

# **Task Scheduler**

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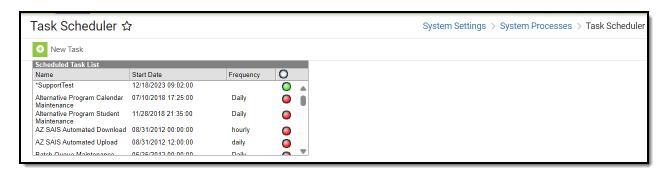
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The Task Scheduler tool allows users to schedule and manage automated system tasks. For example, the Task Scheduler can be used to regulate and execute the following types of tasks:

- 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.



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

- Batch Queue- The Batch Queue / Admin Queue 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 userdefined 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.

# **Scheduled Task List Editor**

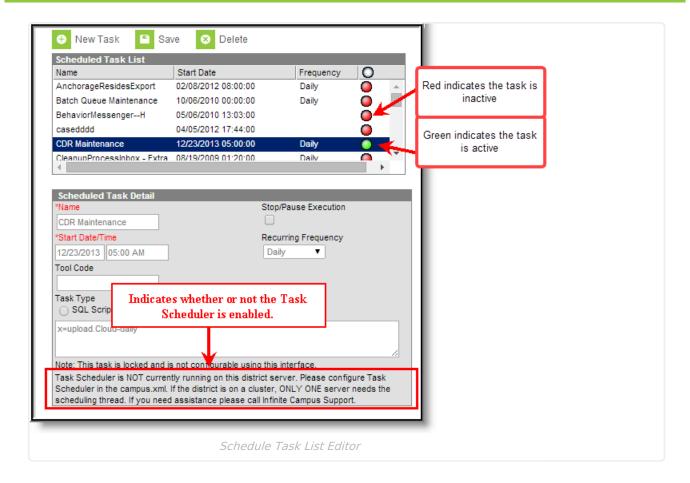
The Scheduled Task List editor on the Task Scheduler tool displays a list of existing, active, and inactive tasks.

The task list displays a green or red circle to indicate the task's status.

- A green circle indicates the task is currently active.
- A red circle indicates the task is currently inactive. If a task is red (inactive), the Stop/Pause Execution check box is flagged on the task or the *taskScheduler* is not enabled.

At the bottom of the Schedule Task Detail editor, a message indicates whether or not the *taskScheduler* is enabled.



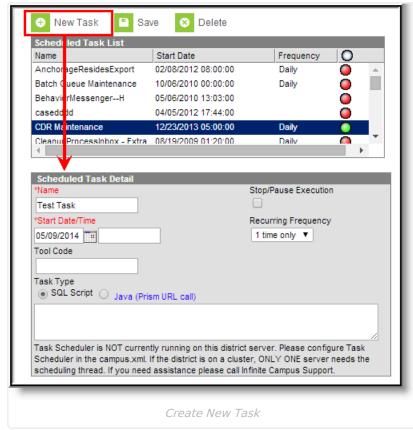


# **Create a New Task**

New tasks are only created for custom district/state procedures. Tasks needed for 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.





- 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**

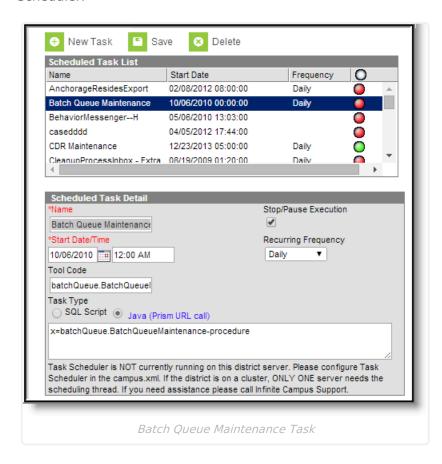
Field	Definition
Name	The name of the scheduled task.
Stop/Pause Execution	If flagged, this checkbox indicates the task is not actively occurring.  Inactive tasks will not occur, even if the current date is after the Start  Date/Time set on the task and a Recurring Frequency has been set.
Start Date/Time	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.



Field	Definition
Recurring Frequency	The pattern of repetition the task should follow. Options include:  • Hourly  • Daily  • Weekly  • Monthly  • 1 Time Only (indicates task will not repeat)
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 Batch Queue / Admin Queue tools. If this task applies to a district or state, it will appear in the Task Scheduler.



This task will clear completed reports from the Batch Queue / Admin Queue tools after they have exceeded the maximum number of days they are allowed to remain. The maximum number of



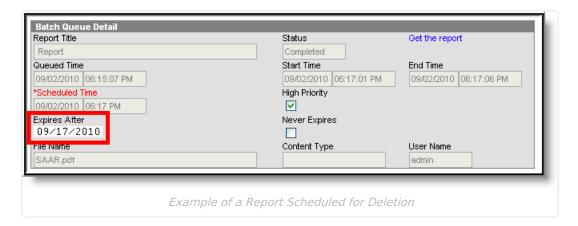
days is set in the Batch Queue Expiration Days field of the System Preferences.

When a report is deleted from the Batch Queue / Admin Queue tools by this task, the details of its generation still appear on the Batch Queue / Admin Queue 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 Batch Queue / Admin Queue 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.



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 Batch Queue / Admin Queue tool.

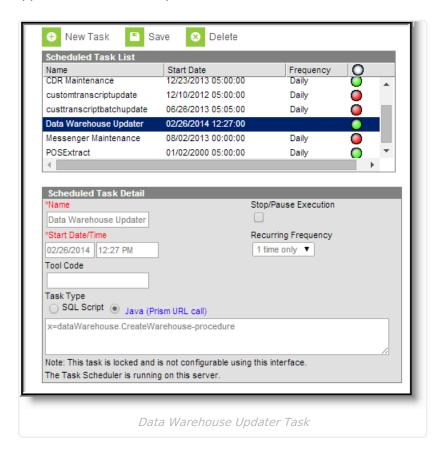
When a report is deleted from the Batch Queue / Admin Queue tools by this task, the details of its generation will still appear on the Batch Queue History tab for tracking purposes (though the report itself was deleted).

## **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.



# **Custom District Tasks**

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:

- Update Unknown Absences to Unexcused Absences
- Insert "NA" for Grading Scores
- Delete "NA" Grading Scores
- Update Custom Tabs with Custom District Data
- Hide Administrator Passwords
- Delete Scores from Grading Task
- Update Special Education Exit Dates with Enrollment Exit Dates



- Update the Special Education Exit Reason
- Remove Course from Transcript's Cumulative GPA
- Force Staff Password Changes

# **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

 $\ \, \text{LEFT OUTER JOIN dbo.} \\ \text{AttendanceExcuse x ON } \\ \text{x.excuseID} = \\ \text{a.excuseID AND } \\ \text{x.calendarID} = \\ \text{a.calendarID} \\ \text{a.excuseID} \\ \text{a$ 

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

# **Insert "NA" for Grading Scores**

This query inserts "NA" for a score and a NULL percent for a specific task and calendar.

UPDATE gradingScore SET score = 'NA', [percent] = NULL WHERE taskID = '4' and calendarID = '38'

# **Delete "NA" Grading Scores**

This query deletes "NA" and NULL percent grading scores.



DELETE gradingscore WHERE taskID = '4' AND calendarID <> '38' AND score = 'NA' AND [percent] IS NULL AND comments IS NULL

# **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'

### **Hide Administrator Passwords**

This query sets the password to "REMOVE" for a specific list of users in the logged transaction file and hides the administrator passwords from people with rights to user security tools.

UPDATE securityAccess
SET password = 'REMOVE'
FROM securityAccess
WHERE username IN ('AdminUser1','AdminUser2','AdminUser3','AdminUser3')

# **Delete Scores from Grading Task**

This query deletes all scores for a specific task; e.g., removing eligibility scores weekly so teachers can re-post to the same task without needing to create "W1 eligibility," "W2 Eligibility," "W3Eligibility" tasks.

DELETE FROM GradingScore WHERE taskID = '7'

# **Update Special Education Exit Dates with Enrollment Exit Dates**

This query updates special education exit dates with the enrollment exit dates for the current school year and a specific end status.



**UPDATE** enrollment

SET enrollment.spedExitDate = e.enddate

FROM enrollment e

INNER JOIN calendar c ON e.calendarID = c.calendarID

INNER JOIN schoolyear sy ON c.endyear = sy.endyear

WHERE e.enddate IS NOT NULL AND e.specialEdStatus = 1 AND e.spedExitDate IS NULL

AND sy.active = 1 AND e.endStatus NOT LIKE 'S%'

# **Update the Special Education Exit Reason**

This query updates the special education exit reason with specific codes depending on the enrollment end status.

**UPDATE** enrollment

SET enrollment.spedExitReason = Case e.endStatus WHEN 'W1' THEN '5'

WHEN 'W10' THEN '5'WHEN 'W9' THEN '5' WHEN 'W7' THEN '2' WHEN 'W8' THEN '4' WHEN 'W6' THEN '3'ELSE '7' END FROM enrollment eINNER JOIN calendar c ON e.calendarID = c.calendarID

INNER JOIN schoolyear sy ON c.endyear = sy.endyear

WHERE e.enddate IS NOT NULL AND e.specialEdStatus = 1 AND e.spedExitReason IS NULL

AND sy.active = 1 AND e.spedExitDate = e.enddate AND e.endStatus NOT LIKE 'S%'

# Remove Course from Transcript's Cumulative GPA

This query gives a course a GPA weight of NULL so the course does not affect the transcript's cumulative GPA calculations.

UPDATE transcriptcourse

SET gpaweight = null

WHERE score IN ('P','F','6','8','9')

AND gpaweight IS NOT NULL

# **Force Staff Password Changes**

Updates the force change passwords for employees (other than the administrator account).

UPDATE ua

SET ua.forcechangepassword = 1

FROM useraccount ua

INNER JOIN EmploymentAssignment ea ON ea.personID = ua.personID

 $\ \, \text{AND (ea.startdate} <= \text{GETDATE() AND (ea.enddate IS NULL OR ea.enddate} >= \text{GETDATE()))} \\$ 

WHERE 1=1

and (ua.homepage <> 'portal/main.xsl' or ua.homepage is NULL) AND ua.username NOT IN ('AdminUser1','AdminUser2','AdminUser3','AdminUser3')