

## **EtherRain Function Reference For HomeSeer 3**

The EtherRain Sprinkler Control Interface for HomeSeer3 includes a HomeSeer3 Plug-In that works on all HomeSeer 3 platforms including Windows, Linux, and Zee. In addition a HomeSeer 3 compatible web-page interface for HomeSeer 3 Windows platform is available. Both interfaces offer easy systematic setup and control of sprinkler irrigation using and support HomeSeer's flexible events allowing complete irrigation cycles to be run by defining only a single event.

The EtherRain plug-in is a standard HomeSeer Plug-in that is installed through the updater. The web interface consists of a set of html pages which utilize JavaScript and the ASPX scripting language that perform the same functions as the plug-in. Both the plug-in and html pages call functions that are implemented within a single VB.net script called EtherRain.vb.

See the installation guide for information on how to install the EtherRain interface on HomeSeer3.

All of the functions contained in EtherRain.vb are accessible for use in HomeSeer3 events. For example, an irrigation program schedule is commonly built by calling the most frequently used function: "runNamedCycle." See the accompanying users guide for information on how to set up irrigation events.

This document provides a list of the available functions as well as information and parameters used when calling those functions.

The following functions are available for use in HomeSeer3 events

- runNamedCycle**
- runSeqCycles**
- runCycle**
- stopCycle**
- stopAllCycles**
- disableSystem**
- enableSystem**
- suspendSystem**

These functions are described below.

## How to Call a Function in a HomeSeer3 Event

EtherRain interface functions can be called in a HomeSeer3 event by setting up an Action in an Event Trigger. When the event triggers, the action is performed.

The process for creating an event, defining a trigger, and adding an action for HS3 is described in these steps:

1. From the HS3 Events screen, make an event group for irrigation events. For example name the event group "Irrigation Events"
2. Once the group is created, open the group to display the events (click the round yellow arrow icon)
3. Add an event (click the green + icon)
4. Enter an event name, for example: "Main Irrigation Cycle"
5. Set the type to "irrigation."
6. Create a "trigger." A basic trigger, for example: "if the time is" from the dropdown list select "if the time is this" – a time entry box will be displayed – select a time from the selector window
7. Fill in an action. You will see a box labeled "then." To the right of this box, is another drop down box labeled "Choose an Action" - click this box and select: "Run a script or script command "
8. After you choose "Run a Script or Script command" a new set of controls will appear. Leave the checkboxes unchecked.
9. Choose the script to run by clicking the "Edit" button. Choose the script "EtherRain.vb." (if you don't see EtherRain.vb then you need to copy this script into the scripts directory – see installation guide)
10. After you choose the script, the controls disappear. Click the yellow arrow icon to open them again.
11. The script will be displayed. Do not edit the script.
12. In the field labeled "Sub or Function" enter: runNamedCycle OR runCycle
13. In the field labeled "Parameters" enter the parameters. See the function guide below for parameter information for the command you are using.
14. Your event has been set up. Click the yellow arrow icon, which is pointing down; it will change to point to the left and your entries will be saved.
15. You can test the event by clicking the blue right pointing arrow icon. Check the HomeSeer log to make sure the command was sent to the controller without errors.

## Accessible Functions

The following pages provide information necessary for using available functions within HomeSeer3 events.

## Function: runNamedCycle

This action sends an irrigation command to the named controller based on the named cycle. The named cycle is created in the EtherRain interface pages. This is the most commonly used EtherRain control function.

The function first checks the system parameters to determine whether a suspension is in effect before sending the command. If rain is detected by the local sensor the command will not run and a message will be logged. If you have set up the cycle to use a set back profile then the cycle times will vary based on month of the year.

### HS3 Event Setup Fields:

Sub or Function field:     runNamedCycle  
Parameter Field:           EtherRainName; CycleName

Where EtherRainName is the name of the controller which will receive the command and CycleName is the name of the cycle you wish to use. The controller name must be defined in the virtual controller list and the cycle name must be defined on the cycle builder page.

### Syntax Checks:

Enter the function name using exact case.  
Be careful to separate the controller name from the cycle name with a semi-colon.

## Function: runSeqCycles

This action runs multiple cycles sequentially through a single event. In installations that have multiple EtherRain controllers, this command allows up to 64 zone cycles to be run sequentially through a single event. This action can also be used for setting up cycle-and-soak type cycles in installations where it is desirable to minimize runoff. With this function, only one event needs to be set up in order to schedule sequential cycles through multiple controllers or multiple cycles through a single controller. The function automatically calculates cycle time, taking into account setbacks, if the setback is applied, so that the cycle runs continuously with a maximum gap between cycles of 1 minute. This function requires the use of Named Cycles.

In order to use this function a list of controller names and cycle names must be specified in the parameter string. A controller name can be repeated, as can a cycle name. The function first checks the system parameters to determine whether a suspension is in effect before sending the commands.

### HS3 Event Setup Fields:

Sub or Function field:     runSeqCycles  
Parameter Field:           EtherRain1; CycleName1; EtherRain2; CycleName2...

Where EtherRainN is the name of the controller which will receive the cycle command and CycleNameN is the name of the cycle from your Named Cycle list that you wish to use. The controller name must be defined in the virtual controller list and the cycle name must be defined on the cycle builder page. The cycle name must follow the controller name in the list. The list can contain up to 8 controller/cycle pairs (16 elements total).

### Syntax Checks:

Enter the function name using exact case.

In the parameter field, be careful to separate the controller name or the cycle name with a semi-colon.

## Function: runCycle

This action sends an irrigation command to a named EtherRain Valve Controller. A parameter string containing 10 parameters each separated by a semicolon must be provided. A virtual controller does not need to be set up to use this command.

Parameters: The parameters are:  
Controller name,  
Controller password,  
8 valve "on" times.

All ten parameters are required. If ten parameters are not found in the parameter string, the event terminates with an error written to the log. The parameters m1 through m8 must be whole numbers from 0 to 99. These numbers represent valve "on" times in minutes. For example, if the m1 parameter was 25, then valve 1 would open for 25 minutes. To skip a valve, enter 0 for its valve on time. If rain is detected command will not run and a message will be logged.

### HS3 Event Setup Fields:

Sub or Function field: `runCycle`

Parameter Field: `EtherRainName; password; m1; m2; m3; m4; m5; m6; m7; m8`

Where EtherRainName is the name of the controller which will receive the cycle command and password is the password for the controller.

m1 through m8 are the zone times in minutes; you need to enter 8 values ranging from 0 to 99.

### Syntax Checks:

Enter the function name using exact case.

Be careful to separate the 10 parameters with a semi-colon character.

## **Function: stopCycle**

This action sends a stop/reset command to the named controller. A virtual controller does not need to be set up.

### HS3 Event Setup Fields:

Sub or Function field: `stopCycle`  
Parameter Field:

### Syntax Checks:

Enter the function name using exact case.  
No entry in the parameter field.

## **Function: stopAllCycles**

This action sends a stop/reset command to each controller in the virtual controllers list. Useful when called from a HomeSeer weather event.

### HS3 Event Setup Fields:

Sub or Function field: `stopAllCycles`  
Parameter Field:

### Syntax Checks:

Enter the function name using exact case.  
No entry in the parameter field.

## **Function: disableSystem**

This action sets the global HomeSeer control switch to disable irrigation. No irrigation commands will run through the EtherRain control scripts until the global control switch is re-enabled via manual event or control page button click.

Parameters: none

HS3 Event Setup Fields:

Sub or Function field: `disableSystem`

Parameter Field:

Syntax Checks:

Enter the function name using exact case.  
No entry in the parameter field.

## **Function: enableSystem**

This action sets the global HomeSeer control switch to enable irrigation.

Parameters: none

HS3 Event Setup Fields:

Sub or Function field: `enableSystem`

Parameter Field:

Syntax Checks:

Enter the function name using exact case.  
No entry in the parameter field.

## **Function: suspendSystem**

This action sets the global HomeSeer control switch to suspend irrigation for a specified number of days from 1 to 9. The system is disabled for the number of days specified, and then automatically re-enabled when the suspension period is over. No irrigation commands will run through the EtherRain control scripts during the suspension period unless a the global HomeSeer control switch is re-enabled via the “enableSystem” command or a button click on the control page.

Parameters: number of days to suspend starting from the current date, max of 9 days.

HS3 Event Setup Fields:

Sub or Function field: `suspendSystem`  
Parameter Field: `n`

Where n is a number ranging from 1 to 9.

Syntax Checks:

Enter the function name using exact case.

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