

New Set of HPC Pack Scheduler REST API

While we keep the original [REST API](#) for backward compatibility, we introduced a new set of REST API for Azure AD integration and added JSON format support. And here is the new API list comparing to original version:

API	HTTP	New Version	Original Version
Add Task	POST	https://head_node_name:port/hpc/Jobs/job_identifier/Tasks	https://head_node_name:port/WindowsHPC/Job/job_identifier/Tasks
Cancel Job	POST	https://head_node_name:port/hpc/Jobs/job_identifier/Cancel	https://head_node_name:port/WindowsHPC/Job/job_identifier/Cancel
Cancel Subtask	POST	https://head_node_name:port/hpc/Jobs/{jobId}/Tasks/{jobTaskId}/SubTasks/{instanceId}/Cancel	https://head_node_name:port/WindowsHPC/Job/job_identifier/Task/task_identifier/SubTask/subtask_identifier/Cancel
Cancel Task	POST	http://head_node_name:port/hpc/Jobs/{jobId}/Tasks/{jobTaskId}/Cancel	http://head_node_name:port/WindowsHPC/Job/job_identifier/Task/task_identifier/Cancel
Create Job	POST	https://head_node_name:port/hpc/Jobs	https://head_node_name:port/WindowsHPC/Jobs
Create Job From XML	POST	http://head_node_name:port/hpc/Jobs/JobFile	http://head_node_name:port/WindowsHPC/Jobs/JobFile
Get Active Head Node	GET	Deprecated	https://head_node_name:port/WindowsHPC/ActiveHeadnode
Get Job	GET	https://head_node_name:port/hpc/Jobs/job_identifier	https://head_node_name:port/WindowsHPC/Job/job_identifier
Get Job Custom Properties	GET	https://head_node_name:port/hpc/Jobs/job_identifier/CustomProperties	https://head_node_name:port/WindowsHPC/Job/job_identifier/CustomProperties
Get Job Environment Variables	GET	https://head_node_name:port/hpc/Jobs/job_identifier/EnvVariables	https://head_node_name:port/WindowsHPC/Job/job_identifier/EnvVariables
Get Job List	GET	https://head_node_name:port/hpc/Jobs	https://head_node_name:port/WindowsHPC/Jobs
Get Job Templates	GET	https://head_node_name:port/hpc/jobs/Templates	https://head_node_name:port/WindowsHPC/JobTemplates

Get Node	GET	https://head_node_name:port/hpc/Node/s/node_name	https://head_node_name:port/WindowsHPC/Node/node_name
Get Node Group List	GET	https://head_node_name:port/hpc/nodes/Groups	https://head_node_name:port/WindowsHPC/NodeGroups
Get Node Group Members	GET	https://head_node_name:port/hpc/nodes/Groups/node_group_name	https://head_node_name:port/WindowsHPC/NodeGroup/node_group_name
Get Node List	GET	https://head_node_name:port/hpc/nodes	https://head_node_name:port/WindowsHPC/Nodes
Get Subtask	GET	https://head_node_name:port/hpc/jobs/job_identifier/tasks/task_identifier/SubTasks/subtask_identifier	https://head_node_name:port/WindowsHPC/Job/job_identifier/Task/task_identifier/SubTask/subtask_identifier
Get Task	GET	https://head_node_name:port/hpc/Jobs/job_identifier/Tasks/task_identifier	https://head_node_name:port/WindowsHPC/Job/job_identifier/Task/task_identifier
Get Task Custom Properties	GET	https://head_node_name:port/hpc/Jobs/job_identifier/Tasks/task_identifier/CustomProperties	https://head_node_name:port/WindowsHPC/Job/job_identifier/Task/task_identifier/CustomProperties
Get Task Environment Variables	GET	https://head_node_name:port/hpc/Jobs/job_identifier/Tasks/task_identifier/EnvVariables	https://head_node_name:port/WindowsHPC/Job/job_identifier/Task/task_identifier/EnvVariables
Get Task List	GET	https://head_node_name:port/hpc/Jobs/job_identifier/Tasks	https://head_node_name:port/WindowsHPC/Job/job_identifier/Tasks
Get Version	GET	https://head_node_name:port/hpc/Version	https://head_node_name:port/WindowsHPC/Version
Requeue Job	POST	https://head_node_name:port/hpc/jobs/{jobid}/Requeue	https://head_node_name:port/WindowsHPC/Job/job_identifier/Requeue
Requeue Subtask	POST	https://head_node_name:port/hpc/Jobs/job_identifier/Tasks/task_identifier/SubTasks/subtask_identifier/Requeue	https://head_node_name:port/WindowsHPC/Job/job_identifier/Task/task_identifier/SubTask/subtask_identifier/Requeue
Requeue Task	POST	https://head_node_name:port/hpc/Jobs/job_identifier/Tasks/task_identifier/Requeue	https://head_node_name:port/WindowsHPC/Job/job_identifier/Task/task_identifier/Requeue
Set Job Custom Properties	POST	https://head_node_name:port/hpc/Jobs/job_identifier/CustomProperties	https://head_node_name:port/WindowsHPC/Job/job_identifier/CustomProperties
Set Job Environment Variables	POST	https://head_node_name:port/hpc/Jobs/job_identifier/EnvVariables	https://head_node_name:port/WindowsHPC/Job/job_identifier/EnvVariables

Set Job Properties	PUT	https://head_node_name:port/hpc/Jobs/job_identifier	https://head_node_name:port/WindowsHPC/Job/job_identifier
Set Subtask Properties	PUT	https://head_node_name:port/hpc/Jobs/job_identifier/Tasks/task_identifier/SubTasks/subtask_identifier	https://head_node_name:port/WindowsHPC/Job/job_identifier/Task/task_identifier/SubTask/subtask_identifier
Set Task Custom Properties	POST	https://head_node_name:port/hpc/Jobs/job_identifier/Tasks/task_identifier/CustomProperties	https://head_node_name:port/MicrosoftHPC/Job/job_identifier/Task/task_identifier/CustomProperties
Set Task Environment Variables	POST	https://head_node_name:port/hpc/Jobs/job_identifier/Tasks/task_identifier/EnvVariables	https://head_node_name:port/WindowsHPC/Job/job_identifier/Task/task_identifier/EnvVariables
Set Task Properties	PUT	https://head_node_name:port/hpc/Jobs/job_identifier/Tasks/task_identifier	https://head_node_name:port/WindowsHPC/Job/job_identifier/Task/task_identifier
Submit Job	POST	https://head_node_name:port/hpc/Jobs/job_identifier/Submit	https://head_node_name:port/WindowsHPC/Job/job_identifier/Submit

And here are some simple C# examples with the new API:

Function	C# Sample Codes
windows integrated authentication	<pre>HttpClient httpClient = new HttpClient(new HttpClientHandler(){UseDefaultCredentials = true});</pre>
AAD authentication	<pre>HttpClient httpClient = new HttpClient(); httpClient.DefaultRequestHeaders.Authorization = new AuthenticationHeaderValue("Bearer", token);</pre>
specify the response body format	<pre>httpClient.DefaultRequestHeaders.Accept.Add(new MediaTypeWithQualityHeaderValue("application/xml")); Or httpClient.DefaultRequestHeaders.Accept.Add(new MediaTypeWithQualityHeaderValue("application/json"));</pre>
set the version on head	<pre>httpClient.DefaultRequestHeaders.Add("api-version", "2016-11-01.5.0");</pre>
get job list	<pre>var response = await httpClient.GetAsync(BaseUrl + "/hpc/jobs"); DataContractSerializer serializer = new DataContractSerializer(typeof(RestStoreProp[])); if (response.IsSuccessStatusCode) {</pre>

	<pre>var stream = response.Content.ReadAsStreamAsync().Result; var objects = serializer.ReadObject(stream); }</pre>
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