



NAREGI UNICORE-C V1.0

User's Manual

Version 1.0

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National Institute of Informatics
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Release note

Version	Date	Content
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1. Introduction

UNICORE-C is a bridge program between UNICORE and Condor. It supports the submission and control of Condor jobs from a UNICORE client. This document explains the usage of UNICORE-C.

2. Start and Stop UNICORE-C

UNICORE-C will be run by starting UNICORE NJS and TSI daemons, and stopped by using the UNICORE NJS Admin program as described in the following.

2.1. NJS Start

```
#cd $NJS_ROOT/bin/  
#./start_njs ../conf_condor
```

2.2. NJS Stop

```
#$NJS_ROOT/bin/njs_admin -m <njs hostname> stop now
```

2.3. TSI Start

```
#cd $TSI_ROOT/bin  
#./start_tsi ../conf_condor
```

2.4. TSI Stop

There are two ways to stop TSI. User may use prefer one.

1)

```
#cd $NJS_ROOT/njs/bin  
#./njs_admin -m <njs hostname> tsi stop
```

2)

```
#cd $TSI_ROOT/bin  
#./kill_tsi ../conf_condor
```

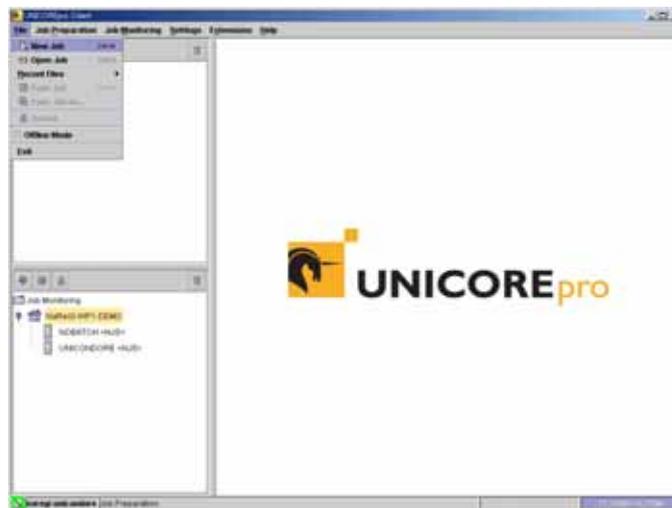
3. Usage

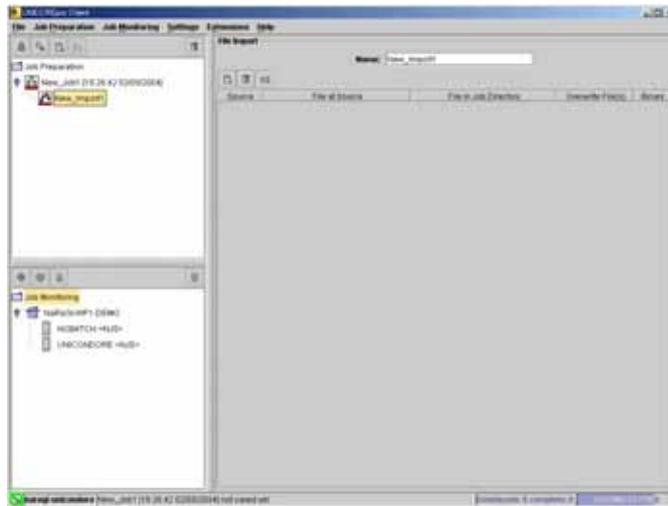
This section explains how to submit Condor jobs from a UNICORE Client, giving two useage cases. One is a single job execution consisting of file import, script execution, and file export. The other is the execution of a job structured with subjobs running on different sites than the primary job.

Note that the figures in this section are the snap shots of the UNICOREpro developed by the Intel.

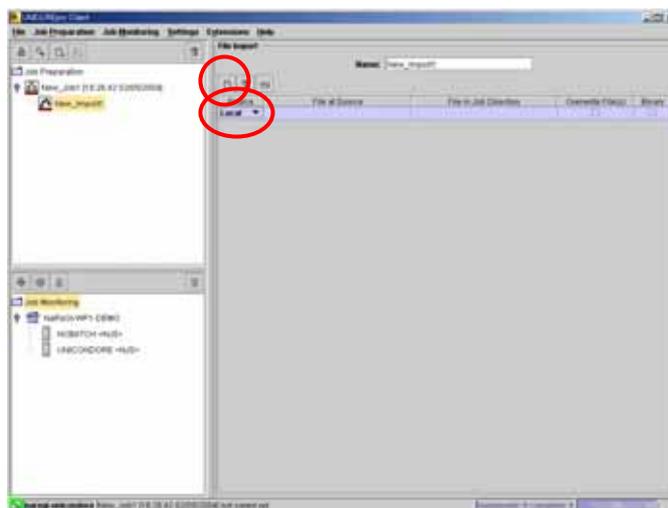
3.1. Example1: Import, Script, Export

1. Run UNICORE Client.
2. Select [New Job] from [File] menu.

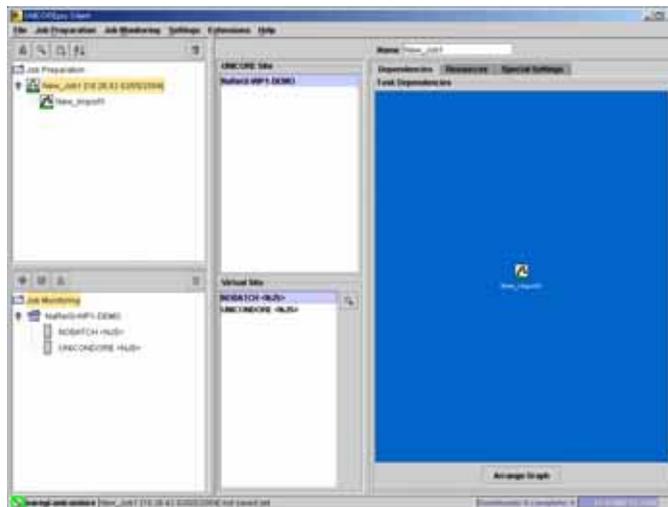
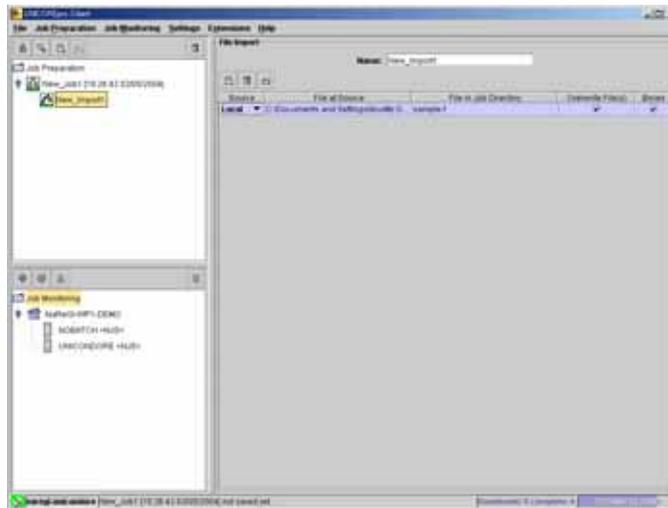
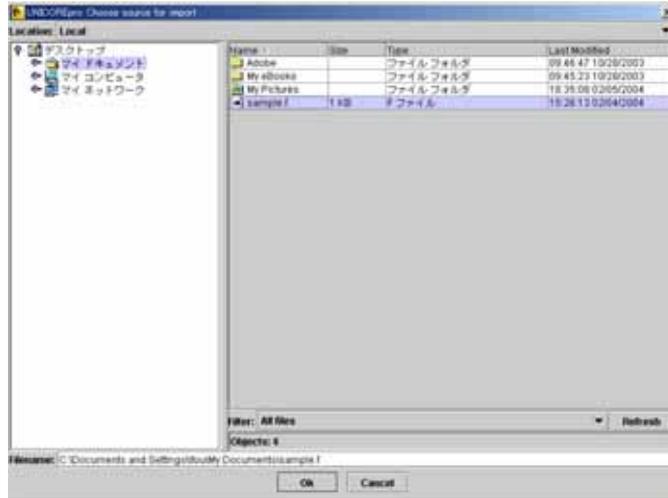




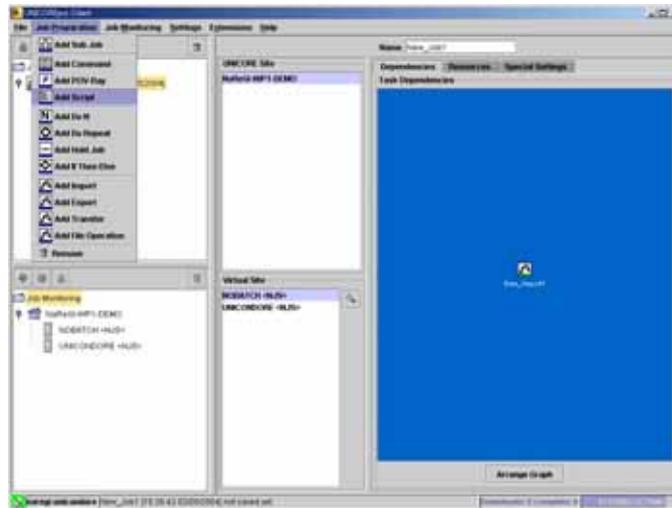
5. Select Add icon on the main window and then set [local] in SOURCE field.



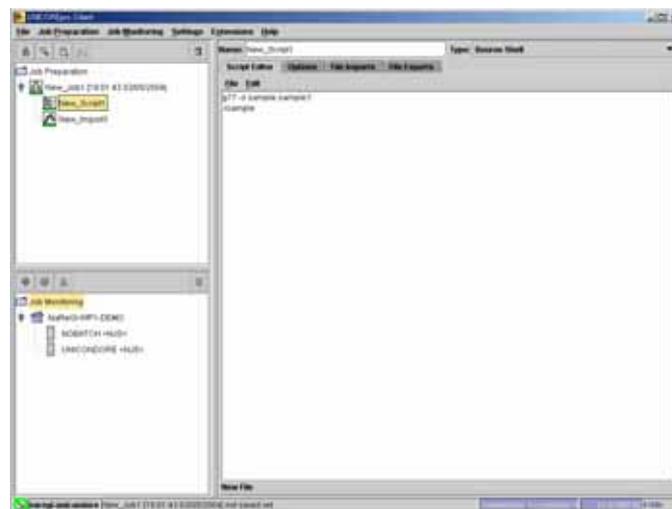
6. Select folder and file which will be imported. In this example, "sample.f" fortran program is selected.



7. Select [Add Script] from [Job Preparation] menu.

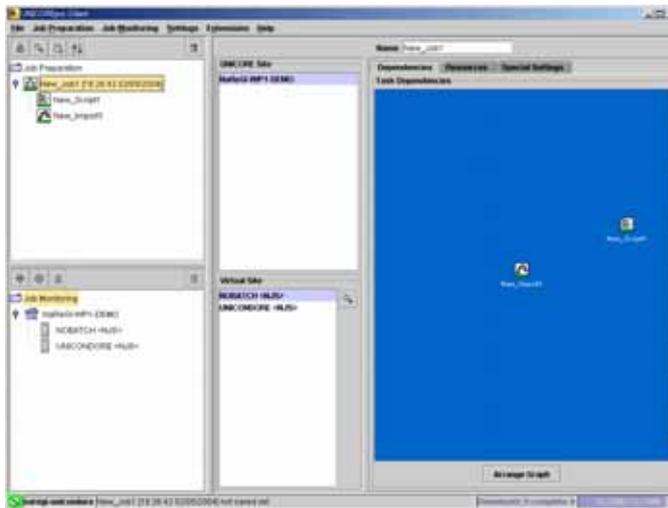
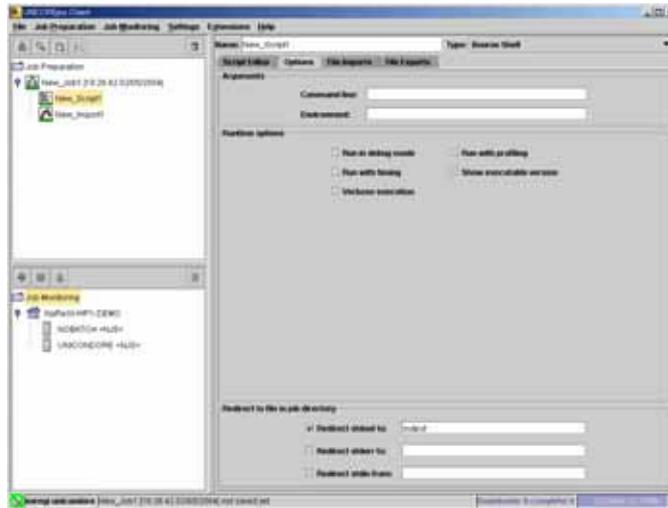


8. Select [Script Editor] tab and then input following script.

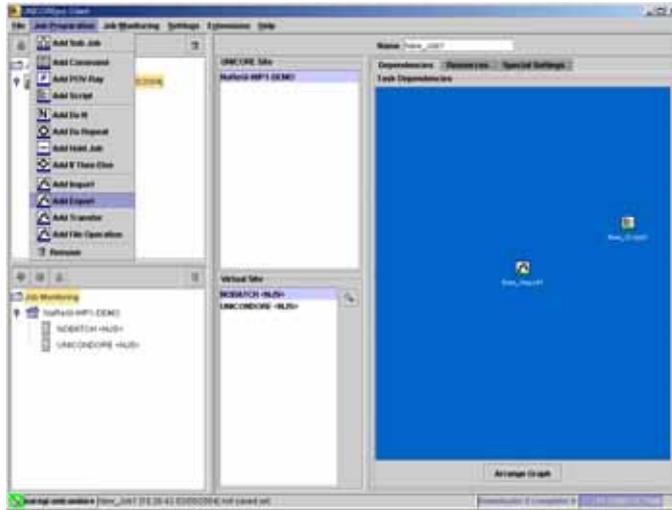


```
g77 -o sample sample.f
./sample
```

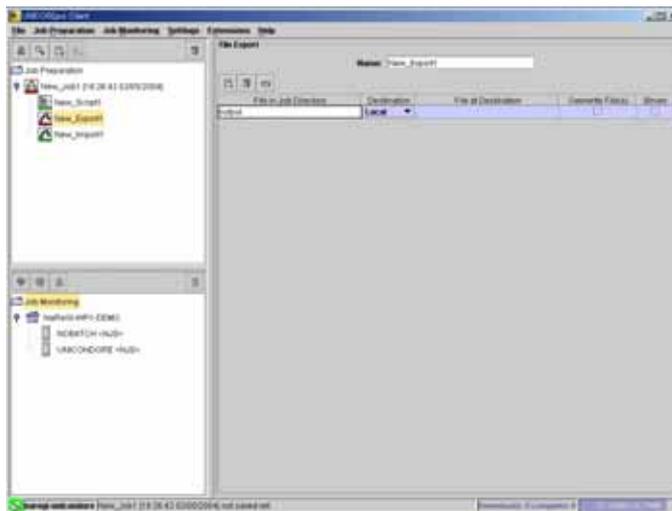
9. Select [Options] tab of script task, then put a mark on the check box of [Redirect stdout to], and specify a name of file to which standard output is to be redirected. Copy the value of environment variable "PATH" to the Environment field. In this example PATH=/usr/bin.



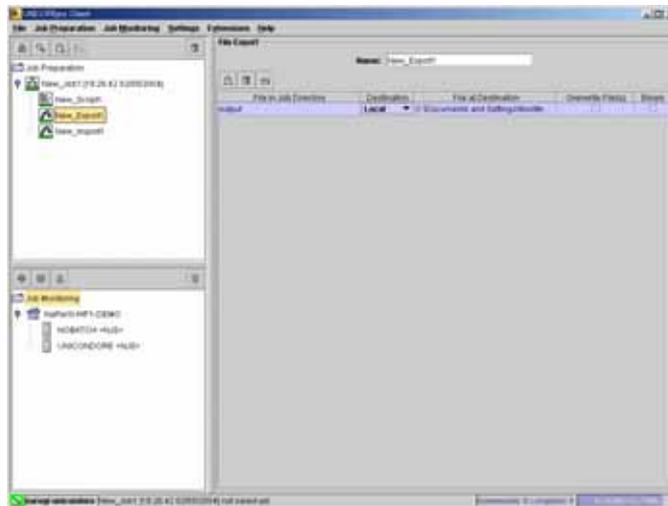
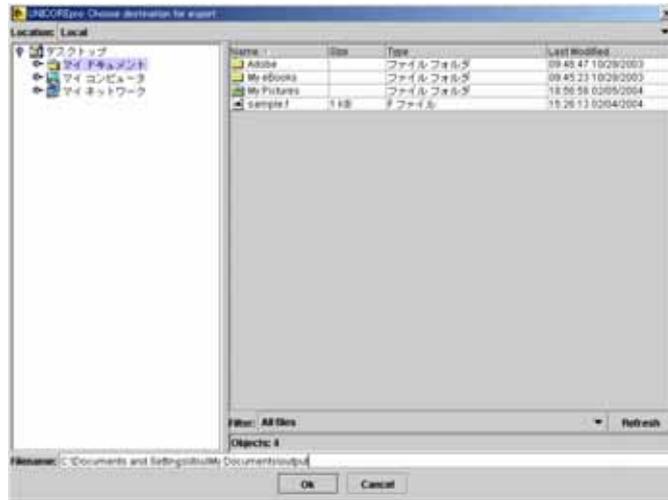
10. Select [Add Export] from [Job Preparation] menu.



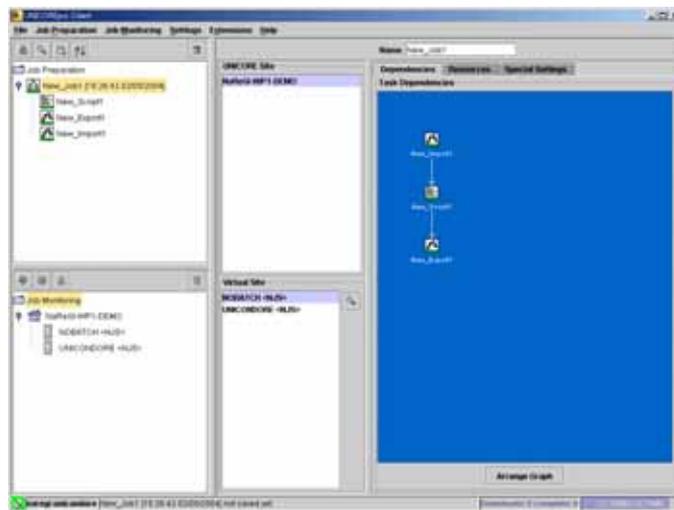
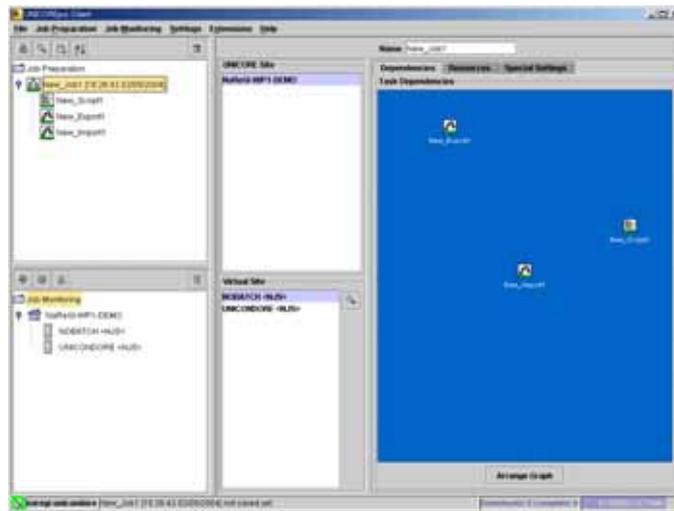
11. Select Add icon on the main window then set [local] in Destination field, and then specify an output file name in the [File in job Directory] field. "output" is an example.



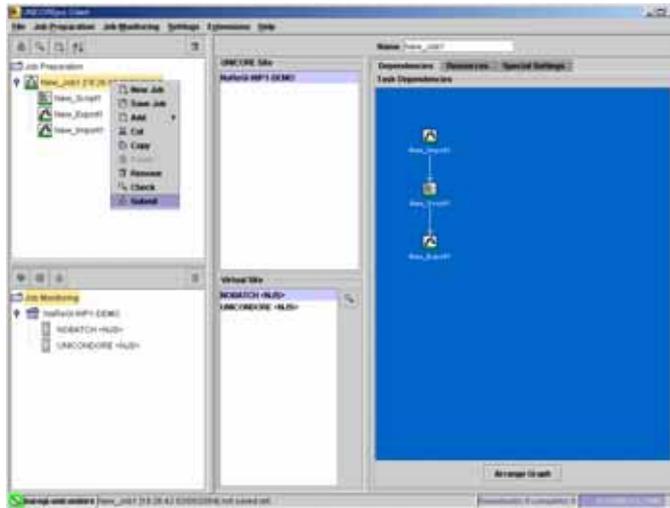
12. Select folder icon and specify the file name which will be exported. In this example, "output" is used.



13. Select root job in the Job preparation window, then connect arrow between Import and Script icons, and between Script and Export icons to specify task execution sequence.



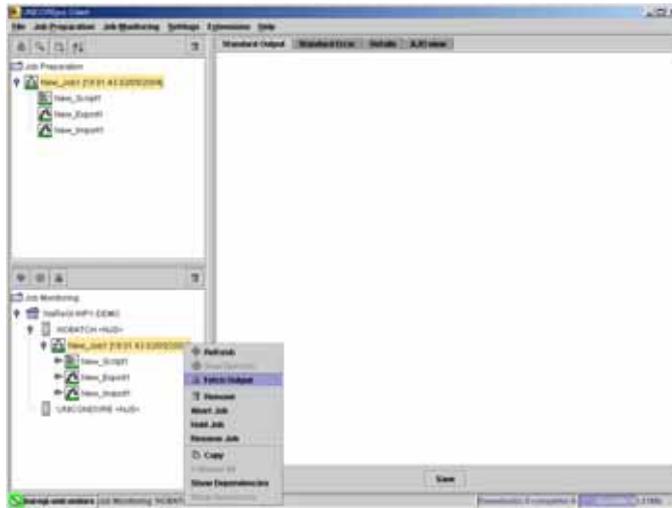
14. Select [Submit] from [File] menu.



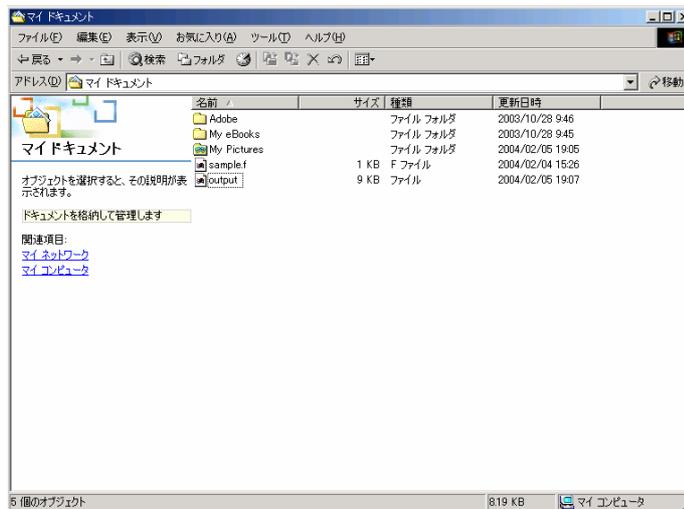
15. Select Virtual Site from Job Monitoring window, and then select [Refresh].



16. Select the submitted job from Job Monitoring window, and then select [Fetch Output].



17. Select [Standard Output] tab on the right side of the display, then confirm the result of the execution. And check whether the file, which is specified in Export, is created.



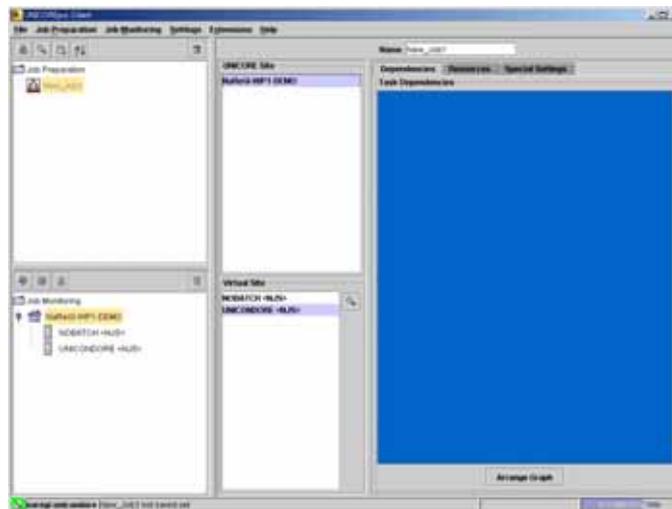
(Snap shot of My Documents folder on MS Windows Japanese version)

3.2. Example2: SubJob,Transfer

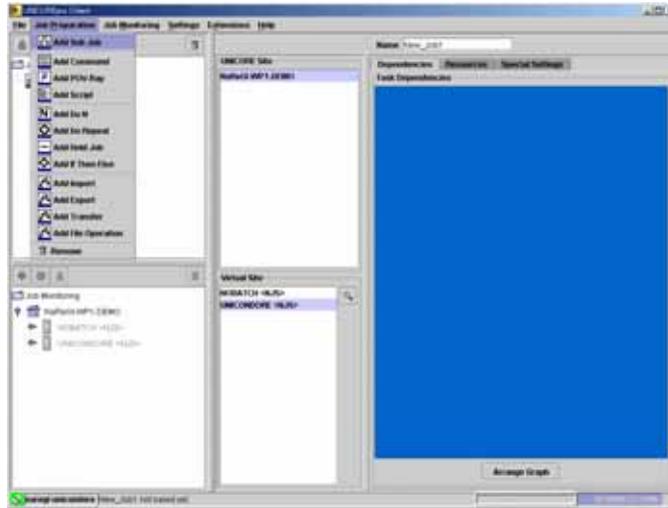
1. Run UNICORE Client, and then select [New Job] from [File] menu.



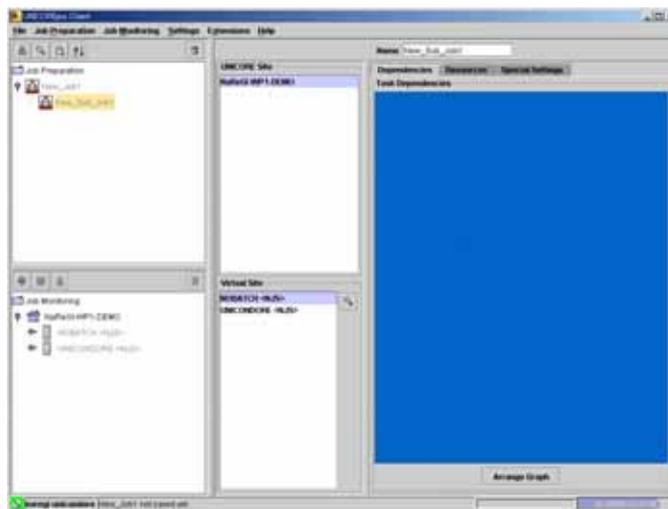
2. Select UNICORE Site and Virtual Site.



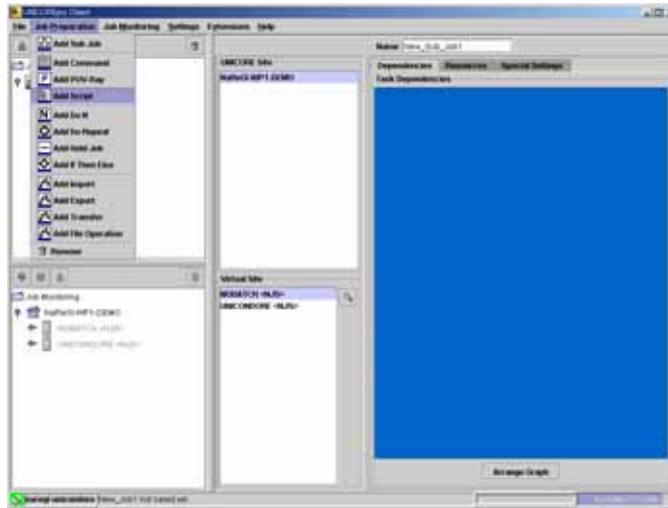
3. Select [Add Sub Job] from [Job Preparation] menu.



4. Select UNICORE Site, and then select a Virtual site other than the Virtual site selected in step 2.

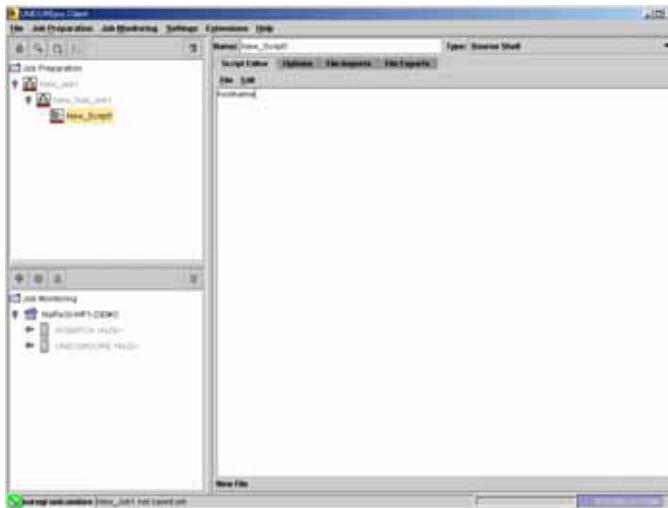


5. Select [Add Script] from [Job Preparation] menu.

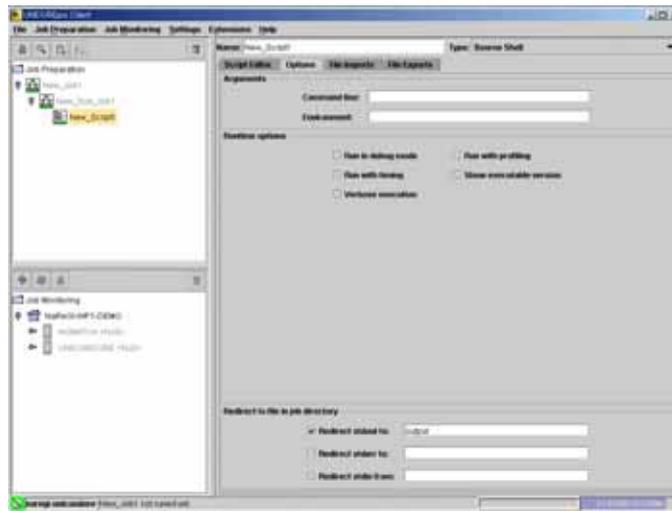


6. Select [Script Editor] tab, and then input the following script.

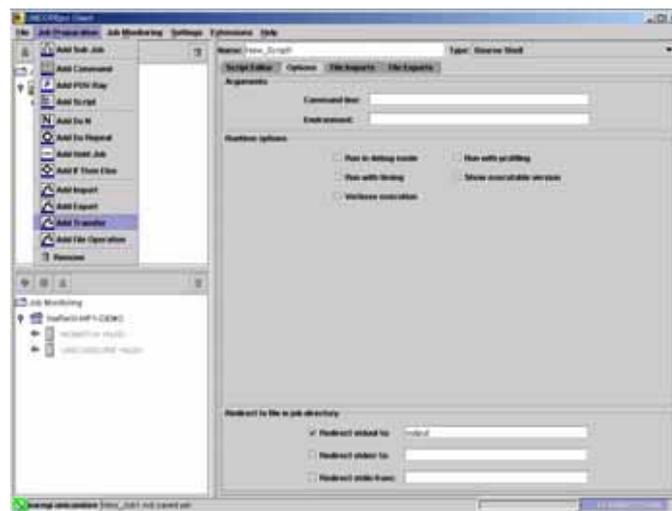
hostname



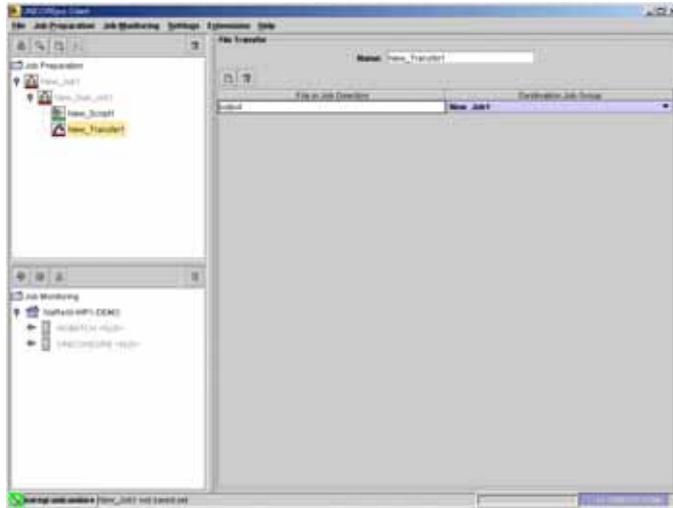
7. Select [Options] tab and make check mark in [Redirect stdout to] check box, and then specify a file name in the text box.



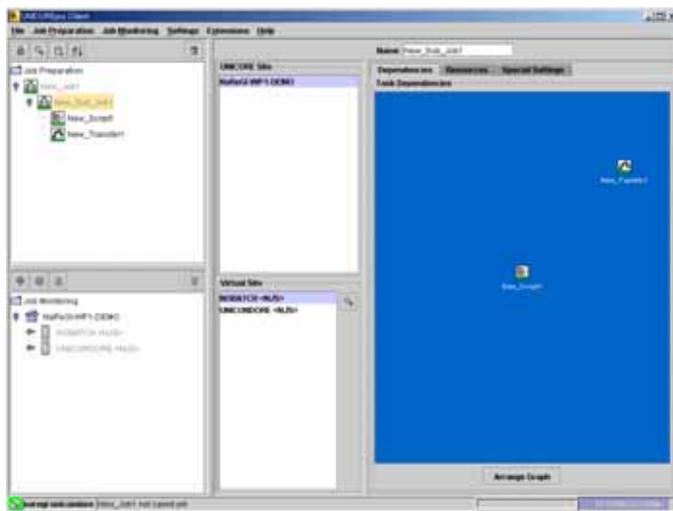
8. Select [Add Transfer] from [Job Preparation] menu.

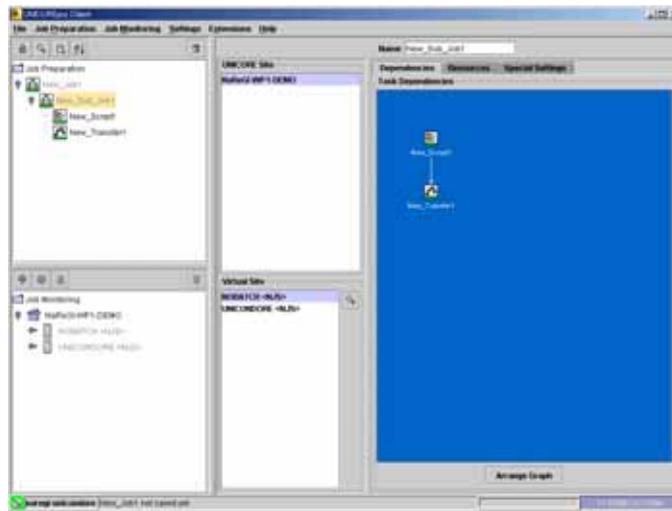


9. Select Add icon in the main window, and then specify "output" in the "File in Job Directory" field.

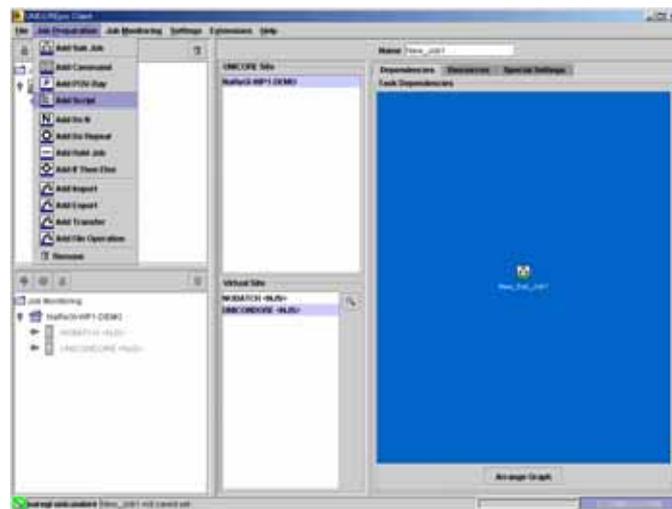


10. Select SubJob in Job Preparation window, and then connect arrow from Script to Transfer icons on the main window, to execute tasks in such a sequence.



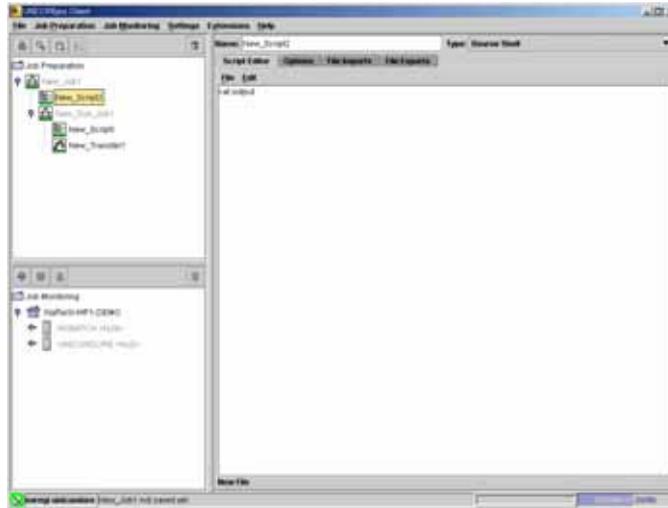


11. Select the root Job in Job preparation window, and then select [Add Script] from [Job Preparation] menu.

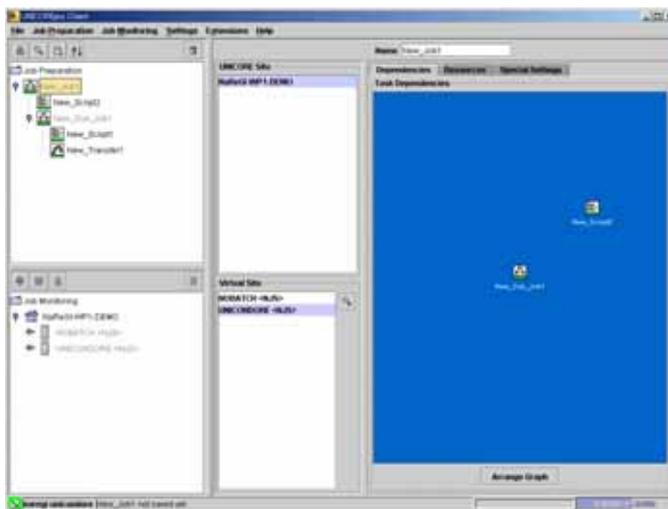


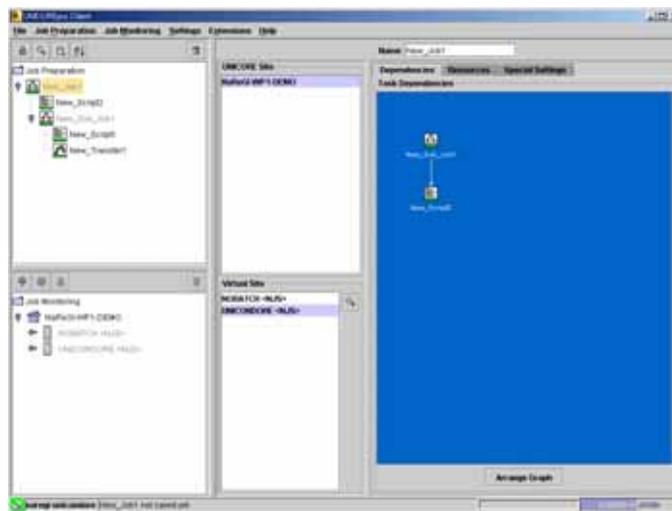
12. Select [Script Editor] tab and then input the following script.

cat output

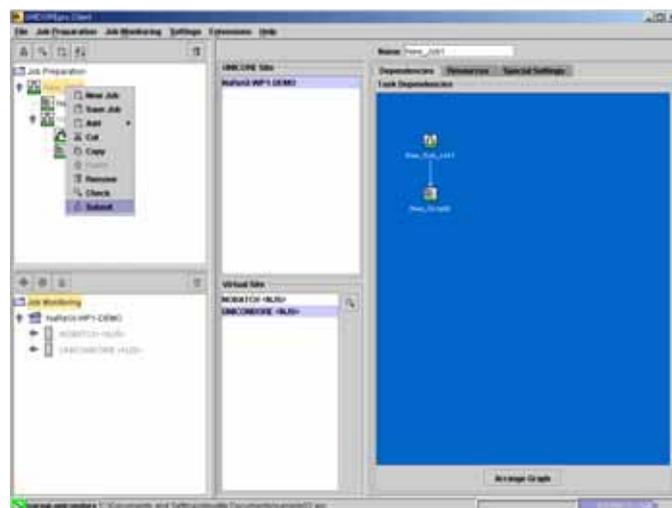


13. Select the root Job in Job preparation window and then connect arrow from Subjob to Script icons in [Dependencies] sub window, to execute tasks in this sequence.





14. Select [Submit] from [File] menu.



The execution result can be checked through the following steps.

1. Select the Virtual Site in Job Monitoring window, and then select [Refresh].
2. Select the submitted job from the Job Monitoring window, then select [Fetch Output] from the Job Monitoring.
3. Select [Standard Output] tab in the main window, and check out whether the result is the same with what is expected.