

DWARF FORTRESS USER MODIFICATION

PLANNED FEATURES

Mining derived materials, related processes and structures, Part II

Modification processes

Mixing (Opposite of separation)
Reacting (Similar to mixing, except a chemical reaction changes the components)
Heat treatment (Changing the properties of the material, resource or it's surface)
Polishing (Surface treatment that increases durability or other properties)
Chemical surface treatment (Same as polishing but based on a chemical reaction)
Forging (With implied heat treatment? Changes the properties of the material)

Concentration processes

Liquid pooling (Utilizing liquifying a resource, they're joined into a bigger chunk)
Powder pooling (When single small units of substance merge into continuous grainy powder)
(Also note gravel or grain size variability)

Example 1: 3 iron nuggets are melted into liquid iron, which is forged into a single iron bar.

Example 2: 3 magnesium crystals are ground into a single batch of magnesium powder.

In the context of dwarf fortress this also has to do with item count management, separation processes which refine materials increase item count – which increases item search time for the CPU - and concentration processes allow decreasing item count. This would also allow merging powder stacks or liquids, and measuring them in kilograms or litres, but I'm not sure if the raws interface allow doing that in a comfortable way.

(One could always define a bigger stack and a reaction that combines two stacks to one big stack, but that doesn't seem very comfortable)

Structures

Structures in this context refer mainly to dwarven workshops or other buildings, which are used to enable the processes or labours. However I would also like to include - if modification of raws allows it - passive structures which will perform a process without a dwarf's presence.

Example: A stone crushing machine can be loaded with 5 stones. It is connected to a lever that starts the process. A dwarf pulls the lever and goes away, and later comes to sort the resulting refined resources into stockpiles.

Other than for passive structures, most processes would be reactions performed by dwarves in various workshops. Coming up with appropriate workshops for the processes therefore is necessary.