figure 8 — Specifying the IP Address and the Backup ZIP File for Cloning

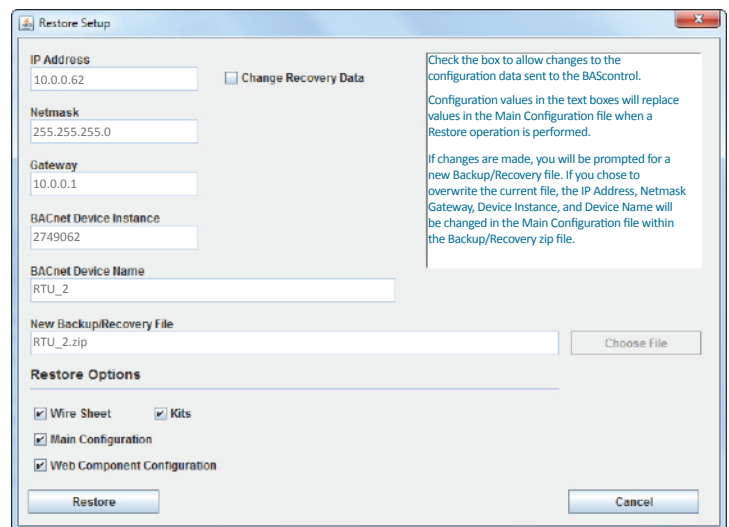


Figure 9 — Restore Setup Screen for Cloning

On the Restore Setup page, check the box entitled *Change Recovery Data*. Now you are able to change the settings of the five parameters to suit the target controller. Enter the *IP address* of the target controller. The *Netmask* and *Gateway* probably do not need to change. The *BACnet Device Instance* should be changed to something unique as should the *BACnet Device Name*.

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Since the target controller is for RTU_2 we will use this name while changing the *BACnet Device Instance*. It is also a good idea to save the cloned controller settings to a new zip folder for easy recovery. In this way we will have a unique backup file for every controller on the job. In our example, the target controller is RTU_2 so that is what we are going to enter for the new backup program we are going to generate. Enter the new backup file name. Since we want all types of files saved we will leave the four Restore Option boxes checked.

This is important to remember. The IP address on the Restore Setup screen will become the controller's IP address once the controller is restarted. So it is possible to send the Restore Setup data to a controller with a different IP address than the one indicated on the Restore Setup screen. The file is always sent to the IP address indicated on the BASbackup main page. However, once the controller is restarted it will assume the IP address indicated on the Restore Setup screen. This could be very handy when you have several BAScontrols at factory-default IP addresses that are to be commissioned to specific IP addresses in the field using a common program. Just make sure you provide unique BACnet references and IP addresses for each controller. If you have different IP addresses on the Restore Setup screen and the BASbackup main page, you will receive an Alert message asking if you want to proceed (Figure 11).

Click *Restore*.

Once the Restore operation is completed, the application program in the target controller continues to run the old program. In order to run the newly restored program, a controller Restart is required. You will be prompted for an immediate restart. You can do it now or later.

If you want to restart the controller later, this can be accomplished by clicking the *Restart BAScontrol* button on the BASbackup main page or restarting from the controller's web page. Regardless of what method is used, care should be exercised when restarting the program on an active controller. The controller and application should be in sight of the systems integrator initiating the restart to confirm a safely functioning restart of the application.

When you are finished, you will have cloned a controller in the field but configured it appropriately in terms of IP address and BACnet settings. You also have created a new backup file for project storage.

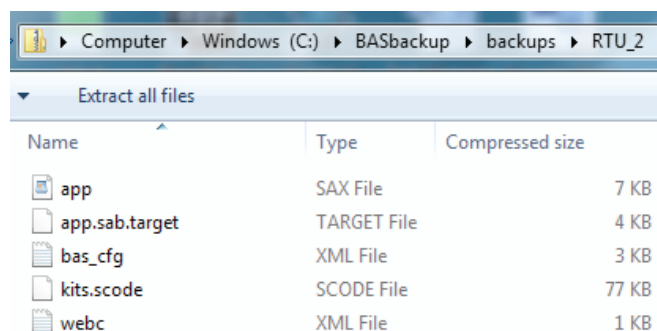


Figure 10 — Content of the RTU_2 Backup ZIP File

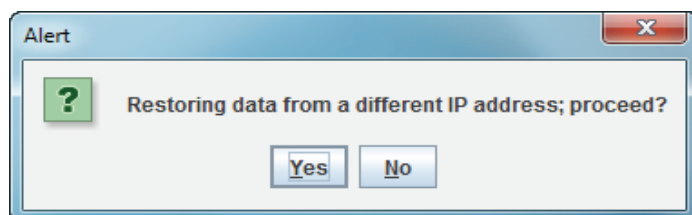


Figure 11 — Alert message when IP addresses differ in a restore operation.

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Getting SAX Data

There is a convenient feature on the BASbackup utility. By the utility recreating the Sax file from the Sab file, we can learn the amount of memory being used in the saved application or even from an active controller in the field with an unknown file. Click on the *Get SAX Data* button and you will see the following window:

The screenshot shows the 'SAX File Statistics' window. At the top, there are two checkboxes: 'Use SAX file from Zip (RTU_1.zip)' which is checked, and 'Use SAX file on BASControl (10.0.0.61)' which is unchecked. Below these are input fields for 'Device Name' and 'App Name', both containing 'RTU_1' and 'RTU 1H1C' respectively. To the right of these fields is a 'Get Data' button. Further down are three more input fields: 'Number of Components' with the value '165', 'Number of Links' with the value '188', and 'RAM Used' with the value '14312'. A 'Close' button is located at the bottom right of the window.

Figure 12 — SAX File Statistics Screen

The default selection gives you the data from the saved zip file indicated. If you use this option, make sure the saved location is what you want otherwise browse from the main page for the correct location. Click on Get Data to retrieve the data.

This screenshot is identical to Figure 12, showing the 'SAX File Statistics' window with the 'Use SAX file from Zip' option selected and the same data values.

Figure 13 — SAX File Statistics Screen

If instead you check the box that provides the Sax file from a controller in the field, make sure the IP address indicated is the desired controller otherwise change the IP address on the main page.

This screenshot shows the 'SAX File Statistics' window with the 'Use SAX file on BASControl (10.0.0.61)' checkbox selected, while 'Use SAX file from Zip' is unchecked. All other fields and values remain the same as in the previous figures.

Figure 14 — SAX File Statistics Screen

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