



Application Notes

Rev 03

AN42 – Importing and Exporting using IMS

Introduction

IMS is a cloud-based software system that allows you to manage and operate your solid set irrigation and use desktop or mobile devices to monitor operations. Legacy products like the EP3 handheld programming unit use an SD Memory Card to hold Site configuration files for communicating and scheduling sprinkler controllers (IPCs). An SD card is also used to hold firmware upgrade files for IPCs or the EP3. The Gateway unit (INC) also provides an SD Card interface for transferring the same information.

The newer cloud IMS system attempts to minimise the needs to use SD cards but sometimes it is useful to carry out functions with an EP3, such as setting the radio channel, FarmID and firmware on an IPC. IMS should always be considered the point of truth, so a means of **exporting** this information is available.



IMS also provides **import** functions which can be used for tasks such as:

- Migrating an existing site to use IMS
- Adding Spares
- Site expansion
- Updating information to/from RXP Pod Scheduler

Some familiarity with using IMS, an EP3, FarmID and radio channels is needed in order to follow the processes described herein.

Before You Start

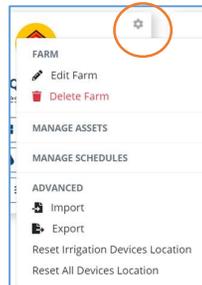
Phones and tablets do not typically provide interfaces for SD memory cards so this application note focuses on using a desktop PC or laptop for creating cards. If your computer does not have an SD card interface then USB to Memory card adapters are readily available in stores or from Water-Insight .



Specification details for the Card (one is supplied from Water-Insight but if you need another) are available in the back of the EP3 or INC User Guide Manual.

Import/Export Menus

The import and export menus are accessed from **Farm Settings > Advanced**



Exporting

Creating a Card for the EP3 (Export Full Configuration of the Site)

A Site configuration card for the EP3 contains the IPC configuration file (often called pod-config.ini) and the schedule files (one per IPC and typically called schedule-*nnn*.ini, where *nnn* is the number of the schedule 1,2,3 etc.).

Step	Process	Note
1.	<p>From the IMS Export menu</p> <ul style="list-style-type: none"> - Choose Export Full Configuration of the Site <p>A compressed (zip) file (Site.zip) will be downloaded to your default downloads folder</p> <ul style="list-style-type: none"> - Save this file to a new location if desired 	
2.	This file must be unzipped for use on the EP3	

Step	Process	Note
	- Right click on the file and choose extract all	Two folders will be created called pods and schedules
3.	Insert your SD card into the computer (or adapter) Open the drive folder using file explorer Copy the pods and schedules folders onto the card Safely remove (eject) the card for use in your EP3	Ensure they are copied to the root folder on the card and not to any sub folders. Right click on the drive name in file explorer and select eject

The SD card is now ready with the latest site information to be used in your EP3.

Exporting for use in RX Plastics Pod Scheduler

Two-way compatibility with the RX Plastics Pod Scheduler software is achieved by using the **RXP Pod Scheduler (json)** import/export option.

This allows sprinkler/IPC details, groups and schedules to be transferred between IMS and the RXP Pod Scheduler software.

Confirm with RX Plastics for version and availability of Pod Scheduler software

Step	Process	Note
1.	From the IMS Export menu <ul style="list-style-type: none"> - Choose Export RXP Pod Scheduler/IMS backup file (json) The file will be downloaded to your default downloads folder <ul style="list-style-type: none"> - Save this file to a new location if desired 	

Importing

If the farm you wish to work with does not already exist in IMS, you must first create it.

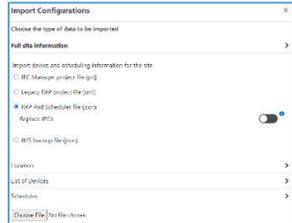
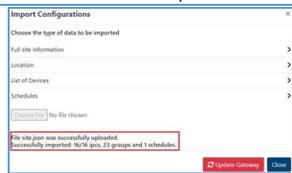
Creating a farm must be done from the farm owner IMS account or from a delegate account with the permissions to do so. Use the “New Farm” card on the Farm Summary that appears when you sign in to IMS. Draw the farm boundaries and place a centre dot in the middle of the farm.

Full Site Information – Importing from RXP Pod Scheduler (json)

Two-way compatibility with the RX Plastics Pod Scheduler software is achieved by using the **RXP Pod Scheduler (json)** import/export option.

This allows sprinkler/IPC details, groups and schedules to be transferred between IMS and the RXP Pod Scheduler software.

Confirm with RX Plastics for version and availability of Pod Scheduler software

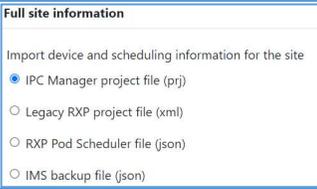
Step	Process	Note
1.	From the IMS Import menu <ul style="list-style-type: none"> - Choose Full site information - Then select RXP Pod Scheduler file (json) Replace IPCs slider is turned on <ul style="list-style-type: none"> - All existing IPC details in IMS will be replaced by the imported data Replace IPCs slider left off <ul style="list-style-type: none"> - Any serial number changes for existing sprinkler names will be skipped 	 <p>IPC/Sprinkler details, locations, Schedules and Group details are imported</p>
2.	<ul style="list-style-type: none"> - Select Choose File > navigate to the desired file > Open - A success message will be displayed including any serial numbers that were skipped. - Select Update Gateway to update the IMS gateway with the changes - Once successful, can then Close. 	

Full Site Information – Project File (prj or xml)

If you have developed an IPC configuration file and schedules using Water-Insight’s IPC Manager software or the RX Plastics Pod Scheduler Software then you can use the project files created by these applications as a starting point to migrate your site into the IMS cloud.

WARNING. Do not import projects (prj or xml) again after you have made additional editing changes to the site in IMS otherwise these changes will be lost.

This is the legacy option for importing from RX Pod Scheduler software.

Step	Process	Note
1.	From the IMS Import menu <ul style="list-style-type: none"> Select Full Site Information Choose the type of file to import <p>The RXP Pod Scheduler (json) option is intended for two way compatibility with the RXP Pod Scheduler software</p>	
2.	<ul style="list-style-type: none"> Select Choose File Navigate to your file Select Open to start the import process 	
3.	The import should take less than a minute to complete and the number of successfully imported IPCs, Schedule sets and Groups will be indicated <ul style="list-style-type: none"> Select Update Gateway to update the IMS gateway with the changes Once successful the import dialogue box can be closed 	

Importing Locations

Locations can be imported from GPS coordinates defined in a kml/kmz (Google Earth) file.

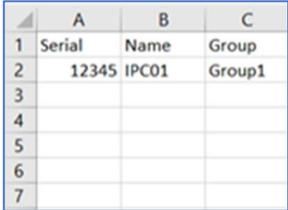
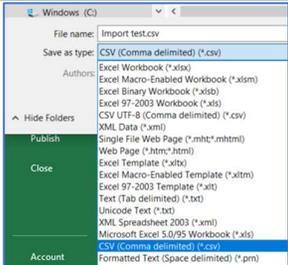
IMPORTANT: The naming in your kml/kmz file must match the naming of any existing sprinklers in IMS.

Step	Process	Note
1.	From the IMS Import menu <ul style="list-style-type: none"> Select Location 	
2.	<ul style="list-style-type: none"> Select Choose File Navigate to your kml/kmz file Select Open to start the import process 	
3.	The import should take less than a minute to complete and will indicate the number of successfully imported IPC Locations	
	If you decide what has been imported is not correct the previous state can be restored using the Backup & Restore feature	Refer to Backup & Restore section

Importing a List of Devices

The Device Import Template provides a way of importing several devices at once in a list format with optional fields to customise your import. Any unwanted fields should be removed (including header). This can be useful when adding IPCs as spares or a site expansion.

The Device Import template can be found here <https://www.waterinsight.co.nz/importing-and-exporting-using-ims/>, or you can create your own.

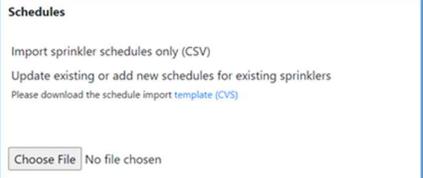
Step	Process	Note
1.	Using a spreadsheet, enter the IPC details <ul style="list-style-type: none"> Serial (required) Serial number of IPC Name (optional) e.g. SP01 (5 character limit). If left blank, names are assigned automatically Groups (optional) Group name the IPC belongs to. Group is created if not already existing. Enter the list of IPC Serial numbers to be imported Enter Names if desired 	
2.	Save as CSV file type in a convenient location <ul style="list-style-type: none"> File > Save As > choose location > choose file type CSV (Comma delimited) (*.csv) from drop down menu 	

Step	Process	Note								
3.	<ul style="list-style-type: none"> Open the Farm Settings menu Select Advanced > Import Choose List of Devices Turn ON the Import as Spares slider <p>Channel and FarmID</p> <ul style="list-style-type: none"> For a site with existing devices the existing farm ID and channel are assigned to the imported devices. For new sites channel and farm ID can be specified by using the sliders in the import dialogue 									
4.	<ul style="list-style-type: none"> A success message will be displayed. If any serial numbers in the import list were already existing in IMS, they are skipped. Select Update Gateway to update the IMS gateway with the changes, then Close. 									
5.	<p>The imported IPCs are defined as Spare Units and are allocated to a group named Spares.</p> <ul style="list-style-type: none"> This group is created if it does not already exist. The IPCs are automatically given names with SP_ prefixes 	<table border="1"> <tbody> <tr> <td>SP_79</td> <td>7640</td> <td>Local</td> <td>Spares</td> </tr> <tr> <td>SP_EB</td> <td>7641</td> <td>Local</td> <td>Spares</td> </tr> </tbody> </table>	SP_79	7640	Local	Spares	SP_EB	7641	Local	Spares
SP_79	7640	Local	Spares							
SP_EB	7641	Local	Spares							
<p>If you decide what has been imported is not correct the previous state can be restored using the Backup & Restore feature</p>		<p>Refer to Backup & Restore section</p>								

Importing Schedules from a List (CSV)

The schedule import template provides a way of importing IPC schedules in a list form. These schedules are not editable in IMS but do allow more complex scheduling requirements such as multi day schedules, specific start times, multiple start times.

If there are multiple start times for an IPC(s) within the same day the scheduling needs to be entered in chronological order. For example, a morning start time needs to come before an afternoon start time in the list.

Step	Process	Note																																																												
1.	<p>From the IMS Import menu</p> <ul style="list-style-type: none"> Select Schedules A template can be downloaded via the link (if required) <p>Template available here https://www.waterinsight.co.nz/importing-and-exporting-using-ims/</p>																																																													
2.	<p>Complete the scheduling template with the desired scheduling details and save as a CSV.</p> <ul style="list-style-type: none"> IPC NAME – Name of the sprinkler to schedule TIME – Scheduled start time (h:mm, 24hr format) DAY – Day of schedule DURATION – how long to run sprinkler for (h:mm) <p><i>Multiple start times and/or days of operation can be defined</i></p>	<table border="1"> <thead> <tr> <th>IPC NAME</th> <th>TIME</th> <th>DAY</th> <th>DURATION</th> </tr> </thead> <tbody> <tr><td>101</td><td>0:00</td><td>1</td><td>0:15</td></tr> <tr><td>102</td><td>0:15</td><td>1</td><td>0:20</td></tr> <tr><td>103</td><td>0:35</td><td>1</td><td>0:30</td></tr> <tr><td>104</td><td>1:05</td><td>1</td><td>1:00</td></tr> <tr><td>105</td><td>2:05</td><td>1</td><td>1:15</td></tr> <tr><td>106</td><td>3:20</td><td>1</td><td>0:20</td></tr> <tr><td>107</td><td>3:40</td><td>1</td><td>0:10</td></tr> <tr><td>101</td><td>12:00</td><td>2</td><td>0:15</td></tr> <tr><td>102</td><td>12:15</td><td>2</td><td>0:20</td></tr> <tr><td>103</td><td>12:35</td><td>2</td><td>0:30</td></tr> <tr><td>104</td><td>13:05</td><td>2</td><td>1:00</td></tr> <tr><td>105</td><td>14:05</td><td>2</td><td>1:15</td></tr> <tr><td>106</td><td>15:20</td><td>2</td><td>0:20</td></tr> <tr><td>107</td><td>15:40</td><td>2</td><td>0:10</td></tr> </tbody> </table>	IPC NAME	TIME	DAY	DURATION	101	0:00	1	0:15	102	0:15	1	0:20	103	0:35	1	0:30	104	1:05	1	1:00	105	2:05	1	1:15	106	3:20	1	0:20	107	3:40	1	0:10	101	12:00	2	0:15	102	12:15	2	0:20	103	12:35	2	0:30	104	13:05	2	1:00	105	14:05	2	1:15	106	15:20	2	0:20	107	15:40	2	0:10
IPC NAME	TIME	DAY	DURATION																																																											
101	0:00	1	0:15																																																											
102	0:15	1	0:20																																																											
103	0:35	1	0:30																																																											
104	1:05	1	1:00																																																											
105	2:05	1	1:15																																																											
106	3:20	1	0:20																																																											
107	3:40	1	0:10																																																											
101	12:00	2	0:15																																																											
102	12:15	2	0:20																																																											
103	12:35	2	0:30																																																											
104	13:05	2	1:00																																																											
105	14:05	2	1:15																																																											
106	15:20	2	0:20																																																											
107	15:40	2	0:10																																																											
3.	<ul style="list-style-type: none"> Select Choose File Navigate to your file Select Open to start the import process <p>The file name will be used as the schedule name</p>	 <p>If the schedule name already exists in IMS, the schedule will be overwritten with the imported data</p>																																																												
4.	<p>The import will take less than a minute to complete and the successfully imported Schedule sets will be indicated</p>	<p>Any sprinklers named in the scheduling, that don't exist in IMS will be indicated</p>																																																												
5.	<p>To view the new schedule details, navigate to Farm Settings > Manage Schedules > View Schedules</p>	<p>This schedule can now be distributed from IMS as desired</p>																																																												

For more information email support@waterinsight.co.nz