Guidelines for Rendering on SAAHP Render Farm using Autodesk Maya 2014
Roger Williams University School of Architecture, Art and Historic Preservation (SAAHP)

Render File Preparations

1. Open existing Maya (.mb) file
   or create new document
   File > New Scene (Ctrl+N)

2. Choose **File > Set Project**

3. Set project to a directory located on
   the **SAAHP Archshare network drive**.
   All projects to be rendered on the
   render farm must be saved to this drive.
   Maya will see the Archshare drive as
   **"ArchDrobo."**

   If the chosen location does not contain
   a project definition file (workspace.mel),
   choose **"Create default workspace"**
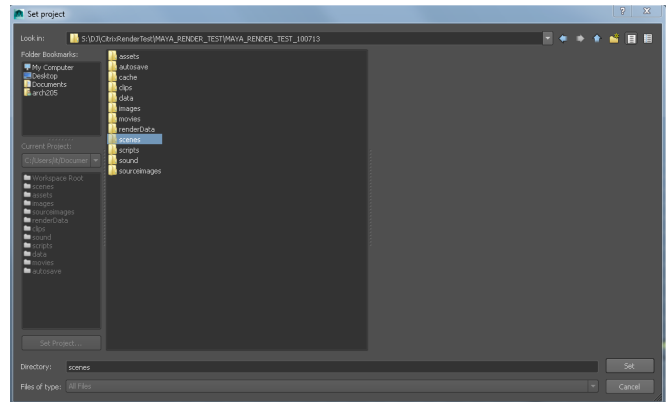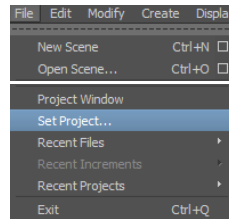
4. To verify an existing network project is
   referenced appropriately go to:
   File > Project Window to confirm project
   location. The Maya project file should
   be located in the **"scenes"** folder on the
   network drive. Use the **"Save Scene As"**
   command (Ctrl+Shift+S) to save scene in
   appropriate folder.
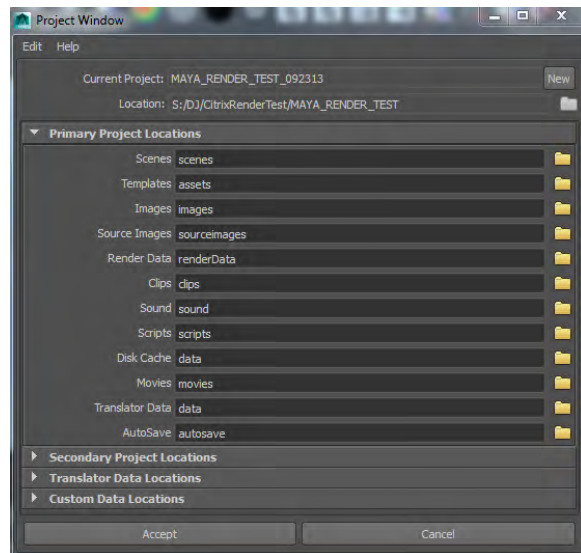
5. Turn on the **Rendering** Menu

6. Go to **Render > Render Using > mental ray**
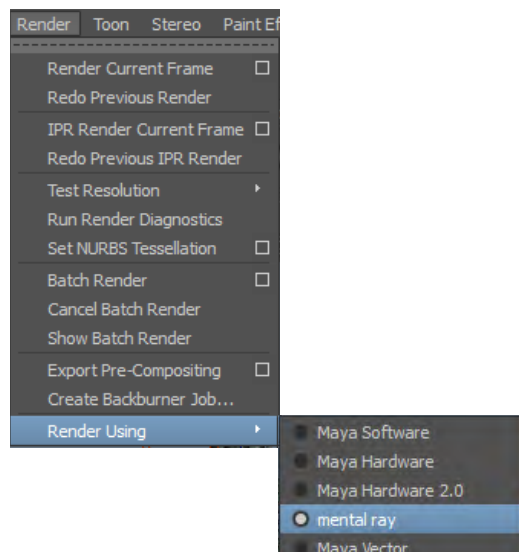
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7. Go to **Render > Batch Render [Options]**

    Within mental ray Batch Render verify
    Network setting is <u>unchecked</u> for
    "Render on the local machine"

    Notes:
    * Before proceeding, double check all render
    settings for materials, textures, lighting, etc.
    ** It is recommended a single frame render is
    made to verify all correct render settings prior
    to sending render job via backburner to SAAHP
    render farm.
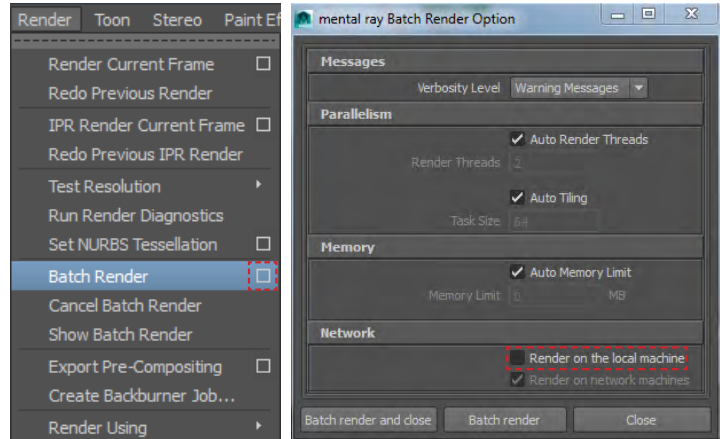
**Sending render job to SAAHP Render Farm using Autodesk Backburner with Maya**

8. Go to **Render > Create Backburner Job**…
    Save File (be sure to save file to the shared ArchDrobo network drive)

    Save As new project in Project workspace folder **"scenes."**

    Note:
    *It is recommended to save multiple versions of the document for archiving purposes. In the
    event a file becomes corrupt, an older version may be used minimizing the amount of lost work.
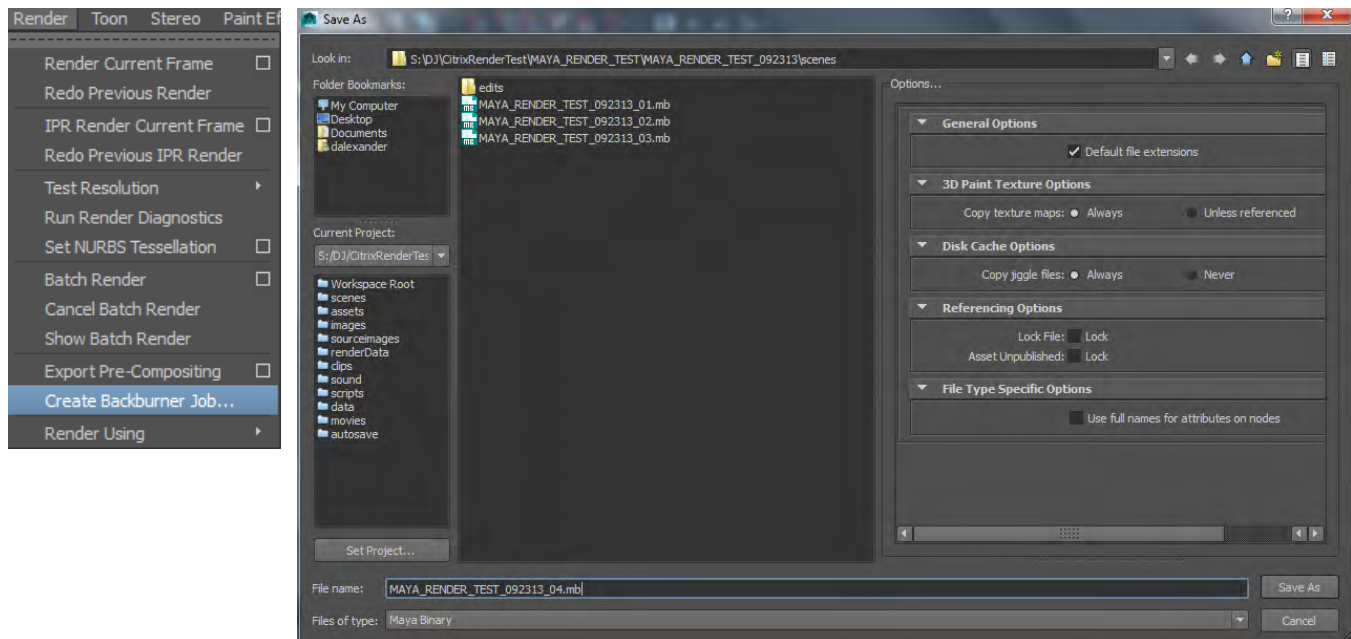
9. BackBurner for Maya dialog box
   Manager Name: 10.103.18.84 or **render-01.academics.rwu**
   Port: 7347
   Render: "from the scene file"

The **Job Name** must be unique for sequential backburner jobs created from the same open file. *Hint: Name each job via camera*

Task Size should be smaller than the number of frames being rendered. Tasks are split between render nodes/ servers. *For example, a Task Size of 10 for 60 frames will be split between 6 render nodes/servers.*

Customized mental ray settings must be created and saved in order to render properly.

Enter **10.103.18.84** or **render-01.academics.rwu** for the **Manager Name. Port** should be set to **7347**.

Enter a **Server Group** for render job processing. Use one of the following server groups: **ServerGroup01**, **ServerGroup02**, or **ServerGroup03**. Server group availability may be viewed using Autodesk Backburner Monitor - see separate guide for connection details.

The **Server Count** should be set to **6** to limit the number of servers utilized for rendering.

Select **Use Custom Command** *(optional)*. Only necessary for jobs anticipated to take longer than 60 minutes. Refer to following page for details. *Hint: Render one sample frame to estimate render timings.*

Skip to Step 12 if using custom command, otherwise proceed to Step 10

10. Choose **Submit Job and Close.**

11. Use **Backburner Monitor** to check on render status. *(refer to separate guide for Backburner Monitor use)*

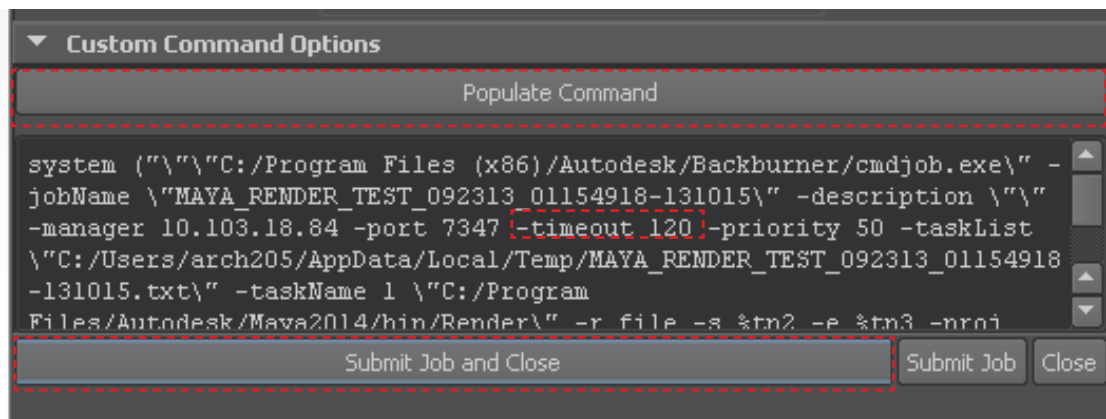**Using the Custom Command Options (optional)**

12. Custom Command Options (for jobs anticipated to run longer than 60 minutes - Maya default.)

   Under the Custom Command Options section, select **Populate Command.**

   In the command box, add the text **"-timeout 120"** before "-priority" as shown in the following example. *Note: This script is case sensitive. This command alteration changes the default job timeout from 60 to 120 minutes.*

   EXAMPLE:
   system ("\"/usr/discreet/backburner/cmdjob\" -jobName \"exp_support_ash025444-110215\" -description \"\" -manager **-timeout 120** -priority 50 -taskList \"/usr/tmp/exp_support_ ash025444-110215.txt\" -taskName 1 \"/usr/autodesk/maya2011.5-x64/bin/Render\" -r file -s %tp2 -e %tp3 -proj \"/home/assist/maya/projects/default\" -rd \"/home/assist/maya/projects/default/ images\" \"/Lnx-ubuntu/public/CustomerCases/renderash/exp_support_ash.ma\"")

13. Choose **Submit Job and Close.**

   Custom Command Options Notes:
   * IMPORTANT: When submitting multiple rendering tasks consecutively from a single file, the Custom Command box will automatically populate using the previous script. In order for the new render job to work properly all Custom Command scripts must be erased and repopulated prior to selecting Submit Job and Close.

   ** Timeout number is designated in minutes.

General Use Guidelines/Notes:

- Before submitting a large render job to Autodesk Backburner, it is recommended to batch render a single image on the local machine or backburner first to verify that all render settings are correct.
- If the render job fails due to a task timeout error, resend the job with a smaller task size or adjust the timeout settings to 240 minutes rather than 120 minutes. Only resend those renders which were not completed in the earlier task(s) which triggered the timeout error.
- Use a single server group at a time for render jobs. The task size should be set to render on no more than 6 servers/nodes at a time. For example , a job with a frame count of 600 should have a task size of no less than 100.