Nuke Tips, A/P Benjamin Seide

RELATIVE PATHS and organizing exercise folders

Quick guide how to use **relative** instead of **absolute** file paths and how to keep your exercise folders organized.

Source footage files like image or video files are external files for the Nuke setup; they are not saved with the setup; the READ node just points to the file location of the source footage.

The file location of the source footage is i.e.

M:/DT2010_Digital_Compositing/2014-S2/class_material/02_basics/_sources/**beach.jpg**

A file location with a drive letter, here the M network drive at ADM, is called an <u>ABSOLUTE</u> path.

Read node with absolute path:
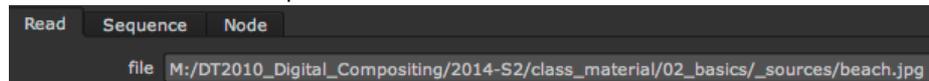
For a long running project like an FYP it's ok to use absolute file paths in READ nodes as they work on one network drive only. For our short exercises it's problematic.

Let's say you have all your assignment files on your external drive; now you want to copy the setup and all source files to the *hand_in* folder on the M network drive.

All the READ nodes in the copied setup will still point to the old location on your external drive, disconnecting the external drive and the setup won't find any footage. You will need to relink all READ nodes to the new location.

That is not only annoying but error-prone. Unfortunately, I still get setups with READ nodes pointing to source footage on C drive, or on an external drive. Obviously they can't be found - these setups are unusable for me and won't be graded.

The solution is to use **<u>RELATIVE</u>** paths.

Instead of using the long absolute path to source images, **we want to describe the source file location in <u>relation</u> to the setup file location, this is called RELATIVE path**.

In this example, the Nuke setup is at:

M:/DT2010_Digital_Compositing/2014-S2/class_material/02_basics/**SETUP LOCATION**

The footage is in the same directory, inside a subfolder called **"_sources"**
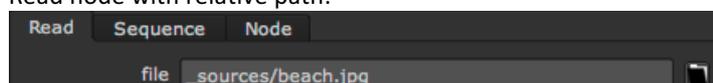
M:/DT2010_Digital_Compositing/2014-S2/class_material/02_basics/**_*sources/beach.jpg*

The RELATIVE file location of the source footage is

**_*sources/beach.jpg*

Removing the common path to the setup and instead using exactly that: **_*sources/beach.jpg*
Now the READ node is RELATIVE.

Read node with relative path:

Relative paths can only work if the Nuke setup has been saved once.

Without knowing where the Nuke setup loaction is, relative paths can't work.

Attention: Relative path functinality is not enabled per default in Nuke!

At ADM it is per default enabled. On all animation area workstations where you see the ADM menu in the menu bar, the relative path functinality is enabled already and you don't need to change any settings to enable it.

>> Read further down next page how to enable for i.e. for your private computer.

Use the helper script at ADM
Instead of changing every READ node manually, just use the script **RELATIVE paths… converting form absolute** in the ADM menu. This has to be done BEFORE copying your setup and footage from your external drive into the *hand_in* folder or any other location.
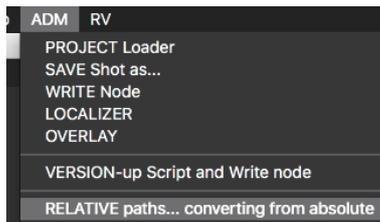
Important to keep your work organized
The script makes only sense if you keep your project or assignment folder organized in a way that all footage files are inside the same folder as the Nuke setup.

Check out the easy way I organize my course exercises:

EXERCISE-FOLDER/
      SUBFOLDER for FOOTAGE/
            Footage.jpg
      Nuke Setup File.nk

This is of course a simplified example with one file, imaging dozens of source files instead.
Highly recommended to keep your work organized in a similar way:
- One folder per exercise
- Nuke setup file inside the exercise folder
- Subfolder for ALL footage files

Keeping your files ORGANIZED in such way and using RELATIVE paths, you are able to copy the exercise folder to anywhere, even from Mac to PC, and all footage paths will work just fine.

Hierarchy up

Relative paths are useful if setup and footage files are on the same drive or volume. You can access any file location on that drive, i.e. one or several folders up in the hierarchy.

Here is a simple example of the Nuke setup inside a subfolder:

EXERCISE-FOLDER/
    SUBFOLDER for SETUP/
        Nuke Setup file.nk
    SUBFOLDER for FOOTAGE/
        Footage.jpg

The RELATIVE path to the source footage is:

one directory up / subfolder footage / footage file

The syntax for "one directory up" is simply 2 dots and forward slash:

../_sources/beach_HD.jpg

Whereas one dot and forward slash is the same directory.

Enable simplified RELATIVE paths i.e. for your private computer

To use the simplified version of relative paths in Nuke, the **Nuke project directory** has to be set to the following expression:

[file dirname [value root.name]]

1) Organize your files first into one folder
2) Open the setup
3) Open the **Project Settings** with shortcut "S" or *Edit* menu > *Project Settings*
4) Paste the following string into the *project directory* field: **[file dirname [value root.name]]**

    It should look like this after pasting
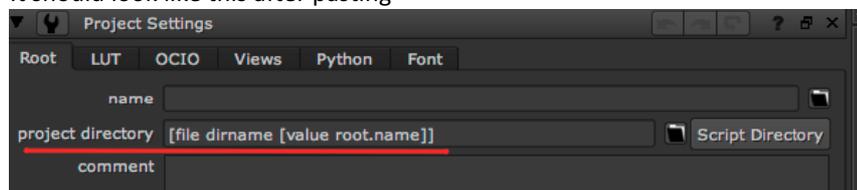
5) Save the setup
6) Re-open the setup again: Now you can shorten READ nodes to use the simplified RELATIVE paths.

Remember: Nuke setup has to be saved AT LEAST ONCE, before relative path will work.

To change the nuke default behavior and make all new setups work, set the *project directory* field (and other defaults like frame rate and format) in an empty Nuke setup and save as template.nk into your user home directory
MAC: /Users/-your-user-name-/.nuke/
WIN: C:\Users\-your-user-name-\.nuke