

DB2 Scheduler Guide



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Purpose

This document describes the DB2 Scheduler you can use to automate the processes of keeping your DB2 database up-to-date with your DDMS files. You only need to review these instructions if you have installed the DB2 product.

Before You Begin

Make sure you have completed the setup and installation of DB2 before continuing. These instructions require DB2 to be installed and either authorized or operating in evaluation mode. You cannot complete these instructions until you complete the setup and authorization of DB2.

DB2 Monitor Must be Running

Important! Before your scheduled jobs will run, the DB2 monitor must be running. This program should automatically start when your computer is started.

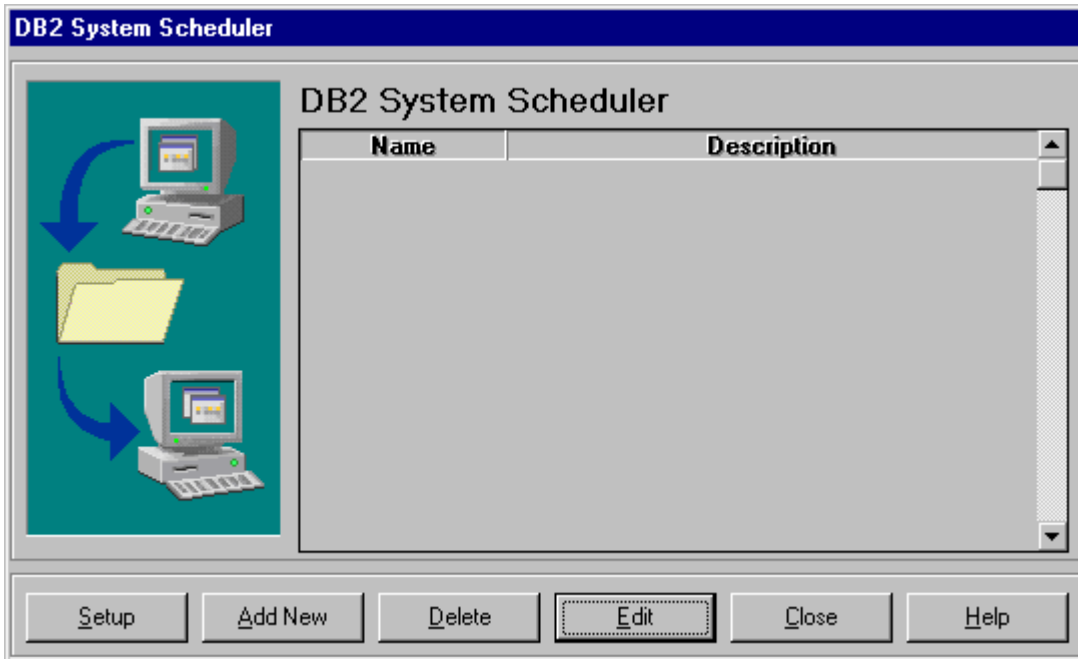
Starting the Scheduler

There are two ways to start the scheduler:

1. Click the Scheduler Add/Edit/Setup link from the Server Menu contained in the DB2 monitor.
2. Choose Start – Programs – OPSSoftware – DB2 Scheduler.

Scheduler Main Screen

When the scheduler starts, the following screen will appear:

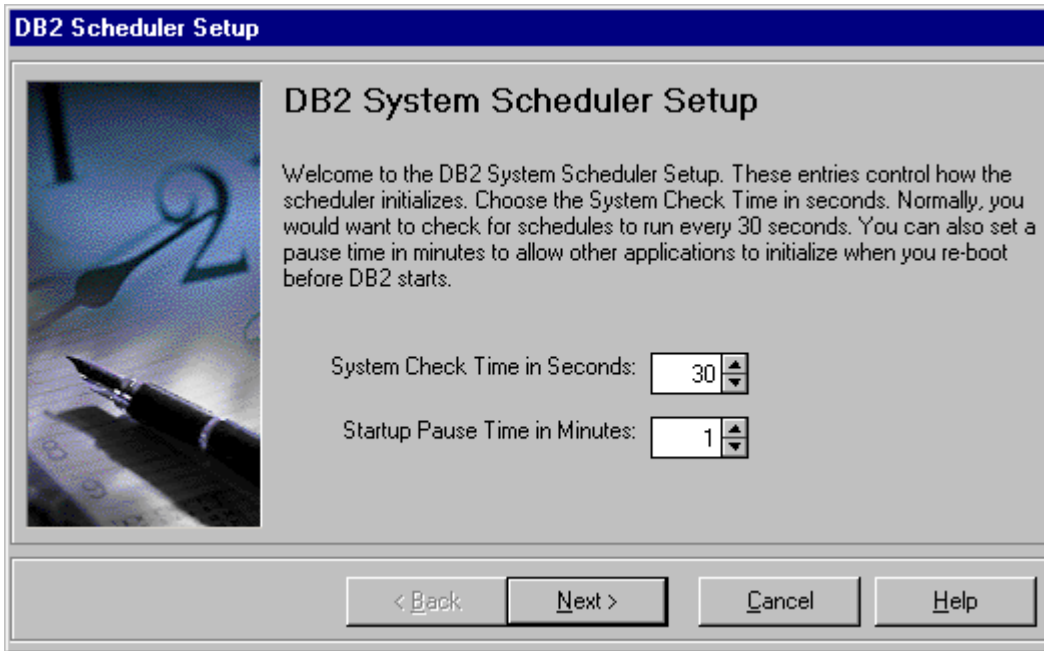


When first started after your initial installation, there should be no schedules listed.

Scheduler Main Screen Buttons:

Setup Button

Click this button to display the scheduler setup screen:



The System Check Time in Seconds controls how often the scheduler checks for jobs to perform. You should not set this time to less than 30 seconds. Setting this time less than 30 seconds would unnecessarily use system resources.

The Startup Pause Time in Minutes controls how long DB2 will wait to start when you re-boot your computer. If you have other programs or services loading during startup on your DB2 server, you may want to up this time to prevent conflicts while many different programs and services are attempting to start at the same time.

Click the Next Button to save your changes and return to the scheduler main screen.

Add New Button

Click this button to add a new schedule.

Delete Button

Click the schedule item you want to delete and then click this Delete Button. This will permanently remove the schedule from the scheduler.

Edit Button

Click the schedule item you want to change then click this Edit Button. This will take you through the schedule setup steps detailed later in this document.

Close Button

Click this button to close the scheduler.

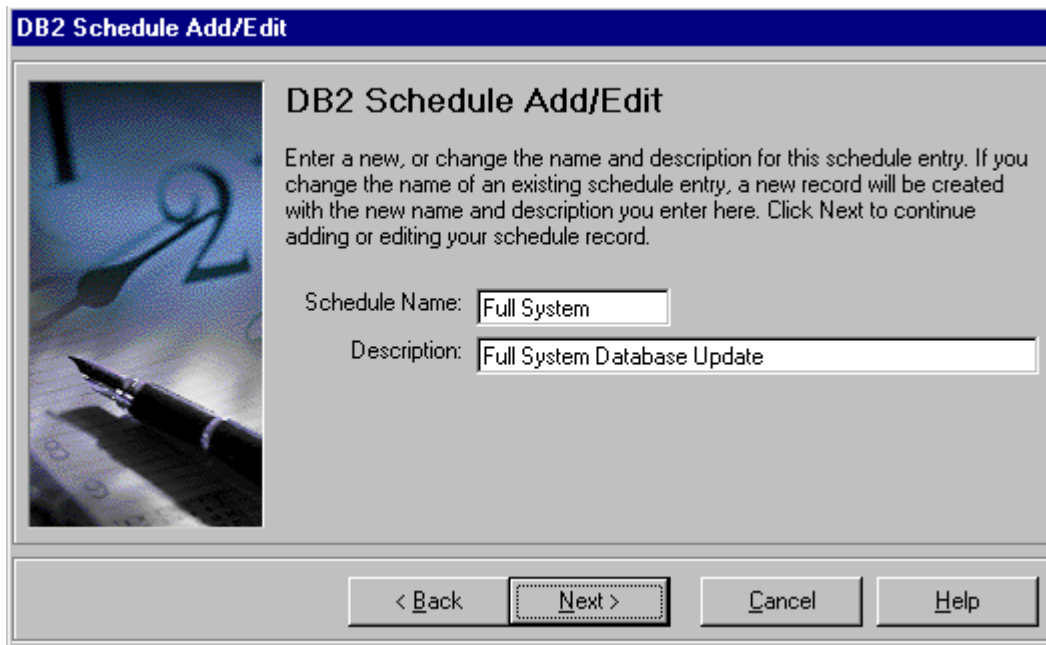
Help Button

Click this button to show help on this screen.

Adding a New Schedule

Click the Add New Button from the main scheduler screen.

Schedule Name and Description Screen



DB2 Schedule Add/Edit

Enter a new, or change the name and description for this schedule entry. If you change the name of an existing schedule entry, a new record will be created with the new name and description you enter here. Click Next to continue adding or editing your schedule record.

Schedule Name:

Description:

< Back Next > Cancel Help

You must enter a name and a description for this schedule. Use descriptive names and include the word 'Full' for full updates. This name of the schedule running will be shown in the DB2 monitor status.

Enter a Schedule Name and Description and then click the Next Button to continue adding your schedule.

Module Selection Screen:

ID	DB2 Module Description	Schedule
NB	DB2 Data Dictionary	Yes
NC	DB2 Customer Import	Yes
NE	DB2 eContent Import	No
NI	DB2 Inventory Import	Yes
NN	DB2 Contract Import	Yes
NS	DB2 System Import	Yes
NZ	DB2 Server Update	Yes

Click the module you want to schedule and then click the Next Button. All modules are shown on this screen even though some modules cannot be scheduled as shown in the Schedule Column.

Update Type Screen:

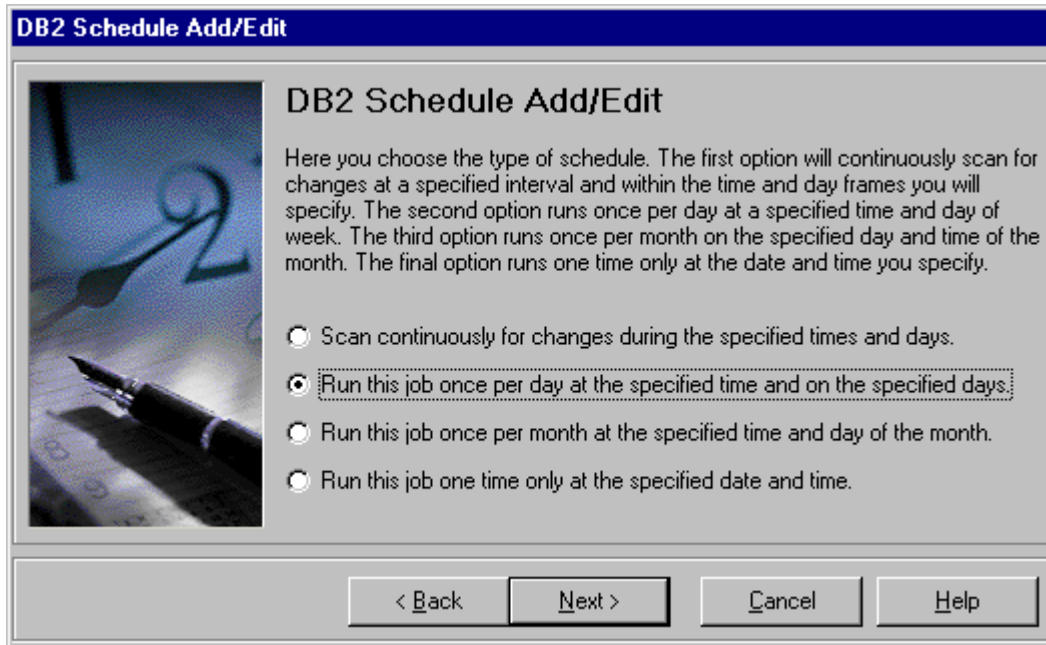
Perform the full update replacing the existing database.

Perform the partial update checking for changes only.

Show the module status screen while the operation is in process.

Choose the type of update you want to perform, full or partial. You can also select the show module status screen check box if you want to display the update status while the scheduled update is taking place. Normally, you would not want to display this screen and just allow DB2 to update in the background.

Schedule Frequency Screen:



DB2 Schedule Add/Edit

Here you choose the type of schedule. The first option will continuously scan for changes at a specified interval and within the time and day frames you will specify. The second option runs once per day at a specified time and day of week. The third option runs once per month on the specified day and time of the month. The final option runs one time only at the date and time you specify.

- Scan continuously for changes during the specified times and days.
- Run this job once per day at the specified time and on the specified days.
- Run this job once per month at the specified time and day of the month.
- Run this job one time only at the specified date and time.

< Back Next > Cancel Help

This screen allows you to choose the frequency that you want to perform the scheduled job.

Scan Continuously

Choosing this option will instruct the scheduler to scan continuously for changes at a specified interval and between specified times and on specified days of the week. You will choose these additional interval, time, and day of week settings later in the schedule setup.

Choosing the scan continuously option can create un-necessary overhead and should be used wisely.

You can only choose the Scan Continuously option if the Partial Update option was selected in the Update Type screen!

Run Once Per Day

This option instructs the scheduler to perform the scheduled job once per day at a specified time and on the specified days of the week. You will choose these additional time and day of week settings later in the schedule setup.

Run Once Per Month

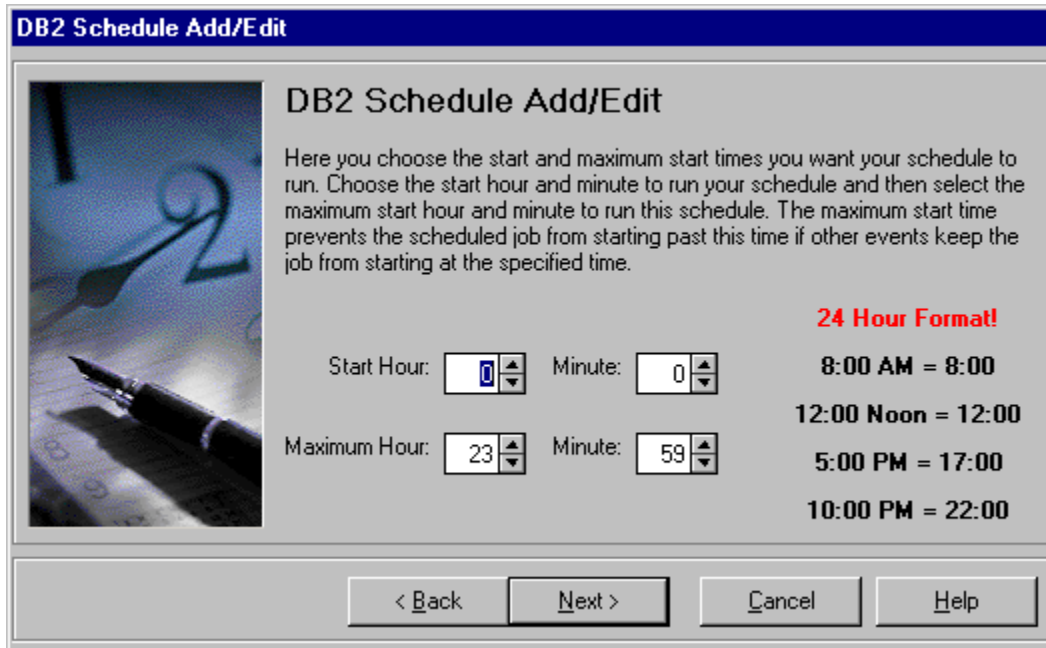
This option instructs the scheduler to perform the scheduled job once per month at a specified time and day of the month. You will choose these additional time and day of month settings later in the schedule setup.

Run One Time Only

This option instructs the scheduler to perform the scheduled job one time only at the specified time and date. You will choose these additional time and date settings later in the schedule setup.

Choose one of the schedule frequency options and then click the Next Button to continue adding your schedule.

Start Time and Maximum Start Time Screen:



DB2 Schedule Add/Edit

DB2 Schedule Add/Edit

Here you choose the start and maximum start times you want your schedule to run. Choose the start hour and minute to run your schedule and then select the maximum start hour and minute to run this schedule. The maximum start time prevents the scheduled job from starting past this time if other events keep the job from starting at the specified time.

24 Hour Format!

8:00 AM = 8:00
12:00 Noon = 12:00
5:00 PM = 17:00
10:00 PM = 22:00

Start Hour: Minute:

Maximum Hour: Minute:

< Back Next > Cancel Help

This screen allows you to specify the starting time of your scheduled job.

Important! All times are in 24-hour format!

Start Hour and Minute

Use these fields to select the start hour and minute you want your schedule to start. Remember that these fields are 24-hour format.

Maximum Hour and Minute

Use these fields to select the maximum time this schedule should start. These settings are used to prevent a scheduled job from starting past the time you enter here. Again, remember that these settings are 24-hour format.

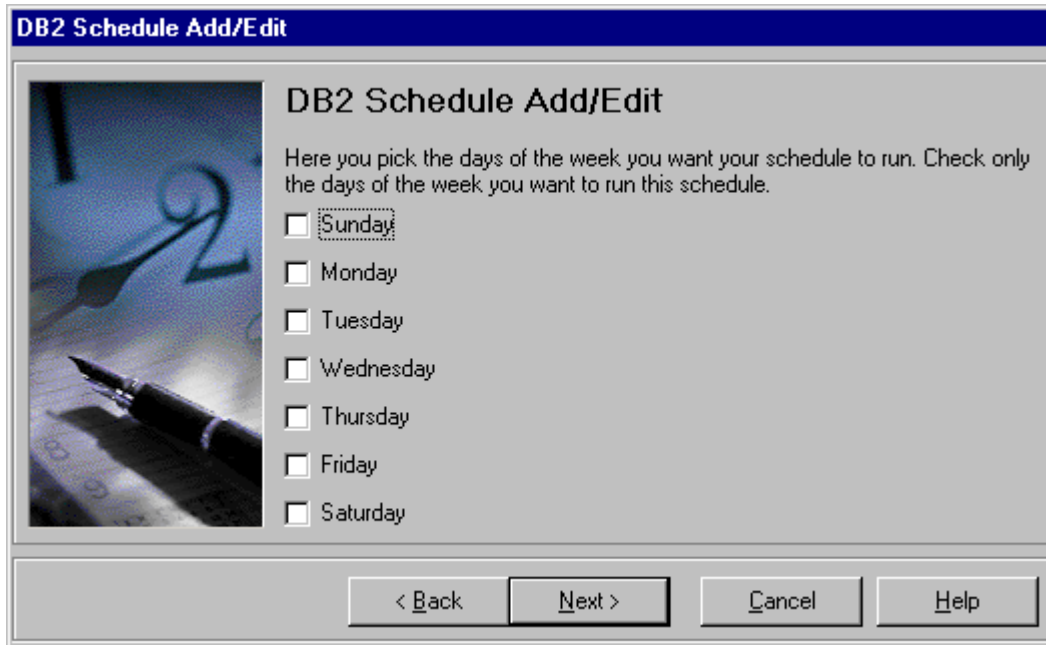
Why a maximum start time?

As stated, the maximum start time prevents a scheduled job from starting past the specified time. This becomes important in those cases when either a scheduled job hung, or you forgot to leave the DB2 monitor running. Here is an example of why you may want to specify a maximum start time:

Suppose you have scheduled a full item update to start at midnight and the DB2 monitor was not running when the scheduled job should have started. You come in the following morning and then start the DB2 monitor. The monitor would then 'see' the scheduled job, start the full item update locking you out of your DB2 item file and slowing down your computer.

A better way to create the schedule would be to set the full item update to start at midnight as before, but to also specify a maximum start time of 3:00 AM. This would prevent the full item update from starting unless it could be started before 3:00 AM.

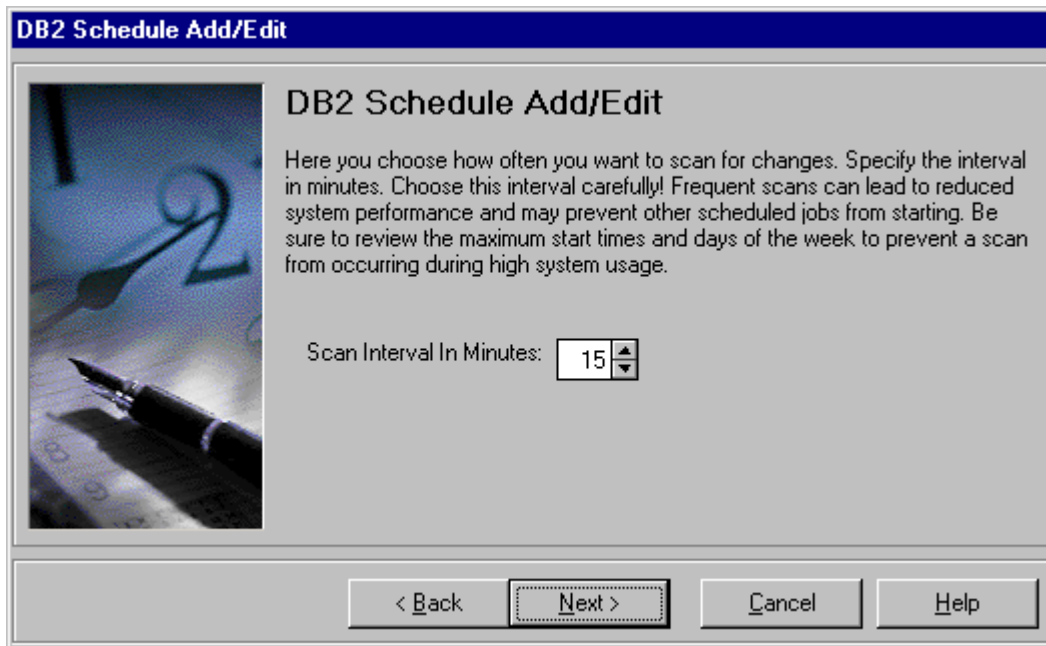
Days of the Week Screen:



The screenshot shows a dialog box titled "DB2 Schedule Add/Edit" with a blue header bar. On the left is a small image of a clock and a pen. The main area contains the text: "Here you pick the days of the week you want your schedule to run. Check only the days of the week you want to run this schedule." Below this are seven checkboxes, each followed by a day name: Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday. The "Sunday" checkbox is selected. At the bottom are four buttons: "< Back", "Next >", "Cancel", and "Help".

This screen allows you to select the days of the week you want to perform your scheduled job. This screen only applies to Scan Continuously and Once Per Day schedule frequencies. Choose the day or days of the week you want to perform your scheduled job and then click the Next Button.

Scan Interval Screen:



The screenshot shows a dialog box titled "DB2 Schedule Add/Edit" with a blue header bar. On the left is a small image of a clock and a pen. The main area contains the text: "Here you choose how often you want to scan for changes. Specify the interval in minutes. Choose this interval carefully! Frequent scans can lead to reduced system performance and may prevent other scheduled jobs from starting. Be sure to review the maximum start times and days of the week to prevent a scan from occurring during high system usage." Below this is a label "Scan Interval In Minutes:" followed by a spin box containing the number "15". At the bottom are four buttons: "< Back", "Next >", "Cancel", and "Help".

This screen only applies to the Scan Continuously frequency. Choose the interval you want to scan for changes and then click the Next Button. Do not set this to a low number. Scanning constantly for changes can significantly reduce system performance.

Day of Month Screen:

DB2 Schedule Add/Edit

DB2 Schedule Add/Edit

Here you choose the start day you want your once per month schedule to run. Select the day of the month you want this schedule to run.

Day of month to run: 1

< Back Next > Cancel Help

This screen only applies to the Once Per Month frequency. It allows you to specify the day of the month you want to perform your scheduled job. Beware of entering a day greater than 28 as some months will not contain days greater than 28. Click Next to continue adding your schedule.

Date Screen:

DB2 Schedule Add/Edit

DB2 Schedule Add/Edit

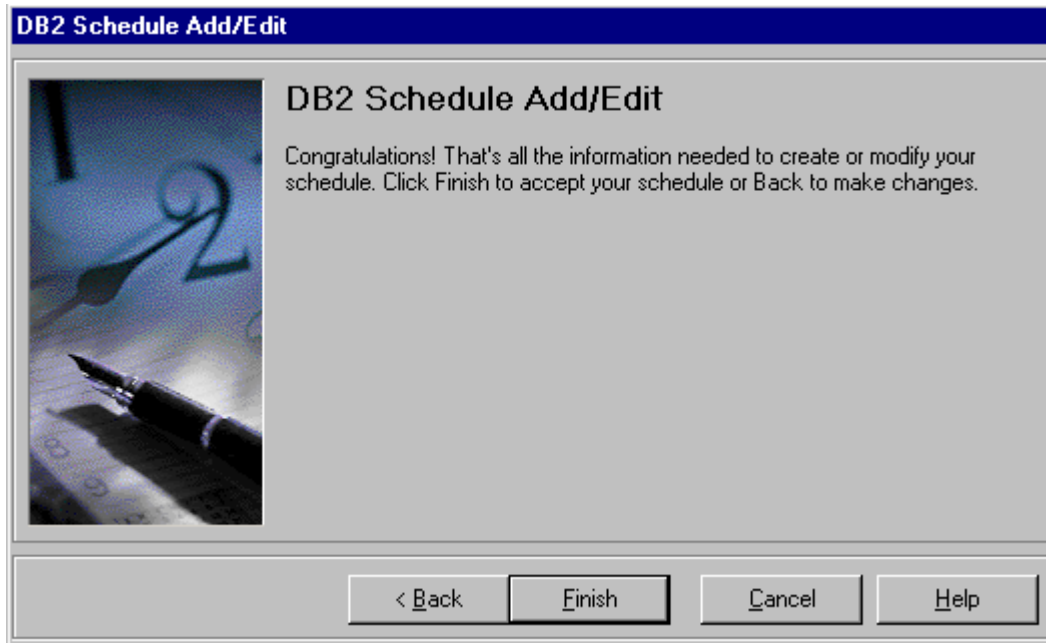
Here you choose the start date you want your one time schedule to run. Select the date; month, day, and year, you want this schedule to run.

Start Month: 11 Day: 5 Year: 2001

< Back Next > Cancel Help

This screen only applies to the One Time frequency. It allows you to specify the date you want to perform your one time schedule job. Click Next to continue adding your schedule.

Finish Screen:



This is the last screen in the schedule add or edit. Click the Finish button to save your new schedule or schedule changes.

Recommended Schedules

Server Update:

You should schedule the Server Update to occur once per week at a minimum. It is recommended that you perform the server update Monday morning between the hours of 1:00 AM and 6:00 AM. The server update may download files that require a re-boot to install properly. This way, you can come in Monday morning, and re-boot your DB2 server. It is recommended that you re-boot your DB2 server after performing a server update.

Important! The server update should be the last scheduled item if you are running other schedules. Remember that you should re-boot after the server update.

Full Database Updates:

It is recommended that you perform full updates of all databases at least once per week. You should schedule these updates to occur after normal business operation hours and on the weekend if possible. Performing the full update on a database compacts the database and makes access faster.

Partial Changed Only Updates

It is recommended that you perform the partial, changed only, updates once per day. These updates usually take less time. You should schedule these update to happen after normal operation hours and when your DDMS system is idle.

Scan for Changes Updates

This type of update is the most expensive in terms of system resources. You should only perform this type of update for critical databases and only after testing the impact on your system resources.