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the **LavaCon** Conference on  
**Advanced Technical Communication  
and Project Management**

# Using Metrics to Estimate Documentation Projects

Presented by Paul Mueller  
([paul@useraid.com](mailto:paul@useraid.com))


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## Who Needs Reliable Project Estimates?

- **Managers** – Team resource planning and budgets
- **Team Members** – Buy-in and realistic commitments
- **Consultants** – Business depends on it

With reliable estimates, can make business decisions  
... can say a project will cost “No more than ...”



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## Why Develop and Use Metrics?

### Issues with SWAGs and gut-level feeling:

- Inconsistent, difficult to reproduce estimates
- Hard to train team members to estimate projects
- Unsure of commitment levels
- Hard to defend estimates



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## What Are Metrics?

- Metrics are ways to quantitatively assess and measure a process.
- A metric includes:
  - How the measurement is calculated
  - Range of values considered normal
  - Target value
- Metrics (key performance indicators) are used to track trends, productivity, resources, etc.

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## What Will We Talk About?

- Common problems with estimating projects
- What we need for reliable estimates
- Prerequisites for metrics-based estimating
- Process: Estimating a project
- Example scenarios
- Ways to extend and enhance this approach

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## Common Problems: Underestimating

**Myth: Estimate the time it would take me to do it...**

- What knowledge/experience does the team have?
- What relationships does the team have?

**Myth: Estimate 40 hours a week of work...**

- What about meetings, breaks, other commitments?
- What about vacation/holiday/sick time?
- Is overtime a consideration?

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## Common Problems: Overestimating

**Myth: A book takes 60 days to produce...**

- How many pages will actually change?
- What type of source/knowledge is available?

**Myth: A product requires 1 writer per 7 developers...**

- Where in its lifecycle is the product (new, maint.)?
- How efficient is the development team?
- Does the product have many/elaborate UIs?
- Does the product have complex concepts?

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## What Do We Need?

- **Reliable/repeatable metrics for defined units of work that we can use as a base for estimating**
- **Flexible model to adjust as we learn and as our team or environment/process changes**
- **Common ways to adjust processes that reduce metrics (fewer reviews, different personnel,...)**
  
- **We use Excel to plan/review/evaluate/learn... could use Microsoft Project or other tools**

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## Collecting Prerequisites

### Define standard deliverables

- **Books (User Guide, Admin Guide, Install Guide...)**
- **Help (chm file, WebHelp, ... converted content)**
- **Embedded Help (field descriptions, UI content, ...)**
- **Release Notes / README file**
- **White Papers and Technical References**
- **Autorun**
- **Product Preview (sales demo)**

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## Collecting Prerequisites

### Define standard processes (repeatable):

1. **Complete project definition and task analysis.**
2. **Create an outline for review.**
3. **Create First Draft (70% done, all topics identified, Info Dev team review).**
4. **Create Approval Draft (95% done, full review).**
5. **Create Quality Edit (100% done, final ID review).**
6. **Produce final deliverable files.**

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## Collecting Prerequisites

### Identify common units of work

- Write a page, task, or topic.
- Create a deliverable, such as Release Notes.
- Perform a specific task during a project, such as:
  - Editing a topic
  - Incorporating review comments
  - Converting content to Help

**Small chunks are easier to accurately estimate**

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## Collecting Prerequisites

### Find starting metrics for each unit of work:

- Estimate from previous projects.
- Estimate from a small sample set/task.
- Ask others and start with their standards:
  - Hackos; *Managing Your Documentation Projects*
  - Mueller: 6hr / 4hr / 2hr

**Adjust your metrics as you learn**

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## Process: Estimating a Project

- List tasks based on units of work & estimate
- Compare estimate with gut-level (OK?, review?)
- Record actuals, variances, actions outside process
- Compare actual to estimate... decide why different
- Adjust metrics for future, if needed
  - By unit of work
  - By personnel (experience, ramp time, ...)
  - By client or development team (dynamics, requirements, ...)

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## Example Scenario 1

- **Deliverables:**
  - User Guide (about 100 pages)
  - Help (from converted User Guide content)
- **Process: Outline and 3 reviews (1 external review)**
- **Units of work and metrics:**
  - 6 hr / new page, no source or knowledge
  - 4 hr / reworked page, some source or knowledge
  - 2 hr / revised page, good source or knowledge
- **Estimate: 600 hours (no source/knowledge)  
400 hours (some source/knowledge)**

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## Example Scenario 2

- **Deliverables:**
  - User Guide & Help (add new features to User Guide)
  - Feature overviews for Web (2 pages)
  - Estimate # of pages based on similar features in book OR Estimate # of concepts, tasks, & reference topics
- **Process: Outline and 3 reviews (1 external review)**
- **Units of work and metrics:**
  - 6 hr / new page, no source or knowledge
  - 4 hr / reworked page, some source or knowledge
  - 2 hr / revised page, good source or knowledge
- **Estimate: 124 hours  
(20 new pages + 2 revised pages)**

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## Example Scenario 3

- **Deliverables:**
  - Window descriptions (100 windows; add to converted Help)
- **Process: Build file structure, 1 content review**
- **Units of work and metrics:**
  - 3 hr / window help topic with common questions format
  - 1.5 hr / window help topic, general description format
- **Estimate: 300 hours  
(see next slide - embedded window description)**

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## Embedded Window Description

Cisco Secure PIX Firewall Module: Configuration Group - Release Build

**Monitor Cisco Secure PIX Firewall**

Specify the monitoring tasks which you would like Security Manager to perform on your Cisco Secure PIX Firewall environment.

Collect performance data

Alert on configuration changes

Trusted firewall configuration file name (such as C:\Template.txt):

Backup firewall configuration

Backup file name (full path such as C:\Backup.txt):

Details: [Open Details in new window](#)

Specify the following options for Security Manager to perform on your Cisco Secure PIX Firewall environment.

**Common Questions**

- [When should I collect performance data?](#)
- [When should I alert on configuration changes?](#)
- [When should I back up my firewall configuration?](#)
- [How do I configure performance data collection, alerts on configuration changes, and configuration backup files for multiple firewalls?](#)

**Field Descriptions**

- [Collect performance data](#)
- [Alert on configuration changes](#)
- [Trusted firewall configuration file name](#)
- [Backup firewall configuration](#)

Go to... Apply < Back Next > Exit

Integrated text for guidance

Details pane with common questions for concepts and decisions

Expandable field descriptions

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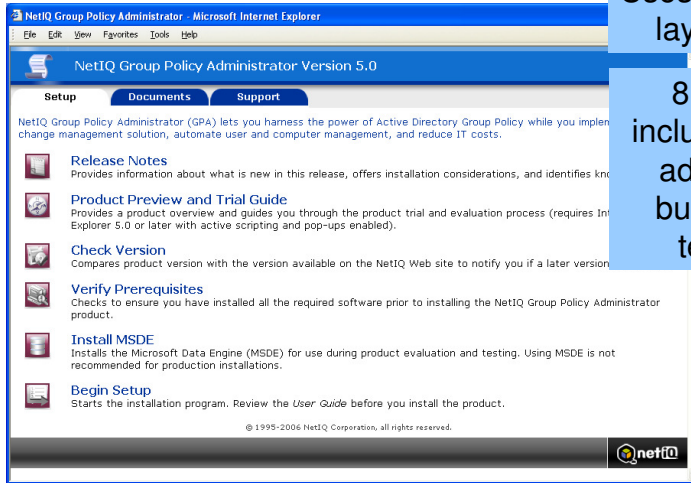
## Example Scenario 4

- **Deliverables:**
  - Release Notes
  - Autorun
  - Product Preview Sales Tool
- **Process: Create and 1 review**
- **Units of work and metrics:**
  - 24 hr / release notes
  - 8 hr / autorun
  - 100 hr / product preview, if have messaging & tour outline
- **Estimate: 132 hours (see next 2 slides)**

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# Autorun



Uses standard layout file

8 hours includes text, adding to build, and testing



# Product Preview Sales Tool



Uses standard layout files

100 hours includes about 20 topics with navigation



## Example Scenarios – Adjustments

### Ways to adjust estimates:

- More experienced team members may have different metrics, such as 4hr/3hr/2hr
- Eliminate First Draft review and comments for experienced members, reduce to 5hr/3hr/2hr
- Change deliverable formats to those with less time requirements, such as basic window descriptions instead of embedded Help with common Q&A
- Scope project to limit areas of new learning
- Get source to rework (from SME can help)

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## Example Scenarios – Potential Issues

### Potential issues to consider:

- Small projects need time to learn product/project
- Will features change or be added/removed
- How does team work (late comments, extra reviews, remote members)
- Will there be dead time in cycles (waiting for comments, UI milestones, specs)
- Vacation/holiday/sick time

Adjust metrics or add items (ramp time...)

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## Extend and Enhance This Approach

- Create printable project summary page
- Create schedule chart with % time commitment
- Add items for complete hand-off packet
  - Goals
  - Resources. SMEs, team members and roles
  - List of stuff to do (LSD)
  - Audience definition
  - Usability and graphics information
  - Other related projects

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A background image of a city street at night with buildings and streetlights. The 'LavaCon' logo is in the top left corner.

# Thank You

The UserAid logo is positioned on the left side of the slide.

*Delivering*  
**information**  
*when and where*  
**users need it**

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