



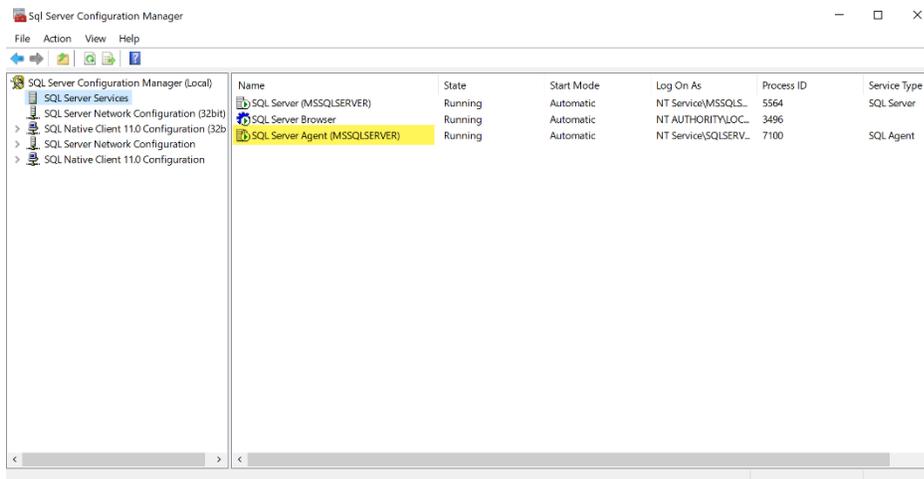
MS SQL Server Scheduling a Job

Run a Stored Procedure with SQL Server or Windows Scheduler

SQL Server has a scheduler built-in, but SQL Express is unable to use it. One of the limitations of SQL Express is it won't run SQL Server Agent which is responsible for running the SQL Server Scheduler subsystem (separate instructions below). So if you are using Standard or Enterprise versions of SQL Server, we recommend you use the SQL Server Scheduler. We will cover this first and you can find instructions for using the Windows Scheduler down below.

SQL Server Agent Service

For the SQL Server "Job" system to work, SQL Server Agent must be running. In the latest version of SQL Server, this service is installed and runs by default. To check or to turn on the service, run SQL Server Configuration Manager. Open the SQL Server Services configuration panel.



If the service is not running, change the start mode to Automatic.

Scheduling an SQL Server Job

The most common reason to use a job is either to run a scheduled backup or run one of our built-in APIs:

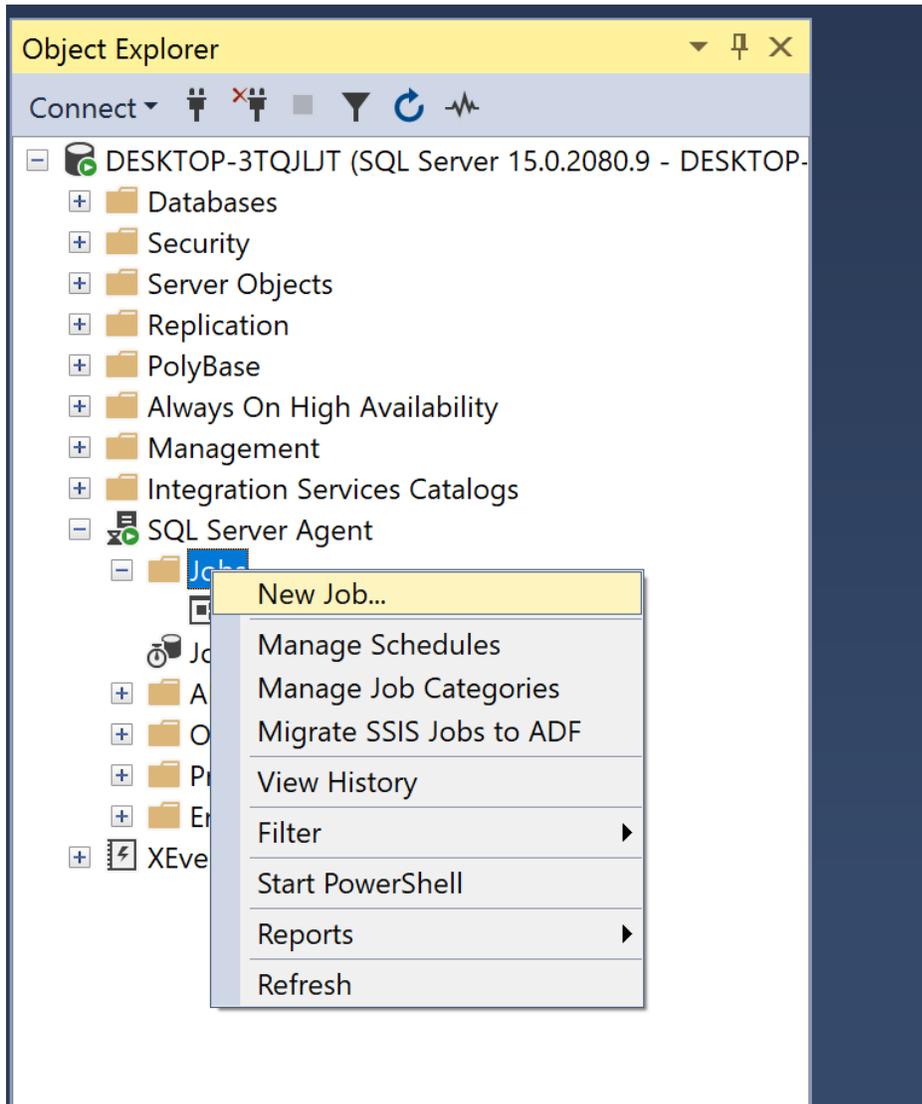
- Create Work Orders from Requests (**dbo.API_ProcessWorkOrderFromRequest_P_sp**)



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- Create Work Orders from Service PM
(`dbo.API_ProcessWorkOrderFromServicePM_P_sp`)



Fill out the general info. You can make a separate job for each API or group them together in one job and multiple steps. You may need to go to the “Advanced” tab to allow each step to fail and the next API (step) to start.



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Job Properties - Run Create WO from Request

Select a page

- General
- Steps
- Schedules
- Alerts
- Notifications
- Targets

Script Help

Job step list:

Step	Name	Type	On Success	On Failure
1	Run API Process Request	Transact-S...	Go to the n...	Go to the ne...
2	Run API Process Service PM	Transact-S...	Quit the job...	Quit the job ...

Connection

Server: DESKTOP-3TQJLJT

Connection: DESKTOP-3TQJLJT\Tom

[View connection properties](#)

Progress

Ready

Move step: Start step: 1:Run API Processes Request

New... Insert... Edit Delete OK Cancel

Move onto the scheduling tab. Schedule how often you want the job to run and when.



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New Job Schedule

Name: Jobs in Schedule

Schedule type: Enabled

One-time occurrence

Date: Time:

Frequency

Occurs:

Recurs every: week(s) on

Monday Wednesday Friday Saturday
 Tuesday Thursday Sunday

Daily frequency

Occurs once at:

Occurs every: hour(s) Starting at:
Ending at:

Duration

Start date: End date:
 No end date:

Summary

Description:

You can find additional information on scheduling a job [here](#).

SQL Express and Windows Task Scheduler

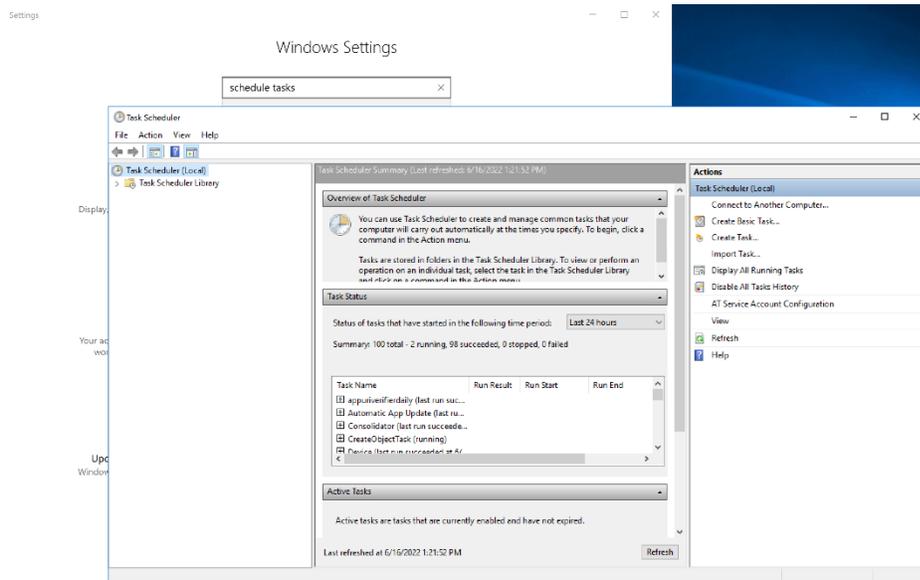
As discussed earlier, SQL Express won't run SQL Server Agent which is responsible for running the SQL Server Scheduler subsystem. So you will have to use the Windows Server built in scheduler.

On Windows Server, you should be able to look up the Task Scheduler and run it. If not (and with Windows Workstation), use the "Run" menu options to run a program: `taskschd.msc`

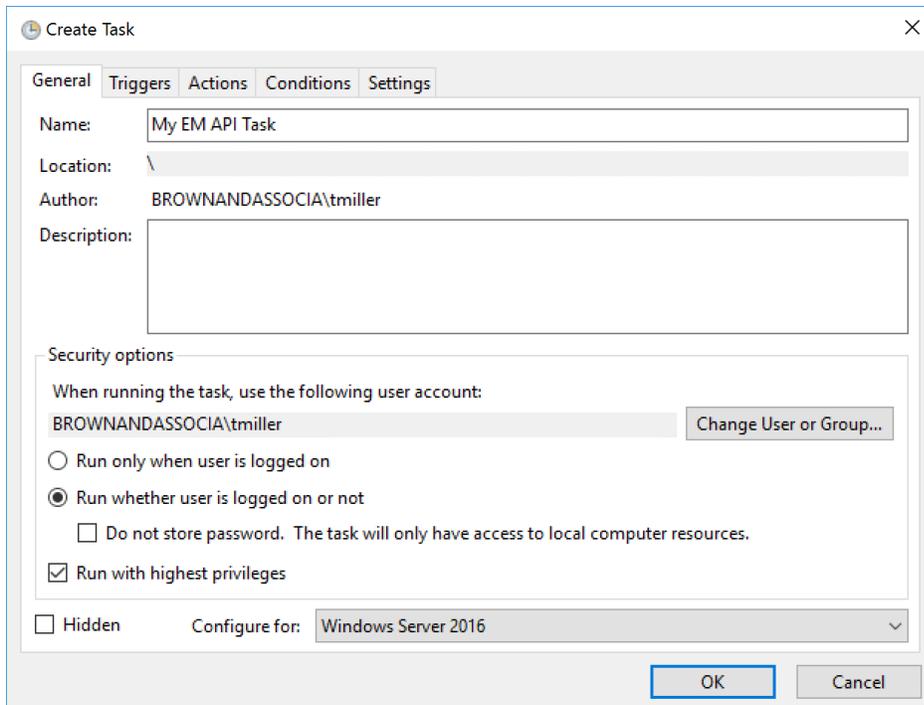


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You can use Create Basic Task “wizard” that will walk you through making a task. The downside is the scheduling is very basic. You can always edit it afterward to support a more complex schedule or use the “Create Task” option.



Fill in the General tab as shown above. Move to the Triggers tab and select “New”. Set the schedule and save.



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New Trigger X

Begin the task: On a schedule v

Settings

One time
 Daily
 Weekly
 Monthly

Start: 6/17/2022 v 3:00:00 AM v Synchronize across time zones

Recur every: 1 weeks on:

Sunday Monday Tuesday Wednesday
 Thursday Friday Saturday

Advanced settings

Delay task for up to (random delay): 1 hour v
 Repeat task every: 1 hour v for a duration of: 1 day v
 Stop all running tasks at end of repetition duration
 Stop task if it runs longer than: 3 days v
 Expire: 6/17/2023 v 11:01:53 AM v Synchronize across time zones
 Enabled

First, let's deconstruct the command line we will run:

```
sqlcmd.exe -S "MYSQLSERVERNAME" -U username -P userpassword -d EMDatabase -Q "dbo.API_ProcessWorkOrderFromRequest_P_sp"
```

We suggest that you run the code in a command prompt to make sure the code is correct. You can find additional information on sqlcmd [here](#).

Flag	Description
-S "MYSQLSERVERNAME"	Server
-U username	User Name
-P userpassword	Password
-d EMDatabase	Database Name
-Q "dbo.API_ProcessWorkOrderFromRequest_P_sp"	SQL Statement to run and then close connection



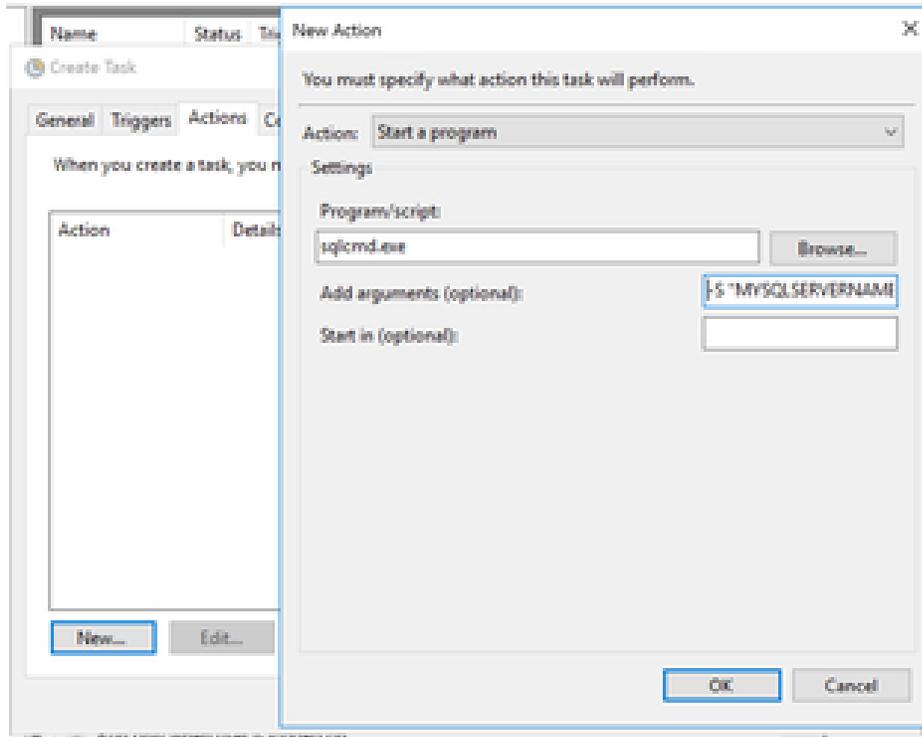
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```
-Q  
"dbo.API_ProcessWorkOrderFromServicePM_P_sp"
```

SQL Statement to run and then
close connection

Select the action and create a new action. Split the command between the program and flags as shown below.



Review the *Conditions* and *Settings* tabs, but the API should run fine without changes to these settings. You will have to create a scheduled task per API that you want to activate.

Express Maintenance API Configuration

Once the APIs are installed and scheduled the Admin user needs to make fill in the API settings in Express Maintenance. Once logged into Express Maintenance Please go to Administration - Configuration - API

1. If users want to have Work Orders created from Requests the box must be checked as shown below.

Users can choose to filter what requests get turned into work orders with Request Priority or Unit Criticality as shown below. Email notifications can be turned on and off as needed and a custom email list can be created.



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2. If users want to have Work Orders created from Services with a schedule date of 7 days before and 31 days after today’s date the box must be checked as shown below. Email notifications can be turned on and off as needed and a custom email list can be created.

Sub System	Config ID	Key Name	Key Value	Key Value Large	Config Desc Help
API	10010	WrAPIEnabled	<input checked="" type="checkbox"/>		Enable / Disable Create Work Orders from Request API
API	10011	WrLastProcRecordID	12110		Last Record processed by the WO Request API
API	10012	WrFilterByPriority		Urgent,'Normal'	Comma Quotes delimited list for an 'IN' SQL statement.
API	10013	WrFilterByUnitCriticality			Comma Quotes delimited list for an 'IN' SQL statement.
API	10014	WrSendEmail	<input checked="" type="checkbox"/>		Turn on send Email for Work Order Request
API	10015	WrSendEmailSubject	Work Order Created from Request		Email Subject Line for Work Orders create from a Request by the API.
API	10016	WrSendEmailRecipientList			If this is empty, then email is turned off. For multiple emails, separate with a space.
API	10017	WrSendEmailFromUnit	<input type="checkbox"/>		Send email to Unit.EmailList.
API	10020	WoAPIEnabled	<input checked="" type="checkbox"/>		Enable / Disable Create Work Orders from PM Services API
API	10021	WoPMIncludeUsageCountServices	<input checked="" type="checkbox"/>		Include Usage Count Services when processing records.
API	10022	WoPMSendEmail	<input checked="" type="checkbox"/>		Turn on send Email for Work Order Request
API	10023	WoPMSendEmailSubject	Work Order Created from PM Service		Email Subject Line for Work Orders create from a Request by the API.
API	10024	WoPMSendEmailRecipientList			If this is empty, then email is turned off. For multiple emails, separate with a space.
API	10025	WoPMSendEmailFromUnit	<input type="checkbox"/>		Send email to Unit.EmailList.

3. Before any email notifications can be sent the information the Email Server box must be checked and the email settings must be properly filled out. See below

Sub System	Config ID	Key Name	Key Value	Key Value Large	Config Desc Help
EMAIL	10050	EmailServerEnabled	<input checked="" type="checkbox"/>		Enable / Disable the email server.
EMAIL	10051	EmailRestApiListenPort	59003		Port number the Email Services listens to for commands
EMAIL	10055	EmailTransportPort	587		Port 587 (2525 if 587 is blocked) should be used for submissions (mail client to mail server). Port 25 should only be used for relaying (mail server to mail server communications). Port 465 should no longer be used.
EMAIL	10056	EmailTransportHost	Outlook365		Email Server hostname or IP address to connect to or Node Mailer Server Type. For a list of types see https://nodemailer.com/smtp/well-known/
EMAIL	10057	EmailTransportsSecure	<input type="checkbox"/>		If true the connection will use TLS when connecting to server. If false (the default) then TLS is used if server supports the STARTTLS extension. In most cases set this value to true if you are connecting to port 465. For port 587 or 25 keep it false
EMAIL	10058	EmailTransportRequireTLS	<input checked="" type="checkbox"/>		If true and secure is false then Nodemailer tries to use STARTTLS even if the server does not advertise support for it. If the connection can not be encrypted then message is not sent
EMAIL	10059	EmailTransportAuthUser			User name that has permission to send emails
EMAIL	10060	EmailTransportAuthPass			User password that has permission to send emails



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Once this is all set the user must save at the top.

