How to optimize the rendering speed of Cinelerra GG ?

Why ?

When rendering my hour long feature films, I found that Cinelerra GG was not using the full power of my multi-core processor, an AMD Threadripper 3960x (24c/48t). The rendering was taking much longer than expected...
So I looked for any information in the Cinelerra GG manual and on the web that could improve things.

From this was born a bash script using the existing tools and which allows :
- guide me, so that I don't forget anything, when rendering my films
- automate the render farm management
- to gain speed by using pipes and FFMPEG

With the help of this script I managed to get a 4x faster render while maintaining a processor temperature of 85/90 degrees Celsius.

Installation of the script :

1. Retrieve my script and make it executable.
2. For ease of use, create a link in Cinelerra GG to the script in question.
3. Install the necessary packages: zenity, bc, ffmpeg, avidemux.

How to proceed?

1. Make your video montage.
2. Launch the script and follow the recommended steps.

My script is of course adapted taking into account the following conditions:
- Source file: AVCHD in 1920x1080 - 50 fps (h264 + AC-2 > .mts)
- Final output: 1280x720 - 50 fps (h264 + aac > .mkv)
- Language : French

It should probably be adapted to your personal needs.

To do so, several variables need to be adjusted in order to stay at a processor temperature of 85/90 degrees Celsius:
- **Noeud**: the number of nodes is calculated automatically and corresponds to 10% of the threads. It is a fact that the h264 codec is very CPU intensive. This does not mean that the other threads do nothing, they manage the encoding.
- **Travail**: number of jobs for each Node. After several tries, for me, the value of 4 seemed to be the most efficient.

I remain at your disposal for any further information.