

Configuring Job Scheduling

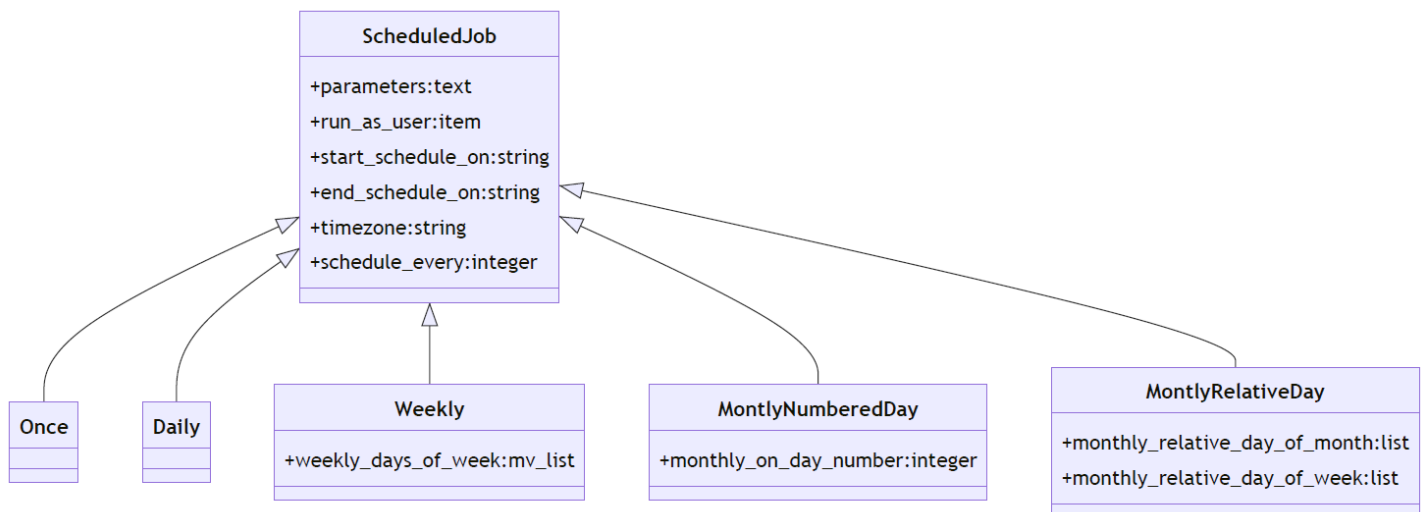
Scheduled Job

Scheduled Job Is created by Aras Innovator administrators and defines both the Job Execution Schedule and the Job to be executed.

It supports the following scheduling options:

- **Once** - *Job* is created at a given time only once.
- **Daily** - *Jobs* are created at a given time each day until expiration of the schedule.
- **Weekly** - *Jobs* are created at a given time of selected days of the week, each week until expiration of the schedule.
- **Monthly, Numbered Day** - *Jobs* are created at a given time of selected days of the week, each week until expiration of the schedule.
- **Monthly, Relative Day** - *Jobs* are created at a given time of selected days of the month, each month until expiration of the schedule.

These options are implemented using ItemType Classification. Each of them adds its own specific properties and has its own View defined.



Configure Scheduled Job



The Scheduled Job Item implements some common properties and extends for different Schedule types.

Scheduled Job shared properties

The common properties are:

- **Name**
- **Run As User**
- **Parameters**
- **Start Schedule On**
- **TimeZone**

Run As User property

Defines an Innovator User whose behalf Job method will be executed. Configurable Job Scheduling impersonates this user during Job's execution. It allows to set Permissions context scoped to the defined User. Run As User property is a required property.

Parameters property

Contains **json** dictionary which is used to execute *Jobs*. Implemented as **Text** property.

Parameters is a json dictionary

```
{
  "method_name": "method to execute name",
  "method_param_1": "parameter to send to a method in method_name"
}
```

method_name is a required parameter to define the Server Method Name to be executed. The json can contain any number of parameters to be sent to the defined method when it is called.

Important

The Text approach for Parameters is used to add flexibility to the data model and support not only Server Methods.

Start Schedule On property



Defines date and time used to calculate first Job creation time. Implemented as a `string` property in format `dd/MM/yyyy HH:mm:ss` . Start Schedule On property is a required property.

Time Zone property

Defines the time zone applicable to any date and time defined in the Scheduled Job Item.

Implemented as a populated `list` .

Important

Since client and server can be in different Time Zones. The explicit definition of the selected Time Zone for the dates properties allows consistency. All dates input as strings are converted to UTC format using the value set in the Time Zone property.

Once Schedule

Once is convenient way of preparing a Job execution to happen in the future at a given time.

The screenshot displays the configuration page for 'Scheduled Job 1'. At the top, there are icons for a refresh, star, and document, followed by 'Save', 'Done', and 'Delete' buttons. Below this is a 'Scheduled Job' header with an expand/collapse icon. The main configuration area includes:

- Name:** A text input field.
- Run As User:** A text input field with a user selection icon.
- Start Schedule On:** A date and time input field.
- Schedule:** A dropdown menu currently set to 'Once'.
- Time Zone:** A dropdown menu currently set to 'Central Standard Time (UTC-06:00)'.
- Parameters:** A large text area for defining job parameters.

Daily Schedule

Daily Schedule is a recurrent schedule set to repeat every given number of days at the **Start Schedule Time**.



Scheduled Job 1

Save
 Done
 Delete

Scheduled Job

Name

Run As User

Start Schedule On ?

Schedule

Parameters

Time Zone

Central Standard Time (UTC-06:00) ▾

End Schedule On ?

Every
 Days

Given its recurring nature the **End Schedule On** property is required to define a limit to close the cycle.

Weekly Schedule

Weekly Schedule is a recurrent schedule set to repeat every given number of weeks at the **Start Schedule Time** on a specific day, or set of days, of the week.

Scheduled Job 1

Save
 Done
 Delete

Scheduled Job

Name

Run As User

Start Schedule On ?

Schedule

Parameters

Time Zone

Central Standard Time (UTC-06:00) ▾

End Schedule On ?

Every
 Weeks

On

Monday ▲
 Tuesday
 Wednesday
 Thursday
 Friday
 Saturday
 Sunday ▼

Given its recurring nature the **End Schedule On** property is required to define a limit to close the cycle.

Monthly, Numbered Day Schedule

Monthly, Numbered Day Schedule is a recurrent schedule set to repeat every given number of months at the **Start Schedule Time** on a specific day number of the month.

 **Scheduled Job 1**  

 Save

 Done

Delete

 Scheduled Job

Name

Run As User

Parameters

Start Schedule On 

Time Zone

Central Standard Time (UTC-06:00) 

End Schedule On 

Schedule

Monthly, Numbered Day 

Every

Months

On Day Number

Given its recurring nature the **End Schedule On** property is required to define a limit to close the cycle.

Monthly, Relative Day Schedule

Monthly, Relative Day Schedule is a recurrent schedule set to repeat every given number of months at the **Start Schedule Time** on a day defined as First, Second Third, Fourth of Last, day or days of the week.



Scheduled Job 1

Save
 Done
 Delete

Scheduled Job

Name

Run As User

Start Schedule On

Schedule

Parameters

Time Zone

End Schedule On

Every
 Months

On

Day Of Week

Given its recurring nature the **End Schedule On** property is required to define a limit to close the cycle.

Scheduled Job Lifecycle

A default Lifecycle is assigned to each Scheduled Job Item.

Scheduled Job Life Cycle Map

The lifecycle controls the states of the Scheduled Job controlling editing permission.



Only Job Manager role is assigned to the transitions from one state to the other.

Possible states are:

- **Inactive** - The Scheduled job is configured to start in the future. In this state all the properties of the Scheduled Job can be edited by Aras Innovator Administrators.
- **Activated** - The Scheduled Job is running. It means the *Start Schedule On* date is passed and at least first Job execution already happened. In this state only *Run As User*, *Parameters* and *End Schedule On* properties can be edited by Aras Innovator Administrators.
- **Deactivated** - The *End Schedule On* date is passed and the scheduler completed its cycle. In this state the Item cannot enter in Edit mode and no property can be updated anymore, even by Aras Innovator Administrators.

