# **Task Scheduler**

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#### Tool Search: Task Scheduler

The Task Scheduler tool allows users to schedule and manage automated system tasks. For example, the Task Scheduler can be used to regulate and execute the following types of tasks:

- Built-in system tasks maintenance, data exchange, Campus processes
- Custom maintenance tasks user-created tasks (*e.g.*, attendance, grading, user management)
- **Reporting** including district, state, custom, SQL, etc.

Use the Task Scheduler tool to set the dates and times for running SQL queries or Prism URL calls from the Campus database. Recurring tasks may be set to run hourly, daily, weekly or on monthly rotations. One-time tasks may also be scheduled.

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	Tel Mere	0		t dia 100 metat	
	Task Name	Start Date	Frequency	Active/Stopped	Eait
	ac-pref	05/05/2025 1:51 PM		ACTIVE	Edit
	Alternative Program Calendar Maintenance	07/10/2018 5:25 PM	Daily	STOPPED	Edit
	Alternative Program Student Maintenance	11/28/2018 9:35 PM	Daily	STOPPED	Edit
	AZ SAIS Automated Download	08/31/2012 12:00 AM	hourly	STOPPED	Edit

Several areas of the Campus product rely on the *taskScheduler* for functional purposes, including:

- **<u>Batch Queue</u>** The <u>Batch Queue</u> / <u>Admin Queue</u> tools use the task scheduler to schedule batch reports.
- **Data Warehouse** The task scheduler schedules and triggers periodic refreshes of the Data Warehouse tools.
- **Point of Sale** Districts using Point of Sale tools and functionality will see a scheduled task for messaging between the student system and the POS terminal application. This task updates balances to allow the POS terminals and a patron's journal account to reflect the same balance. This task is read-only and does not allow end user modifications; it is for viewing purposes only.
- Voice and/or Email Messenger The task scheduler allows message delivery scheduling and maintenance. Attendance and behavior messages are scheduled and triggered by user-defined settings in the Task Scheduler tool.

### **Technical Details and Integration**

The Task Scheduler tool represents the *taskScheduler* element of the campus.xml file. The *taskScheduler* element executes various system tasks required for optimal use of the Campus system. Infinite Campus Hosting staff enables the *taskScheduler* element and creates built-in tasks, as necessary for Campus system use.

When the *taskScheduler* is enabled, a district can schedule and manage automated tasks through the Task Scheduler tool.

The *taskScheduler* is enabled when its value is set to "true" within the campus.xml file.

If using an application server pool, only one server in the pool should have *taskScheduler* enabled. Infinite Campus hosting generally enables *taskScheduler* on the first application server in a server pool.

Users who define and schedule tasks in the Task Scheduler need full access rights (**RWAD**) to the tool.

Rights to the Task Scheduler tool should be restricted. Modifying Task Scheduler settings could seriously affect server performance and data processes. Preferably, only a system administrator should have rights to this tool.

### **Create a New Task**

New tasks are only created for custom district/state procedures. Tasks needed for the functionality of other Campus tools already exist within Campus.

The Scheduled Task List editor shows both custom and built-in tasks. Certain built-in tasks are for viewing purposes only and cannot be modified.

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	05/05/2025 1/51 DM	riequency	Active/Stopped	
	05/05/2025 1.51 PM		ACTIVE	Ear
Alternative Program Calendar Maintenance	07/10/2018 5:25 PM	Daily	STOPPED	Edit
Alternative Program Student Maintenance	11/28/2018 9:35 PM	Daily	STOPPED	Edit
AZ SAIS Automated Download	08/31/2012 12:00 AM	hourly	STOPPED	Edit
AZ SAIS Automated Upload	08/31/2012 12:00 PM	daily	STOPPED	Edit
Batch Queue Maintenance	06/25/2012 12:00 AM	Daily	STOPPED	Edit
bothRender	03/25/2025 4:00 PM		ACTIVE	Edit
w Schod	ulad Task Datail			
w Schedu Name: (Re Test Ta:	uled Task Detail quired)		Stop/Pause Execution	
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w Schedu Name: (Re Test Ta: Start Date, 07/18/2	uled Task Detail quired) sk Time (Required) 2025 11:35 AM		Stop/Pause Execution	I
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W Schedu Name: (Re Test Ta: Start Date; 07/18/2 Tool Code: SQL Scr Command	uled Task Detail		Stop/Pause Execution	I

- 1. Select the **New Task** icon from the action bar. The **Scheduled Task Detail** editor displays.
- 2. Enter information in the required **Name** and **Start Date/Time** fields. Indicate **AM** or **PM** for time field.
- 3. Select a Task Type (SQL Script or Java).
- 4. Enter the commands/script in the text box below the **Task Type**.
- 5. Complete additional non-required fields as necessary.
- 6. Click the **Save** button when finished.

## **Field Definitions**

Field	Definition
Name	The name of the scheduled task.



Field	Definition
Stop/Pause	If flagged, this checkbox indicates the task is not actively occurring.
Execution	Inactive tasks will not occur, even if the current date is after the Start Date/Time set on the task and a Recurring Frequency has been set.
Start Date/Time	The time of day the task should be triggered for the first time. When a task is initially created, the time (and/or date) should be set at least five minutes in the future to avoid server clock discrepancies.
	Indicate AM or PM with a time or set it to military time.
Recurring Frequency	<ul> <li>The pattern of repetition the task should follow. Options include:</li> <li>Hourly</li> <li>Daily</li> <li>Weekly</li> <li>Monthly</li> <li>1 Time Only (indicates task will not repeat)</li> </ul>
Tool Code	This field is only for the auto-populated tool code of centralized printing tasks for reporting purposes.
	The user should not enter or modify anything in this field.
Task Type	Indicates the type of task, either SQL Script or Java (Prism URL call).

## **Batch Queue Maintenance Task**

The Batch Queue Maintenance task is an automated task that deletes old reports from the <u>Batch</u> <u>Queue</u> / <u>Admin Queue</u> tools. If this task applies to a district or state, it will appear in the Task Scheduler.

			System Settings > System Processes > Task Sc		
Task Name	Start Date	Frequency	Active/Stopped	Edit	
Alternative Program Student Maintenance	11/28/2018 9:35 PM	Daily	STOPPED	Edit	
AZ SAIS Automated Download	08/31/2012 12:00 AM	hourly	STOPPED	Edit	
AZ SAIS Automated Upload	08/31/2012 12:00 PM	daily	STOPPED	Edit	
Batch Queue Maintenance	06/25/2012 12:00 AM	Daily	STOPPED	Edit	
bothRender	03/25/2025 4:00 PM		ACTIVE	Edit	
Calendar Rollover	06/12/2020 9:00 PM		STOPPED	Edit	
centralReport	03/25/2025 3:55 PM		ACTIVE	Edit	
Clean OLP Data	12/27/2024 2:03 PM		ACTIVE	Edit	

This task will clear completed reports from the <u>Batch Queue</u> / <u>Admin Queue</u> tools after they have exceeded the maximum number of days they are allowed to remain. The maximum number of days is set in the **Batch Queue Expiration Days** field of the <u>System Preferences</u>.

When a report is deleted from the <u>Batch Queue</u> / <u>Admin Queue</u> tools by this task, the details of its generation still appear on the <u>Batch Queue</u> / <u>Admin Queue</u> tools for tracking purposes (though the report itself was deleted).

The Batch Queue Maintenance task's default setting is to execute every night at midnight. However, execution settings for this task may be modified as necessary. This task can be deleted from the Scheduled Task List; however, it will be automatically rebuilt the next time the application server is restarted. If this task should be disabled, the **Stop/Pause Execution** checkbox should be marked.

### **View Reports Scheduled for Deletion**

Each report displayed in the <u>Batch Queue</u> / <u>Admin Queue</u> tools will display its specific deletion date in the **Expires After** field of the Batch Queue Detail editor. This is the date the report will be removed from the queue, as long as the Batch Queue Maintenance task is executed. If the maintenance task is not executed on that date, the report will be deleted the next time the maintenance task runs.

Report Title	Status	Get the report
Report	Completed	
Queued Time	Start Time	End Time
09/02/2010 06:15:07 PM	09/02/2010 06:17:01 PM	09/02/2010 06:17:06 PM
Scheduled Time	High Priority	
09/02/2010 06:17 PM		
Expires After	Never Expires	
09/17/2010		
ne name	Content Type	User Name
SAAR pdf		admin

The Batch Queue Maintenance task will NOT delete any report that has been manually excluded from the deletion process. These reports will have the **Never Expires** checkbox marked and the **Expires Date** crossed out within the Batch Queue Detail editor of the <u>Batch Queue</u> / <u>Admin Queue</u> tool.

When a report is deleted from the <u>Batch Queue</u> / <u>Admin Queue</u> tools by this task, the details of its generation will still appear on the <u>Batch Queue History</u> tab for tracking purposes (though the report itself was deleted).

### **Data Warehouse Tasks**

A scheduled task called the Data Warehouse Updater Task may exist within the Task Scheduler. It assists data backup on behalf of the Data Warehouse Settings tools.

Data warehousing users will see a read-only **Data Warehouse Updater** scheduled task. When applicable, Infinite Campus staff will insert this task for a customer.

Name	Start Date	Frequency	0
CDR Maintenance	12/23/2013 05:00:00	Daily	•
customtranscriptupdate	12/10/2012 05:00:00	Daily	0
custtranscriptbatchupdate	06/26/2013 05:05:00	Daily	
Data Warehouse Updater	02/26/2014 12:27:00		
Messenger Maintenance	08/02/2013 00:00:00	Daily	•
POSExtract	01/02/2000 05:00:00	Daily	<u> </u>
02/26/2014 12:27 PM Tool Code	11	ime only	
Task Type SQL Script I Java (Pr x=dataWarehouse.CreateWa	ism URL call) arehouse-procedure		
Note: This task is locked and	is not configurable using this	s interface.	/

### **Custom District Tasks**

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The following examples are custom district tasks that may be useful for Campus system administrators.

Infinite Campus highly recommends testing these custom tasks in a non-production site before implementing them on a live site.

This section includes example queries for the following custom district tasks:

- <u>Update Unknown Absences to Unexcused Absences</u>
- <u>Update Custom Tabs with Custom District Data</u>

#### **Update Unknown Absences to Unexcused Absences**

This query can be used to update all existing unknown absences to unexcused absences.

Note: This query was updated to account for cross-site enrollment, where absence information is matched between two different locations without the need for them to be manually updated.



The district must change the codes at the end of the SET/CASE statement to the codes appropriate to the district.

#### UPDATE a

SET a.excuseid = case COALESCE(x.status, a.status) WHEN 'A' THEN (SELECT AE.excuseid FROM AttendanceExcuse AE WHERE a.calendarid = ae.calendarid AND ae.[code] = 'A') WHEN 'T' THEN (SELECT AE.excuseid FROM AttendanceExcuse AE WHERE a.calendarid = ae.calendarid AND ae.[code] = 'T') END FROM dbo.Attendance a LEFT OUTER JOIN dbo.AttendanceExcuse x ON x.excuseID = a.excuseID AND x.calendarID = a.calendarID INNER JOIN calendar c ON c.calendarid = a.calendarid INNER JOIN schoolyear sy on sy.endyear = c.endyear WHERE (a.excuse is null and x.excuse is null) and a.crosssitesection = 0 AND sy.active=1

### **Update Custom Tabs with Custom District Data**

This query is an example of updating a custom tab with data from a custom district table (generally,this data is from another software application and has been inserted into the Custom District table by matching personIDs).

INSERT INTO customstudent (personid,attributeid,[value],[date]) SELECT personID,287,1,getdate() FROM MyCustomStudentTable mcst WHERE mcst.specificValue = 'M'