Lightning TIFF 3.0 Release Notes

The 3.0 release of Lightning TIFF coincides with the first release of Lightning PDF and Lightning LEN, building on the creation of a generic framework for Lightning plugins. This re-engineering has allowed for an improved code base, which has allowed for some performance enhancements in some cases as well as some new features.

1. General changes:

1. Added support for Flate (ZIP) compression, with user selectable levels from 1 to 12. Levels 1 to 9 are very similar to those used with the public domain zlib, with 10-12 offering higher levels. Only levels 1-10 are really recommended, as levels 11 and 12 run slower, that is take a lot more processing time, for minimal additional compression.
2. Added support for the TIFF Differencing Predictor (for 8-bit images) - TIFF tag 'Predictor'. Although it has been implemented for both 1-bit and 8-bit images, very few applications support it for 1-bit, so that has been disabled and the option only applies for 8-bit images.
3. Added a new Conventional Name Generation option "Delete filename suffix". This removes any file name suffix from the end of the filename that is used as a jobname, such as ".pdf".
4. Added a new Conventional Name Generation option "Prefix color with '_'". This allows for the color to be clearly delineated from the job name, for example "jobname_C.tif" or "jobname_Pantone 123 CVC.tif".
5. Added support for setting "Auraia (DMS)" TIFF tags - 'CellWidth' and 'CellLength'. This allows a CtP TIFF catcher to optimise plate exposure in certain circumstances.
6. Added support for setting Photoshop tags to describe spot colors (color names and RGB equivalents) when producing a color composite file that contains spot colors.
7. Renamed some of the compression names (for clarity and to fit the available space):
    a. "Auto" to "Auto (G4/LZW)".
    b. "CCITT Group 4" to "CCITT G4".
    c. "CCITT Group 3 (1D)" to "CCITT G3 (1D)".
    d. "CCITT Group 3 (2D)" to "CCITT G3 (2D)"..
8. Fixed various issues with the "Parallel RIP" option, in readiness for Auraia being threaded.

2. Performance enhancements:

1. Threaded the "Strip (Single)" case which now goes faster; up to Nx faster with N threads.
2. Implemented "time lines" for HMR10, which provides some speed improvements (up to 30% in some cases), by providing faster RIP response (that is supplying more data to be compressed) when all data supplied so far has been compressed.

3. Bug fixes:

1. Fixed some cases of corrupt output when "Reverse bit order" is enabled.
2. Changed "Pad to 32/64-bits (mono only) so it is only applied for (1-bit) monochrome output, either single monochrome pages or multiple (separate) monochrome separations.