

# 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 a BAScontrol20 project to a desktop or laptop computer. With the BAScontrol20, a project consists of the following files:

- Sedona Framework binary application file (app.sab.target)
- Sedona Framework source application file (app.sax)
- BAScontrol20 configuration file (bas\_cfg.xml)
- BAScontrol20 web component file (webc.xml)

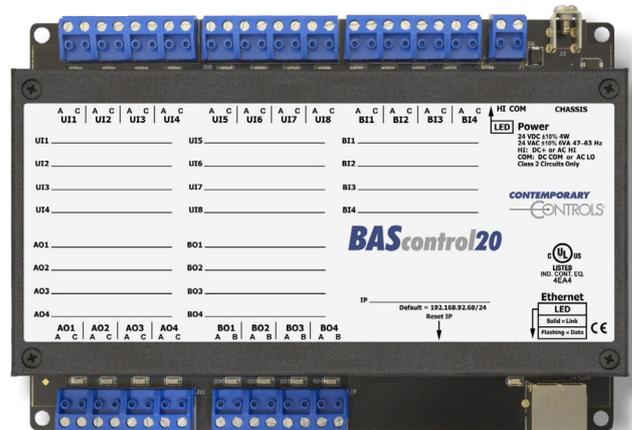
These files are sufficient to completely backup a BAScontrol20 project without the need of a Workbench tool. Although Sedona files can be backed up and restored using the Workbench tool using the Get and Put commands, the BAScontrol20 configuration and web component configurations are ignored. Therefore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

### System Requirements

BASbackup is a program written in Java 7\_51 and is intended to run on a Linux or a Windows® 7 (or later) computer. It can be downloaded from:

[www.ccontrols.com/exe/BASbackup.jar](http://www.ccontrols.com/exe/BASbackup.jar)

After installing BASbackup anywhere on your PC, double-click its icon to open the screen of Figure 1 (with a default IP address of 192.168.92.68). Opening the utility also creates a configuration file for the program at the same location as the JAR file.



BAScontrol20

# BASautomation®

## Backing up a Sedona Project

Enter the correct *IP Address* of the BAScontrol20 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. The target controller must be powered with Sedona enabled and accessible. Enter the location of the *Sedona Home* folder or browse for it using the *Choose Folder* button. The *Choose Folder* button will launch a search window as shown in Figure 2. The *Sedona Home* location should be something like:

C:\Niagara\Niagara 3.8.38\Sedona

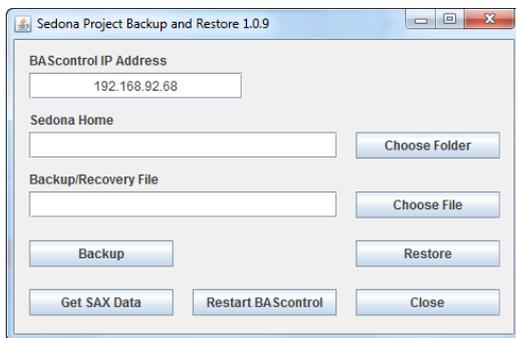


Figure 1 — Enter the IP Address of the BAScontrol20

Enter the location of the Backup File or browse for it using the *Choose File* button of Figure 2. You will need to create a name for your backup zip file if it does not already exist. You do not need to add the zip extension since it will be done for you — as shown in Figure 3. Choose a name that is meaningful to the application or to the location of the equipment that has the target controller.

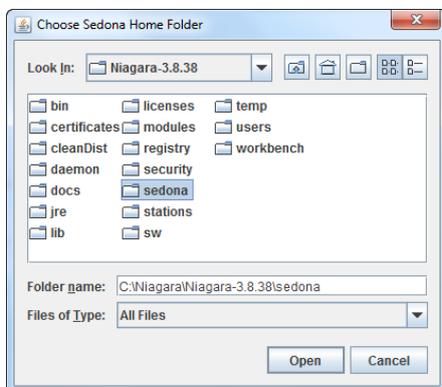


Figure 2 — Choose the Sedona Home Folder

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

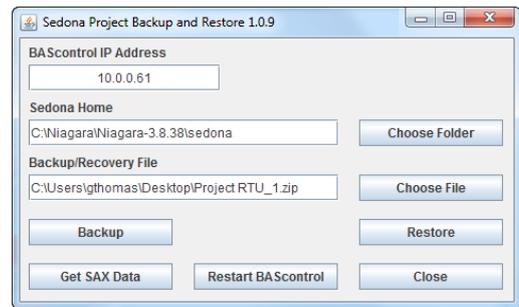


Figure 3 — Specifying the Backup/Recovery File Name

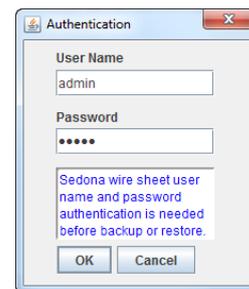


Figure 4 — The Authentication Screen

If you are successful, no error messages will appear. Once the *Working...* message ceases on the main page, you can look at the content of your backup zip file by double-clicking it. You should see the four files that were identified earlier — as shown in Figure 5.

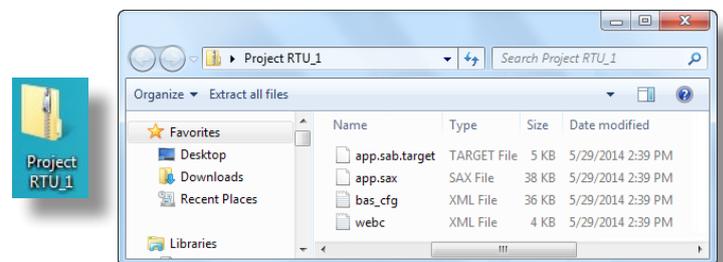


Figure 5 — Content of the RTU\_1 Backup ZIP File

## 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. Then click on the *Restore* button on the main page to get you to the **Restore Setup** screen as shown in Figure 6. Notice that the field values are currently dimmed. This indicates that these values are **read-only**. They will remain read-only until the *Change recovery data* checkbox is checked.

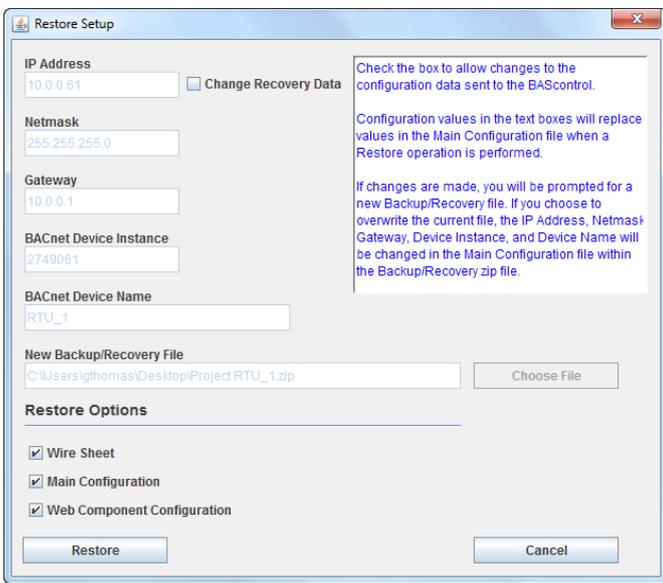


Figure 6 — Restore Setup Screen (Read-Only Mode)

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 five 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 address the same as shown on this page? If so, click on *Restore* for a simple restore process.

Once the *Restore* operation is completed, the application program in the target controller continues to run the old program. 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 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.

There are some options available before restoring a controller. Above the *Restore* button are three boxes:

- *Wire Sheet*
- *Main Configuration*
- *Web Component Configuration*

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 the three files you saved in the project zip file are going to be reflected in the restored controller.

## Cloning a Controller

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 master's zip 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**, set the IP address of the target controller and then click *Restore*. On the **Restore Setup** screen that appears as in Figure 7, check the box entitled *Change Recovery Data*. Now you are able to change the settings of the five parameters. It is also a good idea to save the cloned controller settings to a new zip folder for easy recovery. Enter the new zip file name to be meaningful to the application or equipment location that has the target controller. Since we want all types of files saved, we will leave the three *Restore Options* boxes checked.

There is one important issue 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 folder data to a different controller as instructed on the BASbackup **main page**, restart the controller to change the IP address for you when you restart the controller. This could be very handy when you have several BAScontrol20s at factory-default IP addresses that are to be commissioned in the field set to the specified addresses.

Click Restore.

Once the *Restore* operation is completed, the application program in the target controller continues to run the old program. 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 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 within sight of the systems integrator initiating the restart to confirm a safely functioning restart of the application.

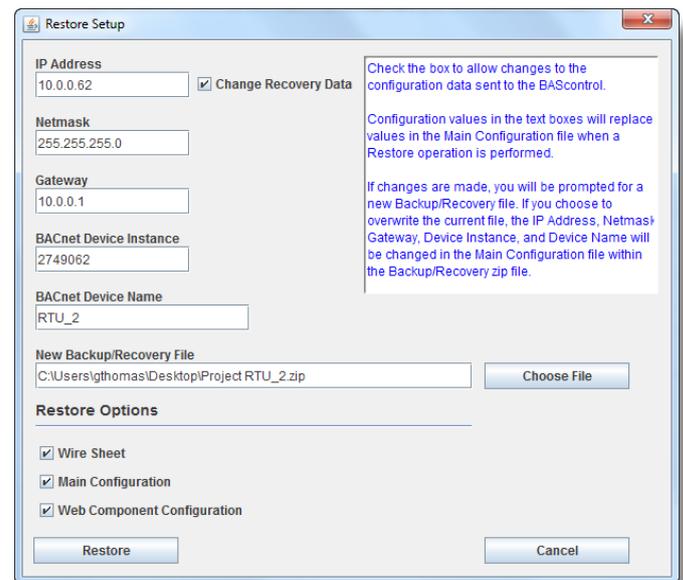


Figure 7 — Restore Setup Screen (Restore Mode)

When you are finished as evidenced that the *Working...* message ceases, 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 zip file for project storage.

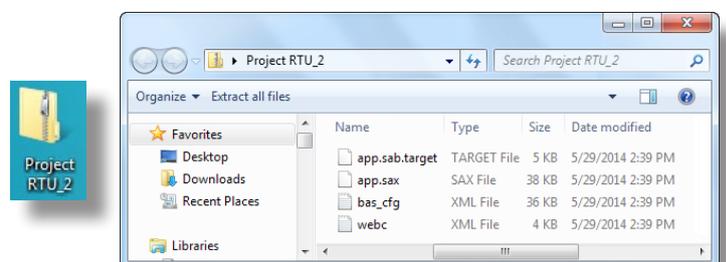


Figure 8 — Content of the RTU\_2 Backup ZIP File

## 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. Make sure you have the proper Sedona Home folder entered. Click on the *Get SAX Data* button to reveal the **SAX File Statistics** screen displayed in Figure 9.

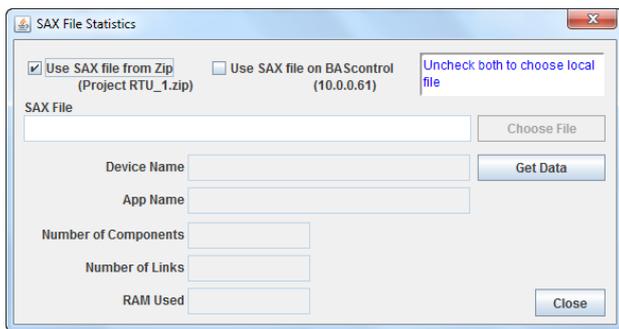


Figure 9 — SAX File Statistics Screen

The default selection gives you the data from the saved zip file indicated. If using 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.

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.

The final option is to uncheck both boxes and search for the SAX file location on your computer. Usually, this is in this folder

C:\Niagara\Niagara -3.8.38\sedona\store\apps

Once you find the location click *Get Data*. The information will look like this:

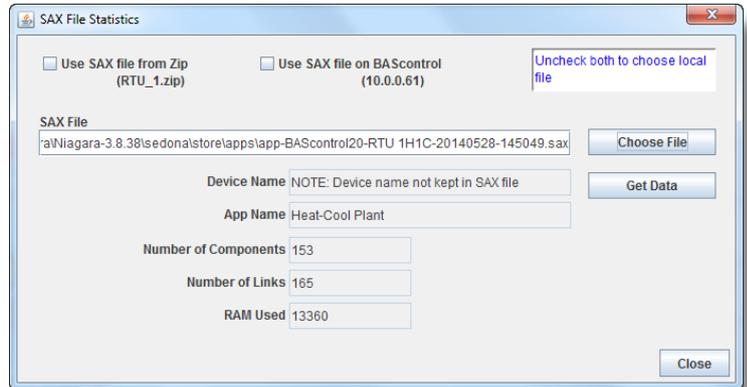


Figure 10 — SAX File Statistics Screen

Notice that the SAX file does not contain the **Device Name**. This data is stored in the *bas\_cfg.xml* file which can be retrieved directly from the controller from the zip file. However, all three methods will provide the wire sheet memory size, number of components, number of links as well as the application name.

### United States

Contemporary Control Systems, Inc.  
2431 Curtiss Street  
Downers Grove, IL 60515  
USA

Tel: +1 630 963 7070  
Fax: +1 630 963 0109

[info@ccontrols.com](mailto:info@ccontrols.com)  
[www.ccontrols.com](http://www.ccontrols.com)

### China

Contemporary Controls (Suzhou) Co. Ltd  
11 Huoju Road  
Science & Technology Industrial Park  
New District, Suzhou  
PR China 215009

Tel: +86 512 68095866  
Fax: +86 512 68093760

[info@ccontrols.com.cn](mailto:info@ccontrols.com.cn)  
[www.ccontrols.asia](http://www.ccontrols.asia)

### United Kingdom

Contemporary Controls Ltd  
14 Bow Court  
Fletchworth Gate  
Coventry CV5 6SP  
United Kingdom

Tel: +44 (0)24 7641 3786  
Fax: +44 (0)24 7641 3923

[info@ccontrols.co.uk](mailto:info@ccontrols.co.uk)  
[www.ccontrols.eu](http://www.ccontrols.eu)

### Germany

Contemporary Controls GmbH  
Fuggerstraße 1 B  
04158 Leipzig  
Germany

Tel: +49 341 520359 0  
Fax: +49 341 520359 16

[info@ccontrols.de](mailto:info@ccontrols.de)  
[www.ccontrols.eu](http://www.ccontrols.eu)