



Scheduler Pending Session Starter

User Guide

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1. Introduction

This asset is used to start pending sessions created by the scheduler. This corrects issues that can arise in the environment that can cause sessions created by the scheduler to not fire on resources after it has been created. Generally, sessions created by the Scheduler should start immediately after they are created.

2. Prerequisites

Version 6.x

The implementation should be done by a qualified BP developer.

Optional: Read Only access to Blue Prism for reading logs and running SQL queries.

3. Configuration

To use this asset, import the “Scheduler Pending Session Starter.bprelease” file which contains the following:

Process

- Scheduler PendingSession Starter

Business Object

- Scheduler PendingSession Starter VBO
- Scheduler PendingSession – Code Runner 1 – new code
- Scheduler PendingSession – Code Runner 1 – old code

Once the asset has been enabled, the credential has been set up, and the correct usage permissions applied to the credential, the VBO is ready for use.

4. Using the Asset

4.1 SQL Query to get active Resources

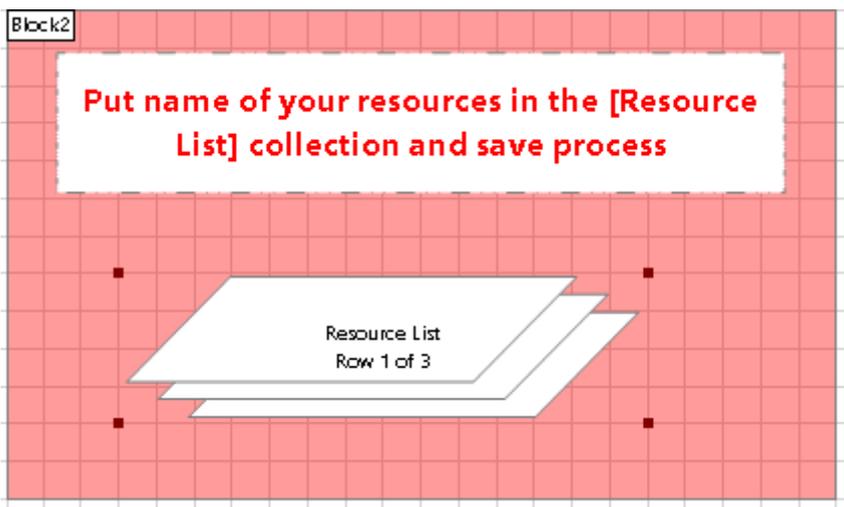
You can get a list of active resources by running the following query. You may find you need to adjust the list based on your needs.

```
select name as Resource
  from
  (
    SELECT resourceid
    , [name]
    -- FYI Attribute = 0 is default for a registered resource. This is active
    resource.
    , [AttributeID]
    , (AttributeID & 1) / 1 as [Retired] -- 0
    , (AttributeID & 2) / 2 as [Local] -- 1
    , (AttributeID & 4) / 4 as [Debug] -- 1
    , (AttributeID & 8) / 8 as [Pool] -- 0
    , (AttributeID & 16) / 16 as [LoginAgent] -- 0
    , (AttributeID & 32) / 32 as [Private] -- 1
    FROM [dbo].[BPResource]
  ) x
 where
```

```
-- Note the below query will also return attribute = 0.  
(not (  
  -- Get RR that would disqualify the record.  If any are true, it will return  
true.  
  -- Then the not condition would make it false.  False will not return the  
record)  
  Pool = 1 OR  
  Retired = 1 OR  
  debug = 1 or  
  LoginAgent = 1  
  Private = 1 or  
  local = 1 or  
  )  
)
```

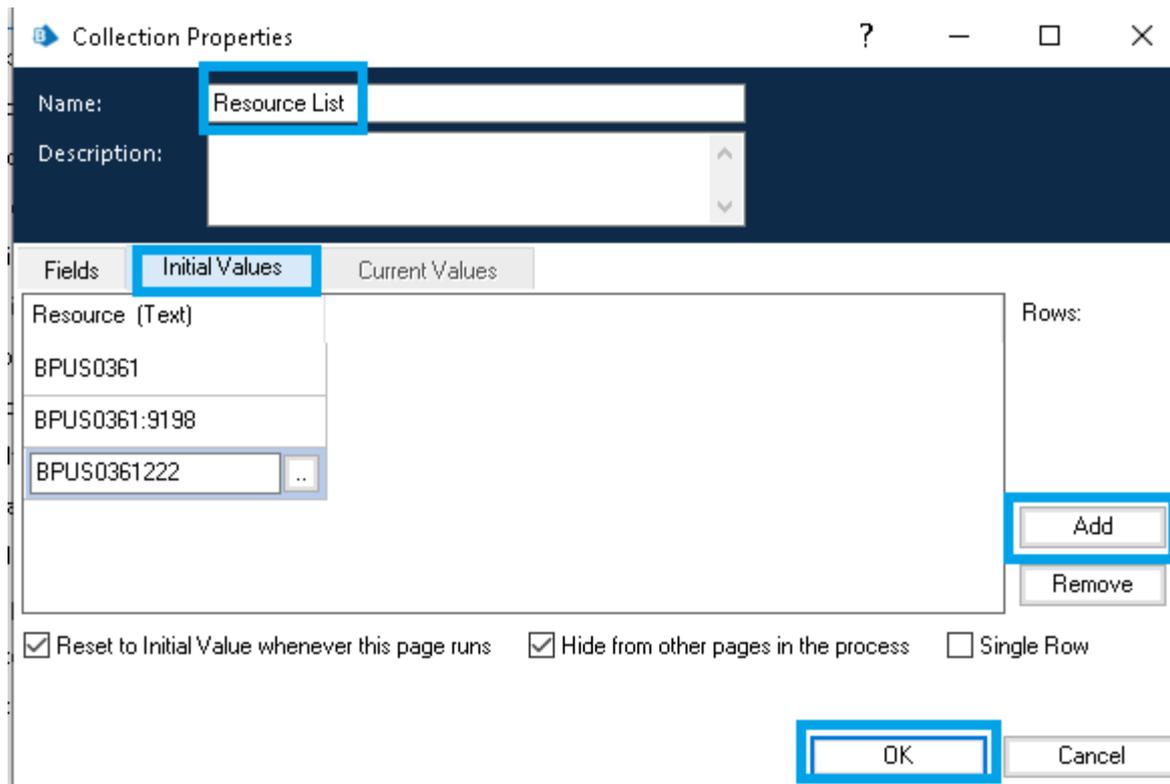
4.2 Adding Resources to Start Pending Sessions

In the main page, there is a collection called “Resource List”.



Open this collection up and put in the names of the Resources that will be online.

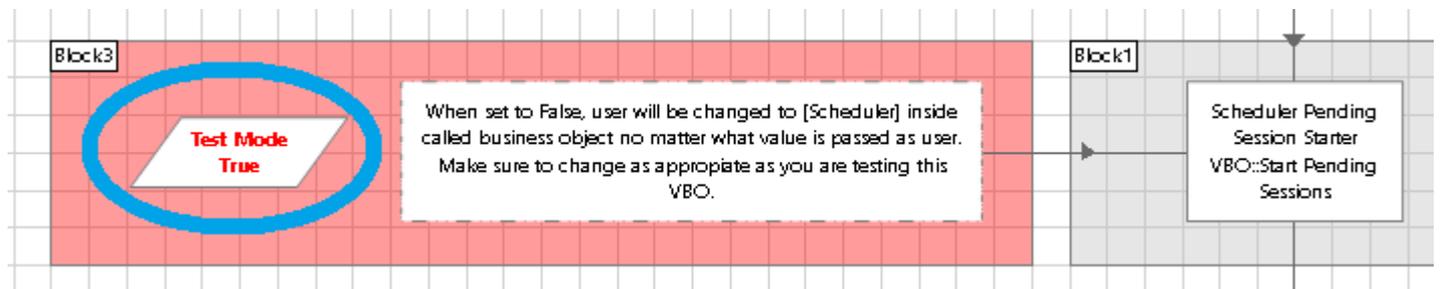
4.3 Add the name of the resource to the collection



4.4 Make sure Test Mode is set to False

In the process main action page, make sure the data item “Test Mode” is set to FALSE to test.

This should already be set to FALSE, but you should double check if you were testing the VBO. Setting to FALSE will always send [Scheduler] as the user id, otherwise it will use the parameter “user” setting. You will want to add this value if you are testing.



4.5 Create at least two Schedules

Based on how your scheduled process set to start, you should consider how often you would like this to run. If you like it to run every 10 mins, you should schedule it to run twice on two different resources. This is so if one process is stuck in pending session, the other instance will free it. In this example, ScheduleA will run at 1:00 PM every 20 mins and Schedule B will run at 1:10 every 20 mins. This will result in this process firing every 10 mins from 2 alternating resources.

In some cases where this issue is occurring very frequently, consider more than 2 and shorter intervals.

4.6 Statistics

The following SQL queries can be run to measure statistics below.

```
-- This gets all the sessions that were started by the 'Scheduler Pending Session Starter' Process
```

```
select startdatetime, result from [dbo].[BPASessionLog_NonUnicode]
where stagename = 'Sessions Started'
```

```
-- This gets the errors when trying to start resource pending sessions
```

```
select stagename, startdatetime, result from [dbo].[BPASessionLog_NonUnicode]
where stagename = 'Error Start Pending'
```

```
select result, count(0) as occurrences from [dbo].[BPASessionLog_NonUnicode]
where stagename = 'Error Start Pending'
group by result
```

4.7 When Pending Sessions is expecting a parameter at start-up.

If your stuck pending session is expecting a parameter at start-up, it will use the initial value (default value) the data item is set to. There is not an option to start pending session with parameter. This is something you need to consider when setting up this VBO.

An option you should consider is setting a default value for your processes.

If you have some Processes that absolutely need the parameter, you should consider updating this VBO to process only the processes that don't require start up parameters.

4.8 Delay

New for version 3.0. You can add a delay in-between resources and the code that calls the pending session starter in case full speed is causing errors.



5. Testing

If you are testing this VBO by creating your own pending session through the VBO, you should put the "Test mode?" to True. See section 4.4.

You should then provide the proper user id.

Environment		Start Selected Sessions	Stop Selected Sessions	Show Session Variables	
	All	All	All	Pending	Today
ID	Process	Resource	User	Status	Start Time
18...	Wait 5 MINUTES	BPUS0361	admin	Pending	8/19/2020 7:43:46 PM

6. Support

Please log a support ticket as necessary.

Additional questions you have, related to this asset can be found on the Digital Exchange Community page:

<https://community.blueprism.com/communities/community-home/digestviewer/viewthread?GroupId=385&MessageKey=b6655a79-44a7-4d8f-b997-6034e29889b1&CommunityKey=1e516cfe-4d1f-4de9-a9eb-58d15bf38c81&tab=digestviewer&ReturnUrl=%2fcommunities%2fcommunity-home%2fdigestviewer%3fcommunitykey%3d1e516cfe-4d1f-4de9-a9eb-58d15bf38c81%26tab%3ddigestviewer%26SuccessMsg%3dThank%2byou%2bfor%2bsubmitting%2byour%2bmessage>

7. Troubleshooting

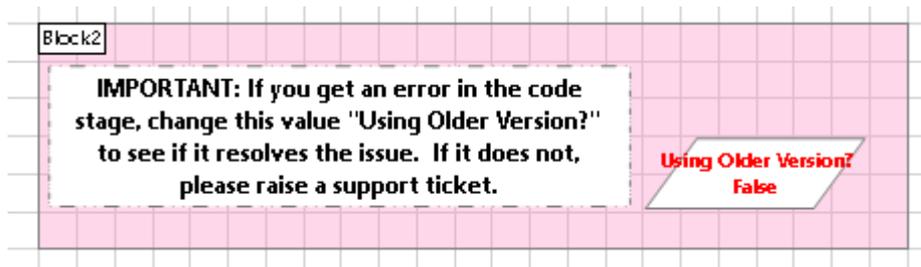
7.1 Version Issue

You may get an error when validating the code stage.

Business Object Validation - Scheduler Pending Session Starter VBO

Page	Stage Name	Type	Action	Description
Start Pending Sessions	Start Pending Sessions	Error	Validate	Compiler error at line 14: Too many arguments to 'Public Sub New()'. Compiler error at line 10: Value of type 'System.Collections.Generic.List(Of String)' cannot be converted to 'String'.

To fix this, alternate the “Using Oder Version?” data item.



Data Properties

Name:

Description:

Data Type:

Initial Value: True False

7.2 Scheduler user not starting pending session

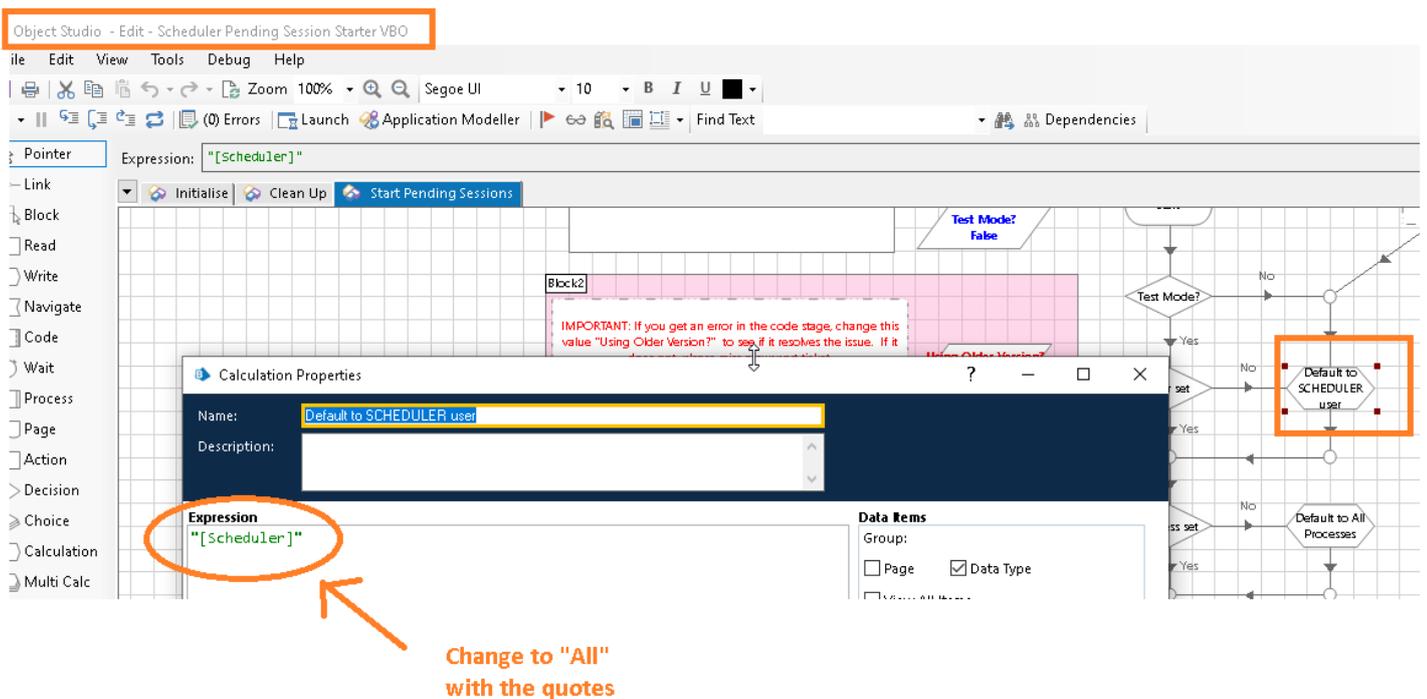
There is a known issue where if a non-scheduler user is used during testing mode and starts fine. But when test mode is false and the [Scheduler] user is enabled, it does not start.

At this time, it is unknown why this occurs in certain machines, but there is a work around.

Change the calculation stage below (see image) default value to "All" with the quotes (see image below).

What this will do is filter any pending session (by the resource) regardless of user (scheduler or otherwise).

If you drag and drop manually in production, it will automatically start if the Pending Session Starter gets to it before the user does. This should generally not be an issue in production since it is usually only used by the scheduler user anyways. When users manually create a session, they usually intend for it to start immediately as well.



7.3 Getting Connection Errors

The VBO will usually run from a runtime-resource (RR) to another RR. This is different in the way a scheduler works, which is app server (APP) to RR.

If you are not using SSO, there could be some issues in very rare cases.

Here are some error's from the code stage:

Authentication Error

operation was attempted on something that is not a socket

Even though you have "Allow anonymous public Runtime Resources" turned ON, in complex environments, it can intermittently generate the error.

Runtime Resource Connectivity

- Require secure inbound instructional connections
- Allow anonymous public Runtime Resources
- Prevent registration of new Runtime Resources
- Session Management enforces permissions of controlling user (recommended)

The way to correct this is to start the listener with a native BP user name and password on the RR that is running the VBO (not the target machines).

Here is a sample command to start up the listener with username and password.

```
"C:\Program Files\Blue Prism Limited\Blue Prism Automate\automate.exe" /resourcepc/public/user "admin"  
"PASSWORD" /port 8199
```