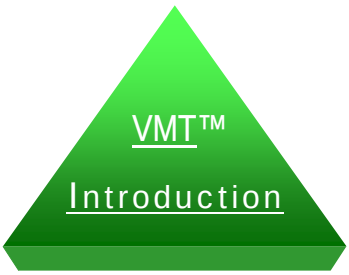
VMT™ VISUAL MODELING TECHNIQUES

About Author

Simple visual modeling techniques used to capture, illustrate, design, and document core system requirements in a visual form.

A BASIC DESIGN APPROACH THAT PRESERVES

Your core business and systems knowledge



AXIOM 1

We call it Picture Example Modeling. Create meaningful PROCESS DIAGRAMS and PICTURE MODELS showing how **core entities**, core **process flows**, core **data flows**, and core **product flows** all fit together in a rational way that can be understood by others. The V-M-T approach encourages liberal use of visual modeling to communicate in both the "plan design cycle" and the inevitable "evolutionary design cycle". Real success comes from building enough flexibility in our designs to accommodate unplanned requirements, without comprising overall performance needs.

AXIOM 2

Create paper and electronic prototype samples of all KEY USER INTERFACES (screens, reports, etc.) These models are living documents used by all team members. Create paper and electronic prototypes of core DATA MODELS that support the key user interfaces and batch processes. The processes, user interfaces, and data models should all compliment each other, and fully support core information and response-time requirements.

AXIOM 3

Conduct frequent DESIGN WALK-THROUGH sessions using real life business examples and systems. **Always start** with fundamental business processes and begin early testing on paper your core design assumptions. Frequent "peer group" walk-through sessions using realistic business case examples and scenarios will show how well the design holds up against scrutiny. All critical business processes and proposed system design approaches must pass the basic reality-sniff-test All show-stopping assumptions should be tackled early in the project's life-cycle. Do not build expensive solutions on totally unproven assumptions, unless failure is an option!

The VMT is a simple method that should be used in conjunction with a basic development life-cycle methodology and good project management procedures.

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First... describe it in

PICTURE and **EXAMPLE** form

then... describe it in **WRITTEN** form

Steven Johnson

- From profound understanding comes true awareness

- First, look for the core, essential elements of any process or historical event you wish to understand; apply these visual modeling techniques to gain better understanding; then watch as your knowledge of system design requirements naturally unfolds.

- "Visual-Modeling-Technique" begins by using easily understood symbols and modeling techniques to capture, illustrate, design, document, and communicate basic understanding. This approach will greatly facilitate getting all the players and stakeholders on the same page.

- V-M-T approach is built around the fundamental and frequent use of simple symbols, pictures, diagrams, and visual models to describe all core critical processes and human interfaces. These basic and logical design symbols are used to present process flows, data flows, and all pertinent product flows.

- V-M-T approach allows you to quickly learn to document and describe both current state model and proposed future state information models.

- V-M-T also recommends searching for and contrasting opposing design solutions whenever possible. Test critical design ideas as much as time and resources permit both on paper and with realistic prototypes.

- V-M-T teaches and emphasizes a simple, repeating design approach with **COMMON TOOLS, COMMON SENSE, and CONTINUOUS IMPROVEMENT**

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Designing simple and elegant can be a lot more difficult than designing complicated

V-M-T design process + modeling techniques always attempt to tell a story. Process flows, data flows, and product flows can be constructed in such a manner that business events follow a logical path from the beginning to the end of their normal business or historical life's journey.

- **G**etting everyone onto the same page is invaluable when attempting to gain understanding and/or consensus. It is much easier to communicate ideas and concepts with good pictures and examples.

- Say it first with **good DIAGRAMS** that outline and support **real-life EXAMPLES** of all key business processes and user interfaces. Begin early in the design phase to layout proposed high level DATA MODELING. Designing good user interfaces should and must include all core INPUTS / OUTPUTS such as screens and reports.

- **Project managers**, **designers,** and **end-users** are encouraged to collect and organize pertinent project diagrams, documents, notes and all examples of user interfaces into a central working document. **(see complete outline – Appendix A)**

- **VMT™** techniques strongly encourages liberal use of actual real-life examples to help gain understanding and to perform PROCESS and EVENT WALK-THRUS. Using core real-life business examples tends to provide excellent subject material for meaningful design discussions with all participants. The answers are in the detail.

VMT™ BASIC TOOLS

1. common sense, basic honesty, genuine pursuit of excellence & simplicity

2. Pencil, PEN, napkins, paper, hand sketches, chalk board, editors

3. Word processors: MS Word, Powerpoint, Apple Word, Unix editor, Excel

4. Other contemporary tools (i.e. Adobe, Autodesk, Visio, CAD/CAM

Arthur **Geoff Colvin** Talent is Overrated is thinking much more specifically about the core elements of great performance and how each can be improved**.** For example, **he cites the use of story** in his articles. **"It's much more effective to show rather than to tell the reader something important.**

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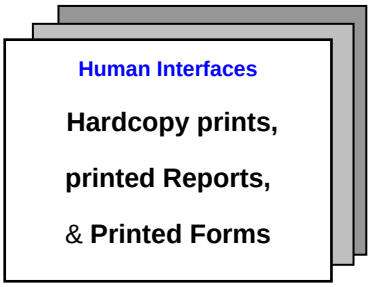
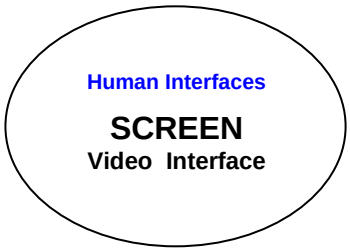
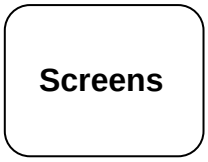
Examples of Visual Modeling Symbols VMT™

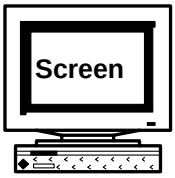
Reports & Forms



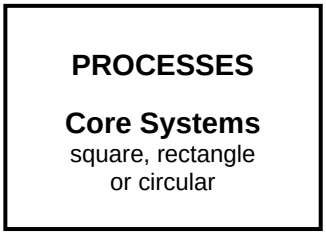
Screen (Video)

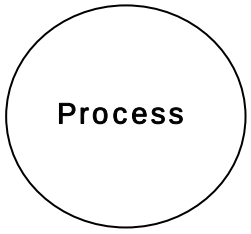


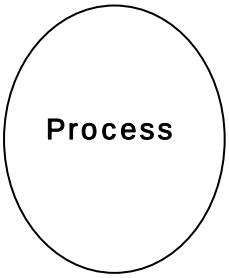




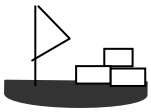
PROCESSES

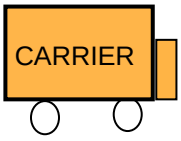


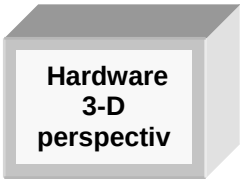




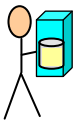
ENTITIES

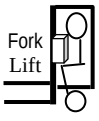


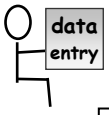


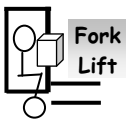


PEOPLE



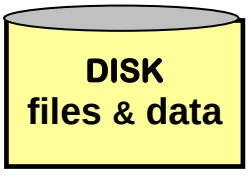


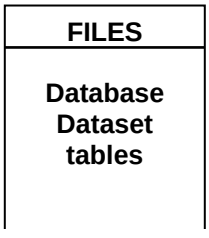


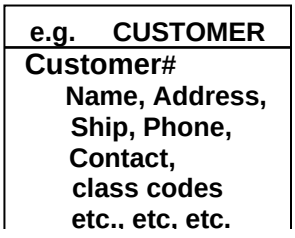


DATABASE

Files / Data







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V-M-T success comes from its simple and uniform approach for defining how core business activities and information flows fit together. By simplifying the manner used to describe how process-data-product flows work together offers enormous value in the analysis and design phases of any "IT" project.

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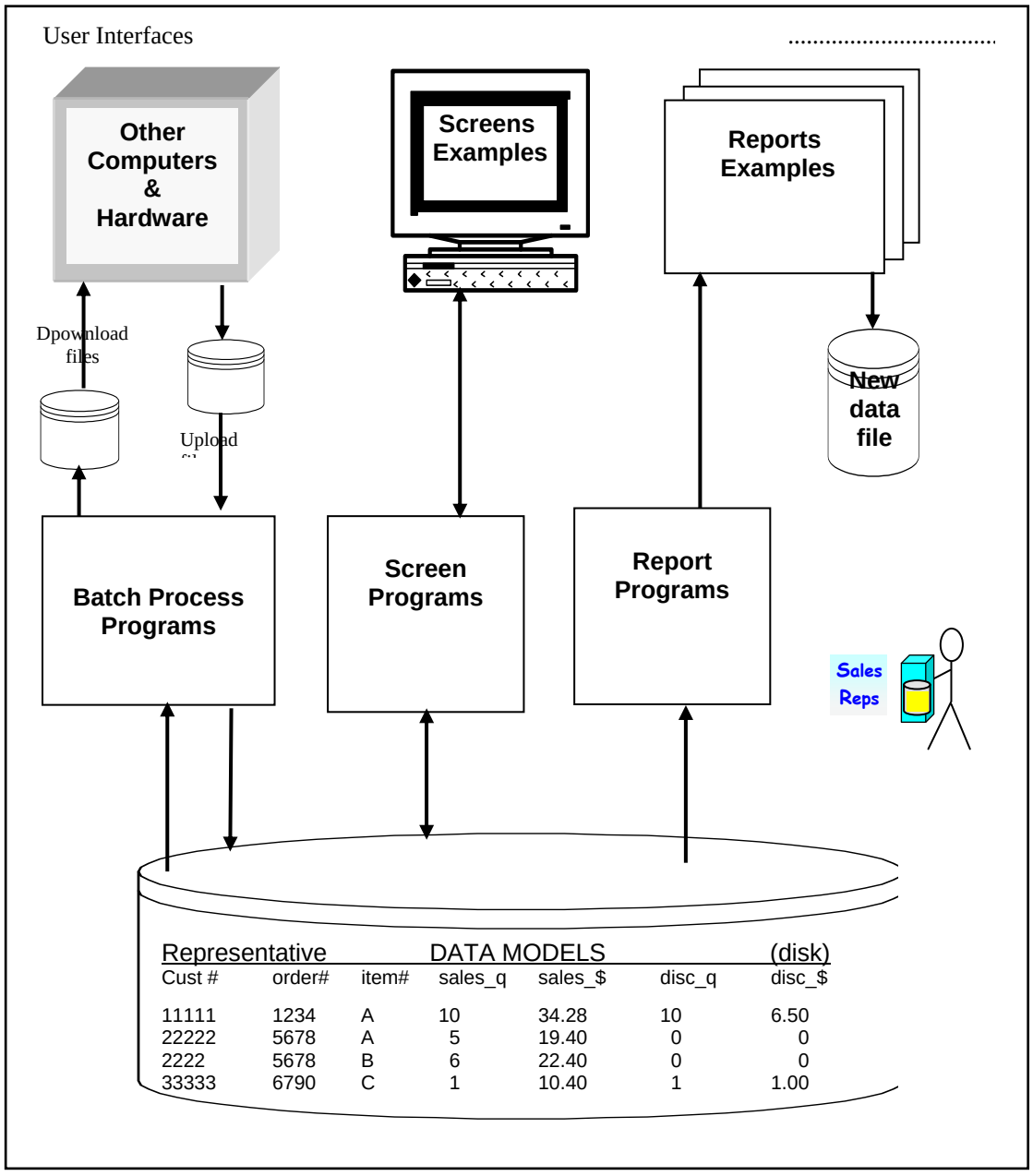

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The goal of **Lean production** is described**: "**to get the right things to the right place at the right time, the first time, while minimizing waste and being open to change**"**.

Lean production is an assembly-line manufacturing methodology developed originally for Toyota - known as the Toyota Production System. Engineer Ohno, credited with developing the principles of lean production, discovered that in addition to eliminating waste, his methodology led to improved product flow and better quality. Lean's Integrated Problem Solving starts with getting everyone on **the same page** from the very beginning of a project. All players including architects, designers, developers, testers, operations people, maintenance folks, help desk staff, and most important end-users use big picture **ROADMAPS** to support understanding and encourage regular feedback. Always in the present, is a generally accepted notion that continuous improvement rules during the development phases and throughout the lifetime of the system**.** Frequent and small releases of working systems will quickly prove the business value of new software, and start the ROI clock ticking as early as possible**.**

The first step in **Lean** projects begins with by visually mapping out your current and proposed business processes. **V**alue **S**tream **M**apping is an excellent visual tool for discovering the sources of waste and inefficient processes in the current state and the newly planned future state. The development team creates visual roadmap models to test and confirm proposed design ideas and solutions.

All critical core processes and requirements are continuously walked thru the proposed systems with both flow and efficiency in mind. Many opportunities for improvements will naturally unfold**.** Toyota continuously focuses on improving current state response times and making sure future + state production systems are capable of immediately changing and adapting to market demands. The principles of lean production enabled a company to deliver on demand, minimize inventory, maximize use your multi-skilled employees, flatten the management structure, and focus resources where they were needed.

VISUAL MODELING TECHNIQUES™ – A DESIGN PHILOSOPHY USING SIMPLE MODELING TECHNIQUES TO ILLUSTRATE PAST – CURRENT - FUTURE STATES

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Typical USERS of VMT™

CUSTOMERS (actual end-users of the product)

DESIGNERS (requirements gathers and designers)

BUILDERS (software development engineers)

MANAGERS (including executives)

Typical BENEFITS of VMT™

Communication in a simple straight forward fashion is achieved

Getting all interest parties "on the same page" is a big win!

Common diagrams and symbols used to make all players aware

Vastly improved level of communication amongst all the players

Stakeholders and developers are far more likely to have successful projects

VMT™ road mapping techniques quickly helps you - visualize the problem

VMT™ road mapping techniques quickly help you ... visualize the solution

VMT™ MODELING GUIDE

HOW TO VIDEO + BOOKLET

to be released

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