fillwave_build - Refactoring steps

1 Worker-thread pooling

1.1 Create a worker-thread pool.

1.1.1 Issue a call to vftasks_create_pool to ensure the availability of a pool of 1   (?)
worker thread.

2 Data partitioning - Parallel_10619 (TextureLoader::load)

2.1 Isolate Task_10620 (TextureLoader::load).

2.1.1 Copy the function fillwave::loader::TextureLoader::load at   (?)
/home/filip/Projects/fillwave/src/loaders/TextureLoader.cpp:62-178 into a newly
defined function that we will refer to as
copy_of_fillwave::loader::TextureLoader::load_3426.

2.1.2 Copy the function fillwave::manager::TextureManager::add at   (?)
/home/filip/Projects/fillwave/src/management/TextureManager.cpp:49-77 into a
newly defined function that we will refer to as
copy_of_fillwave::manager::TextureManager::add_3426.

2.1.3 Change the callee of the function call which you copied from   (?)
/home/filip/Projects/fillwave/src/management/TextureManager.cpp:62 into
copy_of_fillwave::manager::TextureManager::add_3426 from
fillwave::loader::TextureLoader::load to
copy_of_fillwave::loader::TextureLoader::load_3426.

2.1.4 Copy the function fillwave::manager::TextureManager::get at   (?)
/home/filip/Projects/fillwave/src/management/TextureManager.cpp:211-223
into a newly defined function that we will refer to as
copy_of_fillwave::manager::TextureManager::get_3426.

2.1.5 Change the callee of the function call which you copied from   (?)
/home/filip/Projects/fillwave/src/management/TextureManager.cpp:215 into
copy_of_fillwave::manager::TextureManager::get_3426 from
fillwave::manager::TextureManager::add to
copy_of_fillwave::manager::TextureManager::add_3426.

2.1.6 Copy the function fillwave::Engine::storeTexture at   (?)
/home/filip/Projects/fillwave/src/Fillwave.cpp:458-460 into a newly defined
function that we will refer to as copy_of_fillwave::Engine::storeTexture_3426.

2.1.7	Change the callee of the function call which you copied from /home/filip/Projects/fillwave/src/Fillwave.cpp:459 into copy_of_fillwave::Engine::storeTexture_3426 from fillwave::manager::TextureManager::get to copy_of_fillwave::manager::TextureManager::get_3426.	(?)
2.1.8	Change the callee of the function call at /home/filip/Projects/fillwave/test/src/test.cpp:71 from fillwave::Engine::storeTexture to copy_of_fillwave::Engine::storeTexture_3426.	(?)

2.2   Outline the loop associated with Task_10620 (TextureLoader::load) into a function task_10620.

2.2.1	Extract from the code which you copied from /home/filip/Projects/fillwave/src/loaders/TextureLoader.cpp:126-131 into copy_of_fillwave::loader::TextureLoader::load_3426 a newly defined function that we will refer to as task_10620.	(?)
2.2.2	Parameterize the function task_10620 with the start value of induction variable 'row' that gave rise to loop-carried data dependency 3426.196 .	(?)
2.2.3	Parameterize the function task_10620 with the stride of the induction variable 'row' that gave rise to loop-carried data dependency 3426.196 .	(?)

2.3   Split the call to task_10620 in copy_of_fillwave::loader::TextureLoader::load_3426.

2.3.1	Replace the one call from copy_of_fillwave::loader::TextureLoader::load_3426 to task_10620 with 2 new calls to task_10620. Choose the start and stride arguments of the new calls so that they establish a round-robin partitioning of the orginal iteration space.	(?)

2.4   Parallelize the calls to task_10620 in copy_of_fillwave::loader::TextureLoader::load_3426.

2.4.1	Change the definition of the function task_10620 into a void function taking a single argument of type void*. Adapt all calls to task_10620 accordingly.	(?)
2.4.2	Issue calls to vftasks_submit and vftasks_get to distribute one of the calls from copy_of_fillwave::loader::TextureLoader::load_3426 to task_10620 over a worker thread and have the other call to task_10620 execute concurrently on the calling thread. Take into account that there are no nested partitions that will require any additional worker threads.	(?)