

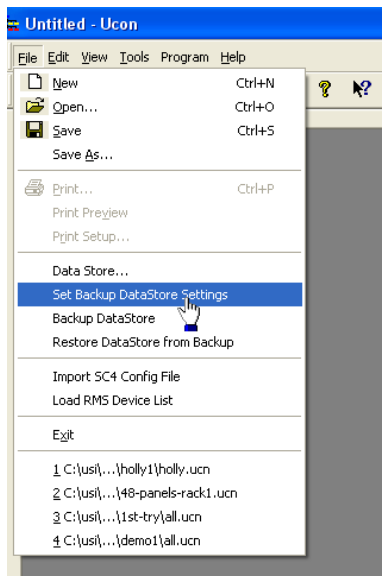
UCON 3.0 Automatic Backup Feature

1. Overview

Starting with version 3.1, ucon supports various datastore backup features. A backup is defined as all the views (*.ucn) and all the datastore files located in the ucondatastore directory located immediately below the directory containing the view files. There are 2 items that must be configured in order to customize the operation to the users needs. The two items that must be configured are:

- a. The backup file storage location. This defines where archive files will be stored by UCON. The default is c:\ucondatastore\backups
- b. The circumstances that generate a backup. This defines which events (essentially user actions) cause a backup to be made. The possible options will be covered in detail below. They are ON OPEN, ON PROGRAM, ON CLOSE, FROM MENU.

2. Configuration

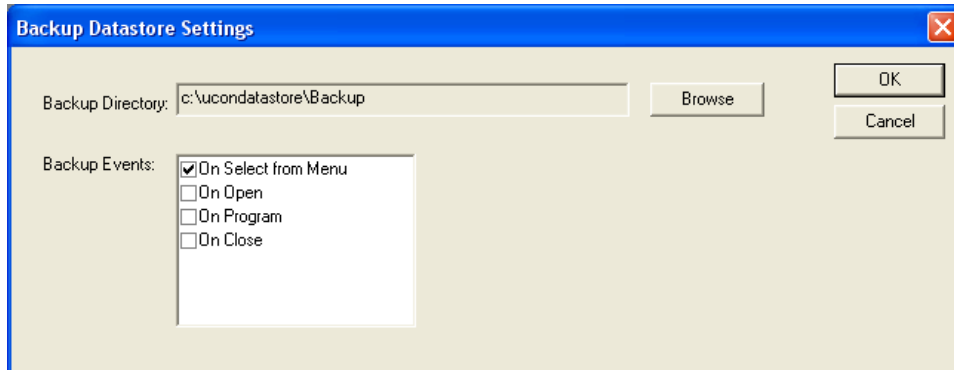


All configuration actions are carried out from a menu selection on the FILE tab as shown to the left.

Selecting this menu item brings up the configuration window pictured next.

To select the backup directory click the browse button and select the directory to place backup files. This **MUST BE** a different location than your working directory.

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Once the backup directory has been selected, you should select the events that cause backups to be generated. As stated above the possible options are ON OPEN, ON PROGRAM, ON CLOSE, ON SELECT FROM MENU

ON SELECT FROM MENU. This item should always have a check mark displayed next to it. This means it is active allowing the user to manually trigger a backup from the FILE menu anytime they wish. When this item is selected the user is presented with a dialogue allowing them to override the default file name for the backup. This is the only backup type that allows this.

ON OPEN. When this item is checked a new backup is created every time a new view is opened in Ucon.

ON PROGRAM. When this item is checked a new backup is created every time a program procedure is started by the user

ON CLOSE. When this item is checked a new backup is created every time a Ucon view file is closed. This can occur if you change views to a different file or if you close the ucon application down completely.

Once all settings are updated as you require, select the OK button to save the information to the hard drive. The data is saved in a file called ucon.ini located in the same directory where the ucon application started from (example c:\Program Files\Utah Scientific, Inc\ucon).

There is another event that can trigger a backup operation. This event is always in effect and therefore not configurable. The event is a AUTOMATIC BACKUP. Ucon now keeps 2 sets of datastore files. A working set and a original set. In the event Ucon does not shutdown properly the next time the datastore is opened the user is presented with the option of reverting to the original datastore files or continue using the working set. Regardless of the users choice, a automatic backup is made of the original files. The data is stored in the backup file location. The filename will end with _AUTOSAVE.

3. Working With Backup Files and Data

When a backup is created the following actions are performed.

- a. A new directory is created in the designated backup location. The filename is a combination of the Directory Name, current Date (YYYYMMDD), Time (HHMMSS), and backup description (MENU, PGM, OPEN, CLOSE, AUTOSAVE).

Example (KUSI_20060608_141738_ MENU)

- i. The Directory name is obtained from the pathname where the working copy of the datastore is saved on disk. The KUSI example above would be generated if the original datastore was located in c:\usi\ucon\datastores\KUSI.
 - ii. The backup description follows the user action that triggered the backup. There is one exception. That being AUTOSAVE described earlier.
 - iii. Note that a backup initiated from the FILE menu displays a dialogue allowing the user to modify the default filename of the backup.
- b. All files stored in the working directory including those located in the ucondatastore folder are copied into the folder generated above. This effectively saves a snapshot of the ucon configuration data.

There is one exception to the naming rule

4. Restoring Backup Files and Data

Follow the steps below should it become necessary to restore files previously backed up.

- a. Open a view in the working directory where you want to restore the files. Then save the data to make sure the files are current.
- b. Select Restore Datastore From Backup from the FILE MENU.
- c. Select a view file in the backup data set you wish to restore. Using the example above you would select `c:\usi\ucon\backups\ KUSI_20060608_141738_ MENU\[file.ucn]`
- d. A confirmation box will be displayed. Review the information there and if correct select the OK button to perform the restore operation.

NOTE: This operation completely removes the existing data in the working directory.

- e. All files associated with the backup location you selected above are copied to the current working location. Ucon then opens the view file you selected and normal operations resume from there.

5. User Examples and recommended settings

- a. Recommended Settings

How the backup events are configured is up to the users discretion. The following guidelines can be used as a starting point.

IF YOU Typically make changes by opening a ucon file, make any necessary changes, do a single program operation and then close ucon the following settings are recommended. They provide backups of each new programming session you execute.

ON MENU ACTIVE

ON OPEN ACTIVE

ON CLOSE ACTIVE

ON PROGR AMDISABLED

IF YOU typically open ucon make changes, program panels and repeat this cycle many times before closing Ucon the following settings are recommended They provide chronological backups of each new set of changes allowing the user to easily return to any previous state for the ucon session.

ON MENU ACTIVE

ON OPEN ACTIVE

ON CLOSE DISABLED

ON PROGR AMACTIVE

b. Restoring a previous backup for testing purposes without losing your current datastore information.

A user may want to do this as a test or if they're not 100% sure where they want to backup from. An example is a certain configuration has been changed and the user wishes to find out what the original was. The user would perform the following steps.

i. Do a manual backup of the current datastore (FILE->BACKUP DATASTORE)

ii. Create a new datastore by either saving the current datastore to a new directory or shutting down ucon, starting ucon, and saving the default datastore to a new directory. FILE->SAVE AS (creating directories as necessary)

c:\usi\ucon\datastores\temp_restore_test\view.ucn. NOTE You MUST select a directory that is different than your regular working directory. Saving the new datastore initializes any required directories as necessary.

iii. Restore one of the saved backups FILE->RESTORE FROM BACKUP
c:\usi\ucon\backups\20060601_080000_KUSI_CLOSE

iv. The user can now open the device configuration and see if it is the one they are interested in. If not they can repeat the restore operation selecting different backups until they find one they can use.



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Note: Restore process would start with the FILE-RESTORE FROM BACKUP step above. In other words we already have the temporary directory to work from and there is no need to create others.
