

Examine, Experience, Explore

As engineers we are always looking for new tools, new techniques, and new methods of problem solving. Finding the right solution is tough but the journey often has some similar steps. Here we will explore the 3X approach for mapping ones awareness of a new tool.

Let us run through an example of testing a new CAD system.

Stage one – Examine

We need to know what the intended use of a system. Firstly is it intended for 2d or 3d? Some packages will offer both but are really suited to one in particular.

Does it rely heavily on graphics card processing or CPU?

Do you need specific hardware in order to run it?

Does it output the correct format for your needs?

This stage will be where you turn away 90% of your initial options. This is progress and shouldn't be rushed. It's often good practice to keep note of what each package is lacking so you can build a wish-list for your specific application.

Stage two – Experience

This is where much frustration lies. Learning to use new software is slow and attention intensive. Sometimes it's the bad user interface that lets you stop you doing the real work even though the system is "capable". You have to learn to balance your needs here. Weigh up "Ease of use" with a packages utilities.

When testing new software try to find the limits. Import bad data, make intentional mistakes and test the undo functionality. Learn the menus and gauge how logically the features are laid out to you. In many cases a design package is where you will be focused on most of the day. Don't just learn to find the basics. Try to understand the logic behind the layout. My number one tip for getting up to speed fast, learn the hot keys, they will speed up your flow drastically.

Stage three – Explore

This is the area I love. Once you experience the software you can begin to play. Set a challenge of something you may never have to do.

Can you use your company logo as a mask for the design to show through?

Can you select all shapes based of the size of the corner radii?

Can you connect to a server and generate designs from databases?

Can you automate simple tasks?

When one explores in this way not only is there more efficient methods revealed but there is a strengthening in the skill-set required for continuous improvement.

These may not be “necessary” but having the knowledge and curiosity to find new methods will be invaluable when hurdles present themselves later on. Don’t judge anything to be impossible. Learn to forge a path and build a unique solution that no one else can.

“Be curious, not judgemental.”

Walt Whitman-Ted Lasso

Switching Software

If one is looking to change a software package company wide then it would be beneficial to note when the decision should be made. Initially it feels like putting a lot of time into step one will result in a well informed decision. In reality this is jumping the gun. A more thorough approach is to run parallel systems to at least experience the new platform before making a permanent switch. Albeit at a time cost. If possible set aside enough resources to allow for real exploration to determine not only where you want to be but to gauge where you can go from here. Then making the decision to switch or not to will be much easier.

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