Benchmarking & IT Performance

A partnership with the International Software Benchmarking Standards Group

ISMA - 09/12/2006

Dan Bradley – Tony Rollo
IT Performance Committee

• Provide services, based on a collection of software metrics data, that assist IFPUG members to understand, plan, manage, and improve software engineering processes and practices.

• Spread the use of software benchmarking within the IT industry.

• Enable the use of Function Points in estimation.

• Support IFPUG’s commitment to ISBSG.
ITPC Members

- Loredana Frallicciardi - Director
- Dan Bradley – Chair
- Wendy Bloomfield
- Christine Green
- David Herron
- George Mitwasi
What Is Benchmarking?

“A standard by which others may be measured” Webster’s Dictionary

“A continuous, systematic process for an organization to compare itself with those companies and organizations that represent excellence.” IFPUG
Why Benchmarking?

- You must know where you are to get where you are going.
- Common Language
- Understanding your process
- Process Improvement
- Searching for excellence
- Setting expectations
What to Benchmark

- Project Size
- Delivery Rate
  - Hours/FP
- Cycle Time
  - Time to deliverables
- Quality
  - Defects/FP
- Project Cost?
Benchmarking Prerequisites

- Metrics Program
  - Projects
  - Function Points
  - Time Reporting
- Comparison Data
  - Internal
  - External
How Can IFPUG Help?

- IFPUG - IT Performance Committee
  - Attributes Study
  - Estimation Class
  - Liaison to the International Benchmarking Standards Group
- IFPUG’s Membership in ISBSG
ISBSG - Tony Rollo

The International Software Benchmarking Standards Group

“Any project team anywhere in the world may, for reasonable cost, benchmark themselves against world’s best”
ISBSG Mission

“To help improve the management of IT resources by both business and government through the provision and exploitation of public repositories of software engineering knowledge that are standardised, verified, recent and representative of current technologies.”
To deliver the mission

The ISBSG creates, builds, grows maintains and exploits two databases (Repositories) of data on software projects and maintenance & support applications.
Principles of ISBSG

- Principles of Evolution
  - independence
  - data integrity
  - anonymity
  - practitioner driven
  - practitioner accessible
  - not for profit
International Membership

Current membership:
- Australia, China
- Finland, Germany, India
- Italy, Japan, South Korea
- Netherlands, Spain, Switzerland,
- United Kingdom, USA(IFPUG)
ISBSG Repositories

A new body-of-knowledge with the potential to transform the processes, relationships and structure of the Software Engineering Industry
The ISBSG Development Repository - Positioning

- Probably represents top 25% of industry
- Now has more than 4,000 projects
- 50% since 2001
- Data from a wide range of countries, organisations, application types and development types
Development Repository

Country of origin

Number of projects

- USA
- Japan
- Australia
- Finland
- Canada
- Netherlands
- Brazil
- UK
- India
- Denmark
- Germany
- Malaysia
- Italy
- Other
- Unknown

Number of projects:
0 200 400 600 800 1000 1200
Development Repository

![Organisation type chart](chart.png)
Development Repository

![Bar chart showing the number of projects for different language types: 3GL, 4GL, ApGen, and 2GL. The chart indicates that 3GL has the highest number of projects, followed by 4GL, ApGen, and 2GL.]
ISBSG Products & Services (Present)

- Corporate & individual subscriptions
- Special Analysis Reports
- Project Benchmarking Service
- Organisational Benchmarking Service
- The Benchmark Publications
- The Data CD
- Practical Project Estimation (book)
- The Software Metrics Compendium (book)
- Estimation Course (material for members)
- Data available for research
- Benchmark Draft Standard (Beta)
By using the Repository, businesses and developers now have capabilities to:

- Estimate size, effort, cost, duration
- Verify completeness of requirements
- Be aware of project risk – check reality of estimates
- Manage the progress of projects
- Benchmark their performance
- Acquire custom-built software on a price per functional unit basis
Summary - ISBSG Strengths

- Not profit motivated
- Provides Project Benchmarking
- Allows direct access to the data
- Allows networking
- Broad representation of IT
  - technologies, organisation types, geography
- International based standard
IFPUG/ISBSG
The IFPUG/ISBSG Relationship

- **IFPUG**
  - Member/supporter
  - Major project contributor
  - Ideas

- **ISBSG**
  - Maintain repository
  - Assure anonymity of contents
  - Provide research, products, services
IFPUG’s Role in ISBSG

As the Leading Metrics Organization:
- Protect your Metrics Investment
  - 82% of submitted projects utilize IFPUG Function Points
- Enhance Membership Value

As a “Charter” Member of ISBSG:
- Provide Ideas and Support
- Encourage Project Submissions
- Market ISBSG Products
ISBSG Repository FSM Distribution

- IFPUG 82%
- FiSMA 9%
- DASMA 4%
- COSMIC 3%
- MK II 1%
- Other (LOC etc) 2%
Your Role as an IFPUG Member

- Leverage your IFPUG membership
  - Understand Committee Activities
  - Member Discounts
- Utilize the ISBSG Repository and Products
- Submit projects to the repository
- Leverage your Metrics Program
The Process

To Obtain ISBSG Products:

- Preview Products at the Conference or on the WEB
- Talk to IT Performance Committee
- Talk to ISBSG (Tony, others in attendance?)
- Order Products through the IFPUG Office
- Get IFPUG member Discount
The Process

- Submit Projects:
  - Use the ISBSG collection form available on the WEB.
  - ISBSG will convert project data already in electronic form and load it into the Repository.
  - Make sure that you indicate that you are an IFPUG Member
Benefits of submitting projects

- Free Project Benchmark Report
- Free ISBSG publications for 5+ projects
- Free copy of the ISBSG Repository CD & free Benchmark report for 50+ projects
- Ability to benchmark your projects against others in the Repository
Benefits Summary

- Benchmarking Leverages your Metrics Program by assisting in:
  - Defining Performance
  - Assessing Performance
  - Choosing Directions
  - Estimating

- The ISBSG Relationship provides discounted access to THE International Repository and ISBSG products
Here’s Why!

“The bottom line is this: You can’t improve if you don’t know how you’re doing. And if you don’t know where you’re starting from, you can’t map a route to your destination.”

Dr. Howard Rubin
Thank You!

Questions & Comments