Web Metrics

Measuring the Mountain
with a Yardstick

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Topics

- What Differs in Web Metrics
- Our Information Base
- What is Profiling?
- What We Get Out of Web Metrics

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Setting Goals

- ## Know your Audience
  - Who are your clients?
  - Who is using your site?

- ## Know your Targets
  - Do you want visitors? Clients? New Clients?
  - How many of each?

- ## Know Yourself
  - Where does your company need to improve?
  - What does your company want to promote?

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The Old and the New

- ## Standard Metrics
  - Improve the Development Process
  - Improve Software Estimating
  - Improve Project Tracking
  - Decrease Schedule
  - Decrease Development Costs
  - Improve Software Quality
  - Improve Software Performance
  - Improve Productivity

- ## Additional Web Metrics
  - Improve Usability
  - Improve Software Performance
  - Minimize Schedule
  - Improve User Satisfaction

Author's Note: Web Metrics are a refinement of standard metrics; all of the standard metrical analyses also apply to web development

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How we got our numbers

- Standard Metrics
    - Where do we get our numbers?
    - How do we use our numbers?
        - Development Improvement
        - Testing Improvement
   - Structural Improvement

- Management
- Bug Tracking
- Documentation
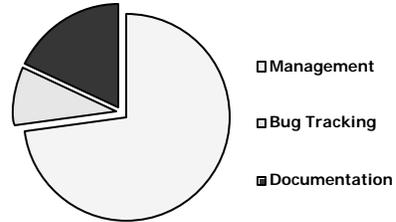
Author's Note: Now that we know what we know about software development and acceptance we can redefine metrics as not just a development tool, but an integrated tool to improve process, product and service.

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How we can get our numbers

- Web Metrics
    - Where do we get our numbers?
        - More direct input from users
        - Indirect information from servers
        - Data sources on line

- Management
- Bug Tracking
- Documentation
- Users
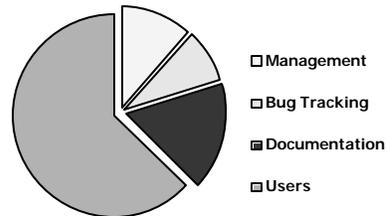
Author's Note: It is increasingly common for centralized data stores, such as statmarket, to gather logs from thousands of contributing organizations, greatly increasing the amount of data we have at our disposal.

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Where we get what

- http://www.statmarket.com/
- http://www.webcmo.com
- http://www2.emarketer.com/account_manager.php
- http://www.netratings.com
- http://www.nua.ie/surveys/index.cgi
- http://www.internet.com
- http://www.wilsonweb.com/webmarket/
- http://www.cc.gatech.edu/gvu/user_surveys/
- http://www.thestandard.com/metrics/?tab
- http://www.Cyberatlas.internet.com
- http://www.mediametrix.com
- http://www.forrester.com
- http://www.emarketing.com
- http://www.nist.gov/webmetrics
- http://www.business2.com/articles/mag/0,1640,145
94,FF.html

- Online sources
  - Free Sources
  - Paid Sources

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What we already have

- Information that is being collected automatically
  - Server Logs

    ```
    172.16.1.18 - - [17/Apr/2001:15:18:32 -0400]
    "GET /images/2a.gif HTTP/1.1" 200 1708
    "http://tplus1central1.dkl.com/" "Mozilla/4.0
    (compatible; MSIE 5.5; Windows 98)"
    ```
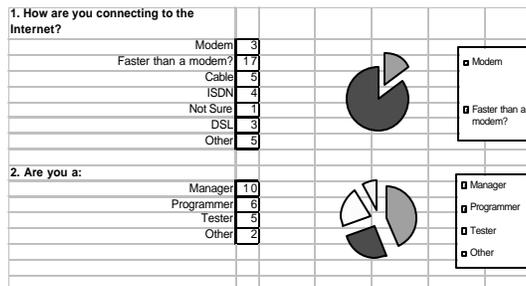
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Breaking it down

- ## What it is
  - **172.16.1.18**(the IP address)
  - **[17/Apr/2001:15:18:32 – 0400]**(time/date stamp)
  - **GET /images/2a.gif HTTP/1.1** (the action)
  - **http://tplus1central1.dkl .com/**(the referring URL)
  - **Mozilla/4.0 (compatible; MSIE 5.5; Windows 98)**(the client)

- ## What it tells us
  - Where they are coming from
  - When they got this item
  - What item they retrieved
  - Where did they come from
  - What browser/operating system they used

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Where we get what (cont.)

- ## Direct User Input
  - Surveys
  - Contests
  - Feedback forms
  - email
  - Beta testing

1. How are you connecting to the Internet?

Modem	3
Faster than a modem?	17
Cable	5
ISDN	4
Not Sure	1
DSL	3
Other	5

- Modem
- Faster than a modem?

2. Are you a:

Manager	10
Programmer	6
Tester	5
Other	2

- Manager
- Programmer
- Tester
- Other

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Profiling the users

- ## What is Profiling?
  - Online profiling: the technique of tracking Web surfers' movements to better determine their usage patterns
  - Constructing "typical" users based on gathered information

- ## What is it used for?
  - Primarily used for marketing and sales
  - Can be used to identify groups of users for testing purposes
  - It is a combination of external and internal information
  - Brings up privacy issues

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Privacy

- ## Privacy Dos
  - Testing and Sales/Marketing must agree on a privacy policy for customer info
  - Policy must be posted to the web
  - Information on profiling use must be included

- ## Privacy Don'ts
  - This information should not be used for any purposes other than those described in the privacy policy
  - Information should <u>NEVER</u> be given away or sold
  - Information should be anonymous

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How do we use the information?

- Structural Info
  - Baseline Client Environment
  - Preferred Client Environment
  - Bandwidth Supported
  - Resolutions Supported
  - Colour Depth Supported
  - Server Requirements
  - Plug-ins Necessary
  - Create Test Environment(s)

Author's Note: We can use outside information on general web usage to describe our baseline client machine, and augment this with site specific data collected from our users to define our preferred configuration.

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How do we use the information?

- Functional Info
  - What information to provide
  - How it is to be presented
  - Defining Primary & Secondary users
  - Building a community

Author's Note: With the acute need for user feedback in development and maintenance of web-based products, user issues have finally made inroads to development itself.

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Conclusion

- ## What we measure
  - What people use
  - What people want
  - How people group
- ## What we learn
  - What data to collect and use
  - How to use it effectively
  - When it should be done

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Conclusion

Thank you for attending

If you would like more information on this subject,
please visit
conference.dkl.com
for our online testing conference

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