What's Happening...

waterRIDE™

WorleyParsons
resources & energy

Recent project work has highlighted the need for all users to appreciate what contributes to the display time of a waterRIDE™ view. In this newsletter we draw upon our experience of the impact of aerial imagery on display times.

In future editions, we will explore the impact of both vector based GIS datasets and water surfaces, to ensure your waterRIDE™ project is running efficiently (and as fast as we like it to).

Aerial Photography – Are you slowing yourself down?

One of waterRIDE™'s key development ideals is a strong focus on speed of use and data access, with the tools receiving widespread praise on this front over the years.

Every layer in a waterRIDE™ view contributes to the screen redraw time.

As datasets continue to get larger and larger, focussing on display speed becomes more important.

Water surface layers are frequently optimised (eg converting large TIN's (wrb) to grids (wrr)) to provide fast display times.

Even waterRIDE™'s upcoming support for *"infinite grids"* will provide a blend between massive base grid sizes and display time.

However, we have encountered many instances of fast water surfaces being "slowed down" by poorly selected (or just plain slow) aerial imagery.

Adding to the mix, end users do not usually have control over the way in which aerial imagery is stored.

To assist users in determining the fastest way to access imagery, we have prepared a table highlighting our experiences:

Image Type	Speed (single file /Mosaic)	Speed (tiled imagery)
ECW	✓✓✓✓✓	✓✓✓
JPEG2000	✓✓✓✓	✓✓
JPEG	×	✓
MrSID	✓✓✓	✓✓✓
WMS	✓✓✓✓	✓✓✓✓
TIFF*	✓✓	✓✓
Other Image	✓	✓

** Available with next release*

Without doubt, the fastest aerial imagery is a single file ECW. Display time is largely *independent* of the size of the file.

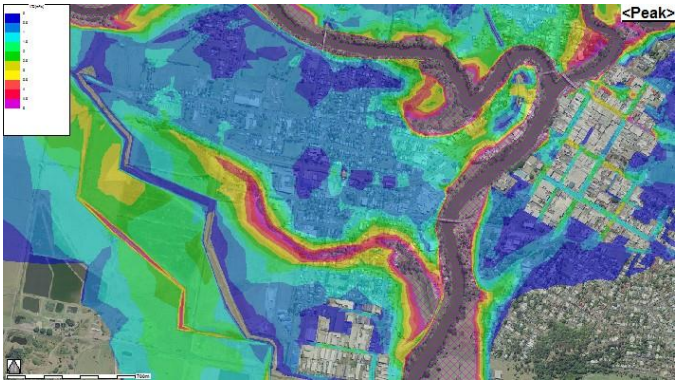
On some refent project work, we were using an ECW that was over 50GB in size.

The image displayed in around ¼ of a second!

Where image datasets have been tiled, ECW seems to be surpassed by local network based WMS (Web Map Services), which can employ caching and pyramiding behind the scenes.

In almost all situations, a single, JPEG file should be avoided, as these are very inefficient (slow) to draw.

We have seen a 10MB jpeg take 20 seconds to display!



v7 Release Tips

v7 is a major release with significantly expanded functionality. Whilst most new features should be evident, we thought we'd highlight some lesser known features and time saving tips:

File->Configuration->Projections: allows you to "clean up" projections by hiding those that you do not use frequently. Any prompt for projections will only display those projections you have specified, along with any additional projections that layers in your project are using.

waterRIDE™ Project File Version: Remember to save your projects in v1 format for anyone using v6 or earlier. Note that not all functionality will be available to v6 users.

View->Adjust Window Ratio (printing): Quickly adjust the proportions of your view window to match that of standard paper aspect ratios. Either print directly or Quick Export (F12) an image for high quality hard prints.

CTRL-A: Quickly access the display styles for the active layer without leaving the Table of Contents.

Filter Water Surfaces: Use dynamic filtering (Filter Tab on the Display Styles form) to mask model results outside your hydraulic criteria prior to cleaning the entire dataset. This is particularly useful for "rainfall on the grid modelling".