Scheduling Reports and the Job Scheduler

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SSDT *Educational* *Software Solutions*

Overview

- Scheduling Options

Single Report	Report Bundle
Cron Job	Cron
	Event
	Immediate

- Job Scheduler

Scheduling Reports

- SSDT Wiki > USAS Documentation > Appendix

- [Scheduling a Report to run via a Cron Job](#)
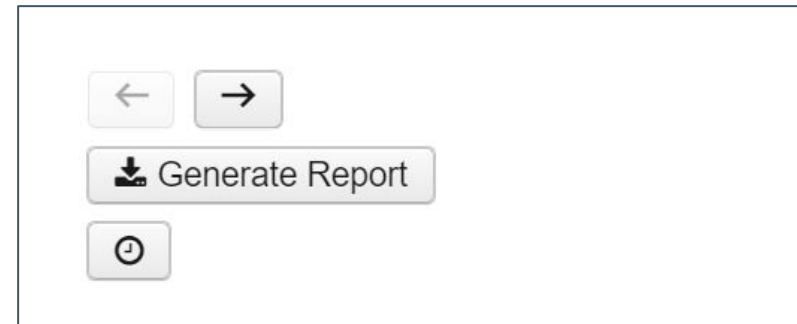 - Schedule a single report to run on a regular interval

Scheduling a Report to run via a Cron Job

Created by Unknown User (drewes), last modified by Pat Zelei on Sep 30, 2022

To schedule a template or custom report to run for a specific day and/or time, the job scheduler icon [⊙] can be used in the 'Generate Report' window. This is a one-time setup which will then generate the report based on the cron expression and automatically email it to a specified recipient. You can use a free online cron expression generator to generate your cron expression.

Scheduling Reports

- Generate Report from Home or Report Manager

- Locate Scheduler Icon below "Generate Report" button

Job Parameters

Job Name	Budget Summary Report
Cron Expression	
Send output to	

✔ Save

Scheduling Reports

- Job Name - Must be unique for each scheduled Job

- Cron Expression - A command set up to run periodically at fixed times, dates, or intervals

- Send Output to - This can be the email of the intended recipient or a path to the File Archive

Scheduling Reports

- Cron Expression
  - 7 spots that indicate a specific interval

Seconds	Minutes	Hours	Day Of Month	Month	Day Of Week	Year
0	0	0	?	*	*	*

[Cron Expression Generator](#)

Scheduling Reports

- Cron Expression

  - Use Generator to build an expression

  - Copy/Paste the Cron expression examples

  - Describe Expression or Next Execution Dates

Cron Expression Generator

Scheduling Reports

- Send Output to - Email

    - Enter email of intended recipient

    - Enter multiple email addresses by separating each with a comma

    - The recipient is not required to have a user account for USAS-R
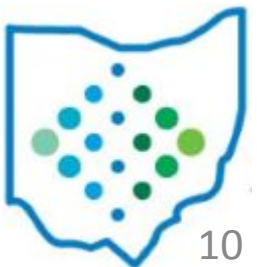
Scheduling Reports

- View scheduled job
  - Visible to user that scheduled job and admins

Job Scheduler

			Type	Status	Name	Description	Last Run	Next Run
👁	✎	✕	System	Completed	Scheduler cleanup job	SchedulerCleanupJob:JobId(SYSTEM, …	09/12/2023 03:15:00 AM	09/13/2023 03:15:00 AM
👁	✎	✕	System	Completed	duo-expired-verification-removal-job	DuoExpiredVerificationRemovalJob:JobI…	09/12/2023 02:50:00 PM	09/12/2023 02:55:00 PM
👁	✎	✕	User	Pending	Budget Summary Report Example	ReportJob:JobId(USER, Budget Summa…		09/13/2023 01:00:00 AM

+ Create   ⟳ Refresh   🔍 Advanced Query   ▦ More   ↺ Reset

Scheduling Report Bundles

- Benefits of using a Report Bundle

  - Schedule multiple reports to send together

  - Better Visibility - view the report(s) and parameters

  - More Scheduling options

  - Easier to reschedule if needed

Scheduling Report Bundles
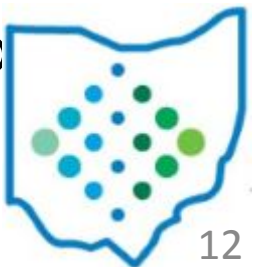
- Create Report Bundle

  - Enter Report Bundle Details

Report Bundle Name	Report Bundle Example
Description	Bundle for OEDSA
Tags	Monthly

User Generated Report Bundles
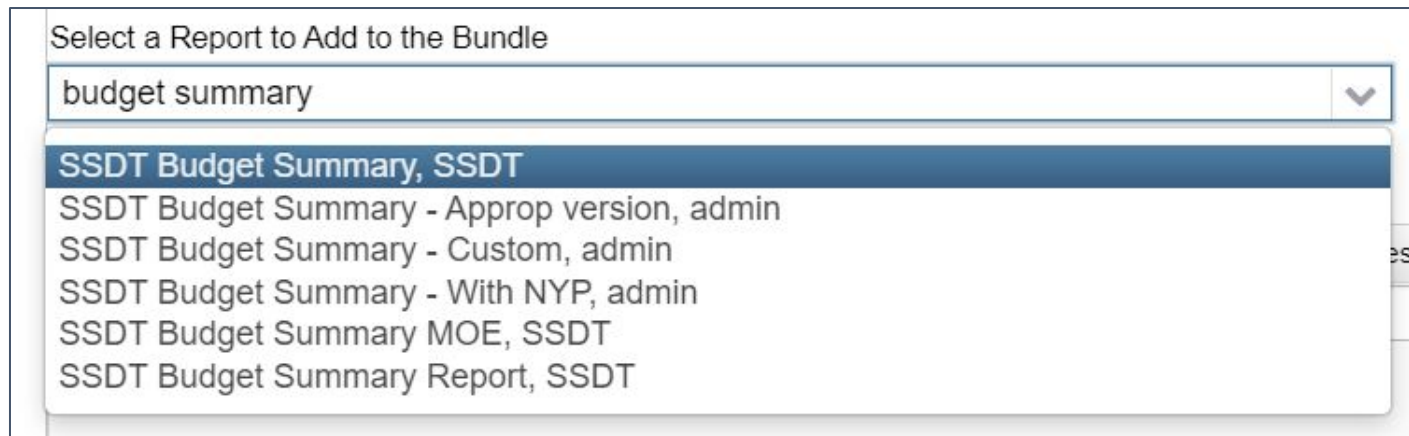Scheduling a Custom Monthly Report Bundle

Scheduling Report Bundles

- Report Bundle Details

  - Report Bundle Name - will show in the grid and on scheduled Report Bundles

  - Description - Optional description detail that will show in grid by default

  - Tags - User-defined tags to help categorize report definitio for easy sorting in the grid
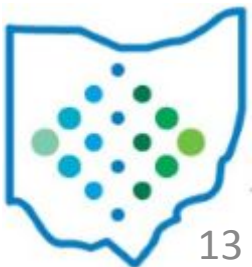
Scheduling Report Bundles

- Select a Report to Add to the Bundle

  - Start typing report name to filter drop down

  - Includes Template, Custom, and Canned Reports

Scheduling Report Bundles

- Adding Reports

  - One row shows for each of the saved parameters

  - Created from Save and Recall report option

  - Choose + icon to select which version of the report to add to the bundle

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Scheduling Report Bundles

- Reports currently in the Bundle

  - Click Edit to review report options

Reports currently in the Bundle

		Report Name	Report Title	Owner
✎	✖	SSDT Budget Summary	Budget Summary Report	SSDT

Edit the Report Options for this Report

Scheduling Report Bundles

Report Options

Report Options	Query Options	Sort Options

Report Options

Format: PDF (download)

Page Size: LETTER

Orientation: LANDSCAPE

Name: Budget Summary Report

☐ Summary Report

☐ Show Report Options

- Adjust Parameters

- Generate to review output

← →

Continue   Cancel   ⬇ Generate Report

Scheduling Report Bundles

- Save once all desired reports are added to the Report Bundle

Scheduling Report Bundles

- Click the clock icon to schedule a Report Bundle

Scheduling Report Bundles

- Job Type Options

  - Cron - Schedule to send on a regular interval

  - Event - Schedule to send when a specific action happens

  - Immediate - Send now

Job Parameters

Job Type Options   ● Cron
            ○ Event
            ○ Immediate

Scheduling Report Bundles

- Cron - Schedule to send on a regular interval

  - Ensure Job Name is Unique

  - Enter the expression into the Cron Expression Field

  - Once saved, a Job will be created in the Job Scheduler

Job Parameters

Job Type Options	⦿ Cron
	○ Event
	○ Immediate
Job Name	Report Bundle Example
Cron Expression	
Send output to	
Archive Type	

✔ Save

Scheduling Report Bundles

- Event - Schedule to send when a specific action happens

  - Select an Event from the dropdown
    - FiscalPeriodCloseCompletedEvent
    - PostingPeriodCloseCompletedEvent

  - Once Saved, a Job will run when the event occurs

Job Parameters

Job Type Options	○ Cron
	◉ Event
	○ Immediate
Job Name	Report Bundle Example
Events	
Send output to	
Archive Type	

✔ Save

Scheduling Report Bundles

- For custom Report Bundles, the reports will generate based on the **current posting period**. When scheduling a Report Bundle for a posting period close event, make sure to allow the custom bundles to create before changing the current period to the new period.

  - Outstanding Purchase Order Reports

  - Budget Summary Reports

  - Cash Summary Reports

Scheduling Report Bundles

- **Immediate** - Send now

  - Once saved, a Job will start off immediately

  - This will not interfere with other scheduling of this Bundle

Job Parameters

Job Type Options	○ Cron ○ Event ◉ Immediate
Job Name	Report Bundle Example
Send output to	
Archive Type	

✔ Save

Scheduling Report Bundles

- Send Output to - Email

    - Enter email of intended recipient

    - Enter multiple email addresses by separating each with a comma

    - The recipient is not required to have a user account for USAS-R

Scheduling Report Bundles

- Send Output to - File Archive

  - The path will always start with fileinfo://

  - Next the path will determine the tab
    - MonthlyReportFileSet
    - FiscalYearReportFileSet

  - The Group of reports must be determined - fiscal year or fiscal year & period (month)

Scheduling Report Bundles

- These should be entered as numerical values where month is the period number when July is the first period of the fiscal year

Description	Path
Send Reports to Monthly Archive for December 2019 (FY2020)	fileinfo://MonthlyReportFileSet/2020/6
Send Reports to Fiscal Archive for FY 2020	fileinfo://FiscalYearReportFileSet/2020

Scheduling Report Bundles

- When the File Archive option is used with a specific Event, the path can include variables so that the file location will be based on certain event factors

Description	Path
Send Reports to Monthly Archive when connected to the event of closing a Posting Period	fileinfo://MonthlyReportFileSet/eventFiscalYear/eventMonth

Scheduling Report Bundles

- This can also be used to send via file transfer

  - Example - Send to a directory

    - ftp://name:yourpassword@host.host.org - sends as binary format

    - ftpa://name:yourpassword@host.host.org - sends as ASCII format

    - sftp://name:yourpassword@host.host.org - send as a secure file

Scheduling Report Bundles

- Archive Type (required)- Determines if reports in bundle will be combined and sent together or sent in individual notifications for each report chosen

  - Send a single notification with multiple attachments
    One email with multiple attachments

  - Send a multiple notifications with a single attachment
    Multiple emails with a single attachment in each

  - Send a single notification with a zip file attachment
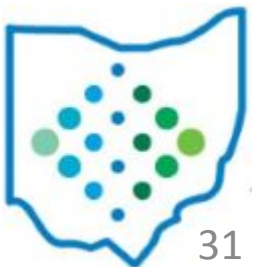   One email with a zip file attachment

Job Scheduler

- Utilities > Job Scheduler

  - Listing of jobs (i.e. reports or report bundles) scheduled to be generated at a specified date and time

  - Scheduled jobs can be viewed, edited or deleted

  - Users will see all jobs they have scheduled

  - Administrative users can view Jobs scheduled by all users

Job Scheduler

- Status

  - Pending - Scheduled but hasn't run yet

  - Completed - Finished successfully last run

  - Failed - Did not finish successfully last run

  - Rejected - The instance may not be configured to allow jobs (common in test/training data)

Job Scheduler

- Click directly on the row to show Job Detail

- If Failed status, the Job Result may show error

- Last Run / Next Run will show the previous timestamp the job ran and the next scheduled run
    - Determined by the cron expression used when job was scheduled
    - Can also be viewed on the grid

Thank you!

- SSDT Wiki: https://wiki.ssdt-ohio.org/
- Newsletters: https://wiki.ssdt-ohio.org/display/NEWS/Newsletters+Home