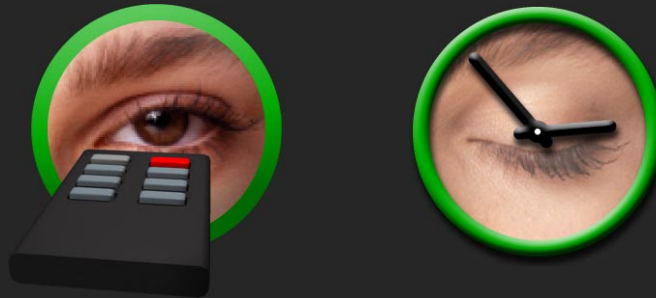


WATCHOUT™

# SYSTEMS MANAGER



 dataton

SENSATION CREATION



# TABLE OF CONTENTS

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<b>1</b>	<b>INTRODUCTION</b> .....	5
	Software Installation.....	7
<b>2</b>	<b>REMOTE CONTROL APPLICATION</b> .....	9
	Front Page .....	10
	Second Page .....	12
	Data Storage.....	14
<b>3</b>	<b>SCHEDULER APPLICATION</b> .....	15
	Main Window .....	16
	Map View .....	18
	System Status Window .....	19
	Schedule View.....	21
	Program View .....	25
	Data Storage.....	27
<b>4</b>	<b>WATCHOUT MANAGEMENT API</b> .....	29
	Developing with Flash .....	30
	Running in a Web Browser.....	32
	Running on a Mobile Device.....	33
	Running as an Application .....	34
	Developing with Flex.....	35

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# 1 INTRODUCTION

---



---

## Included Applications

Welcome to the WATCHOUT™ Systems Manager. This consists of a set of software applications and components, allowing you to manage one or several WATCHOUT systems. It provides capabilities to control and monitor their operations in a predetermined, or interactive, manner.

- ◆ **HINT:** If you're reading the electronic version of this manual, click the table of contents, cross references and web links to jump directly to referenced page.

A number of ready-to-use applications are included:

- **WATCHOUT Remote**, providing basic, interactive control over a single WATCHOUT system, suitable for live performances and other manually operated presentations (see page 9).
- **WATCHOUT Scheduler**, allowing you to establish programs and schedules, as well as run and monitor multiple WATCHOUT systems (see page 15).
- A couple of small sample applications, illustrating various application and development techniques.

---

## The WATCHOUT Management API

The WATCHOUT Management Application Programming Interface (API) is at the heart of all the applications. This is a programmer's tool, making it easy to communicate with WATCHOUT via a network. This API, and all the applications, is written in the ActionScript 3 programming language, which means it can be used from Adobe Flash, Flex and AIR:

<http://www.adobe.com/flashplatform/>

Using these technologies, you can develop a wide variety of applications, which can be deployed onto most computing platforms and devices, such as:

- Web-based user interfaces, running in a web browser.
- Stand-alone applications running on MacOS X, Windows or Linux.
- Mobile applications for small, wireless, handheld devices and tablet computers.
- ◆ **NOTE:** The applications mentioned above can be used as-is without any programming knowledge. The WATCHOUT Management API provides advanced users with the ability to tailor the standard applications to their own needs, or to develop entirely new applications for managing WATCHOUT.

---

## WATCHOUT Version 4 Required

The WATCHOUT Systems Manager requires WATCHOUT version 4.2 or later. The latest version can always be obtained from:

<http://www.dataton.com/watchout/>

---

## Open Source Applications

All the applications included come with source code, allowing you to use them as starting points for your own applications. If you're familiar with software development in Adobe Flash, you can easily change, add, remove or enhance functions in these applications. Or use them as a source of inspiration for your own applications.

The applications are licensed under a dual licensing scheme. You may use them under the GNU GPLv2 Open Source License, as defined here:

<http://www.gnu.org/licenses/gpl-2.0.html>

Alternatively, if you, for some reason, can't comply with the GPL, you may obtain a commercial license. Contact [business@dataton.com](mailto:business@dataton.com) for details.

- ◆ **NOTE:** The open source license applies to the included applications only. Specifically, it does not apply to the WATCHOUT Management API (WATCHMan.swc), which is a commercial software component.

---

## Further Documentation

The WATCHOUT Management API comes with full developer documentation, describing its various classes and functions. This documentation is provided in HTML format, together with the WATCHOUT Management API component (WATCHMan.swc). An overview of the API can be found on page 29.

---

## SOFTWARE INSTALLATION

The WATCHOUT Systems Manager consists of a number of applications and software components. These can be installed and used independently of each other. For instance, if you're mainly interested in the ready-to-use applications, you don't need to install the WATCHOUT Management API components.

---

## Installing Adobe AIR



Prior to installing any of the ready-to-use applications, you must install Adobe AIR. This program is available for free and provides the software environment needed by these applications. It's available here:

<http://get.adobe.com/air/>

---

## Applications



WOREmote.air

Once you have installed Adobe AIR, locate and start the installer for the remote control application, named "WOREmote.air". The installation procedure is similar to installing other computer software, allowing you to control where the application is installed. Once installed, the application launches automatically. Under Windows, it's also added to your Start menu. On MacOS X, the application appears in the dock while running. To keep it in the dock, Control-click its icon in the dock and choose "Keep in Dock". See page 9 for more information on how to use the WATCHOUT Remote application.

The WATCHOUT Scheduler application is installed in the same manner, using the file named "WOScheduler.air". See page 15 for more details on using the WATCHOUT Scheduler application.

---

## WATCHOUT Management API



WATCHMan.swc

You can use the WATCHOUT Management API to write your own applications controlling WATCHOUT. How to is outlined beginning on page 29. In order to develop such applications, you must first obtain and install an Adobe software development application, such as Flash Professional, Flash Builder or the free Flex SDK.

To use the WATCHOUT Management API, add the WATCHMan.swc library file to your project. See Adobe's documentation for your preferred development tool for details.



# 2 REMOTE CONTROL APPLICATION

---



The WATCHOUT Remote application, shown on the next page, allows you to control a WATCHOUT system in an interactive manner: loading shows, selecting conditional layers, playing timelines, jumping to named positions along a timeline, etc.

While this application is primarily designed to be used as-is, it also serves as an example of the kind of applications that can be developed using the WATCHOUT Management API. Full source code to the application is included, allowing you to make any modifications you desire. The application was developed using Adobe Flash Professional, which you'll need if you want to change the application, but not if you merely want to use it as it is.

---

## Installation

Install the application as described under “Software Installation” on page 7.

◆ **NOTE:** You must install Adobe AIR before you can install the application.

---

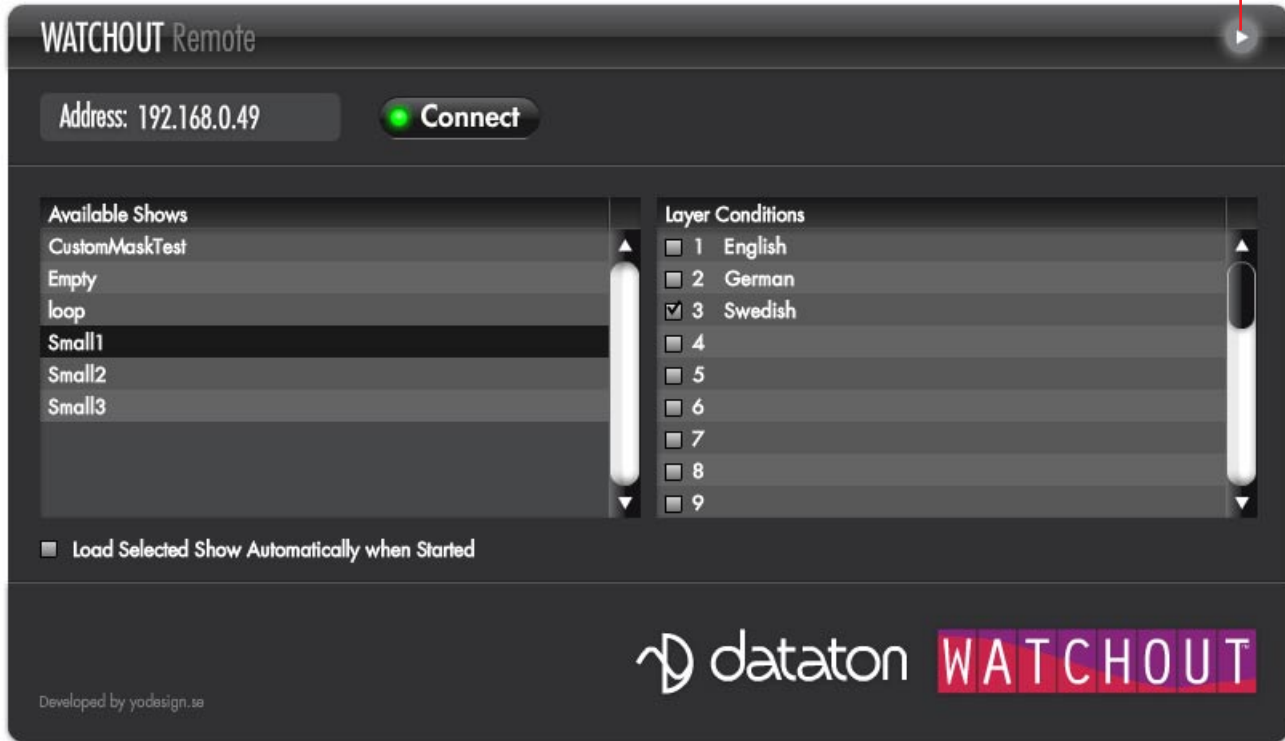
## Running the Application

After installation, the application will start automatically the first time. To start it again later, locate it on the Start menu (Windows) or in the Application folder (MacOS X), and double-click the application.

The application retains its various settings between runs, so once you've configured it for your system, it's ready to go immediately after start. You can even make it automatically load the most recently used show and proceed directly to the second page by checking the “Load Selected Show Automatically” checkbox.

## FRONT PAGE

Click this button after connecting and loading a show to go to the second page.



---

## Address

Enter the IP address of one of the display computers in the system to be controlled.

- ◆ **NOTE:** You can only control the display computers, not the WATCHOUT production computer.

---

## Connect

Click this button to connect to the WATCHOUT system after entering the address. Once the connection is established, the green indicator lights up.

---

## Available Shows

Once connected, you will see a list of all shows available in the display computer. Click a show in this list to load it.

- ◆ **NOTE:** Use the WATCHOUT production software to add to the list of available shows.

---

## Load Selected Show Automatically

Select this checkbox to automatically connect to the display computer and load the currently selected show the next time the application is started.

---

## Layer Conditions

Controls any layer conditions used in the show. You can type a descriptive label next to the condition number, as shown in the illustration. Your settings are saved automatically, and will be restored when you later reload that show.

---

## Go to Second Page

The small triangle in the upper right corner of the application switches to the second page, as shown on page 12.

Click this button to return to the first page.

WATCHOUT Remote

Timeline: Two

Show Name: Small1

Standby

Reset

Control Cue Name	Time
P1	0:01.425
▶ P2	0:02.925
P4	0:07.125
P5	0:09.125

Messages

Clear

0:02.925

0:02.5

Current time on the selected timeline.

Countdown to the next Pause control cue.

---

**Show Name**

Displays the name of the show that is currently loaded. To load another show, click the Information button in the top right corner to return to the first page.

---

**Timeline**

Selects the timeline to control. You can switch freely among all available timelines, but you can only view/control one timeline at a time using this application. The Main Timeline is always available, while other timelines depend on the configuration in the WATCHOUT Task window when the show was created (see “Auxiliary Timeline” in the WATCHOUT User’s Guide).

---

**Information Button**

Returns to the first page of the application, allowing you to load another show or connect to another set of displays.

---

**Standby Button**

Toggles the standby mode in the display computers. While in standby, the indicator in the button glows yellow. By default, standby mode fades all displays to black. This behavior can be altered using “standby layers” in the production software, allowing you to show a standby image or other content while in standby mode.

---

**Reset Button**

Resets the presentation to its initial state, stopping all auxiliary timelines and returning the main timeline to its start position. As a safety measure, you must click this button twice to perform this function.

---

**Named Control Cue List**

Displays all named control cues in the presentation, allowing you to jump to such a cue by clicking it in the list. You can sort the list by time or name by clicking the column headings. The triangle in the left margin indicates the current time position (only while sorted by time).

- ◆ **NOTE:** Unnamed control cues, or control cues targeting other timelines, aren’t shown in the list.

---

### Message List

Messages (errors and warnings) received from the WATCHOUT display computers appear here. Click the “Clear” button to discard all messages.

---

### Current Time Position

Time position of the selected timeline. Type into this field to jump to a time position. Pressing the Tab key selects this field. If you have selected a stopped auxiliary timeline, this field is disabled. Click Pause to activate the timeline, thereby enabling this field.

---

### Countdown to Next Pause Cue

Time remaining until the next Pause cue, if any.

---

### Transport Buttons

Click the Play button to start the selected timeline. Click Pause to pause it. Pressing the spacebar toggles between play and pause. The Stop button is available only when an auxiliary timeline is selected, and returns the auxiliary timeline to its initial, dormant state.

---

## DATA STORAGE

Data associated with the WATCHOUT Remote application is stored in a file named WORemote.db, located in your Documents folder. To move your settings to another computer, simply move this file across before starting the WATCHOUT Remote application.

# 3 SCHEDULER APPLICATION

---



The WATCHOUT Scheduler application, shown on the next page, allows you to control and monitor a number of WATCHOUT systems in a pre-determined way. WATCHOUT presentations are combined into programs, which are then scheduled and performed by the scheduler. While running, the application provides an overview of all the WATCHOUT systems under its command.

The scheduler is based on a weekly calendar, where programs can be assigned to weekdays and time intervals. Numerous time-saving features make it a snap to assemble or update your weekly schedules. Furthermore, schedules can be set to run between certain dates only, allowing you to build multiple schedules ahead of time.

---

## Installation

Install the application as described under “Software Installation” on page 7.

◆ **NOTE:** You must install Adobe AIR before you can install this application.

---

## Running the Application

After installation, the scheduler application starts automatically the first time. To start it again later, locate it on the Start menu (Windows) or in the Application folder (MacOS X), and double-click the application.

The application retains its various settings between runs, so once you’ve configured it for your system, it’s ready to go immediately after start. To make the scheduler start automatically, add a shortcut to the Startup folder (Windows) or in the Login Items list (MacOS X).

## MAIN WINDOW

The main window appears when the application is first started. This window lists all WATCHOUT systems controlled by the scheduler, and provides a summary of their status.

Switch main window to its map view (page 18).

Master on/off switch for the scheduler.

WATCHOUT systems being controlled.

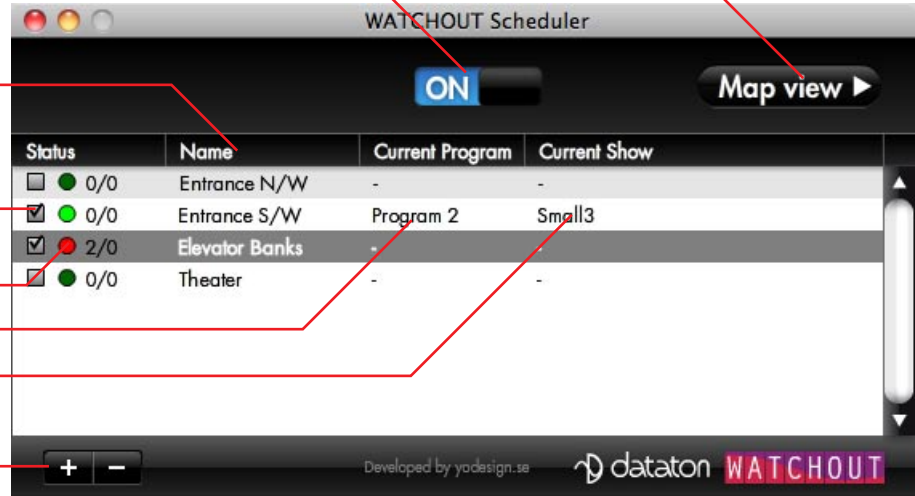
Enabled system.

System status indicator.

Currently running program.

Currently running show.

Add or remove systems from the scheduler.



## Master On/Off Switch

Turns the entire scheduler on or off. It may be useful to turn the scheduler off temporarily if you want to make changes to current programs without affecting the WATCHOUT systems. Turn the scheduler back on to resume control.



---

## Enabled

Enables control and scheduling of individual WATCHOUT systems, allowing you to take some systems off-line while other systems are scheduled normally. This can be used, for instance, while updating one of the systems using the WATCHOUT production software.

---

## System Status Indicator

This indicator glows while the system is online. It's green if the system is performing normally, without any errors reported. A red indicator means errors have been logged for the system (see page 19), and doesn't necessarily imply that the system isn't working.

---

## Currently Running

Name of the current program and show, as controlled by the scheduler. Dashes mean that nothing is running on this system. See "Program View" on page 25 for more details on the relation between programs and shows.

---

## Add/Remove Systems

Adds or removes WATCHOUT systems from the scheduler. After adding a system, you must configure it and add programs to its schedule in order to make it run, as described later in this chapter.

---

## Map View Button

The "Map View" button in the upper right corner switches the main window to its graphical view, as shown on the next page. Drag an image of the venue into the map view to act as a background. Then use the plus and minus buttons at the top of the window to add or remove system symbols. These provide similar information as the list, and can be positioned anywhere on the page.

- ◆ **NOTE:** Adding or removing symbols to the map view doesn't add/remove systems from the scheduler. Only the graphical symbols in the map view are affected. Hence, adding or removing symbols has no effect on the behavior of the system.

## MAP VIEW

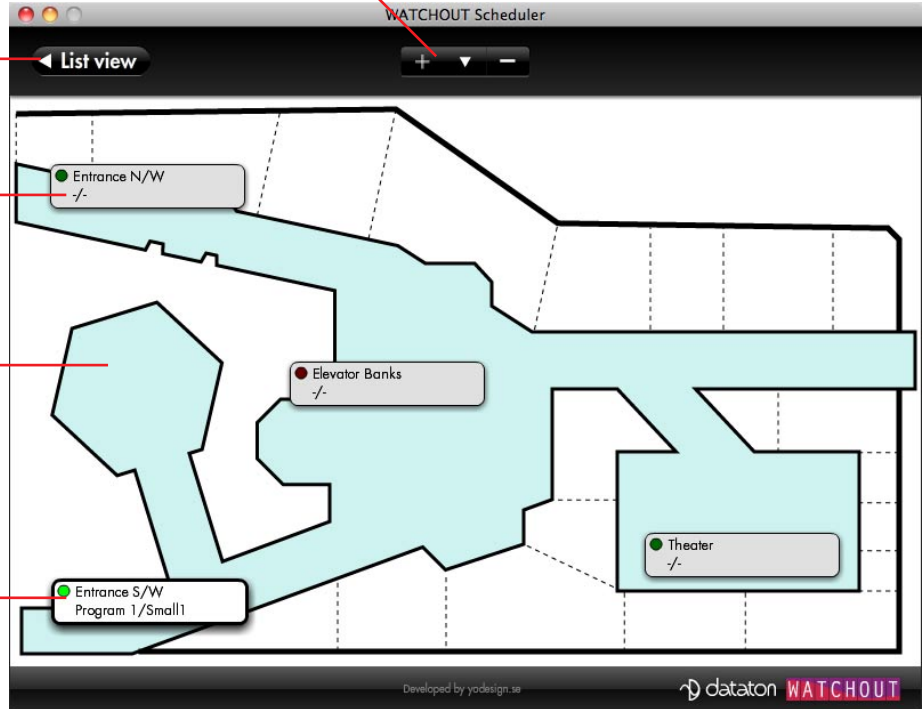
Add or remove symbols.

Return to list view.

Symbols can be moved to the desired location on the map.

Drag an image onto the page to act as a background.

Symbols indicate system status.



- ◆ **NOTE:** Only JPEG and PNG images are supported as background images in the Map view.

## SYSTEM STATUS WINDOW

Double-clicking a row or map symbol in the main window opens the system's status window. This provides more detailed information about the selected system, and allows you to specify its configuration.

Switches to Status, Schedule or Program view.

IP address of one of the displays in the system.

System control is enabled.

System is connected.

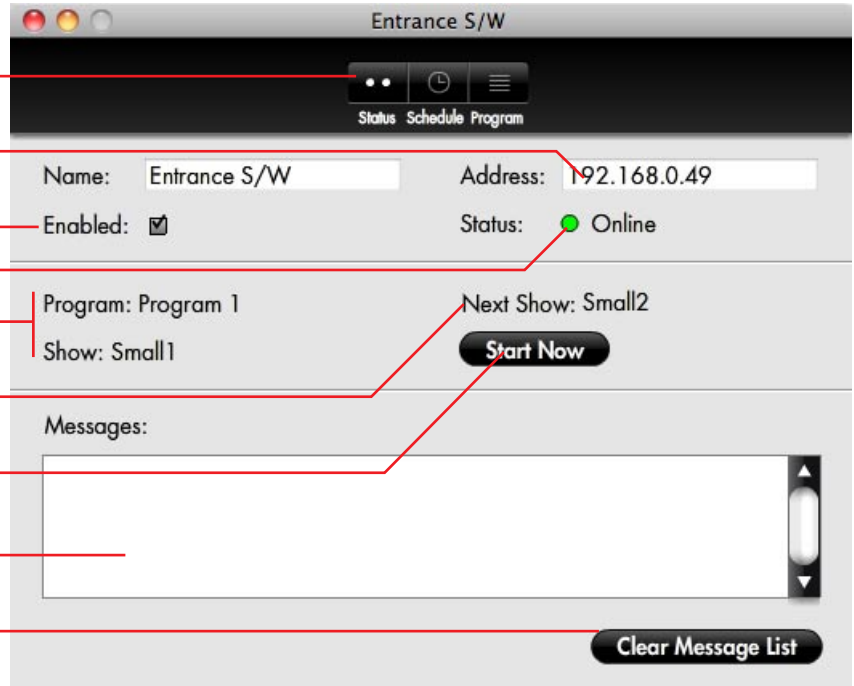
Name of the current program and show.

Name of the next show coming up in the program.

Forces the next show to start immediately.

List of error and warning messages from the system.

Discards all messages.



- ◆ **NOTE:** You can open an separate Status window for each system controlled. Status windows may be left open for a more detailed view.

---

<b>Name</b>	The name of the WATCHOUT display system that is controlled. This name is used to represent the system elsewhere in the application (such as in the Map view), but has no functional purpose outside the scheduler application.
<b>Address</b>	IP address of one of the display computers in the system (also known as "cluster") being controlled. You can pick any of the displays in a multi-display system to act as the master.
<b>Enabled</b>	When selected, the scheduler application will attempt to connect to the display with the specified address, and run it according to any programmed schedule.
<b>Online</b>	Indicates whether the display system is currently online.
<b>Start Now</b>	If the current program contains multiple shows, this button advances to the next show (as indicated above the button). This allows you to manually advance through the program for testing purposes, checking each show.

## SCHEDULE VIEW

Click the "Schedule" button at the top of the window to switch to Schedule view. This view allows you to graphically schedule programs for the system.

Switch to Schedule view.

Start date for this schedule.

Calendar being edited.

Add/remove calendar.

Use other system's calendar.

End of this calendar (exclusive).

Drag to move the event.

Drag top or bottom to change the event's duration.

Drag a program to the schedule to add an event.

Select to auto-replicate events across days (replicated events appear dimmed).

Calendar: 2010-01-04 Start Date: 2010-01-04 End Date:

Clone: Not Cloned Note:

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
9:00		8:55 Main	8:55 Main	8:55 Main	8:55 Main	8:55 Main	8:55 Main
10:00							
11:00	11:00 Morning & Lunch	11:00 Morning & Lunch	11:00 Morning & Lunch	11:00 Morning & Lunch	11:00 Morning & Lunch	11:00 Morning & Lunch	11:00 Morning & Lunch
12:00							
12:30	12:30 Main	12:30 Main	12:30 Main	12:30 Main	12:30 Main	12:30 Main	12:30 Main
13:00							
13:35	13:35 Morning & Lunch	13:35 Morning & Lunch	13:35 Morning & Lunch	13:35 Morning & Lunch	13:35 Morning & Lunch	13:35 Morning & Lunch	13:35 Morning & Lunch
14:00							
15:00							
16:00					16:00 Evening Special	16:00 Evening Special	16:00 Evening Special
17:00							
18:00							

Programs (drag to Calendar)

- Morning & Lunch
- Main
- Evening Special

Use "same as yesterday" for all days except Monday

- ◆ **NOTE:** You must create programs using the Program view before you can add them to the calendar (see page 25).

---

## View Selector

Click the buttons in the view selector at the top of the window to switch to Status, Calendar or Program view.

---

## Calendar Pop-up Menu

Selects the calendar currently being viewed and edited. You can have multiple calendars defined for each display system.

---

## Add/Remove Calendar

Add a new calendar to specify a new set of scheduled events ahead of time. Click the minus button to remove the currently viewed calendar.

▼ **CAUTION:** Removing a calendar permanently removes all its scheduled events, and can not be undone.

---

## Start Date

A calendar can be defined ahead of time, to take effect on a specified date. The start date also identifies the calendar on the Calendar menu.

---

## End Date

You may specify an explicit end date for a calendar. If you don't do this, the calendar will remain in effect until the start date of the next calendar. You can use the explicit end date to define a calendar that will remain in effect for a limited period only. Once the end date is reached, the scheduler reverts to its normal schedule, which may be an earlier calendar having no end date (or a later end date).

◆ **NOTE:** The calendar does *not* apply on the end date. The end date specifies the date when the system will revert to its normal schedule.

---

## Note

Type a comment associated with the calendar into this field. For instance, if you have created a calendar to run only during the holidays, you can make a note here.

---

## Clone

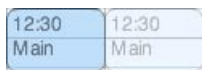
When using a number of systems at a venue, you may want one system to mimic another one in terms of its schedule. For example, in the system illustrated on page 19, you may want the two “Entrance” systems to play the same program. Rather than defining (and maintaining) identical calendars for these two systems, you may define the calendar only for the “Entrance N/W” system, and then set the calendar for the “Entrance S/W” to clone “Entrance N/W.”

Since the cloning behavior is part of the calendar, you may have calendars that use cloning, while other calendars for the same system define independent programming.

- ▲ **IMPORTANT:** You can’t clone a system that, in its turn, is cloned. To use cloning, make sure that the required set of shows is available in both systems. This is done separately, using the WATCHOUT production software.

---

## Weekly Schedule



*Dimmed events.*

The main area of the Schedule view is used to specify the time and weekdays associated with events. Drag programs into this area to schedule them. Although the schedule includes all the days of the week, it doesn’t take effect until its start date. Nor does it extend past a specified end date (or on that end date). Events placed on excluded days will be ignored.

- ◆ **IMPORTANT:** Events that appear dimmed in the schedule can not be edited. Such events are either copied from a previous day in the schedule, or cloned from another calendar. Change the original to update the dimmed copy.

---

## Events

An event appears in the calendar when a program is added. The event defines the weekday, start time and duration for the program. Events can be moved using the mouse. Change the duration of an event by dragging its top or

bottom edge. If you move or change an event so it overlaps another event, the other, overlapped, event will be altered to make room for the changed event.

---

### Use “same as yesterday”

Selecting this checkbox copies events from earlier days in the week to the same time slots on following days. This is useful if you want the same schedule to apply for multiple, consecutive days. By using this feature, you only have to define the schedule for the first day.

◆ **NOTE:** Only unoccupied time slots will be affected. Hence, you can override this behavior for any day by explicitly adding a program to that day.

---

### Programs

This list shows all the programs defined for this system, allowing you to drag them to the schedule. A program can appear multiple times in the schedule. In addition to the program’s name, it is also identified by its color, which can be set in the Program view.

Use the Program view, described on page 25, to define programs. This must be done before you can add programs to the schedule. Removing a program automatically deletes it from all schedules.



## PROGRAM VIEW

Click the “Program” button at the top of the window to switch to Program view. This view allows you to build programs for subsequent use by the system. A program is a collection of shows presented sequentially.

Switch to Program view.

Add or remove program.

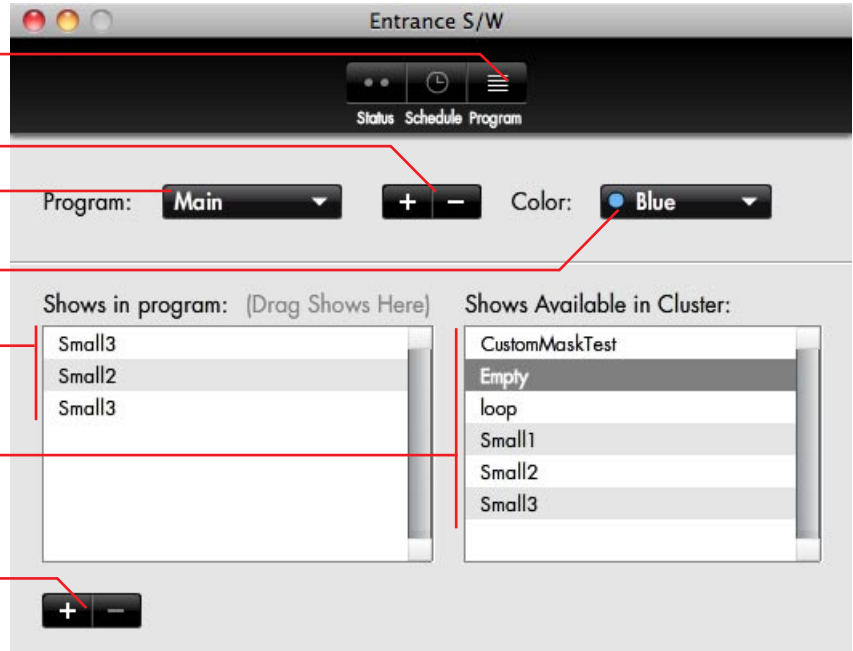
Program being edited. Select the name to change it.

Color identifying the program in the Schedule view.

Shows included in program. Drag to re-arrange.

Shows available in the system. Drag to the other list.

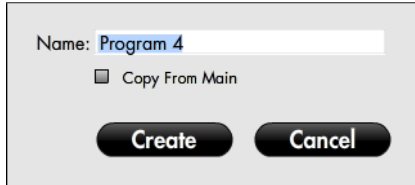
Manually add/remove shows from the program.



- ◆ **NOTE:** You must use this view to define programs for the system before adding them to the Schedule view.

---

## Adding/Removing a Program



Click the plus button to add a new program to the system. A dialog box appears, as shown on the left, where you can name the program. This name can be changed afterwards by clicking the name in the Program combo box.

If a program was selected prior to clicking the plus button, you will have the option of copying that program. This is convenient if you want to make a new program that's a variation on an existing program. If so, select that existing program before adding the new program.

You remove the currently selected program by clicking the minus button.

▼ **CAUTION:** Removing a program also removes all scheduled appearances of this program. This operation can not be undone.

---

## Program

Selects the program currently being edited. Change the name of the program by clicking it. Changing the name automatically updates all schedules referring to this program.

---

## Color

Associates a color tint with this program (see page 21). This makes it easier to identify the various programs in the Schedule view.

---

## Shows in Program

This list contain the shows that make up this program. You can add multiple shows to a program, which will cause them to be played sequentially. A show may occur more than once in a program. Shows can be dragged to re-arrange their order of appearance. To remove a show, select it in this list then click the minus button below the list.

◆ **IMPORTANT:** Each show in the program is played by running its main timeline until it stops. Put a Pause cue at the end of the timeline to make sure it stops there. If not, you may see several minutes of inactivity on screen before

the timeline reaches its natural end. Do not use Pause cues elsewhere on the main timeline, as doing so would cause the program to advance to the next show before reaching its end.

---

## Shows Available

This list contains the shows available in this system. If the system is online, this list will be obtained from the system, using the set of shows available in its “Shows” folder. If the system is offline, this lists the set of shows most recently found in that system.

Drag a show from this list into the “Shows in Program” list to include it in the program. A show may be used in multiple programs, and may occur more than once in a program.

---

## Add/Remove Show button

Click the plus button below the list to manually add a show to the program. This allows you to add shows that may not yet be available in the system. You then need to make sure that a show with the specified name is provided before running this program.

Click the minus button below the list to remove the selected show from the program.

---

## DATA STORAGE

Data associated with the WATCHOUT Scheduler application is stored in a folder named WOScheduler, located in your Documents folder. To move your settings to another computer, simply move this folder across before starting the Scheduler application.



# 4 WATCHOUT MANAGEMENT API

---

This chapter provides an introduction to the WATCHOUT Management API. This is a software component that allows developers and advanced users to create applications, similar to the ones included, to control WATCHOUT.

◆ **NOTE:** If you're only interested in using the ready-to-run applications, you don't need to read this chapter.

---

## FUNCTIONALITY

This is a summary of what you can do through the API:

- Connect to one or many WATCHOUT display systems.
- Get a list of shows available.
- Load a show, or determine if a show is already loaded.
- Play and stop the main timeline of the show, or its auxiliary timelines.
- Jump to a time position or a named cue.
- Obtain the current time position and playback status of timelines.
- Get a list of auxiliary timelines available in the current show.
- Receive notifications when interesting events or errors occur.

---

## Complete Documentation

For full details on the API, please refer to the HTML-based documentation included with the API software component.

## DEVELOPING WITH FLASH

You can use Adobe Flash Professional CS4 or later to create applications utilizing the WATCHOUT Management API. Withn Flash you can build applications that run in a web browser, mobile device, or on a desktop computer.

The included, ready-to-run applications were developed using Flash, and come with full source code, allowing you to use them as starting points or inspiration for your own designs.

### Basic Example Application



Text field  
*cShowName*

Checkbox  
*cPlay*

Button  
*cLoad*

This is the user interface and program code for a small Flash application.

```
import com.dataton.watchout.*; // Required to use the WATCHOUT Management API
var wo : WATCHMan = new WATCHMan("192.168.0.49"); // Connect to WATCHOUT
// Load a show with name specified in the cShowName text field
function loadShow(event) {
    wo.ShowName = cShowName.text;
}
// Play or pause the main timeline, as specified by the checkbox
function playTimeline(event) {
    wo.Playing = cPlay.selected;
}
// Hook up the two functions above to the user interface controls
cLoad.addEventListener(MouseEvent.CLICK, loadShow);
cPlay.addEventListener(MouseEvent.CLICK, playTimeline);
```

This simple application illustrates a number of important aspects of the API:

- Before you can use the API, you must make it available to your code using the "import" statement.

- You first create an object of the WATCHMan class, which is subsequently used to communicate with the specified WATCHOUT system.
- You identify the WATCHOUT system to be controlled using the IP address of one of its computers. Provide this either as the parameter to the WATCHMan constructor function, as in the example, or set it separately.
- Many features of the API are accessed by setting or reading properties on the WATCHMan object. This example loads a show by setting the ShowName property, and starts playback by setting the Playing property.

---

### Locating the WATCHMan.swc File

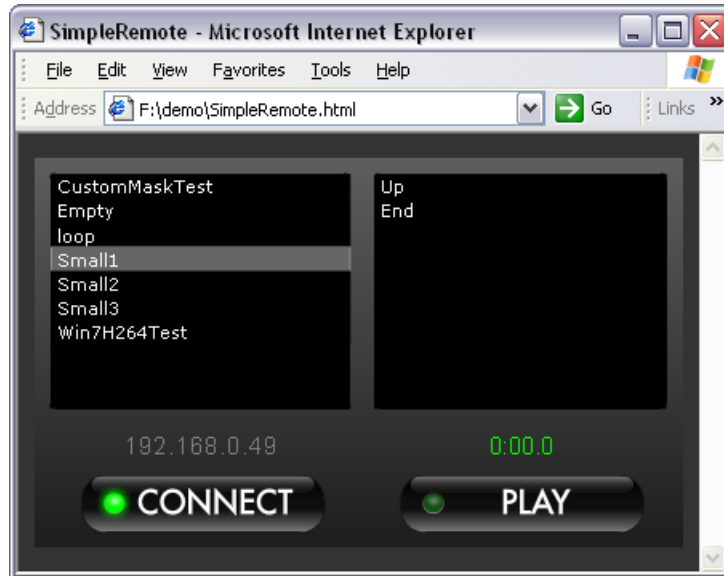
In addition to the “import” statement, you must also show Flash where the WATCHMan.swc component is located. You can do this in either of two ways:

- Globally, for all Flash applications created on your computer. Go to Preferences, ActionScript, ActionScript 3.0 Settings, Library Path, click the red “Browse to SWC file” button, and select the WATCHMan.swc file, adding it to the list.
- Locally, for the current Flash application only. Go to File, Publish Settings, Flash, ActionScript 3.0, Settings, Library Path, click the red “Browse to SWC file” button, and select the WATCHMan.swc file, adding it to the list.

## RUNNING IN A WEB BROWSER

You can run your application in a web browser simply by selecting HTML under Publish Settings, Format in Flash. Although you typically wouldn't use such an application over the Internet, this can be a useful method for distributing a control application using an in-house server.

*Example application running in a web browser.*





## RUNNING ON A MOBILE DEVICE

Many mobile devices include support for Adobe Flash. To use your application on such a device, it must support either the Flash Player version 9 or later, or Adobe AIR. Specifically, Flash Lite can not be used. If the device has adequate built-in memory, or a memory card slot, you may be able to put your application's resulting SWF file there, providing immediate access even without an internet connection.

*Example application running on a Nokia N900 device.*



- ◆ **HINT:** Use the wireless network connectivity, usually supported by such devices, to control your WATCHOUT systems on the go.

## RUNNING AS AN APPLICATION

You can use your application as a traditional computer program on most desktop computers running MacOS X, Windows or Linux operating systems. To do so, you must first generate an AIR file from Flash. This is done by going to the File menu, Publish Settings, Flash, Player; Adobe AIR. Click "Settings" and specify the details of your application, such as its icon. Please refer to Adobe's documentation for more details on how to publish an AIR file.

*Running as a desktop application under Linux.*



Before you can use the resulting AIR file on a computer, it must have the AIR runtime installed (see "Installing Adobe AIR" on page 7). Alternatively, you can create a "badge installer", allowing you to distribute your application via the Internet in a way that automatically installs both AIR and your application in a single step, as described here:

[http://www.adobe.com/devnet/air/articles/badge\\_for\\_air.html](http://www.adobe.com/devnet/air/articles/badge_for_air.html)

## DEVELOPING WITH FLEX

Adobe Flex/Flash Builder provides an alternative way to build applications. These can be used in the same way as applications developed using Flash Professional. However, this method of development is more geared towards building complex applications, involving a larger amount of code.

The WATCHOUT Management API works equally well from Flex as it does from Flash. Furthermore, it supports “data binding”, a major feature of Flex, making it even easier to build interactive applications.

### Basic Example Application

*Example application, based on the Flex framework, created using Adobe Flash Builder.*

