Integrated systems work off similar mindsets for data recall:

Data needs a filing cabinet to know where to track. Think of a multi drawer filing cabinet, each drawer represents a part of your business operation:

- Company-wide functional departments
- Project-specific folders
- Reference libraries

Then determine what function will be a part of the file cabinet drawer, for example the points below are company-wide, they are not tied to a specific project or community:

1. Accounting
    a. AP/AR, bank statements, job cost reports, W-9s, audits
2. HR
    a. Employee files, policies, onboarding
3. Sales
    a. Marketing, price sheets, model info, sales contracts
4. Scheduling
    a. Master schedules, templates, trade calendars
5. Warranty
    a. Claims, manuals, closeout packages
6. Production
    a. SOP's, safety, field checklists
7. Purchasing
    a. Trade library, master bid packages, vendor agreements
8. Estimating
    a. Takeoff templates, cost models, assemblies

This is a simple overview of integration; I like the file cabinet analogy as basic systems 101. For now, at least we have a start. In home building we are structured to always think of workflow, start to finish, this can be from raw land, to purchasing lots, or taking over an existing project.

Computers work in a similar workflow, it sees “raw memory” a sequence of bytes (or words) in RAM. Sorting is simply rearranging those bytes, from low to high, sorting values by a chosen rule, (the software).

The first versions of production software created a demand for a way to sort information. The National Association of Home Builders “NAHB” came out with a Standard Homebuilder list of cost codes, that primarily works in the start to finish order. I do have a spread sheet you can download for free, just send me an email ahannasch@gmail.com Or as an alternate here’s a web site by Planyard. The overall objective is to provide a numbering system to set up your file structure. You don’t have to use their numbers; it’s the sequencing and flow that is important.

Use these “cost codes” to flow with your schedule, and this is where the best integrated systems can last. Start building your workflows from production scheduling, following the Cost Code structure.

The NAHB structure is sorted by “Phase” for example 3-03-0000 ROUGH STRUCTURE is considered the “roll up cost code” for the building structure (above foundation). The cost codes are 7 digits, and if you use Quick Books, the system has a longer string of digits, upwards of 9 – 10 digits.

This context is getting into the weeds; however, experience does provide value. And this section is a concept to help you decide on how to build your integrated data base. I keep mentioning “integrated” because if set up properly, this structure is consistent with the majority of Production Software, including Accounting.

Data sort: 3-03-0000 structure, let’s break it down. Here’s a small screenshot of the NAHB codes, we’ll reference below.

3-03-0000	ROUGH STRUCTURE
3-03-3000	**STEEL**
3-03-3030	Steel Posts, bases
3-03-3050	Nails - Screws
3-03-3060	Hangers Straps
3-03-3100	**FRAMING**

3-03- is the prefix this number will keep all Rough Structure in one “Drawer” not file. The “0000” digits are a 4-digit cost code.

The data will then see the 3-03 and keep everything from accounting, production and sales that starts with 3-03 as ROUGH STRUCTURE. So, if we have a cost code of 3-03-9999 then the data will show in ROUGH STRUCTURE.

Key in on the last 4 digits, those can be your PHASE of construction sort. So, STEEL related items will roll up into 3000. So, in the filing cabinet we will have a folder 3000 STEEL, and in that folder, we’ll have three files, 3030, 3050, 3060.

Here's the experience strategy, and this is where builders have to make a decision. If you are going to structure your S.O.P as a Lump sum system, you don't need to itemize every piece of steel. If you are going with detail, you'll want to break out products.

Between 3000 STEEL, AND 3100 FRAMING (3100-3000=100) we have 99 digits to use. When creating detailed items, we can use excel to help us build our cost codes and sort from smallest to biggest. In our STEEL Phase we have 3030 Steel Posts, however you may have different schedules, or you may want to structure by the inch or pound, or _____ you fill in the blank. So, you go to excel and start with 3001 and end with 3099. Then you fill in the blanks on how you want to label. For example, 3001 Steel Shims, 3002 – 3029 blank. 3030, Steel post base 4x4…. With this example there is space between items so it's easier to sort when you have to add an item. If you start off and you leave space of five digits between each item, and you run out of room (for this example 3099) then your data will have to be re-structured.