

# The IFPUG Software Measurement Certification

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Presentation to the PSM Technical  
Working Group

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# Background - 1

- International Function Point Users Group (IFPUG)
  - Non-profit, member-governed organization
  - Certified Function Point Specialist (CFPS) certification since 1993
    - Counting Practices Manual
    - Exam

# Background - 2

- IFPUG's Management Reporting Committee (MRC) is working on a software measurement certification for individuals
  - Two major pieces
    - Exam
    - Relevant experience
      - Accrue credits for different categories
- Certification does not rely on detailed knowledge of function points

# Important Caveats

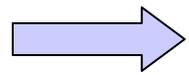
- Certification rules and procedures are still under development
  - e.g., still discussing name
    - Software Measurement
    - IT Measurement Practitioner
- Nothing said here is official
  - official information will be on IFPUG website



# Three Certification Levels

- Entry
- Intermediate
- Advanced
- One-time written exam

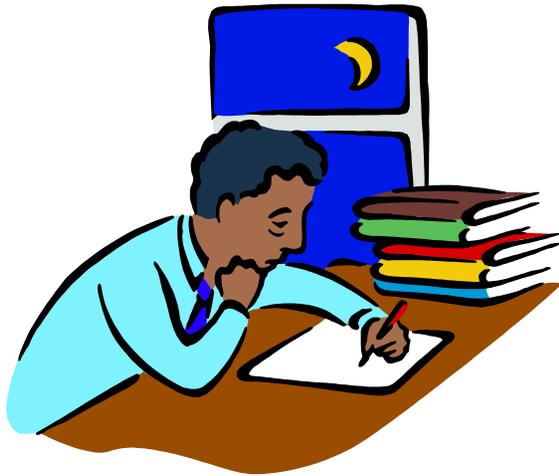
# Topics



- Exam
- Relevant Experience
- Schedule

# Exam

- Based on updated “Guidelines to Software Measurement”
  - IFPUG publication currently under revision
  - Serves as the Book of Knowledge for the exam



# Guidelines to Software Measurement

- Topics Covered
  - Measurement Frameworks (PSM, GQM)
  - Measurement and Process Improvement
    - CMMI, SW-CMM
  - Planning, Implementing, Sustaining and Evaluating a measurement program
  - Measuring:
    - Size (FP, SLOC, other)
    - Schedule
    - Effort and cost
    - Quality
    - Customer satisfaction
  - Other Topics
    - Estimation
    - Benchmarking

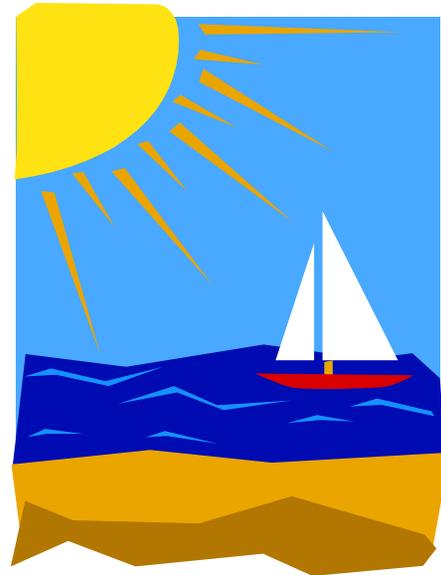
# Help Wanted!

- We are looking for volunteer authors and reviewers
  - Reviewers for all topics
  - Author(s) for
    - Sizing chapter



# Exam

- First offering: September IFPUG conference
  - Week of September 19, 2004
  - San Diego



# Topics

- Exam
-  • Relevant Experience
- Schedule

# Relevant Experience

- In addition to passing the exam, candidates must submit a package outlining relevant experience
- Accrue points for different types of experience

# Experience Categories

- Work Experience (40%)
- Education (both IFPUG and non-IFPUG) (25%)
- Professional Participation (both IFPUG and non-IFPUG) (15%)
- Publishing (10%)
- Teaching (10%)

# Accruing Experience Credits

- For Entry-Level certification
  - Must earn credits from Work Experience, Education, and at least one other category
- For Advanced-Level certification
  - Must earn credits from all five categories

# Category 1: Work Experience

|                              | Plan | Design | Implement | Sustain | Administer | Evaluate | Analyze | Report | Mentor |
|------------------------------|------|--------|-----------|---------|------------|----------|---------|--------|--------|
| <b>Tools</b>                 | 20   | 20     | 20        | 20      | 20         | 20       |         |        | 1 pch  |
| <b>Process</b>               | 20   | 20     | 20        | 20      | 20         | 20       |         |        | 1 pch  |
| <b>Software Measurements</b> |      |        |           |         |            | 20       | 80      | 40     | 1 pch  |

- Plan** - to meet with Executives and/or Sponsors to identify the steps and actions necessary to establish a software measurement program  
 - also means defining a strategy for deploying a software measurement program such as pilots and incremental improvements
- Design** - to define software measurement architecture, database, access controls, data integration, and “drill down” capability as well as the tools, techniques, processes, and/or procedures based on software measurement plan
- Implement** - carry out and fulfill the software measurement plan
- Administer** - provide guidance for the program and its practitioners – a “help desk” like service for the software measurements
- Report** - not the act of generating reports – rather, to interface with users and middle and upper management

**pch: per contact hour**

# Category 2: Education

|   | Attend | Complete | Obtain |
|---|--------|----------|--------|
| <b>Eligible IFPUG Presentation and Training</b>     | 2 pch  |          |        |
| <b>Eligible non-IFPUG Presentation and Training</b> | 1 pch  |          |        |
| <b>Software Measurement Course</b>                  |        | 2 pch    |        |
| <b>Industry Certification</b>                       |        |          | 50     |

- Attend** - Be present at a qualifying event  
**Complete** - Finish, with evidence of completion, a qualifying event  
**Obtain** - To be awarded (or re-awarded) an industry-recognized certification

Note: Function-point courses and certifications do not count  
- this is separate from the function point certification

PSM TWG or Users Conference fits under “Eligible non-IFPUG Presentation and Training”

PSM course fits under “Software Measurement Course”

Example of Industry Certification is Project Management Professional (PMI)

**pch: per contact hour**

# Category 3: Professional Participation

|  | <b>Attend</b> | <b>Chair</b> | <b>Serve</b> |
|--|---------------|--------------|--------------|
| <b>Software Measurement Related Group Meetings – IFPUG</b>     | 2 pch         | 2 pch        | 2 pch        |
| <b>Software Measurement Related Group Meetings – non-IFPUG</b> | 1 pch         | 1 pch        | 1 pch        |

Note: PSM fits under “non-IFPUG”

**pch: per contact hour**

# Category 4: Publishing

## (Software Measurement related)

|                                  | Author / co-author | Contributing Author | Expert review | Expert Edit | Translate |
|----------------------------------|--------------------|---------------------|---------------|-------------|-----------|
| <b>Book</b>                      | 80                 | 40                  | 30            | 20          | 80        |
| <b>Refereed Article</b>          | 40                 |                     | 20            | 20          | 20        |
| <b>Non-refereed article</b>      | 20                 |                     |               |             | 20        |
| <b>Software Measurement Exam</b> | 20                 | 20                  | 20            | 20          | 40        |

- Author** - The person who solely writes an original piece of work. The author's name appears alone on the work.
- Co-author** - The person who with another or others, writes an original piece of work. The authors' names appear (usually on the front) of the work.
- Expert review** - The person who is sought because of their knowledge and background in a topical area, to make technical suggestions, or in some cases to reject, to an original piece of work.
- Expert edit** - The person who is sought because of their knowledge and background in a topical area, to make technical changes to an original piece of work.
- Translate** - To transform the complete contents of one document into a different language.

# Category 5: Teaching

|                                   | Author/ Co-Author | Teach | Present (at IFPUG) | Present (not at IFPUG) | Obtain Teaching Certification |
|-----------------------------------|-------------------|-------|--------------------|------------------------|-------------------------------|
| Software Measurement Course       | 1 pch             | 2 pch |                    |                        |                               |
| Software Measurement Poster       |                   |       | 10                 |                        |                               |
| Software Measurement Presentation |                   |       | 2 pch              | 1 pch                  |                               |
| Software Measurement Program      |                   |       |                    |                        | 80                            |

Note: Obtaining PSM teaching certification earns 80 points

**pch: per contact hour**

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# Issues Under Discussion

- Number of credits needed for each level of certification
- For any given activity, maximum number of per-contact-hour (pch) credits that can count toward certification
- Whether IFPUG membership will be required
- Cost of certification



# Committee Members

- Janet Russac, The David Consulting Group – Chair
- Joe Schofield, Sandia National Labs - Vice Chair
- Barbara Beech, AT&T
- Heidi Belkofer, Accenture
- Betsy Clark, Software Metrics, Inc.
- Dawn Coley, EDS
- Shiela Dennis, DFAS (retired)
- Bill Hufschmidt, Development Support Center, Inc.

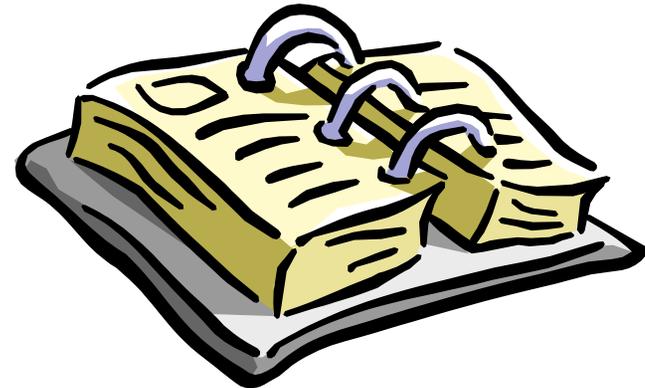
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# Schedule

- April 2004 Workshops that can earn credits at IFPUG Orlando
  - April 18<sup>th</sup> to 21<sup>st</sup>
- June 2004 Publication of the updated “Guidelines to Software Measurement”
- Sept 2004 Workshops and presentations that can earn credits at IFPUG San Diego
- Sept 2004 First exam given at IFPUG San Diego
- Late 2004 Begin working with other industry organizations to include their classes and presentations for earning credits



# Procedure for Obtaining Certification

- First – pass exam
- Second – submit package to IFPUG's Management Reporting Committee (MRC) demonstrating required credits
  - 90-day turn around in notifications
- Exam is taken one time
  - Even if you later apply for more advanced certification level

# Major Objective: Encourage Participation from a wide community

- Detailed knowledge of function points not required
- Credit can be earned from presentations and training outside of IFPUG

# Stay Tuned



[www.ifpug.org](http://www.ifpug.org)

# For More Information

- Janet Russac – chair  
email: [jrussac@comcast.net](mailto:jrussac@comcast.net)
- Betsy Clark  
email: [Betsy@software-metrics.com](mailto:Betsy@software-metrics.com)