Personality Types

Throughout the history of Avolites consoles there have always been various types of personalities - and this is an overview. Essentially the purpose has always been the same: providing the console with sufficient information to control the fixtures.

R20 for Pearl, Azure, and Sapphire

As those old consoles could only store and read data from a disk drive, these files came in a huge number of disks (for the youngsters: disks, or floppies, could hold only 720 kB of data - later versions could hold 1.44 MB). The file format is plain text, each disk needed to contain the shape file as well (which was named sg.dat back in those days). In order to create such files, there was no software except your text editor. Also worth knowing: each DMX mode of a fixture required its own personality file.

There were other limitations back in those days, like: in the beginning, filenames were limited to 8 characters plus extension. The consoles had 10 attribute banks (could be flipped to a second page) and two wheels. Additionally the second wheel of the 'Dimmer' attribute bank on the first page is not available. Thus the maximum number of attributes per fixture was 39. Operating such a fixture wasn't that easy - but then, common fixtures rarely had more than a dozen attributes. The High End Cyberlight (20 channels/ 18 attributes) was already one of the more consuming fixtures. Also, the horrible idea of combined channels (in particular: shutter and dimmer on one channel) was born in these days (see the Clay Paky Golden Scan 1 as an example) - unbelievable that this is done by some stubborn fixture manufacturers until today. Virtual dimmers were simply not an issue, as were fixture cells.

Another little twist came with the next generation Pearls which were equipped with some internal cache. You could load your preferred fixtures into this cache, and could patch from this cache instead from disk. But the cache could hold only so many personalities. Hence, you needed to carefully select the fixtures which you deemed important enough for your cache. There was - and still is - a little program available at Avolites to select and compress personalities for your cache: the cache builder.

If you ever feel the need to edit or write an R20 file: get an existing one, open it in a text editor, and find some informative instructions. it is possible to create such files with the The Personality Builder as well, but very likely the file may need some tweaking.

R96 for Sapphire 96

That's essentially related to R20 files - in fact, R96 were the older ones, and R20 files are a little extended and derived from R96. Hence, the aforementioned limitations applay to R96 files even more.

R20 for Pearl 2008/2010 and Pearl Tiger

Essentially these are exactly the same R20 files like for the older Pearls, see above. The only difference is the folder structure: while it is a flat structure for the old disk-loaded consoles, these have a more structured folder system with folders for manufacturers and subfolders for each fixture type. The consoles are able to keep the whole library in an internal USB stick which you can update if required - however, updating this can take more than one hour - if everything goes well.

However, R20 files have survived until almost today, as they make the connection from Titan to the old classic visualiser.

D2 for the Diamond II/III

This seems to be a little sidestep: still being textfiles, these personalities were designed for consoles with more wheels and a different attribue bank assignment. The knowledge of writing such personalities is almost vanishing.

d4 for the Diamond 4

This is the start of the d4 file format as we know it today. In fact even today's d4 files will most likely load into Diamond 4s - if you observe a few things, in particular do use compatibility attributes for subfixtures. Only the folder structure and location is different again, hence there are separate downloads for the Diamond 4 (only d4 files, and shape, curve, and citp file) compared to the Titan personality package which holds everything: d4, R20, Vis, and the Capture Library).

vis for the Visualiser

Many years ago the visualiser was a separate program - hence, the personalities were separate as well. And as their approach is different from the console personalities - those need to to tell the console how to display and control attributes, these tell the visualiser how to behave when receiving certain DMX values. However, vis files are textfiles and could be edited with a text editor. Also, together with the visualiser came a program called VisWiz - the Visualiser Extension File Creator, which could convert R20 files into vis files (again, some manual tweaking might be required). The best thing about the VisWiz is the manual, as this contains rather good descriptions of the required fixture definitions.

Vis files are no longer officially supported. You only need them if you need the old (pre Titan v10) visualiser. It is worth trying the `File → Generate R20 Files…` menu in the The Personality Builder.

As the old visualiser is still interesting for some users, a detailed howto and some examples have been added here:

- Creating vis files from d4 personalities
- More examples for Visualiser files created from d4 files

d4 files for Titan

Derived from the Diamond 4, Titan relies on the d4 personalities: structured xml files, one per fixture (compared to one per mode for r20 and the likes), which can hold complex information, cells, references to old and new files (vis and r20, capture). And the best thing: with the The Personality Builder there is a perfect tool to edit these files if needed. Also, newer Titan versions support user defined personalities so that you can keep your changes even if an updated personality exists.

Capture personalities

These are relevant for Titan from version 10 on which contains the Capture visualiser, see http://www.capturesweden.com/. These are binary files which cannot be edited by the user. This library is maintained by AtlaBase (https://www.atlabase.com/). The files contain complex information to mimick a movinglight's behaviour: not only dmx values and their results, but also general technical data (weight, dimensions, 3d models etc.) and even logo graphics, movement speed and more. This makes it necessary that when requesting a fixture, as much as possible information is provided.

While in theory you can approach AtlaBase or Capture in order to have a new fixture included int that library, it is much more sensible to request it via the Avolites personality website: the created capture file needs to be referenced in the d4 file when ready.