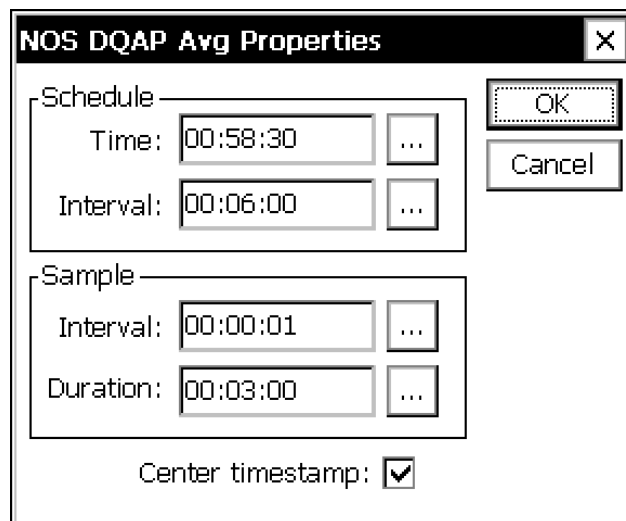


# Xpert/9210B XLite NOS Manual



## OPERATIONS & MAINTENANCE MANUAL

A screenshot of a software dialog box titled "NOS DQAP Avg Properties". The dialog has a standard Windows-style title bar with a close button (X). It contains two main sections: "Schedule" and "Sample". The "Schedule" section has a "Time" field with the value "00:58:30" and a "..." button, and an "Interval" field with the value "00:06:00" and a "..." button. The "Sample" section has an "Interval" field with the value "00:00:01" and a "..." button, and a "Duration" field with the value "00:03:00" and a "..." button. At the bottom of the dialog, there is a checkbox labeled "Center timestamp:" which is checked. On the right side of the dialog, there are "OK" and "Cancel" buttons.

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## Table of Contents

Introduction.....	3
Installing NOS.sll.....	4
Installation.....	4
Custom Reporting.....	5
Centered Timestamps.....	7

## Table of Figures

Figure 1: Setup tab showing Users entry highlighted.....	5
Figure 2: Edit Users Dialog .....	5
Figure 3: Edit User Dialog.....	6
Figure 4: NOSDQAP averaging block properties dialog .....	7

## INTRODUCTION

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Sutron's Xpert family of DCPs (both the 9210/B and the Xpert/2, hereafter referred to as the Xpert) have been designed to be easily expandable by adding additional software libraries, called Sutron Link Libraries (SLLs). One such library is nos.sll, which adds custom command line reporting to the Xpert and 9210 loggers, as well as average and measure blocks that allow data time-stamps to be centered on the measurement interval. This document is the user manual for nos.sll. The following topics are discussed:

- How to install the library.
- How to configure and use the Xpert for NOS custom reporting
- How to configure and use average and measure blocks for interval-centered time-stamps

## INSTALLING NOS.SLL

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This section describes installation of the nos.sll library.

### Installation

To install the nos.sll library, copy the file to the “Flash Disk” subdirectory of your Xpert using Xterm. For more information on performing this file transfer, please refer to chapter 6 of the Xpert or 9210 user manual.

Once the library file has been transferred, reboot the Xpert. The library will load automatically after the Xpert reboots.

To uninstall the library, use Xterm to delete the file from the Flash Disk subdirectory. This can only be done when the Xpert application is not running (select “Exit App” from the Status tab).

In order for the nos.sll library to load and operate correctly, the version of the nos.sll file must be the same as the version of the application loaded into the Xpert. This is usually not a concern because the same versions of the sll and application are typically packaged together. Should the need arise to verify that the versions are the same, the version of the sll as it resides on the PC can be determined by looking at the file’s properties (right-click on the file and select the “Version” tab). The version of the Xpert application is given by the application itself, at the top of the About dialog, which is accessed from the Status tab.

## CUSTOM REPORTING

This section describes how to configure the Xpert for NOS custom reporting.

NOS custom reports are generated and output on the command line when users who have been associated with those reports log-in. You associate a user name with a report using the Users applet in the control panel on the Setup tab.

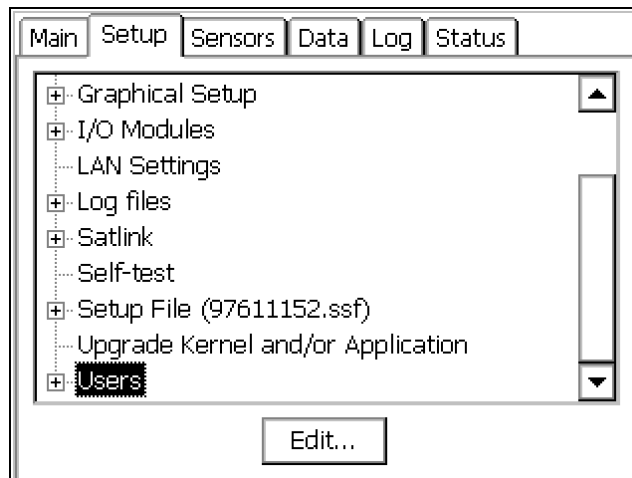


Figure 1: Setup tab showing Users entry highlighted

To open the Users applet, highlight the “Users” entry and press the “Edit” button. The following dialog appears, showing the users defined in the system:

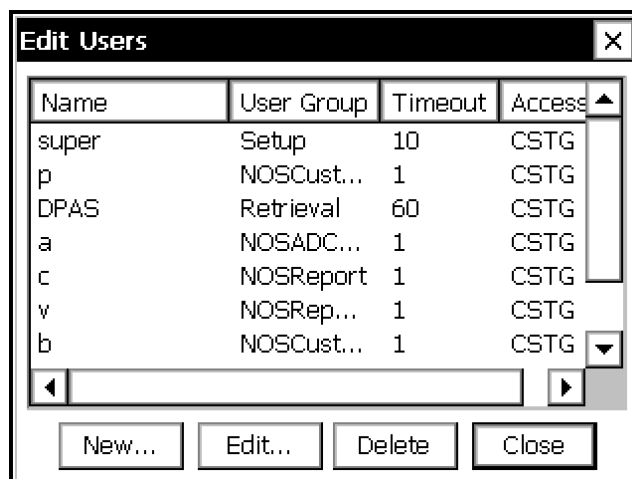
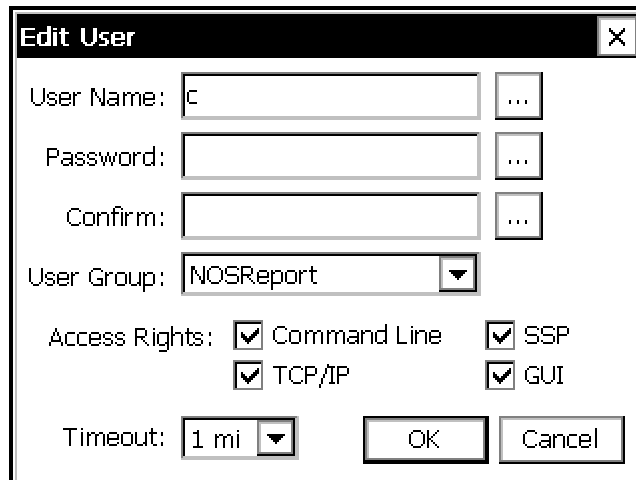


Figure 2: Edit Users Dialog

To edit the properties of a user, highlight the user name in the list and press the “Edit” button. Or, to create a new user, press the “New” button. In either case, the following dialog is shown:



**Figure 3: Edit User Dialog**

It’s in this Edit User Dialog that we assign a custom reporting group to a specific user. In the example shown above, the “NOSReport” custom reporting group is assigned to user “c”. Hence, when user “c” logs into the system via the command line, the NOSReport custom report will be generated and output to the command line.

The NOS custom report groups are defined as follows:

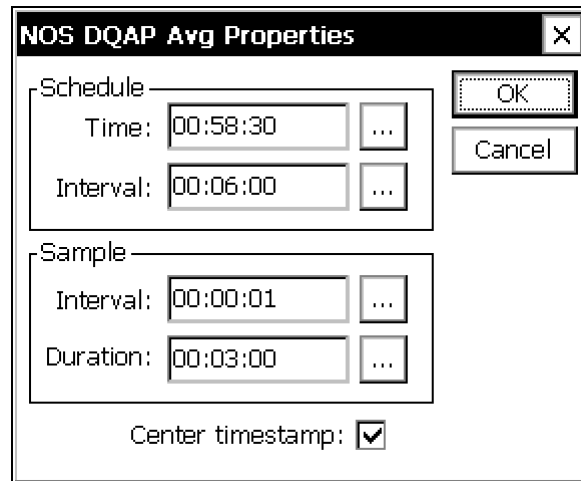
User Group	Description
NOSCustRpt	Custom table-based report driven by format file #1 (i.e., NOSGOESFormat.txt)
NOSCustRpt2	Custom table-based report driven by format file #2 (i.e., NOSGOESFormat2.txt)
NOSADCPRpt	ADCP report in recent.dat, either on Flash Disk or on secondary storage card (e.g., SD Card)
NOSReport	Contents of report.dat, either on Flash Disk or on secondary storage card (e.g., SD Card)
NOSReport2	Contents of report2.dat, either on Flash Disk or on secondary storage card (e.g., SD Card)
NOSTx1	Transmission as it would appear if formatted now using format file #1 (i.e., NOSGOESFormat.txt)
NOSTx2	Transmission as it would appear if formatted now using format file #2 (i.e., NOSGOESFormat2.txt)

## CENTERED TIMESTAMPS

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This section describes how to use the NOSAvg and NOSDQAP blocks provided by the nos.sll to center time-stamps on either an average or DQAP average measurement duration.

The NOSAvg and NOSDQAP blocks each have a “Center timestamp” option that when checked, will cause the output of the block to have a timestamp set to the center of the block’s measurement duration. The NOSDQAP block properties dialog is shown for example, below:



**Figure 4: NOSDQAP averaging block properties dialog**

In the example above, the 3 minutes of sampling is scheduled to occur such that it splits the top of the minute, every six minutes. The timestamp given will be the 6 minute time mark, i.e., 00:06:00, 00:12:00, 00:18:00, and so on.

When “Center timestamp” is not checked, the timestamp of the output follows standard Xpert convention, i.e., the time of the last sample. In the example shown above, that would be 00:58:30, 00:04:30, 00:10:30, etc.