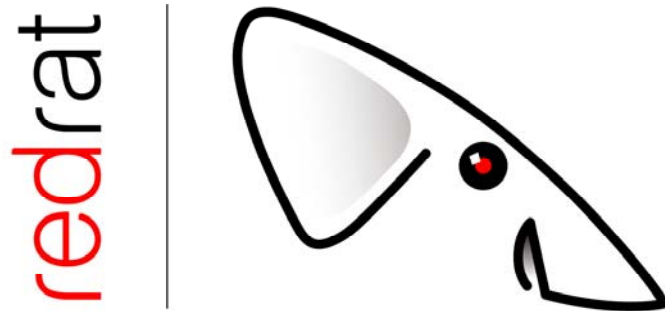


# Getting Started with the RedRat Scheduler

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## Introduction

The RedRat Scheduler provides a mechanism for creating timed events for the output of remote control signals. Each timed event executes a *macro* which is a sequence of one or more remote control signals, so the scheduler program includes a mechanism for creating and editing macros.

Each timed event can be set to execute only once, a finite number of times or to repeat indefinitely.

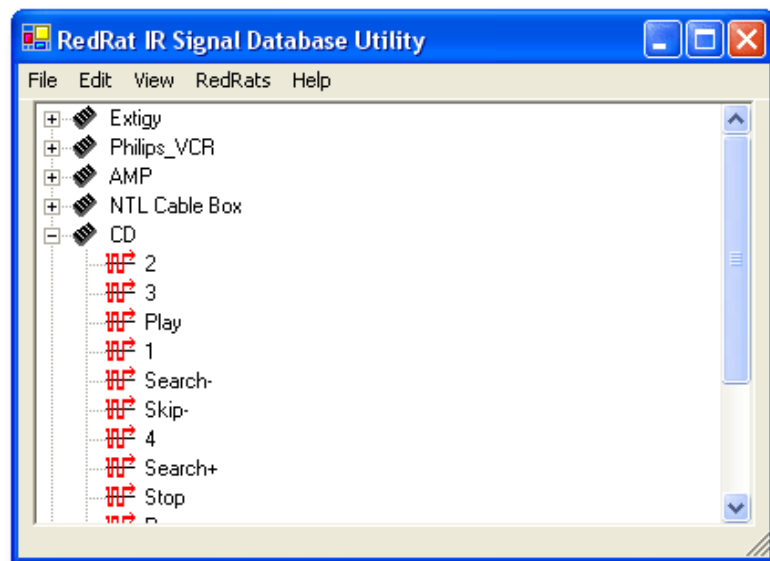
## Prerequisites and Installation

Before installing the scheduler, please ensure that you have the following installed:

- The Microsoft .NET Framework 1.1. This is delivered on your RedRat CD, but can also be downloaded from the Microsoft website: <http://www.microsoft.com/net>.
- The RedRat Signal Database Utility – version 1.17 or later. When setting up macros for use with the scheduler, remote control signals are dragged from the signal DB utility to the macro editor. This can be downloaded from the RedRat website at: <http://www.redrat.co.uk/RedRat3/Software/SignalDBUtil>

## Step1 – Capture of Remote Control Signals

This is done using the signal database utility, creating a set of remote control signals that you intend to use with the scheduler.



The steps to create the database are as follows:

1. Add a device/remote (*Edit* → *Add Device/Remote*)
2. Select the new device and add an IR signal to it (*Edit* → *Add Signal*).
3. In the “Add New Signal” dialog, give the signal an appropriate name, then press the *Learn IR* button.

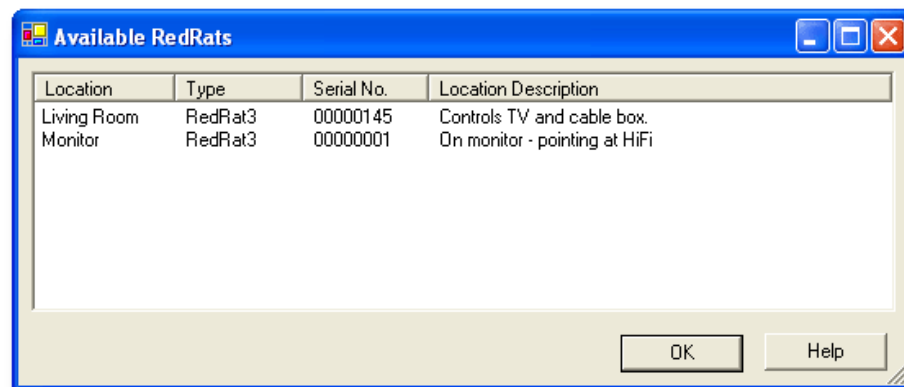
4. Point the remote at the RedRat and press the remote control button twice, separating the presses by a one or two seconds. When pressing the button, make sure it is a firm press, but not too long.
5. Add as many signals from the remote as you intend use with the scheduler.
6. Save the signal DB (*File* → *Save As...*).

The captured signals can be tested to validate that they have been recorded correctly (*Edit* → *Test Signal Output*).

## Step 2 – Setting the Location of Your RedRat

If you are only ever going to use the scheduler with one RedRat, then this step is not so important. The reason for setting the RedRat's *Location* is that when the scheduler attempts to output IR signals, it has to know which RedRat to use for this operation<sup>1</sup>.

Start the Scheduler application and bring up the RedRat device list (*RedRats* → *RedRat Device Info.*) which then shows available RedRats.



Clicking on a row shows a dialog box in which the location and description can be set.

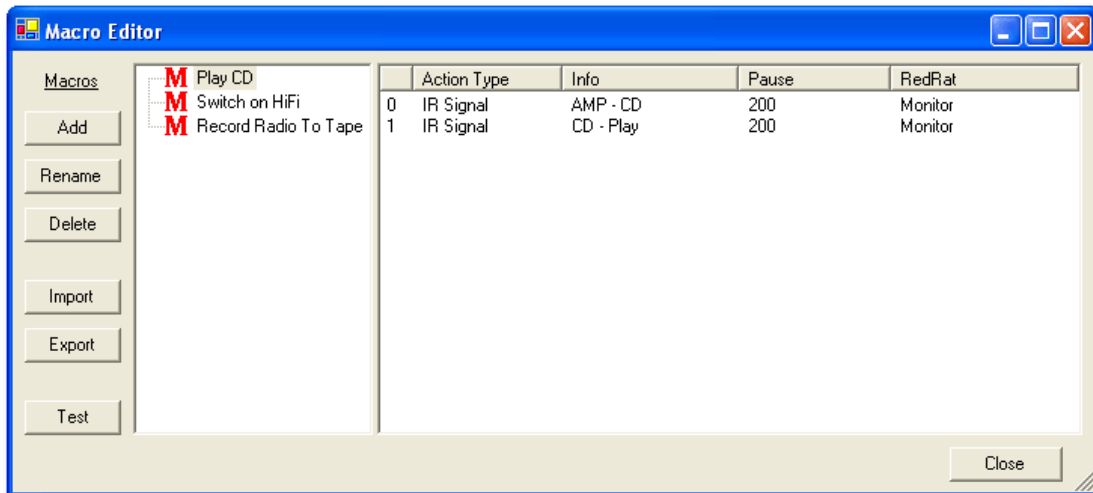
If you have more than one RedRat and will be using one considerably more than the others, then this one can be set as the default (*RedRats* → *Select Default RedRat*).

## Step 3 – Creating Macros

This is done with the Macro Editor in the Scheduler application (*Edit* → *Macro Editor*). It has two main panes, the left-hand one showing the list of *macros* and the right-hand pane showing the *actions* that have been setup as part of the macro. When a macro is executed, it steps through the actions in the order given in the macro pane.

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<sup>1</sup> All RedRat software associates the *Location* information with the RedRat device serial number. If the RedRat is replaced or exchanged, then the same location can be associated with the new hardware, and the scheduler will continue to operate without problem.



Take the following steps to create a macro:

1. Click *Add* to insert an empty macro.
2. Click *Rename* to give it a name descriptive of its intended operation.
3. Ensure that the macro is selected (blue or grey background) and then drag an IR signal from the signal database utility to the right hand pane of the macro editor. This will create a new row in the action list. For other types of macro action, right click on the action list and select the required type from the *Add Action* menu item.
4. Repeat drag and drop operation for all IR signals that are going to form part of the macro.

Each action in the action list has the following properties:

**Action Type:** Indicates the type of action in this macro step. See the section on Macro Actions for further details.

**Info:** This shows the remote and IR signal to be output.

**Pause (units of mS):** Following the output of each IR signal, a default pause is given. This is important so that audio/visual equipment is able to recognize the discrete IR signals rather than seeing one long stream of concatenated IR. This value can be adjusted, for example when turning on a TV or set-top box, it can sometimes take a couple of seconds before it responds to further IR commands.

**RedRat:** The displays which RedRat is to be used for output of the signals.

## Re-ordering Actions

Actions can be re-ordered by dragging them to the required position.

## Editing Actions

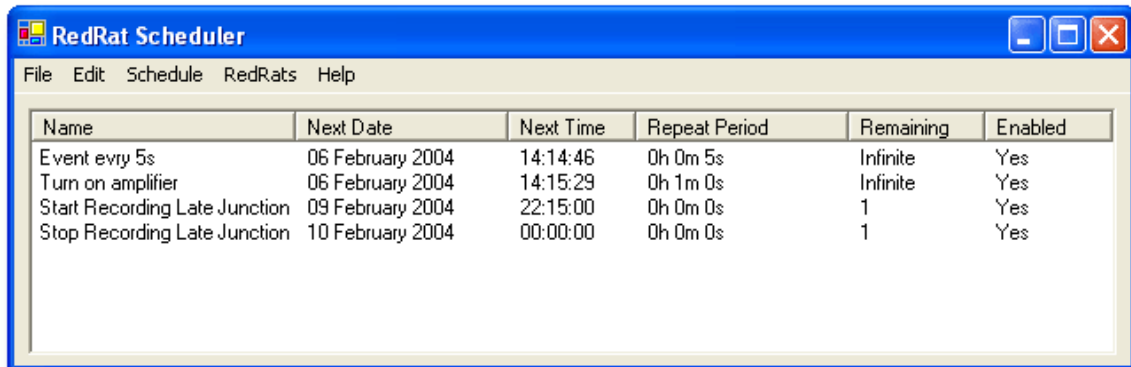
Double clicking on an action will bring up an action editor dialog.

## Testing Actions and Macros

Both single actions and complete macros can be tested by right-clicking on the action or macro respectively.

## Step 4 – Scheduling a Timed Event

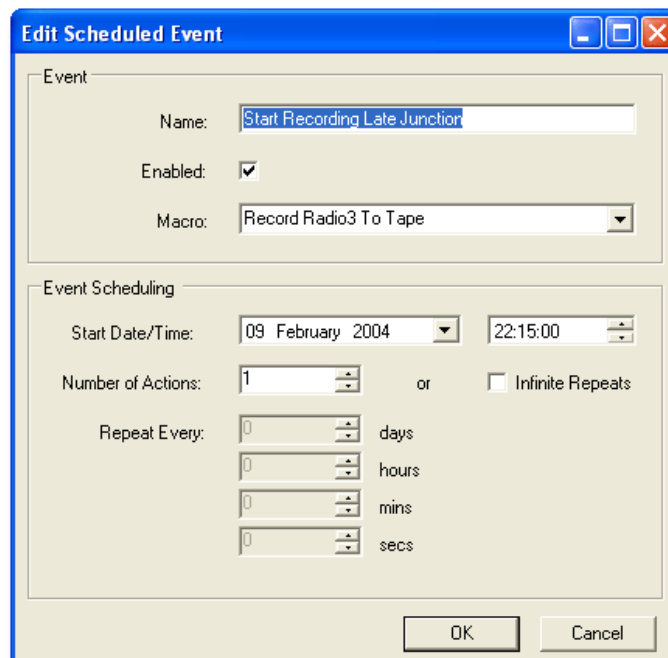
A timed event is basically the execution of a macro at a particular time. All timed events are listed in the main scheduler window as shown below.



Name	Next Date	Next Time	Repeat Period	Remaining	Enabled
Event evry 5s	06 February 2004	14:14:46	0h 0m 5s	Infinite	Yes
Turn on amplifier	06 February 2004	14:15:29	0h 1m 0s	Infinite	Yes
Start Recording Late Junction	09 February 2004	22:15:00	0h 0m 0s	1	Yes
Stop Recording Late Junction	10 February 2004	00:00:00	0h 0m 0s	1	Yes

The *Schedule* menu is used for adding, deleting, editing, enabling and disabling timed events. Even when an event has been run with no further remaining repeats, the event remains listed in the window until explicitly deleted.

Once an event has been created, the edit dialog is used to configure it (double-click on the event or use the *Schedule* → *Edit Timed Event* menu item).



**Edit Scheduled Event**

Event

Name: Start Recording Late Junction

Enabled:

Macro: Record Radio3 To Tape

Event Scheduling

Start Date/Time: 09 February 2004 22:15:00

Number of Actions: 1 or  Infinite Repeats

Repeat Every: 0 days  
0 hours  
0 mins  
0 secs

OK Cancel

**Name:** A descriptive label for display in the main window.

**Enabled:** Sets whether this timed event is to run or not.

**Macro:** The macro to be run by this event.

**Start Date/Time:** The time/date at which the macro will be run for the first time.

**Number of Actions:** By default, the macro will only be run once, however the event can be set to repeat a number of times, or to repeat indefinitely.

**Repeat Every:** If the macro execution is to be repeated, then the repeat interval is set here.

## Macro Actions

There are several types of action that can be used as part of a macro. All action types can be edited by double clicking them in action list display.

### IR Signal

These are added to the action list by dragging them from the Signal DB utility and dropping them onto the action list.

### Message Box

This action displays a message box with a user configurable message to notify the user that a certain point in the macro execution has been reached. Macro execution can continue while the box is displayed, or it can be halted until the user has clicked "OK" in the box. The message box can also be configured to emit an audible *beep* when it is displayed.

### Beep

A *beep* is intended to provide audible feedback when a certain point in a macro has been reached. Various parameters can be changed:

- Pitch - there are three pitch settings.
- The beep duration.
- The number of times that it is to be repeated.