

# The Perfect Inventory for RPGs

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September 23, 2013

## Abstract

The inventory system described here was planned for my role play game Barad Garth. It is designed to be well arranged and to find the right things fast. It can be handled via mouse, keyboard or controller.

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## 1 General Form

First of all the general principle is described here. It is very easy and nothing really new. But still many games lack this principle of simplicity and clarity.

### 1.1 Design Targets

What I found practicable so far:

- Hierarchical
- No more than 7 categories
- Constant small depth
- Using the full 2D space on screen
- No information overload
- Few Text

### 1.2 With words

I think an inventory must have a top level categorization. If there are more than 30 different items you end up in searching all the time. A categorization as weapons, armor, ... will narrow things down fast. If well chosen this reduces the number of shown items by a factor of the count of categories. Now it could make a difference for a game if a weapon is two-handed or not or similar things. So what to do with all the stuff from top level categories?

One option would be to sort items according to some properties. Unfortunately there are too many different criteria to find the proper sorting. My idea is to arrange all items in a 2D grid where each row has a meaning. These would be the subcategories e.g. One-Handed, Two-Handed, ... Rows can be sorted by the player according to what he uses most. If possible all

subcategories should be visible at once on the screen. So there should be again a limited count of them.

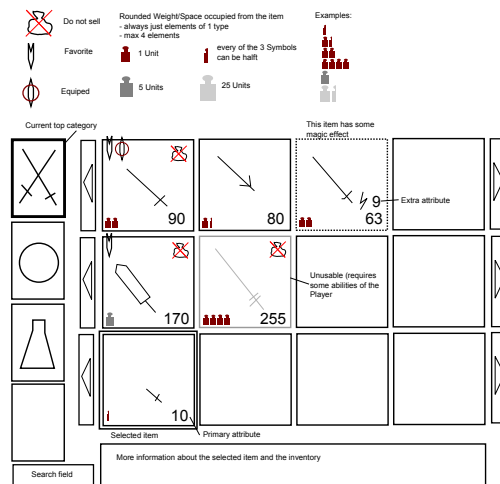
Inside a single row all items are listed as icons. Scrolling inside them should be able by many different gestures so that in any situation scrolling could be done fast. Furthermore the listed items are sorted to same basic property which is likely to be the gamers choice when searching for an item. The weapon with the highest damage comes first as the potion which restores the most health does.

Up to now the player can only control the order of subcategories. A little bit more customization can spare a lot of time if the number of items is huge. Therefore I would introduce two flags: "Always on front", "Do not sell". The first one influences the sorting inside a row. All items with "Always on front" are presented in sorted order first and the other items just after them. This allows a favorite option which can be used optional. The flag "Do not sell" would hide the element in the menu of traders.

The quality of the whole menu depends on the designed categorizations and sorting criteria and on the representation of additional information. These two things will be considered in sections 2 and 3

One last thing: Search for names is possible over a text field. Sorting things after names has low usability in most cases.

## 2 Example



### 3 Full structure

- Weapons  
Attribute: Damage
  - One-Handed
  - Two-Handed
  - Bows
  - Staves (magician equipment)
  - Traps
- Armor  
Attribute: Protection
  - Head
  - Chest
  - Foot, Hands
  - Shields
  - Rings  
Sorted: Weighted from all properties
  - Amulets  
Sorted: Weighted from all properties
- Potions  
Attribute: Main effect
  - Health
  - Mana
  - Temporal Enhancing
  - Permanent
- Ingredients
  - Minerals
  - Herbs
  - Animals
  - Components
- Misc
  - Dishes
  - Instruments
  - Books
  - Keys
  - Artefacts

	Mouse	Keyboard
Select top category	Click	Page Up/Down
Scroll subcategory	Wheel	Arrow Up/Down
Scroll inside row	Drag Drop	Arrow Left/Right
Select	Click	Actual position
Equip / Use	Doubleclick	E
Do not sell	Context menu	R
Favorite	Context menu	F

### 4 Controls

I am not used to controllers, but I am very confident that controllers can be used like the keyboard. It should not be difficult to use this inventory system with controllers unchanged. So I will not list a possible configuration.