Concurrent Report

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1 Functionality and Design

Our system currently uses up to 8 workers to evolve the Game-of-Life repeatedly. Our system is deadlock-free, implements the correct button, board orientation, and LED behaviour, and can process images above 512x512 pixels using memory on both tiles.

The biggest problem we encountered was trying to run images bigger than 512x512. Originally we were reading the bits from the .pgm file into a 2 dimensional array of unsigned chars, before 'packing' this array into an array of unsigned chars that represented each pixel by a bit instead of a byte. This packing process allowed us to save space as we only had to store an array which was 1/8th the size of the original array. We used this array to process the Game-of-Life on. Eventually we had to free even more space in order to run larger images. To do this, we changed the dataInStream function, so that it read the pixel values straight into the smaller array, representing each pixel as a single bit.

2 How to create a bulleted list

This is the Second Section. Let's also see if this text wraps. Will this be below or beside Introduction? Here is how to create a list:

- First bullet point
- This is the second bullet point.
- And so on...

Then we can carry on the section. But we must be careful because the beginning of this line will be indented as it is after a list.

3 New Section

This is a new Section. This one should wrap too. This is the third section.