


February 7, 2006

Product: Ishida ScaleLink Pro

Issue: Automated Scheduler Operation

Contents: Information for Successful Use of ScaleLink Pro and Windows Scheduler



Authorized distributors and their employees can view or download this document from the Rice Lake Weighing Systems distributor site at www.ricelakeretail.com.

Background

Ishida's ScaleLink Pro is a powerful scale data management program. The program supports all Ishida models from the AC-2000 to the SR-2000a touch screen scale. When automated communications are required the built-in Scheduler program provides all necessary features from importing files to transmission of data to the scales.

This document covers many of the Schedulers features along with important setup and troubleshooting information.

Overview

The basic steps to automate data importation and transmission are as follows.

1. Create a ScaleLink Pro database in .MDB format.
2. Create an ASCII delimited text file of data to be imported.
3. Add operations to be automated to the ScaleLink Pro Scheduler.
4. Configure Microsoft® Widows Scheduler to launch the ScaleLink Pro Scheduler.

ScaleLink Pro databases: .MDB versus .PLD

Two different database file types are supported by ScaleLink Pro version 3.2x. The table below compares the two file types. When using the Scheduler the .MDB file type must be used. The Scheduler is considered a second user and only the .MDB file type allows multi-user access.

File Type	.MDB	.PLD
Multi-user	Yes	No
File Size	Large	Small
File Access Time	Slow	Fast
File Structure	MS Access	Proprietary

Importing Data

The recommended method of importing data into ScaleLink Pro is by a delimited ASCII text file. A text file is created by exporting a file from a spreadsheet program, a POS program, or other source. Once the file is available the ScaleLink Pro Scheduler must be configured to import it.

Detailed information about the delimited ASCII text file format can be found in the Rice Lake Technical Bulletin number TB20030926, "Instructions to prepare and import ASCII delimited files".

ScaleLink Pro Scheduler

Adding Events to the Scheduler

When the ScaleLink Pro Scheduler program opens it automatically loads the schedule file from the previous time the Scheduler was run. If necessary, use the **Open** command in the File menu to open a different schedule file. The schedule file stores the list of scheduled operations, which are listed along with their status and next execution time in the main window (see Figure 1).

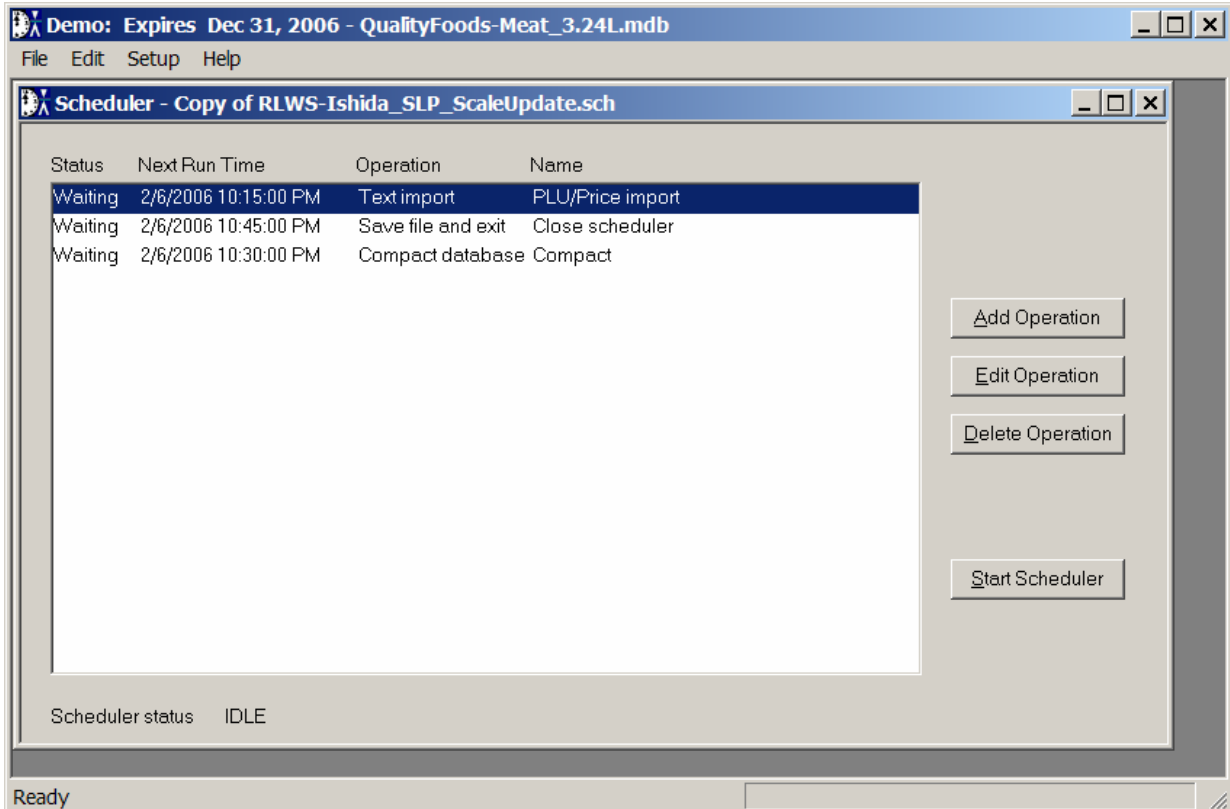


Figure 1. Main ScaleLink Pro Scheduler window.

Use the **Add Operation**, **Edit Operation**, and **Delete Operation** buttons in the Scheduler window to setup the Scheduler operations. Click the **Add Operation** or **Edit Operation** button to open the Scheduler operation screen as seen on figure 2.

Figure 2. Typical ScaleLink Pro Scheduler PLU/Price text file import operation window.

The meaning of each item in the screen is as follows:

Item	Explanation
Name	The name specified here appears in the Operation column in the main Scheduler window.
Enable?	Uncheck this box to prevent the operation from being executed when due.
Reset Status	The current status of the operation is displayed to the left of this button. Click the Reset Status button to set the status of a completed operation back to "Waiting" or to clear an error.
Operation	Specify the type of operation to execute. If applicable, a window may open to setup the selected operation. Changing the operation type deletes any existing operation settings.
Operation Settings	Open a window to setup the selected operation. The contents of the window differ depending on the type of operation selected.
Database/Department	Select the database to update for the operation.
	Specify database file: Specify the database file directly.
	Specify department: Use the database for the specified department*. * This option is only available if departments are setup for your copy of ScaleLink Pro.

Item	Explanation
Execute at	Specify the date and time for executing the operation.
Repeat?/ Repeat interval	Specify whether to execute the operation again after the specified interval.
Between .. and ...	If desired, set a time range so that repeat execution of the operation only occurs between specified times.
Log errors in file?	Check this box to log any errors that occur when an operation executes. See the Error Handling section below for details.

In addition to importing and/or exporting data a Compact Database operation is recommended. As data are added and deleted from the file over time it may slow down ScaleLink Pro and the Scheduler. Compacting the file removes any old data and speeds up data access. The operation should be run weekly.

Finally, a Save and Exit operation is needed. This will close the Scheduler after all operations have executed. Be sure to allow enough time for all operations to finish before closing the Scheduler. If necessary, extend the time allowed for an operation and delay the Save and Exit operation.

Executing a Scheduled Operation

The SLP Scheduler performs the following steps each time an operation becomes due for execution:

1. Delete the error file (if specified).
2. Load the database or department specified in the operation settings.
3. Execute the specified operation.
4. Write any error messages to the error file (if specified).
5. Close the database.

If an error occurs for an operation, the operation status (the left hand column of the Scheduler window) is set to "Error". The Scheduler does not attempt to execute the error operation again. However, if the operation is setup to repeat execution at preset intervals, the Scheduler does try to execute the operation when it is next due, even if the current status is "Error".

Error Handling

The Scheduler does not display a message on the screen if an error occurs in a scheduled operation. This is because the Scheduler is intended to run unattended, so it makes little sense to display a message box and wait for the user to click OK.

Instead, if specified, error information can be written to an error log. The error log is deleted before starting each operation and a new file only created if an error occurs. Accordingly, the existence of an error log indicates that some sort of error has occurred.

To execute an external program whenever an error occurs, create an error handling program called ReportError and place in the same folder as the ScaleLink Pro executable files. When an error occurs, the Scheduler runs ReportError with the error message specified in the command line enclosed in quote marks. For example:

```
ReportError "This is an error message"
```

Upon request, Rice Lake Weighing Systems can provide two files to assist in error reporting: ReportError.exe and ReportError.vbs. Both files are placed in the ScaleLink pro folder. If an error occurs the .EXE file executes the .VBS file to send an e-mail message that an error has occurred. The contents of the .VBS file can be edited with a standard text editor to specify the destination address and contents of the e-mail message.

Off-Line Operation

If a Scheduler operation is executed when one or more scales are out of service for some reason, the operation is executed as usual and the database is updated. The Scheduler saves the data that would have been sent to the off-line scales and automatically sends this data when the scales come back on-line.

The Scheduler, however, only rechecks off-line scales and retransmits while the Scheduler is running. The Scheduler rechecks communication to off-line scales every five minutes. It is important, therefore, that the Scheduler remain running for a sufficient period to recheck any off-line scales and resend data.

Command Line

The Ishida ScaleLink Pro Scheduler is not intended to be run for indefinite periods. If the Scheduler is run continuously it is likely that the program will be inadvertently closed or disabled or, eventually become unresponsive. For this reason, the recommended method of using the ScaleLink Pro Scheduler is to start the program via the Microsoft® Windows Scheduler.

Although the Scheduler can be launched from within ScaleLink Pro it is normally started from the command line. Whether launched manually or by another program the command line parameters for ScaleLink Pro version 3.x are as follows:

```
SLP3.exe -S -R -I -U"User Name" -P"Password" <file name>
```

Where:

- S: Specifies the Scheduler (instead of the normal ScaleLink Pro). (Required)
- R: Starts the Scheduler running immediately. (Optional)
- I: Starts the Scheduler iconized. (Optional)
- <file name>: Specifies the schedule file. (Optional) If omitted, the schedule file from the previous Scheduler session is used.

If using user access control, specify the user name and password (enclosed in quotes) in the command line parameters -U"User Name" and -P"Password".

Microsoft® Windows Scheduler

As mentioned above, the recommended method to launch the ScaleLink Pro Scheduler is via the Microsoft® Windows Scheduler. The Microsoft® Windows Scheduler calls the ScaleLink Pro Scheduler which remains idle until the first scheduled operation becomes due. Refer to the following procedure to add a new task to the Windows Scheduler to launch the ScaleLink Pro Scheduler.

1. Go to the Windows **Control Panel**.
2. Select **Scheduled Tasks**.



Scheduled Tasks

3. In the **File** menu, select **New, Scheduled Tasks**.
4. Name the new task.
5. Double click the new task from the list and set the parameters.
6. Click the **Browse** button and navigate to and select the SLP application "Slp3.exe".
7. The **Run** field should look something like the following:
"C:\Program Files\Ishida\ScaleLink Pro\SLP 3.24c\Slp3.exe"
8. Add the switches as listed in section **ScaleLink Pro Scheduler, Command Line** above. See figure 3 below.
Example: "C:\Program Files\Ishida\ScaleLink Pro\Slp3.exe" -s -r
Where "-s" opens SLP in Scheduler mode, and "-r" runs the Scheduler immediately.
9. Enter the location of ScaleLink Pro in the **Start** field. See figure 3 below.
Example: "C:\Program Files\Ishida\ScaleLink Pro"

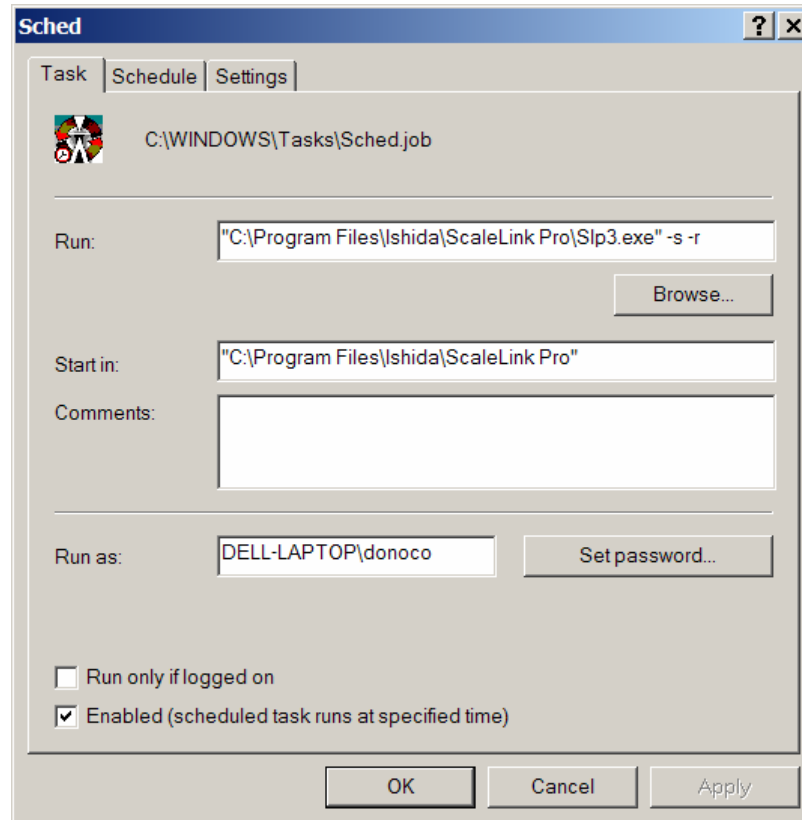


Figure 3. Creating a task to launch the ScaleLink Pro Scheduler.

10. Click the **Set password** button and enter the currently logged on user's Windows password.
Note: The scheduled event will not execute if the password is not entered. If the user does not have a password (used to log on when starting Windows) one must be created. Go to the **Control Panel, Users** to do this.
11. Next, click the **Schedule** tab.
12. Set the schedule to open the ScaleLink Pro Scheduler. See figure 4 below.
Note: The Scheduler can be run at any interval from one hour to one year. If the time period is less than one day click the **Advanced** button and enter the necessary settings.
13. Do not make any changes to the values under the **Settings** tab. See figure 5 below.
14. Click **OK** to save the event settings.

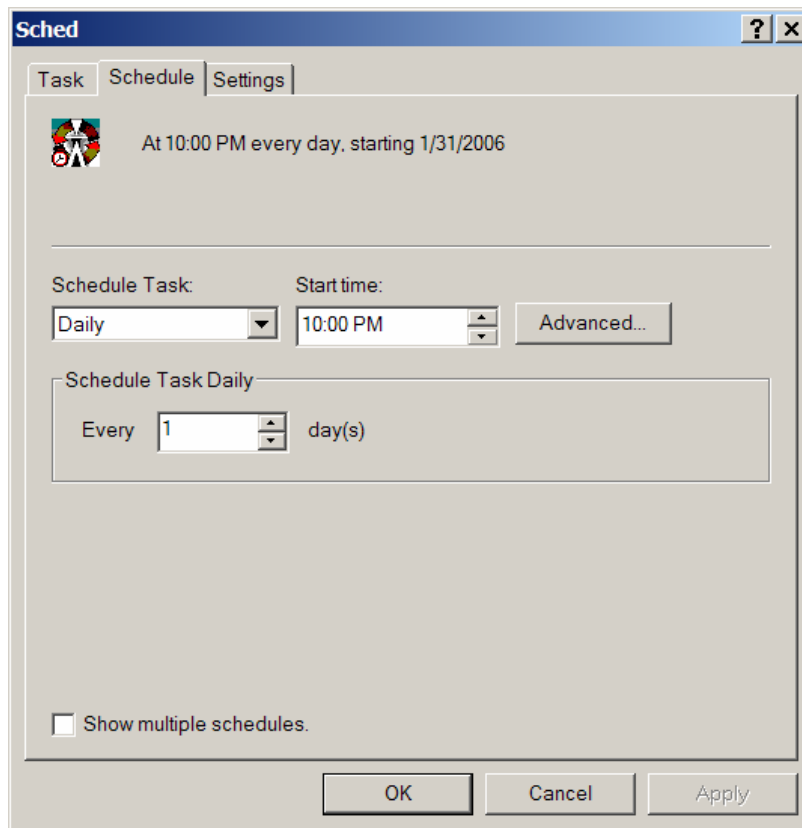


Figure 4. Setting the launch schedule for the ScaleLink Pro Scheduler.

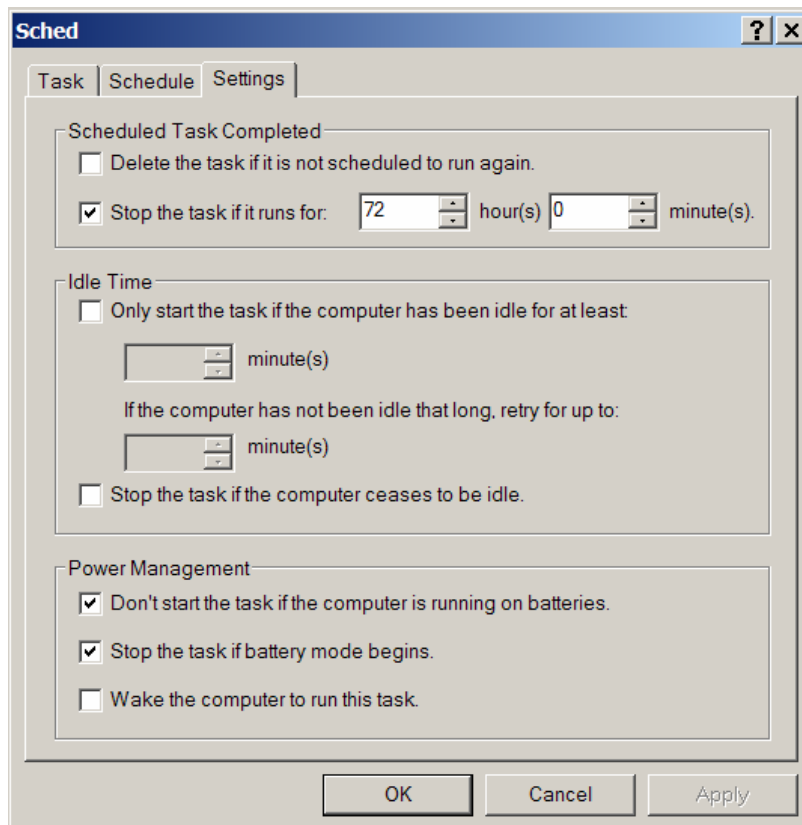


Figure 5. Do not change the Settings configuration.

Troubleshooting

If the Microsoft® Windows Scheduler does not launch the ScaleLink Pro Scheduler use the following method to isolate the problem. Referring to figure 3 above, copy the complete Run line data as entered in the task to launch the ScaleLink Pro Scheduler (the path, etc. may differ on some computers).

Paste this command line in to the Windows Run prompt: <Start>, <Run>. It can also be run from the Command/DOS prompt which may show more information. If it works, the problem is with the Windows Scheduler setup. If it does not work, it indicates something is wrong in SLP. In this case, check that the RunAuto.EXE and Slp3Auto.EXE files are present in the SLP3 folder.

A different test of the Microsoft® Windows Scheduler is to try automating the addition of a task. In SLP perform the complete Sale Wizard operation. This will automatically add two tasks to the Windows Scheduler -- one setting the sale prices and one returning to the original prices. If these work it indicates an error in the manually entered task to launch the ScaleLink Pro Scheduler.

Notes

- As mentioned above, the ScaleLink Pro Scheduler attempts to resend data every five minutes. When the normal ScaleLink Pro application is running the retry interval for unsent data is one minute.
- Data that failed to send in a Scheduler operation is not resent by the normal ScaleLink Pro application. Scheduler unsent data and normal SLP application unsent data are handled separately.
- Some customers have reported problems with the ScaleLink Pro Scheduler on computers running Microsoft® XP Home edition of Windows. Many customers with XP Home use the Scheduler without incident which indicates that the problems may be related to the configuration of Windows.
- When using the .MDB database format the file can become very large. For this reason a "Compact Database" operation should be added to the SLP Scheduler to run weekly.
- If the ScaleLink Pro program crashes when an .MDB file is created the computer does not have the necessary files to support this database file format. Go to the Rice Lake Retail web site: www.ricelakeretail.com (or the Rice Lake Retail CD) and load the DAO files on to the computer.

Reference

- ScaleLink Pro User's Guide for Version 3.2x, section 9.8 "Scheduler".
- Rice Lake Technical Bulletin number TB20030926, "Instructions to prepare and import ASCII delimited files".