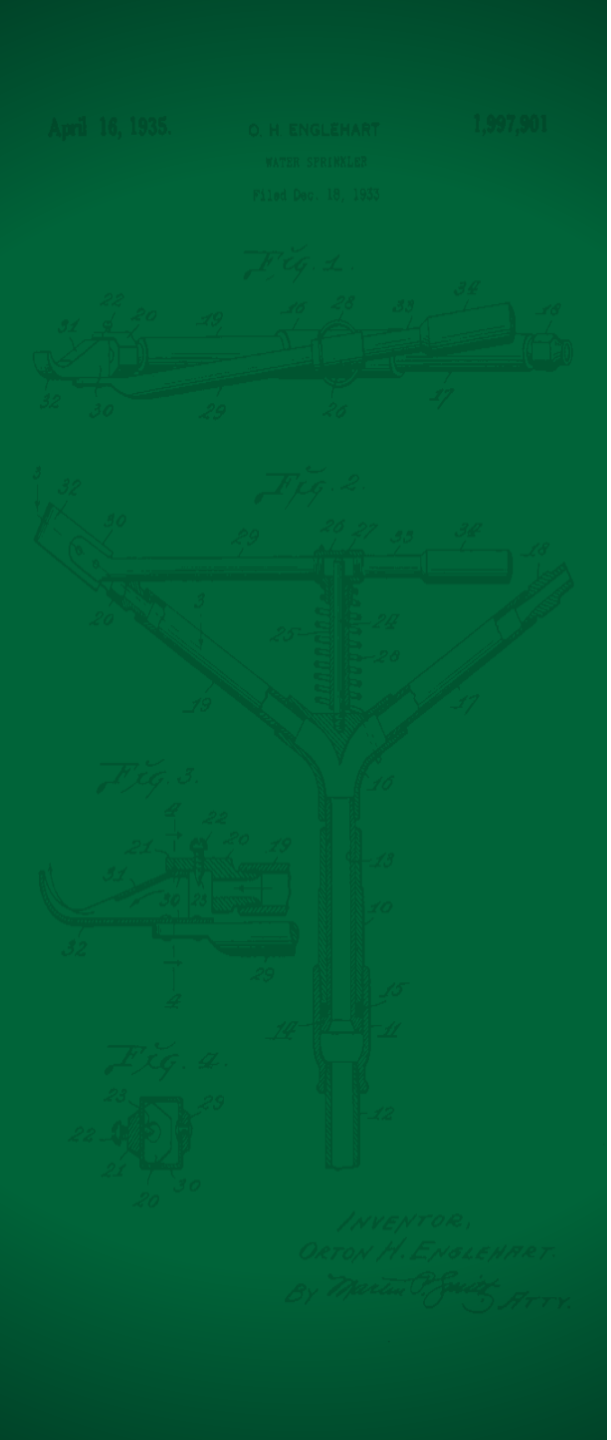

Synchronization, Reverse Synchronization & Log Retrieval

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Synchronization, Reverse Synchronization & Log Retrieval Overview

IQ4 has two-way communication with irrigation controllers connected to the IQ system

- **Sync/Auto Sync/Scheduled Sync**
  - –Sends programs and configurations from IQ4 **to controllers**
- **Reverse Sync**
  - –Retrieves programs and configurations **from controllers** to IQ4
- **Logs/Auto Retrieve Logs/Scheduled Retrieve Logs**
  - –Retrieves logged data and alarms **from controllers**

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Schedule Synchs and Log Retrievals

- You can schedule synchronization and log retrieval times in addition to automatic or manual options
- The Controller Settings edit page has four sub-menus:
  - Connection
  - Synchronization
  - Log Retrieval
  - Advanced Settings
- For Synchronization and Log Retrieval, there are three settings in the sub-menu:
  - Manual
  - Automatic
  - Scheduled

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Schedule Synchronizations

- Synchronization functionality:
  - Manual: A synchronization will only take place when the user clicks on the Sync icon and initiates the synchronization
  - Automatic: IQ4 will determine when to synchronize with the controller. This normally takes place one hour after a change to a controller has been made in IQ4
  - Scheduled: The user sets a particular time for IQ4 to synchronize with the controller each day. There is a checkbox that will allow IQ4 to ignore a synchronization if there are no changes to the controller
- Best Practices:
  - Scheduled Synchronizations need to be set BEFORE the first irrigation event each day (use Dryrun™ to determine first irrigation times)
  - CAUTION: Scheduled synchronizations that interrupt irrigation will cancel all further irrigation until the next scheduled start that takes place after the sync

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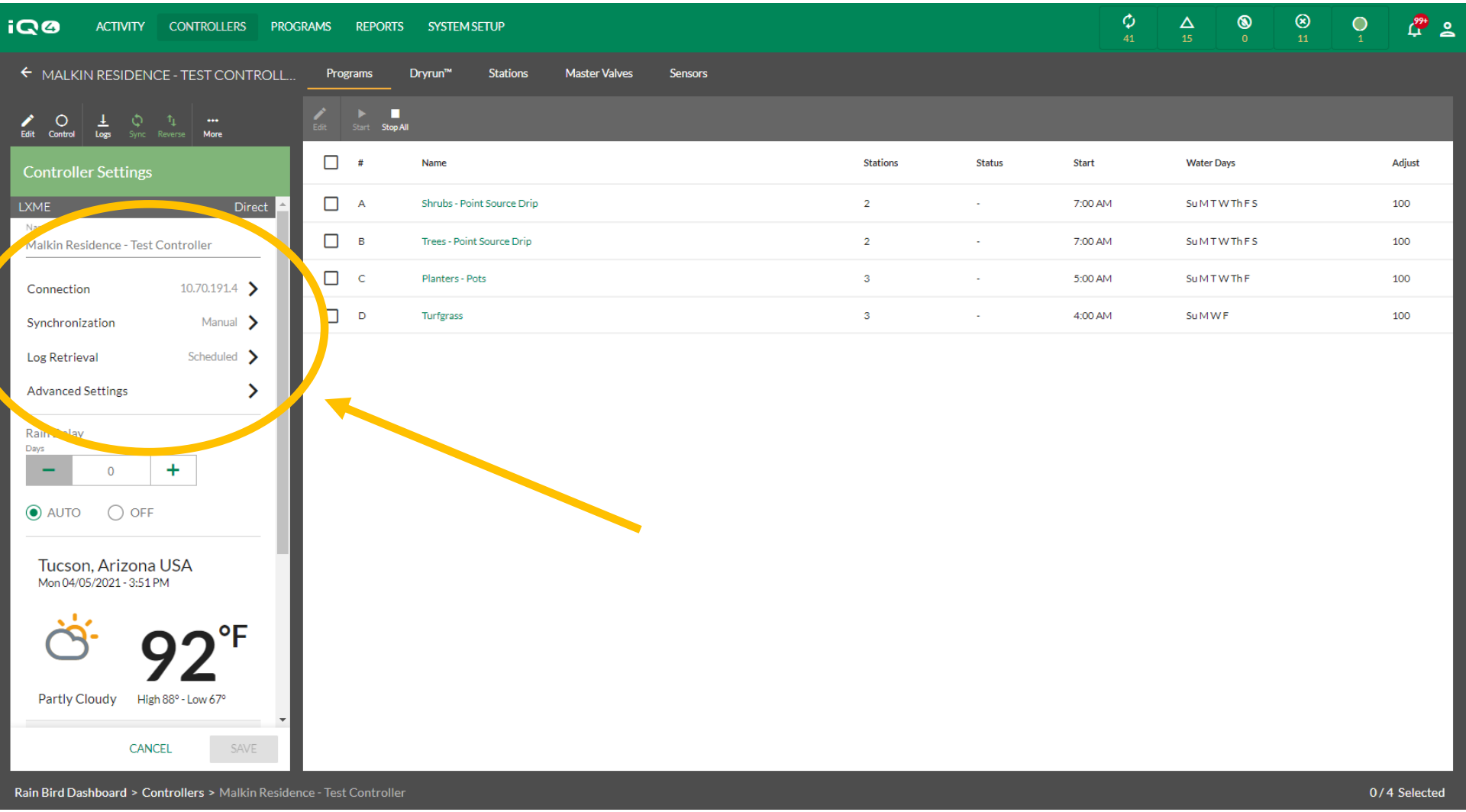
Scheduled Synchronizations



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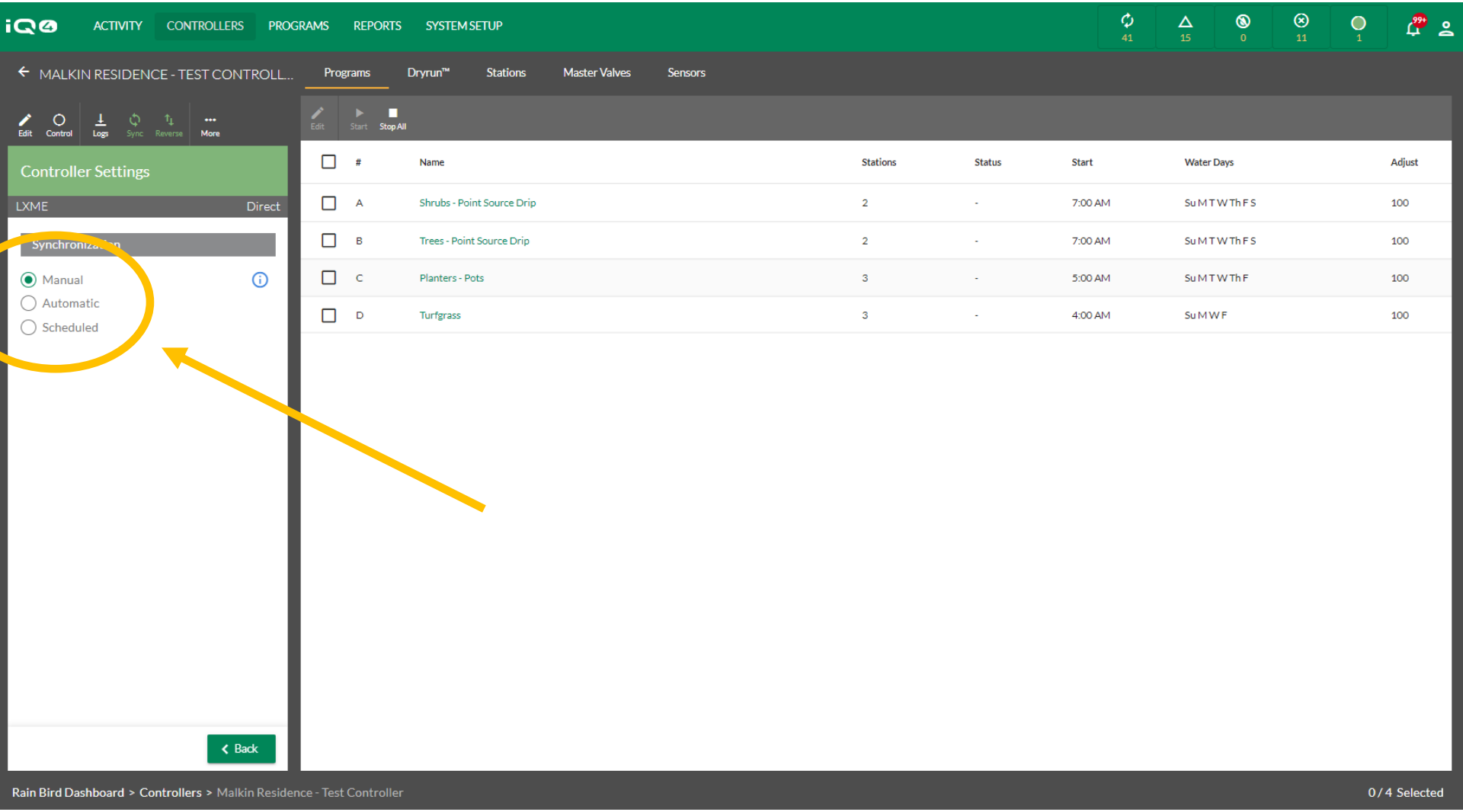
Scheduled Synchronizations



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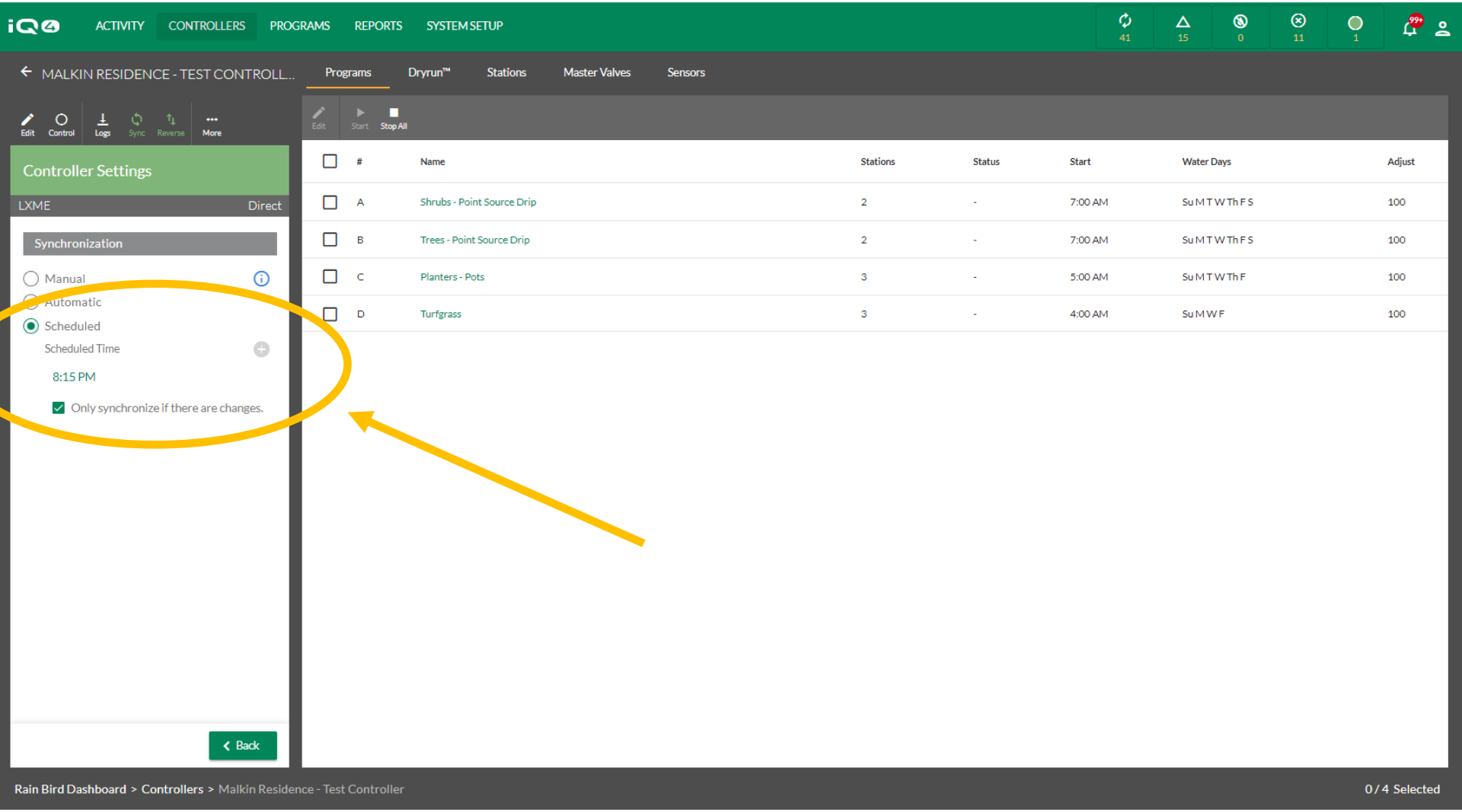
Scheduled Synchronizations



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Schedule Log Retrievals

- Log Retrieval functionality:
  - Manual: A log retrieval will only take place when the user clicks on the Logs icon and initiates the log retrieval
  - Automatic: IQ4 will determine when to retrieve logs from the controller. This normally takes place six hours after the first start time for the controller. If irrigation is still occurring, IQ4 will wait one hour and retry the log retrieval. It will continue this pattern until the logs are fully retrieved
  - Scheduled: The user sets a particular time for IQ4 to retrieve logs from the controller each day. The user can set up to 24 log retrieval times each day

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Auto Retrieve Logs

Auto Retrieve Logs – Retrieve Times

First Start Time	First Retrieve Time (6 hours later)	First Start Time	First Retrieve Time (6 hours later)
8:00 PM -9:00 PM	3:00 AM	20:00 -21:00	3:00
9:00 PM - 10:00 PM	4:00 AM	21:00 - 22:00	4:00
10:00 PM - 11:00 PM	5:00 AM	22:00 - 23:00	5:00
11:00 PM - 12:00 AM	6:00 AM	23:00 - 0:00	6:00
12:00 AM - 1:00 AM	7:00 AM	0:00 - 1:00	7:00
1:00 AM - 2:00 AM	8:00 AM	1:00 - 2:00	8:00
2:00 AM - 3:00 AM	9:00 AM	2:00 - 3:00	9:00
3:00 AM - 4:00 AM	10:00 AM	3:00 - 4:00	10:00
4:00 AM - 5:00 AM	11:00 AM	4:00 - 5:00	11:00
5:00 AM - 6:00 AM	12:00 PM	5:00 - 6:00	12:00
6:00 AM - 7:00 AM	1:00 PM	6:00 - 7:00	13:00
7:00 AM - 8:00 AM	2:00 PM	7:00 - 8:00	14:00
8:00 AM - 9:00 AM	3:00 PM	8:00 - 9:00	15:00
9:00 AM - 10:00 AM	4:00 PM	9:00 - 10:00	16:00
10:00 AM - 11:00 AM	5:00 PM	10:00 - 11:00	17:00
11:00 AM - 12:00 PM	6:00 PM	11:00 - 12:00	18:00
12:00 PM -1:00 PM	7:00 PM	12:00 - 13:00	19:00
1:00 PM - 2:00 PM	8:00 PM	13:00 - 14:00	20:00
2:00 PM - 3:00 PM	9:00 PM	14:00 - 15:00	21:00
3:00 PM - 4:00 PM	10:00 PM	15:00 - 16:00	22:00
4:00 PM - 5:00 PM	11:00 PM	16:00 - 17:00	23:00
5:00 PM - 6:00 PM	12:00 AM	17:00 - 18:00	0:00
6:00 PM - 7:00 PM	1:00 AM	18:00 - 19:00	1:00
7:00 PM - 8:00 PM	2:00 AM	19:00 - 20:00	2:00

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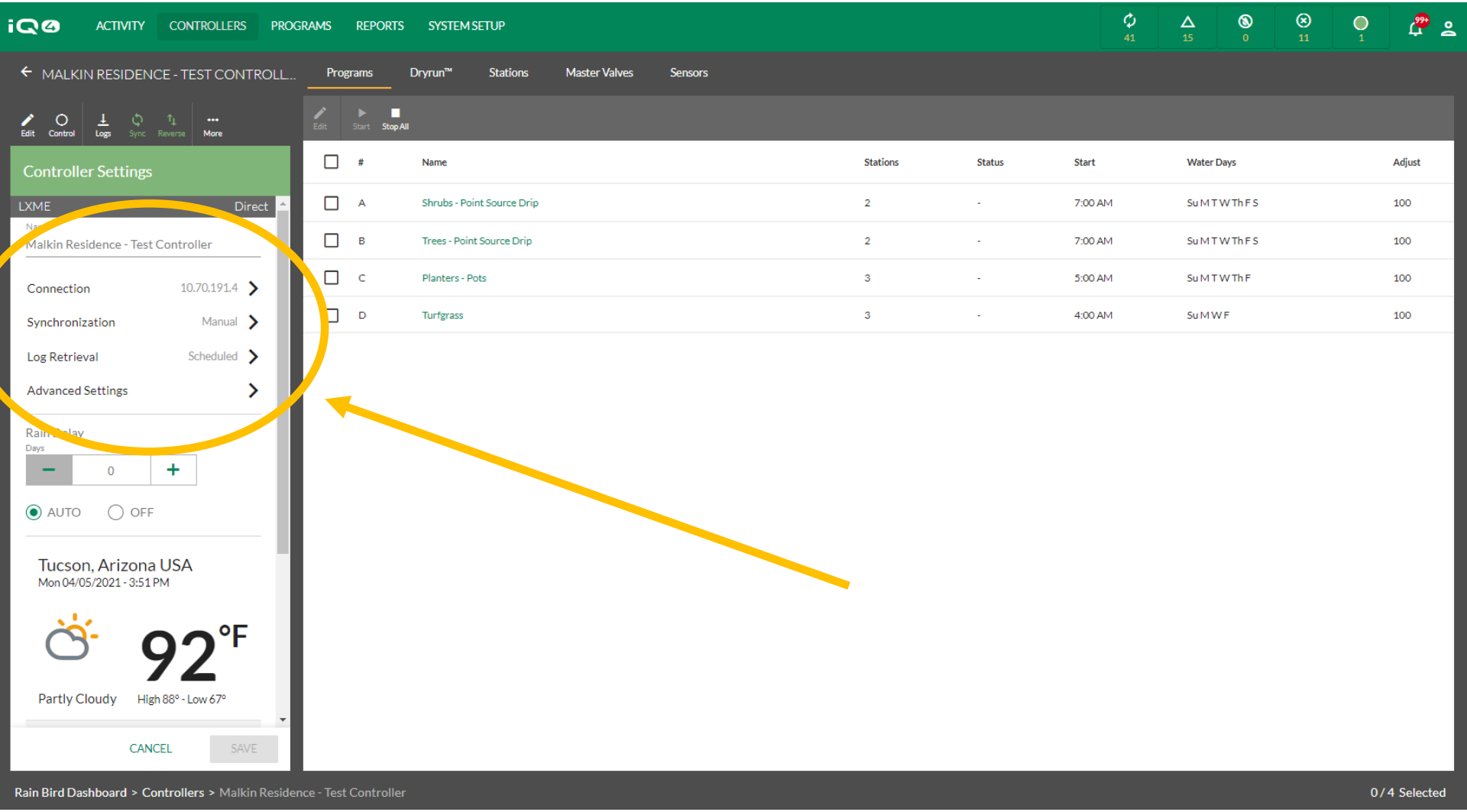
Log Retrievals



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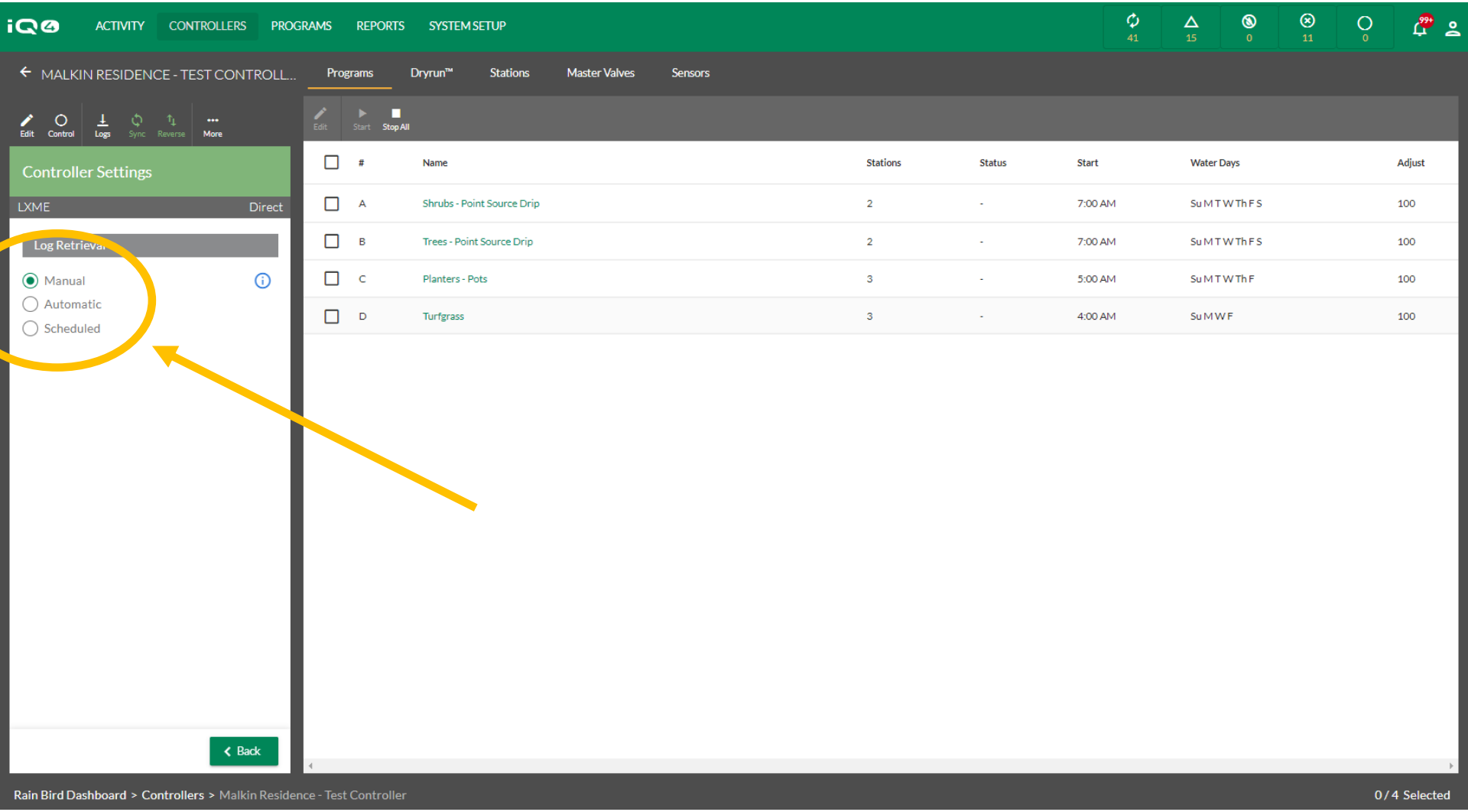
Log Retrievals



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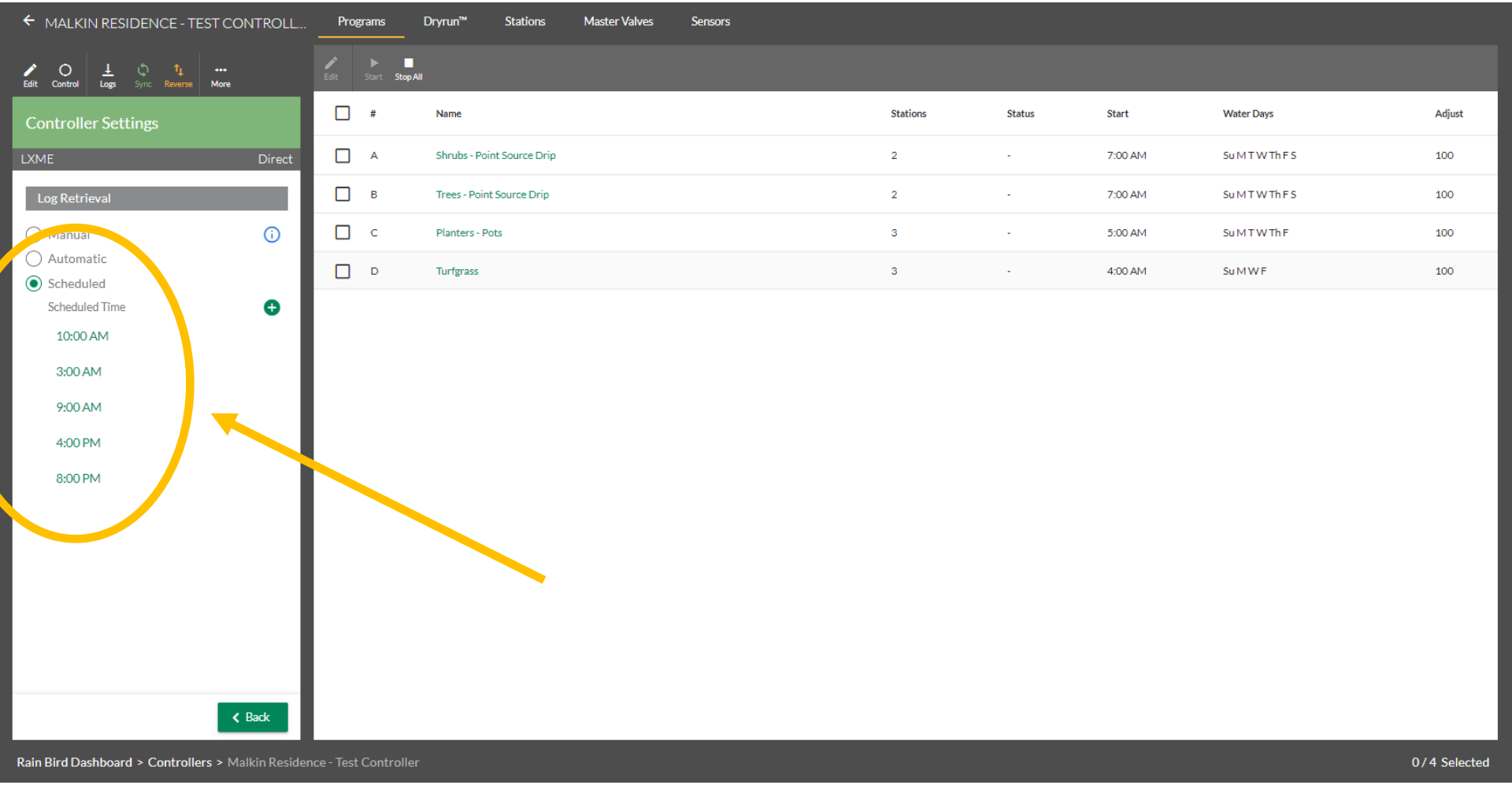
Scheduled Log Retrievals



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Scheduled Log Retrievals

- Best Practices
  - Log retrieval times need to be set AFTER all irrigation has completed. Reports may be incomplete if irrigation is still running when log retrievals are done
  - To assist with selecting good log retrieval times, the new Dryrun™ feature (coming soon) can show you when irrigation will end so you can properly schedule log retrieval times
    - Chart view
    - List view
    - Schedule view
  - Example: In the following slides, you can see both the start and end times with a Dryrun™ to allow for correct scheduling of the synchronization and log retrieval times

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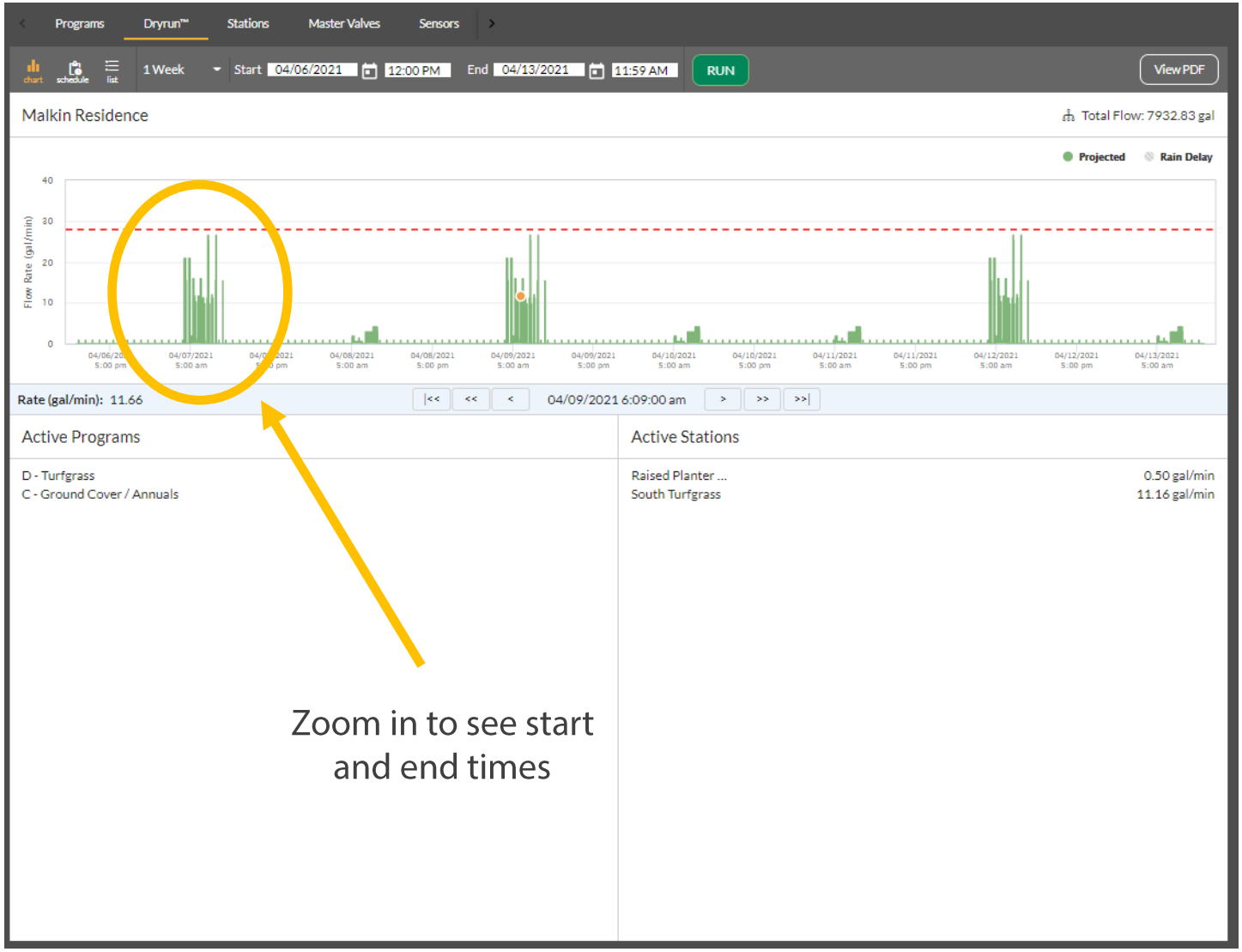
Scheduled Log Retrievals



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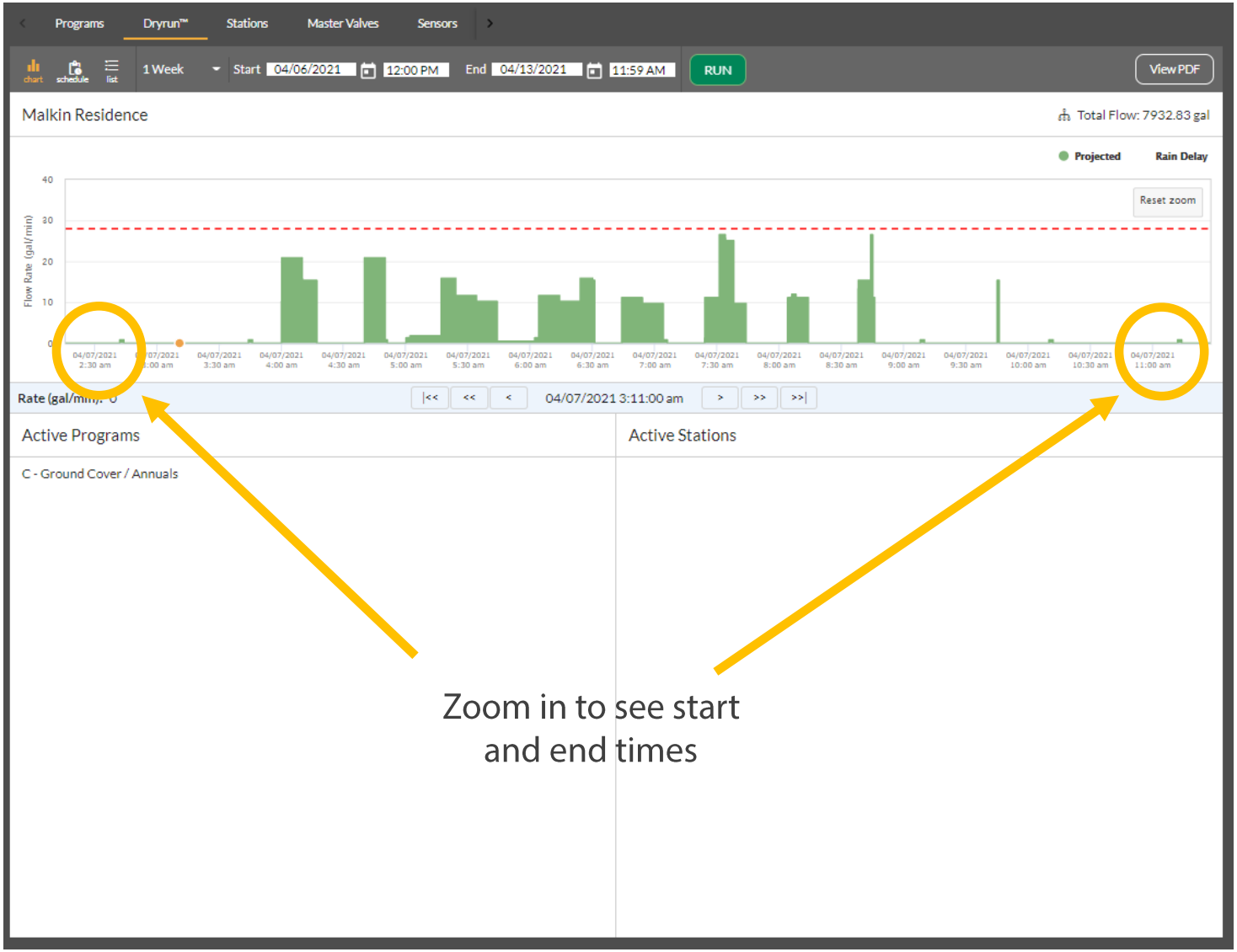
Scheduled Log Retrievals



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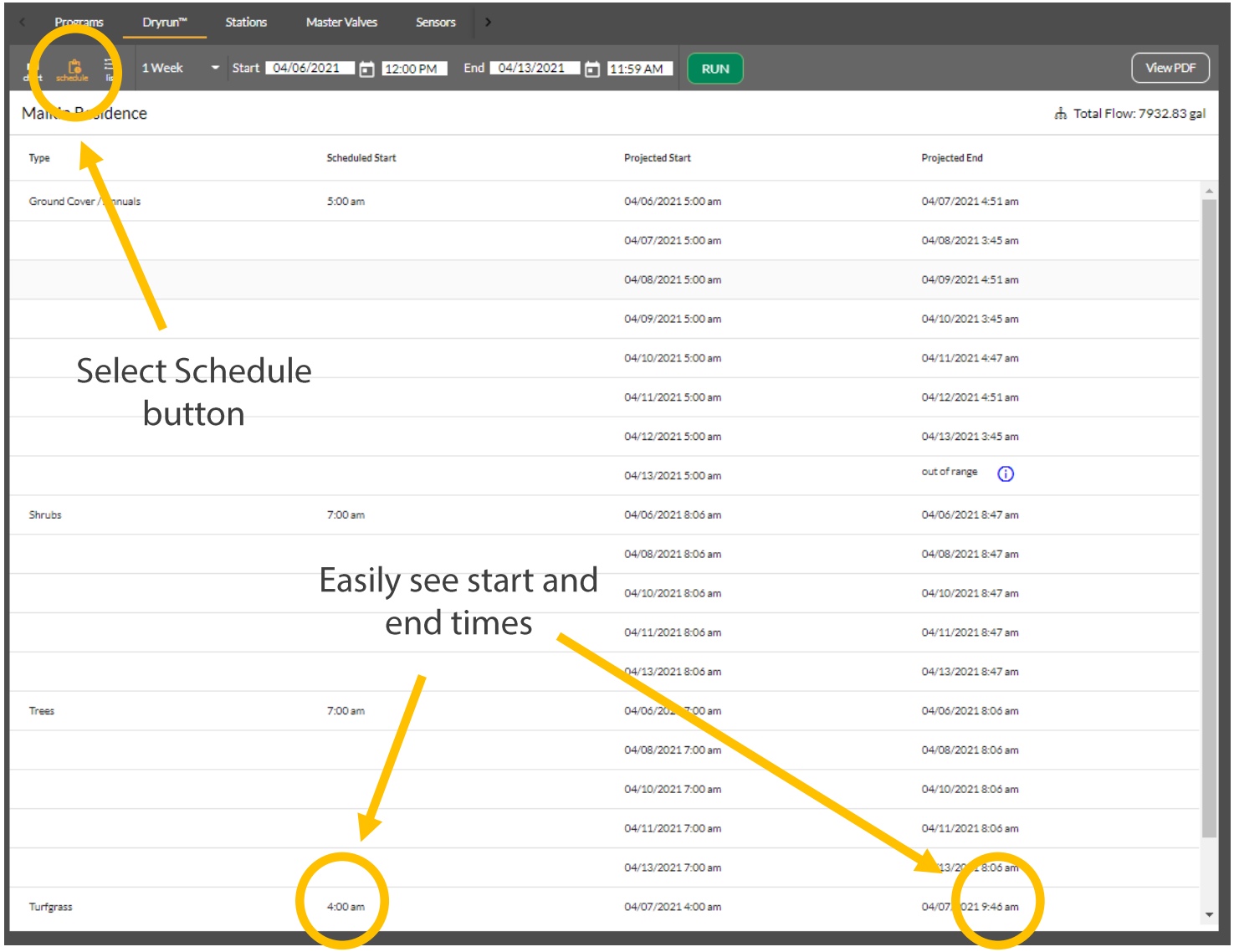
Scheduled Log Retrievals



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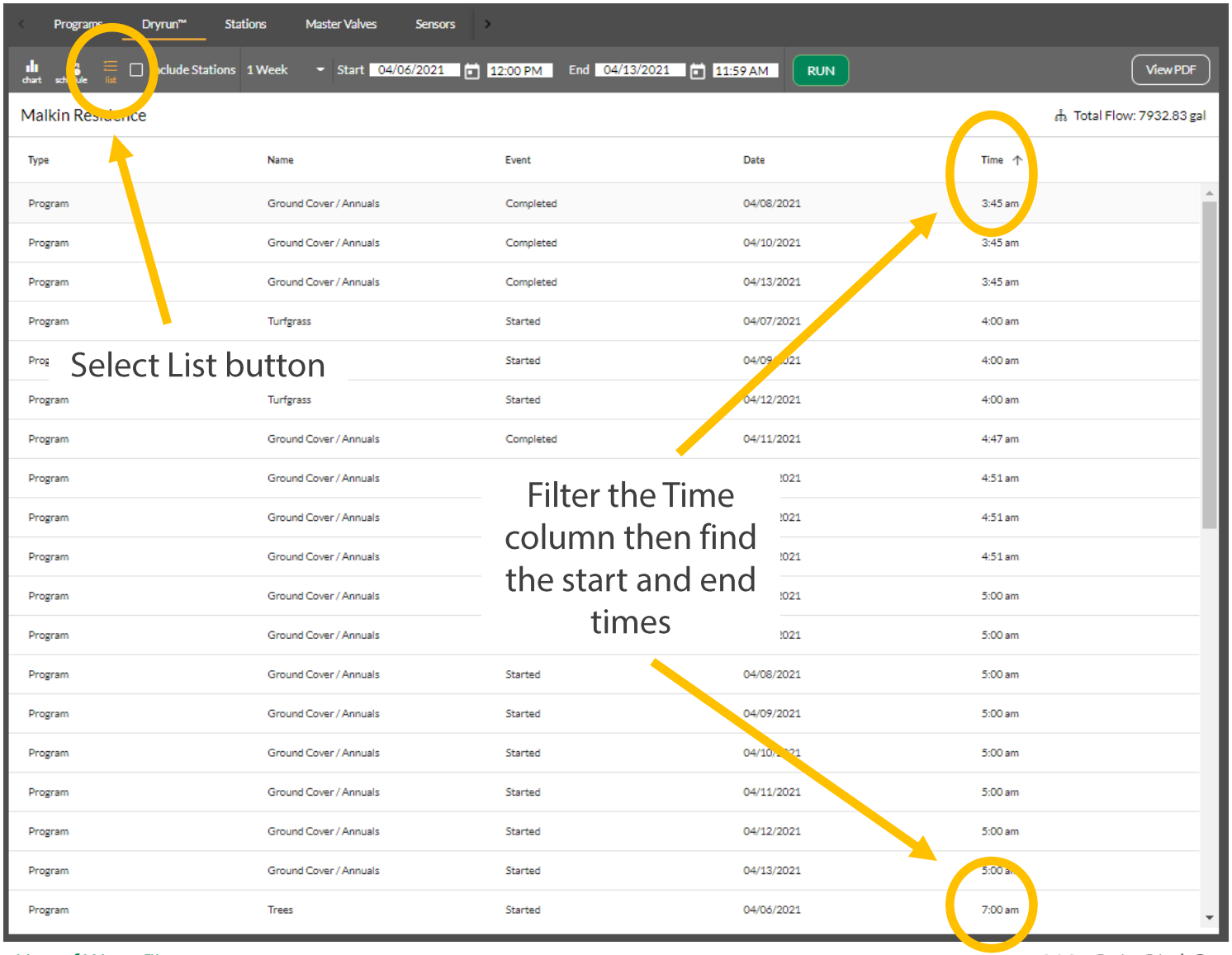
Scheduled Log Retrievals



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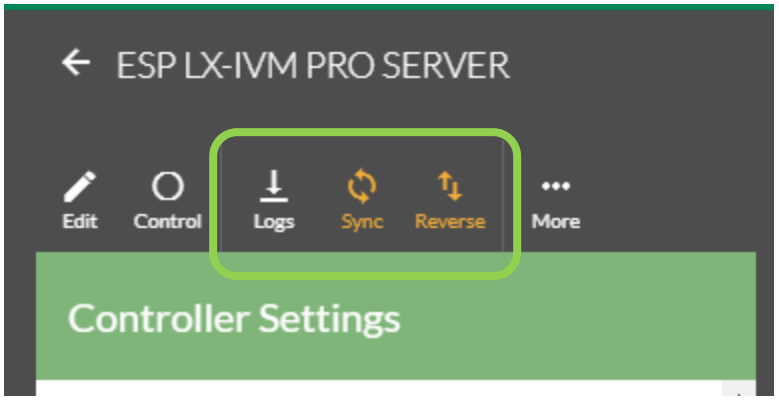
Tips and Tricks

When a new controller is setup, IQ4 is setup to perform a Reverse Sync as soon as the initial controller parameters are saved

Synchronization, Reverse Synchronization and Log Retrieval can be done manually by clicking on the Sync, Reverse or Logs buttons when needed



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FREQUENTLY ASKED QUESTIONS

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FAQs

- If you do not make a change in IQ4 during the day, when does IQ4 Auto Sync?
  - If you do not make changes, IQ4 will not Auto Sync, UNLESS you are using Simple ET
  - In that case, IQ4 will check and calculate current ET approximately 1 hour before your scheduled Simple ET Program and then perform an Auto Sync

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FAQs

- Does IQ4 Auto Sync occur every hour?
  - IQ4 does NOT Auto Sync every hour. IQ4 will only Auto Sync if it detects changes were made. The 1 hour is just the minimum amount of time to wait after the last change was made before beginning an Auto Sync.
  - If there are no changes, IQ4 does not Auto Sync.

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FAQs

- If irrigation is occurring and IQ4 cannot Auto Sync before Program Start Times, does the user get a notification of failed Auto Sync?
  - Yes, the following Alarm is generated in the IQ4 Event Log:
    - Synchronize skipped because irrigation is in progress..

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