

**Certified Software Development Professional**

*Candidate  
Information Bulletin  
2003*



*Doing Software Right™*

## Computer Society Vision

More than 50 years ago, the IEEE Computer Society established itself as the leading association for computing professionals worldwide. Today there are nearly 100,000 members in over 157 countries. The Computer Society strives to be the leading provider of technical information and services to the world's computing professionals.

The explosion of technology advancements created an explosion in certification programs – many directed to computer professionals as well as to millions of technicians. The need to transform knowledge into performance and competitive advantage spurred the growth of certification.

On the front lines of this fast-moving, rapidly evolving scenario are software engineering professionals who have witnessed a handful of certifications offered in the 1960's grow to more than 2000 by software companies and vendor-independent organizations.

As the art, science, engineering, and technology of software advanced into the 1990's, the need for a professional credential, of the highest value and distinction, became evident.

After more than three years of extensive research in the field among professionals, employers and their customers, the leaders of the IEEE Computer Society realized that the time had come to develop and offer the Certified Software Development Professional (CSDP) designation.

Three critical components of professional certification include:

- Exam-based testing demonstrating mastery of a Body of Knowledge (BOK);
- Extensive experience base in the performance of the work or profession being certified;
- Continuing professional education, measured and relevant to the BOK.

The CSDP is the only professional certification that has all of these critical components, plus the support of the Institute of Electrical and Electronics Engineers (IEEE), which has more than 365,000 members worldwide, all committed to the success of every professional who voluntarily decides to become a CSDP.

The CSDP is the only certification for computing professionals that carries the brand, reputation, and standards of the IEEE Computer Society. Certification brings important benefits:

- Demonstrates your understanding of all aspects of software engineering knowledge and practice.
- Gets you plugged in to the latest information in the field and gives you access to large networks of people that will help you perform at your best.
- Makes a statement that you possess specialized skills and expertise.
- Shows your commitment to expanding your knowledge to handle increasing responsibilities.
- Differentiates between you and others in a field that has every kind of credential, but only one that was developed by, for, and with software engineering professionals.

The CSDP examination was developed in collaboration with The Chauncey Group International of Princeton, New Jersey. This important program is part of the society's larger effort to provide education and certification services for the software engineering community.

The value of the CSDP is determined by what the experts say constitutes software engineering excellence and what the people in the field say is expected of them in their performance.

Throughout the year, in support of the certification program, the Computer Society offers education programs covering the principal content areas of the examination.

The challenge facing today's computing professional is to keep up with changes and anticipate opportunities to be the leader of change. New innovations, new developments and new methods of implementation are creating the environment in which software engineers must function.

There's no better time than today for completing the application for the CSDP examination and discovering the commitment that the Computer Society has in helping your advancement in the software engineering field.

## Table of Contents

### General Information

Why Certification is Important.....	4
What is the IEEE Computer Society? .....	4
How Was the Examination Developed? .....	4
Education and Experience Requirements.....	5
Proof of Professionalism .....	5
Application Completeness .....	6
Fees .....	6
Application Deadline .....	6
Determination of Eligibility .....	6
Cancellation and Refund Policy .....	6
Transfers Between Examination Windows .....	7
Substitutions .....	7
Examination Locations .....	8
Special Testing Accommodations .....	8
Authorization to Test.....	8
Scheduling Your Examination Appointment.....	9
Examination Appointment Cancellation Policy.....	10
Rescheduling an Examination Within the Same Examination Window.....	10

Identification Requirements.....	10
Examination Description.....	10
Examination Content Requirements .....	11
Cognitive Levels of Examination Items .....	12

### Examination Preparation Information

Self Study .....	12
Training and Education Sources .....	12

### Taking the Examination

The Day of the Examination .....	13
At the Test Center .....	13
Tips for Examination Taking.....	14
Examination Tutorial .....	14
Exit Survey .....	14
Candidate Misconduct .....	14

### After the Examination

Score Reporting .....	15
Duplicate Score Report.....	15
Interpretation of the Certificate .....	16
Length of Certification .....	16
Reviewing Test Results.....	16
Determination of the Recommended Passing Score .....	16
Score Dismissal.....	17
Revocation of Certification .....	17
Certification Renewal Requirements.....	18
Reporting of Credits .....	18
Approved Certification Renewal Activities .....	18

### Application

Application Instructions and Candidate Agreement .....	18
Form 1 – Application Form .....	20
Form 2 – Report of Education and Professionalism .....	21
Form 3 - Report of Experience.....	21

### Test Center Locations

Test Center Locations .....	22
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## General Information

### Why Certification is Important

The IEEE Computer Society, recognizing the importance of continuing education and the measurement of knowledge and technical competence, created the Certified Software Development Professional (CSDP) examination to help define and establish professional standards throughout the field of software engineering.

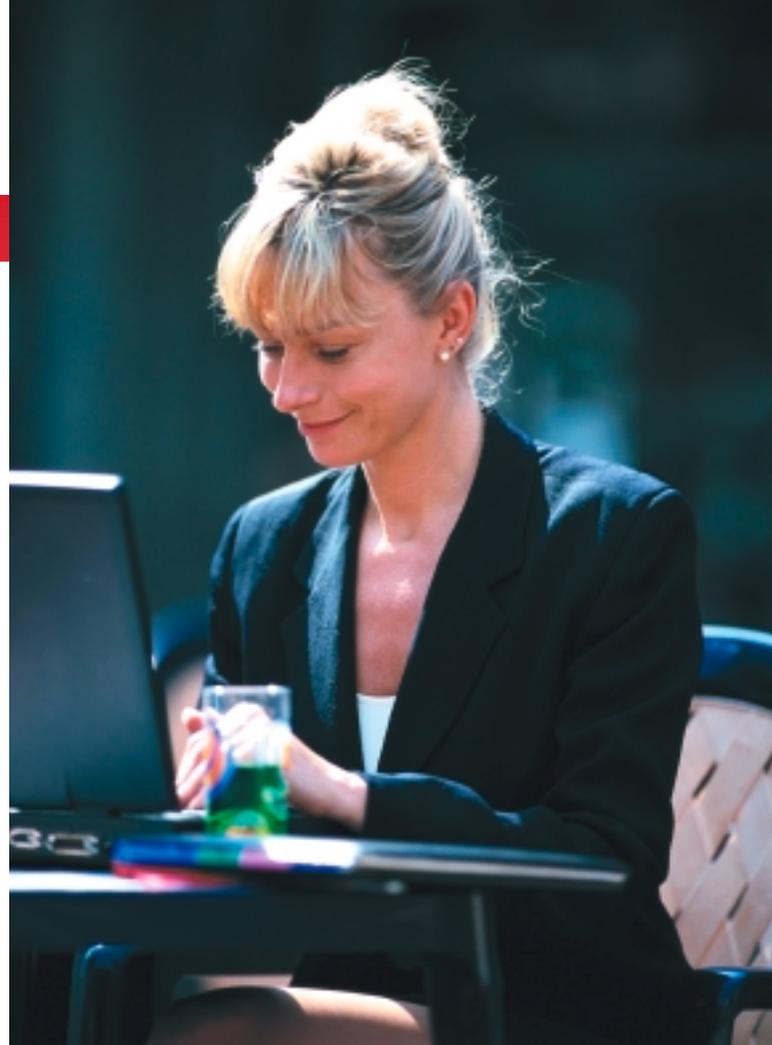
The demand for fully trained, competent software engineers has been increasing as the computer industry has expanded and systems have become more complex and sophisticated, requiring higher competence in building quality systems. The CSDP examination was constructed to assist in the establishment of a recognized discipline and to meet industry demands.

The CSDP examination was designed to measure an individual's mastery of the fundamental knowledge required to perform the functions of an experienced software engineer.

The impact of the CSDP credential on your career opportunities will grow as the industry increasingly attaches value to this designation. Each year, more and more employers are expected to seek individuals who have earned CSDP certification. Attaining this certification will provide a means of assessing your personal progress in your occupation and will serve as a motivator for continuing your education.

### What is IEEE Computer Society?

The IEEE Computer Society is the oldest and largest association of computing professionals in the world. It offers nearly 100,000 members a comprehensive program of publications, meetings, and technical and educational activities, fostering an active exchange of information, ideas, and innovation. The Society is the world's leading publisher of technical material in the computing field. No other professional or commercial organization comes close to matching the IEEE Computer Society in terms of quality, quantity, or diversity of its publications. The Society offers two prestigious publications in the software field, *IEEE Software* and *IEEE Transactions on Software Engineering*.



Headquartered in Washington, DC, the Society serves its members from offices in Los Alamitos, CA; Tokyo; Brussels; Budapest; Moscow and Beijing.

The Society is the largest technical society within the Institute of Electrical and Electronics Engineers, Inc. (IEEE). Further information about the IEEE Computer Society can be found at <http://computer.org>.

### How was the Examination Developed?

The CSDP examination was developed in collaboration with Chauncey Group International (CGI), a subsidiary of Educational Testing Service (ETS) of Princeton, NJ. CGI first worked with a group of industry experts to develop a Job Analysis Survey to discern the important knowledge and skills needed to be a CSDP.

The Test Specifications were devised based on information the Job Analysis Survey provided. A separate group of industry experts convened several times to develop, review, and confirm test questions for the examination. This multi-level review process assured that the test questions were accurate and

meet acceptable statistical criteria for difficulty and discrimination.

The examination was then beta tested by over 200 software engineering professionals around the world. The beta test validated the content of the examination and provided data necessary for establishing a passing score.

The IEEE Computer Society's CSDP examination meets testing-industry standards of fairness, validity, and reliability. These standards are defined as follows:

- An examination is fair when its contents neither favor nor discriminate against any individual or group due to ethnic background, geographic locale, practice setting, or other demographic criteria.
- Examinations are valid when they accurately reflect the knowledge and skills required for competent practice; and they are reliable when they yield consistent results over time.

### **The CSDP Resource Guide is available to assist you in preparing for the CSDP examination.**

#### *Software Engineering, Volume 1: The Development Process, Second Edition*

Richard H. Thayer and Merlin Dorfman

#### *Software Engineering, Volume 2: The Supporting Processes, Second Edition*

Richard H. Thayer and Mark Christensen

For more information and an order form, visit <http://computer.org/certification/csdpprep/resourceguide.htm>

## **Education and Experience Requirements**

Candidates applying for certification as a CSDP must satisfy the eligibility requirements.

### **Education**

At the time of application the candidate holds a baccalaureate or equivalent university degree.

### **Experience**

At the time of application the candidate has a minimum of 9,000 hours of software engineering experience within at least six of the eleven knowledge areas.

- I. Business Practices and Engineering Economics
- II. Software Requirements
- III. Software Design
- IV. Software Construction
- V. Software Testing
- VI. Software Maintenance
- VII. Software Configuration Management
- VIII. Software Engineering Management
- IX. Software Engineering Process
- X. Software Engineering Tools and Methods
- XI. Software Quality

The number of hours on the Report of Experience and Education Form must total at least 9,000 hours and software engineering assignment dates must indicate that the candidate has at least two years of software engineering experience within the four-year period prior to the application.

### **Required Supporting Documentation**

- 1) A current resume/curriculum vitae detailing work experience and educational background (please provide the name and complete address of all employers and schools attended).
- 2) A copy of diploma or transcript for baccalaureate or equivalent university degree.
- 3) Report of Education and Professionalism (Form 2)
- 4) Report of Experience (Form(s) 3)

## **Proof of Professionalism**

Operating as a software professional must reflect the growing demands for ethical and moral conduct that is present in other engineering professions.

## General Information, CONTD.

The CSDP will require review of a code of professional behavior as well as technical competency. Candidates are required to read and acknowledge that they have read the Software Engineering Code of Ethics and Professional Practice on page 23 of this brochure and sign the Code of Ethics Statement on the application form, acknowledging that they have read the Code of Ethics.

### Application Completeness

A completed application includes:

- General Registration Form (Form 1)
- Report of Education and Professionalism (Form 2)
- Report of Experience (Form(s) 3)
- A current resume/curriculum vitae detailing work experience and educational background (please provide the name and complete address of all employers and schools attended)
- A copy of diploma or transcript for baccalaureate or equivalent university degree
- Appropriate Fees

All applications and documentation must be provided in English.

### Fees

The CSDP examination registration fee has two components: the application fee, which is nonrefundable and nontransferable, and the examination fee. All fees must be paid in U.S. dollars.

#### IEEE or IEEE Computer Society Members

Application Fee	\$100
Examination Fee	\$250
Total	\$350

#### Non-Members

Application Fee	\$100
Examination Fee	\$350
Total	\$450

Information on joining the IEEE Computer Society can be found at <http://computer.org/join>.

### Application Deadline

Testing Window	Postmark Application Deadline
1 April - 30 June 2003	1 April 2003

Applications not post-marked by the Postmark Application Deadline date will be deferred to the next testing window.

Full payment must accompany all applications. Applications will not be processed without the required fees. Applications submitted by the deadline date, without full payment, will not be processed for the current testing window.

Applications can be sent via fax to the IEEE Computer Society at +1.202.728.0884, provided credit card information is listed on the application to process the application and exam fees. Applications submitted via fax must be received by the application deadline or the application will be deferred to the next testing window.

### Determination of Eligibility

Applications with full payment received by the application deadline will be forwarded to the Certification Department for a determination of eligibility. Please be reminded that applications received by candidates who have not fully satisfied the experience and education requirements will be determined ineligible. All eligibility requirements must be completed prior to the application deadline, not the start of the testing window.

### Cancellation and Refund Policy

The IEEE Computer Society must receive all requests for cancellation in writing. You may fax your notice to the Certification Department at +1.202.728.0884 or email it to [certification@computer.org](mailto:certification@computer.org). Cancellations may only be made by the candidate. Refunds, for examination fee only, will only be granted up to refund deadline. **NO EXCEPTIONS WILL BE MADE TO THIS POLICY.**

## General Information, CONTD.

Testing Window	Postmark Deadline for Refunds
1 April - 30 June 2003	1 April 2003

Candidates who request to cancel their examination registration by the appropriate date will be refunded the examination portion of their registration fee. The application fee is nonrefundable and non-transferable.

**Important:** Candidates must contact Prometric Test Center or the Candidate Services Call Center (CSCC) at +1.800.473.4481 to cancel their exam appointment. A penalty of \$150 will be assessed to candidates who do not cancel their exam appointments. Failure to cancel your appointment denies the opportunity for other candidates from the CSDP program or other certification programs to be scheduled at that time. The candidate's name will be forwarded to the IEEE Computer Society as a "no show" and the IEEE Computer Society will be charged for your appointment.

### Transfers Between Examination Windows

Candidates may transfer their current exam registration to another testing window within one year of the date of the testing window for which they are registered. Only one transfer will be permitted. Transfers must be requested in writing. A \$100 transfer fee will be assessed and must be included with the written request. Transfer request without payment will not be honored. The request must be postmarked by the transfer deadline. **NO EXCEPTIONS WILL BE MADE TO THIS POLICY.**

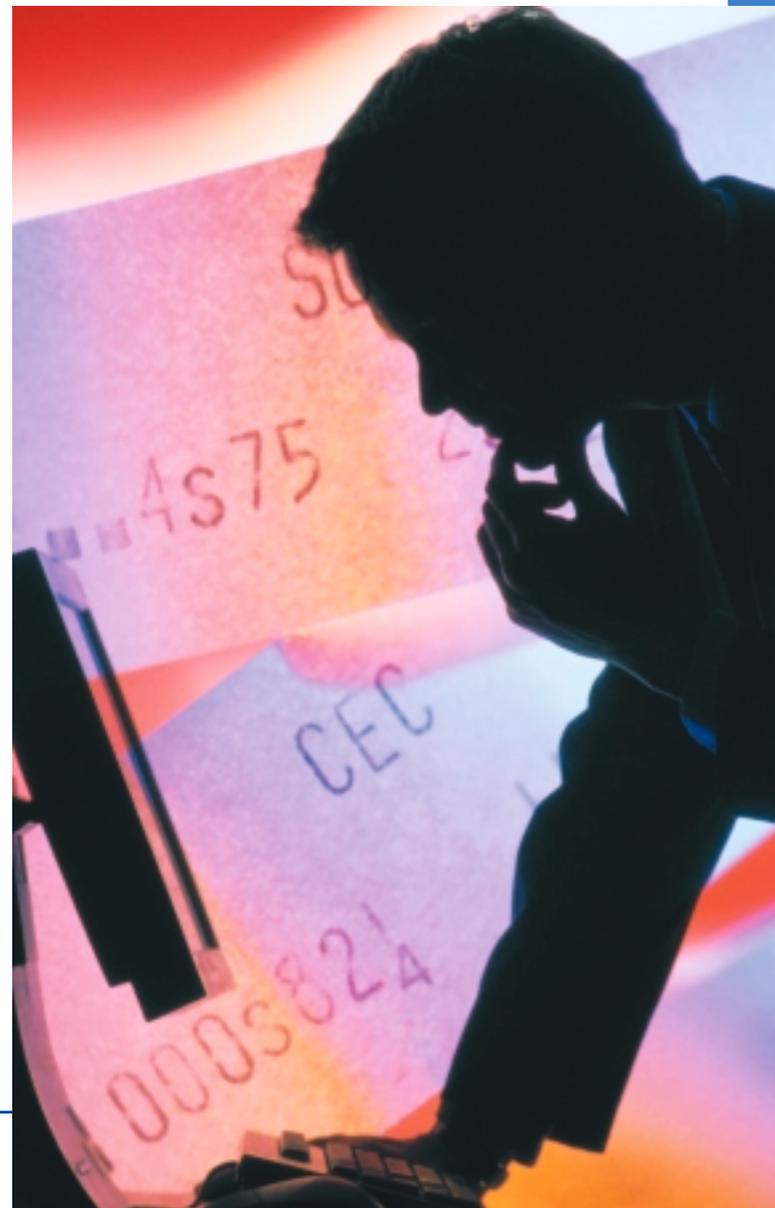
Testing Window	Postmark Deadline for Transfers
1 April - 30 June 2003	1 April 2003

In your request, indicate the testing window for which you have been confirmed and the testing window to which you are transferring.

You may fax your notice to the certification department at +1.202.728.0884 only if you provide credit card information. Indicate the credit card type, card number, expiration date and sign the request. Should you need to pay via check, you may mail your request to IEEE Computer Society, CSDP, Department 6006, Washington, DC 20042-6006, USA.

### Substitutions

No substitutions may be made for the CSDP examination.



## General Information, CONTD.

### Examination Locations

The examinations are administered through a network of more than 300 Prometric Testing Centers in cities throughout the U.S. and Canada. The CSDP examination is also offered in the following cities outside of the U.S. and Canada:

- Curitiba, Brazil
- Beijing, China
- Shanghai, China
- Budapest, Hungary
- Bangalore, India
- Dublin, Ireland
- Tokyo, Japan
- Moscow, Russia

A complete list of test centers can be found on page 22 of this bulletin and on the IEEE Computer Society web site at <http://computer.org/certification/CSDP/sites.htm>.

### Special Testing Accommodations

The IEEE Computer Society and CGI comply with the Americans with Disabilities Act (ADA) to mitigate the effects of a candidate's disability on the testing activity. To accommodate candidates with disabilities, the IEEE Computer Society and CGI will make reasonable modifications to its examinations that do not fundamentally alter the requirements of the examinations or the measurement of the skills or knowledge the examinations are intended to test.

A candidate who believes that he or she is disabled within the meaning of the ADA, and who requests an examination under nonstandard conditions, shall specify on (or in a supplement submitted with) the application form the existence, the specific nature and the extent of the candidate's disability and the specific modification requested. The candidate shall also submit either with the timely filed application, or not later than thirty days after the deadline for applying for a particular examination, all independent documentary evidence substantiating the individual's disabilities.

Documentation includes, but is not limited to:

- Name, address, telephone number and qualifications of each expert who provides a report documenting the candidate's disabilities.
- Dates and locations of all assessments performed and included in the documentation.
- Copies of evaluation reports with scores or ratings for each standard instrument or assessment method used. The IEEE Computer Society requires that this documentation be no more than three years old.
- A full description of any nonstandard instruments and assessments methods used to determine the disabilities and diagnoses.
- Any diagnoses of the individual's disabilities using standard nomenclature, i.e., International Classification of Diseases (ICD); American Psychiatric Association Diagnostic and Statistical Manual (DSM).
- A description of the individual's functional limitations due to any disabilities.
- Reports of any past accommodations on examinations the individuals received because of the disabilities.

The Computer Society and CGI will verify the documentation of the disability and reserves the right to have the individuals independently verified at their own expense.

In considering a request from an applicant for special accommodations, the IEEE Computer Society and CGI are guided by a sense of fairness. Special accommodations are granted to give an approved candidate the opportunity to be examined in an equivalent manner with other candidates, but not to provide an advantage over other candidates.

There is no extra charge for making these arrangements.

### Authorization to Test (ATT)

An Authorization to Test (ATT) will be mailed to you by CGI approximately two to three weeks after your application has been accepted.

This Authorization to Test (ATT) will contain your identification number, scheduling information and testing dates. Included with the ATT will be a listing of Prometric Testing Centers listing individual test sites in your area and their phone numbers as well as the CSCC phone number.

You must have the Authorization to Test before scheduling an appointment to take the CSDP examination.

Once you have received the ATT letter, you must schedule an appointment to test at any time during the period specified in the ATT letter. You may select any Prometric Test Center listed in the ATT to take the examination. A listing of the testing centers may also be found on the IEEE Computer Society web site at <http://computer.org/certification/CSDP/sites.htm> and on page 22.

### Scheduling Your Examination Appointment

Please follow these instructions when scheduling your appointment to test.

1. The ATT should be examined carefully. Your name, as it appears on your identification, **MUST** match the name the test center has on file. If any information is incorrect, contact the IEEE Computer Society at +1.202.371.0101, prior to making your appointment to test.
2. All U.S. and Canadian residents should first call the CSCC at +1.800.473.4481 or the test center of choice immediately upon receiving the Authorization to Test. The CSDP is not the only examination administered by Prometric Test Centers, and test center seats fill quickly. Residents outside of the U.S. and Canada must call the Prometric Test Center from the list enclosed with your ATT. Appointments must be made at least 48 hours before the desired test date. You should have your ATT on hand when calling to schedule a test appointment, as the representative will ask for the your examination identification number. If you have lost your ATT, please notify CGI immediately at +1.609.720.6595 and request a duplicate authorization.
3. Test center hours of operation are typically from 9:00 a.m. to 5:00 p.m., but many

have extended hours. Saturday hours may vary by test center. The Prometric Customer Service Call Center hours of operation are:

Monday – Friday.. 8:00 a.m. – 8:00 p.m.  
(Eastern time zone)

Saturday..... 8:00 a.m. – 4:00 p.m.

4. When calling, inform the representative that you wish to schedule for the IEEE Computer Society examination. You will be asked to provide your identification number (from the ATT), and to confirm information including your name, address and phone number.
5. The representative will then ask you for a preferred testing date and location.
6. If your first choice is unavailable, an alternative as close as possible to your first choice will be offered.
7. After scheduling the examination, you will be given a confirmation number. A confirmation of the appointment will not be mailed. It is important that you record this information on the bottom of your ATT. Failure to keep an appointment will result in the forfeiture of your examination fees.
8. Directions to the Prometric Testing Center can be found on the Prometric Automated Directions line, or by visiting Prometric's web site at <http://www.2test.com> for written directions.

Appointments are made on a first-come, first-served basis and are subject to availability of seating at the computer-based testing center.

Some periods of the year are heavily booked.

We recommend that you schedule your appointment as soon as possible after receiving your ATT. Waiting to schedule your testing appointment may significantly limit the date(s)/time(s) the center has available. You must take your examination within the testing window provided on your ATT, or you will forfeit your registration fees.

## General Information, CONTD.

### Examination Appointment Cancellation Policy

Prometric's standard cancellation/reschedule policy requires that you call the Prometric Customer Service Call Center at +1.800.473.4481 by noon a minimum of two business days (Saturday is considered a business day, Sunday is not) before your scheduled appointment to cancel or reschedule an appointment.

### Rescheduling an Examination Within the Same Examination Window

You may reschedule your examination appointment by calling the test center or the Prometric Customer Service Call Center at +1.800.473.4481 by noon at least two business days prior to your scheduled appointment (Saturday is considered a business day, Sunday is not). For example, if you are scheduled to test at 9:00 a.m. on Monday, you must call by 12:00 p.m. on Friday to cancel or reschedule your appointment.

Residents outside of the US and Canada must call the Prometric Test Center listed on the document that accompanies your ATT by noon at least five business days prior to your scheduled appointment.

Leaving a message on an answering machine is not an acceptable method of canceling or rescheduling an appointment.

There is no charge for rescheduling the test appointment within the eligibility period listed on your Authorization to Test. If you cancel less than two days prior to your test date, fail to show up for your scheduled appointment or arrive more than 30 minutes late for your scheduled appointment you will be considered a "no show" and will forfeit your entire registration fee.

If you forfeit your registration fee, you will not be allowed to reschedule your exam within the current testing window. You must then reapply and submit the entire registration fee to be eligible to take the examination in another testing window.

### Identification Requirements

Upon arriving at the test center, you will be required to provide two forms of positive identification that include your name and signature. One must also

contain a recent photograph.

Acceptable primary forms of identification: valid passport, valid driver's license with photo, or a valid photo-bearing employee ID card.

Acceptable secondary forms of identification: military ID card, citizenship card, driver's license without photo, valid credit card with signature, Social Security card or bank automated teller card.

Your name, as it appears on your identification, must match both the name the test center has on file and the name that appears on the ATT.

If you do not have a photo identification, affix a recent photo of yourself on a blank piece of paper. Sign the paper and have it notarized. The notary seal must overlap the photo.

You will NOT be able to test without the proper identification. You will have to reapply and submit a new registration fee to be eligible to sit for the examination in a future testing window.

### Examination Description

The CSDP examination is made up of 180 multiple-choice questions and is based on concepts and experiences that should be familiar to a proficient software engineering professional with 9,000 or more hours of experience.

The concepts and topic areas of the examination were derived from a job analysis study. The topic areas are grouped by question development into domains. The percentage range of questions in each area is included in the following list of content areas. The questions from the content area are distributed throughout the examination.



## Examination Preparation Information

### Examination Content Requirements

Percentages in parentheses indicate approximate coverage of subject matter.

### CSDP Examination Content

This list provides guidance to the candidate who is preparing to take the certification exam.

- I. Business Practices and Engineering Economics (3-4%)
  - A. Engineering Economics
  - B. Ethics
  - C. Professional Practice
  - D. Standards
- II. Software Requirements (13-15%)
  - A. Requirements Engineering Process
  - B. Requirements Elicitation
  - C. Requirements Analysis
  - D. Software Requirements Specification
  - E. Requirements Validation
  - F. Requirements Management
- III. Software Design (22-24%)
  - A. Software Design Concepts
  - B. Software Architecture
  - C. Software Design Quality Analysis and Evaluation
  - D. Software Design Notations and Documentation
  - E. Software Design Strategies and Methods
  - F. Human Factors in Software Design
  - G. Software and System Safety
- IV. Software Construction (10-12%)
  - A. Construction Planning
  - B. Code Design
  - C. Data Design and Management
  - D. Error Processing
  - E. Source Code Organization
  - F. Code Documentation
  - G. Construction QA
  - H. System Integration and Implementation
  - I. Code Tuning
  - J. Construction Tools
- V. Software Testing (15-17%)
  - A. Types of Tests
  - B. Test Levels
  - C. Testing Strategies
  - D. Test Design
  - E. Test Coverage of Code
  - F. Test Coverage of Specifications
- G. Test Execution
- H. Test Documentation
- I. Test Management
- VI. Software Maintenance (3-5%)
  - A. Software Maintainability
  - B. Software Maintenance Process
  - C. Software Maintenance Measurement
  - D. Software Maintenance Planning
  - E. Software Maintenance Management
  - F. Software Maintenance Documentation
- VII. Software Configuration Management (3-4%)
  - A. Management of SCM Process
  - B. Software Configuration Identification
  - C. Software Configuration Control
  - D. Software Configuration Status Accounting
  - E. Software Configuration Auditing
  - F. Software Release Management and Delivery
- VIII. Software Engineering Management (10-12%)
  - A. Measurement
  - B. Organizational Management and Coordination
  - C. Initiation and Scope Definition
  - D. Planning
  - E. Software Acquisition
  - F. Enactment
  - G. Risk Management
  - H. Review and Evaluation
  - I. Project Close Out
  - J. Post-closure Activities
- IX. Software Engineering Process (2-4%)
  - A. Process Infrastructure
  - B. Process Measurement
  - C. Process Definition
  - D. Qualitative Process Analysis
  - E. Process Implementation and Change
- X. Software Engineering Tools and Methods (2-4%)
  - A. Management Tools and Methods
  - B. Development Tools and Methods
  - C. Maintenance Tools and Methods
  - D. Support Tools and Methods
- XI. Software Quality (6-8%)
  - A. Software Quality Concepts
  - B. Planning for SQA and V&V
  - C. Methods for SQA and V&V
  - D. Measurement Applied to SQA and V&V

## Examination Preparation Information, CONTD.

### Cognitive Levels of Examination Items

The CSDP examination includes questions of varying degrees of complexity. These levels of complexity, based on “Levels of Cognition” from Bloom’s Taxonomy, 1956, are listed below in order, from least complex to most complex.

#### **Knowledge Level**

(Also referred to as recognition, recall, or rote knowledge.) Be able to remember or recognize terminology, definitions, facts, ideas, materials, patterns, sequences, methodologies, principles, etc.

#### **Comprehension Level**

Be able to read and understand descriptions, communications, reports, tables, diagrams, directions, regulations, etc.

#### **Application Level**

Be able to apply ideas, procedures, methods, formulas, principles, theories, etc., in job-related business.

#### **Analysis**

Be able to break down information into its constituent parts and recognize the parts’ relationship to one another and how they are organized; identify sublevel factors or salient data from a complex scenario.

#### **Synthesis**

Be able to put parts or elements together in such a way as to show a pattern or structure not clearly there before; identify which data or information from a complex set are appropriate to examine further or from which supported conclusions can be drawn.

#### **Evaluation**

Be able to make judgments regarding the value of proposed ideas, solutions, methodologies, etc., by using appropriate criteria or standards to estimate accuracy, effectiveness, economic benefits, etc.

### Self Study

Identifying topic areas and suggested readings that best fit a candidate’s learning needs enhances preparation for the CSDP examination. The examination focuses on an awareness and understanding of software engineering principles. In addition, the examination targets technical knowledge and professional practice of experienced software engineering professionals.

The following resources provide a solid base for study and preparation for the examination.

A file containing sample test questions may be downloaded from the IEEE Computer Society’s web site at <http://computer.org/certification/csdpprep/sampleques.htm>.

By reviewing topic areas within the enclosed examination content requirements, you will be able to evaluate sections of the examinations and determine the degree of difficulty from your individual perspective of prior academic preparation and work experience. You may then select materials to confirm or enhance your individual knowledge.

A list of reference material may be found on the IEEE Computer Society’s web site and a two-volume resource guide is available through the IEEE Computer Society’s web site at <http://computer.org/certification/preparation.htm>.

### Training and Education Sources

The IEEE Computer Society CSDP Preparation Course provides candidates with an additional resource to assist in preparation for the examination. This intensive, three-day course is offered only through the Computer Society.

A list of additional training and education organizations including courses offered by organizations independent of the Computer Society, is available on the IEEE Computer Society web site <http://computer.org/certification/csdpprep>.

## Taking the Examination

### The Day of the Examination

The 2003 CSDP Examination will be offered in one testing window, 1 April - 30 June.

You will have 3.5 hours to complete the 180 questions plus 15 minutes to complete the tutorial and an additional 15 minutes to complete the brief post-examination questionnaire.

On the day of the examination, candidates must report to the test center no later than 30 minutes prior to their scheduled appointment and plan to be at the test center for four hours. Late arrivals will not be admitted.

When checking in at the test center, you will be required to provide two forms of identification (refer to page 10). You should keep your identification with you at all times. If you need to leave the testing room for any reason, you will be required to show identification in order to be readmitted to the room.

The test center administrator will give you a short orientation and then escort you to a workstation. You must remain in your seat during the examination, except when authorized to leave by a test center staff member. You may not leave the testing room without permission.

The test center staff will provide you with a pencil and scratch paper. Scratch paper may not be removed from the testing room at any time. You will not be allowed to take your own pencil, scratch paper or calculator into the testing room.

If you experience a problem with the computer, need more scratch paper, need to take a break or need the test center staff for any reason, you should alert the test center staff by raising your hand. If you decide to take a break, no extra examination time will be given.

Directions for using the testing software are displayed on the screen. Before taking the examination, a tutorial will appear on screen. This tutorial is designed to teach you how to navigate through the test by using examples. You will have up to 15 minutes prior to the examination to take the tutorial. This time is not included in the examination time and will not count toward the examination score.

During the examination, you will have the opportunity to review questions left unanswered, questions marked for review, or any questions on the examination. You may change answers when reviewing the test items. However, once the allotted testing time has expired, or you exit the examination, you cannot see or review those questions again.

### At the Test Center

To ensure that all candidates' results are earned under comparable conditions and represent fair and accurate measurement, it is necessary to maintain a standard testing environment. The following suggestions, policies and procedures pertain to every CSDP examination administration.

- Instructions given by test center staff are to be followed.
- A standard four-function non-programmable calculator will be provided. This is the calculator that you may use on the examination. No other calculator will be allowed into the testing room.
- Bring a watch. Testing will not be permitted to continue beyond the 3.5-hour time limit.
- Do not bring books or other reference material into the examination room. Anyone found possessing such materials will not be allowed to continue taking the examination.
- Visitors are not permitted at the test center.
- You may not bring scratch paper into the examination. Scratch paper will be provided by the test center.



## Taking the Examination, CONTD.

- You must have permission from the test center staff before leaving the room during the test.
- Bring a jacket or sweater for air-conditioned rooms.

### Tips for Examination Taking

- It is to your advantage to answer every question since the final score is based on the total number of questions answered correctly.
- When unsure of the correct answer, make the best selection possible and go on to the next question.
- Do not try to over think the questions. There are no trick questions. The correct answer will always be among the list of choices.
- Eliminate the most obvious incorrect answers first. This will make it easier to select the correct answer.

### Examination Tutorial

At the beginning of the examination, you will be provided with a brief tutorial. The tutorial is designed to familiarize you with the testing software. Up to 15 minutes are allotted to complete the tutorial.

With the tutorial, you will learn how to select answers, move from one question to the next, and use testing features such as “Item Review”. The tutorial allows you to concentrate on HOW to operate the computer in order to complete the examination. You do not need to be concerned with which answers you select during the tutorial, as there is no penalty for incorrect answers. Once you exit from the tutorial, you may not return to it.

### Exit Survey

At the conclusion of the examination, you will be asked to complete a brief survey, which will provide the IEEE Computer Society and Prometric Test Centers with an evaluation of your testing experience. All comments are reviewed and changes implemented where possible or necessary.

Candidates should feel free to forward additional comments to the IEEE Computer Society within

five business days of their examination to the following address:

Chauncey Group International  
Attn: 22P  
664 Rosedale Road  
Princeton, NJ 08540  
USA

### Candidate Misconduct

The following are examples of candidate behavior considered to be misconduct and will not be tolerated.

- Giving or receiving assistance of any kind.
- Using any unauthorized references or aids.
- Attempting to take the examination for someone else.
- Failing to follow testing regulations and/or the instructions of the test center administrator.
- Creating a disturbance of any kind.
- Removing or attempting to remove examination questions and/or scratch paper from the testing room.
- Tampering with the operation of the computer or attempting to use it for any function other than taking the examination.
- Leaving the testing room without permission.
- Using electronic communication equipment, such as cellular phones or beepers.



The examination and illustrative materials are copyrighted as the sole property of the IEEE Computer Society and must not be removed by the candidate from the test area or reproduced in any way. Any reproduction in whole or in part of the examination materials and/or the questions is a federal offense and also may subject the candidate to disciplinary sanctions.



If, during the testing session, a test center administrator believes misconduct is taking place, certain options are available.

1. A test center administrator may dismiss a candidate exhibiting misconduct from the test and file a report with CGI giving the reasons for dismissal.
2. A test center administrator may choose not to dismiss the candidate exhibiting misconduct from the test; but will file an irregularity report with CGI describing his or her observations.

In either event, when a test center administrator reports to CGI that a candidate might have committed misconduct during an examination, gathered evidence is reviewed by CGI and the IEEE Computer Society, both of which have the right to question any test score whose validity is in doubt because the score may have been obtained unfairly. CGI first undertakes a confidential review of the circumstances. If there is sufficient cause to question the score, CGI will refer the matter to the IEEE Computer Society, which will make the final decision on whether or not the score is to be canceled. In the event the IEEE Computer Society determines that a candidate's test results will be canceled, the IEEE Computer Society will notify

the candidate.

The IEEE Computer Society, at its sole discretion, may decide:

1. that the candidate may retake the examination at no cost;
2. that the candidate will not be permitted to retake the examination, but will have the test fees refunded;
3. to take other action as it deems appropriate.

## After the Examination

### Score Reporting

At the end of the examination, the results of the examination will immediately appear on the computer screen. In addition, a hard copy of the score will be provided at the testing center. The hard copy will include your name, address, the title of the examination and whether you passed or failed. Approximately four weeks after the end of the testing window, the IEEE Computer Society will send an official score report.

Passing candidates will receive:

- Certificate
- Rules for maintaining the CSDP credential
- Newly certified individuals will be recognized on the IEEE Computer Society's web site.

To ensure the confidentiality of test results, actual test scores will not be released via telephone, fax or email by the IEEE Computer Society. Information about your score report will be released only with your written consent. However, the IEEE Computer Society will release the names of newly certified individuals on their web site. Electronic score data will be retained by CGI for a period of three years.

### Duplicate Score Report

Employers are interested in developing candidates' competency in software engineering.

A duplicate score report can be sent to a third party, such as an employer. Candidates should send a

## After the Examination, CONTD.

written request plus a check or money order in the amount of \$4, made payable to the IEEE Computer Society, to the following address:

Chauncey Group International  
Attn: 22P  
664 Rosedale Road  
Princeton, NJ 08540  
USA

### Interpretation of the Certificate

The IEEE Computer Society CSDP certification is not a license or a guarantee of experience or performance. It is peer recognition of proficiency within the prescribed body of knowledge.

It has never been the purpose of the IEEE Computer Society to define the requirements for employment in the field or to gain special recognitions or privileges for its certificate holders.

Neither is its purpose to state who may or may not practice in the profession nor to define the scope of practice within the profession. The IEEE Computer Society does not seek to obtain special privileges for its certificate holders over other qualified individuals. The certificate of the IEEE Computer Society does not confer any academic degree, legal qualifications, privilege or license to practice software.

### Certification Privileges

- The right to use, in accordance with specific licensing regulations, the CSDP credential.
- The right to display the certification mark, in accordance with specific regulations, as a recognition of achievement.

### Length of Certification

Certification is valid for three years.

### Reviewing Test Results

The test questions are reviewed and approved by the IEEE Computer Society CSDP Certification Committee, which shall be considered the final technical authority on the accuracy and interpretation of the test questions and answers. CSDP policy states that candidates will not be allowed to review the test or individual test results. This policy results from the large number of

candidates taking the examination and the need to keep the security of the examination intact.

However, the IEEE Computer Society recognizes the extreme importance of the test results to candidates and has a multi-step quality control procedure to help ensure that reported scores are accurate. Furthermore, candidates are encouraged to critique items in the exit survey at the time of the examination; the IEEE Computer Society reviews all comments.

### Determination of the Recommended Passing Score

The passing score for the IEEE Computer Society Certified Software Development Professional examination is established by a panel of experts in the field of software engineering. The passing score is then converted to a scaled score, which allows comparison among scores from all forms of the examination. The scale score for the CSDP examination ranges from 120 to 200, with the passing point at a scaled score of 170.

If you receive a scaled score equal to or greater than 170, your score report will have only the word "PASS." Numerical total scaled scores and diagnostics are not reported to passing candidates. This approach is designed to prevent misuse of test scores in the workplace.

If you receive a scaled score of less than 170, you will have a numeric scaled score and the word "FAIL." Scaled scores are reported in units of five. For example, an individual with a scaled score between 153 and 157 will have a reported score of 155. The score report will also include diagnostic information to help the unsuccessful candidate identify strengths and weaknesses in the eleven content areas listed on page 11 in this brochure.

Each form of the CSDP examination will be "equated" from one year to the next. Through the process of equating, mathematical adjustments can be made to scores so that one test form is comparable to another. The following is an example of how equating works:

Suppose two individuals have equal abilities in mathematics and each takes a different math

test. The two tests are “equated” and report scores on a scale range from 120 to 200, with a scaled score of 170 for passing. Both tests are developed and are intended to cover the same type of math questions; however, test #1 is harder than test #2. One individual answers 35 questions correctly on the more difficult test (#1), and the other answers 40 questions correctly on the easier test (#2). The difference in the scores is NOT due to math abilities, since both individuals are equal in ability. The difference in scores, in this example, is due to the fact that one test form is more difficult than the other. Through equating, it can be determined that a raw score of 35 on test #1 represents the same level of math knowledge, skills and abilities as a raw score of 40 on test #2.

The use of scaled scores on these two tests allows scores to be reported on a common level. Instead of having to remember that a 35 on test #1 is the equivalent of a 40 on test #2, a common scale can be used and the score can be reported as a scaled score of 170. Since the score of 40 is equal to the score of 35, the score of 40 would also be reported as a scaled score of 170.

It is important to understand that scaled scores are NOT percentage scores. As illustrated in the example above, scaled scores are designed to allow reporting of different raw scores that represent the same level of knowledge, skills and abilities whenever there are differences in forms of the test. The number of questions answered correctly is converted to a common scale (from 120 to 200), and all candidates whose scaled scores meet (or exceed) 170 have met the minimum competency level as established by the IEEE Computer Society and its panel of software engineering experts.

It is also important to note that the diagnostic scores (reported to unsuccessful candidates in major content areas) are NOT used to determine whether on passed or failed the test. These diagnostics are provided to indicate strengths and weaknesses within major content areas. They are to be used for self-evaluation only.

## Score Dismissal

On rare occasions, circumstances may render examination scores invalid. The IEEE Computer Society will reserve the right to cancel or withhold scores if, in the CSDP Certification Committee’s sole opinion, there is adequate reason to question the validity of the scores.

Reasons include: A candidate who does not have positive identification; uses unauthorized notes, books or papers; is suspected of giving or receiving help; removes examination materials or notes from the examination room; or who does not follow the testing procedures. In such circumstances, candidates will be expected to cooperate in an investigation of their scores.

Some scores may be rendered invalid by circumstances beyond the control of the candidate, such as faulty examination materials, computer failure at the testing center or mistiming. These situations will be investigated; when such occurrences result in cancellation of a candidate’s score, the IEEE Computer Society will make arrangements for the makeup examination.

When the IEEE Computer Society determines that irregular behavior has occurred during an examination, the Society will make every effort to withhold the scores of only those candidates directly implicated in the irregularity. Nevertheless, in some instances the evidence of irregularity, though sufficiently strong to cast doubt on the validity of the scores, may not enable the IEEE Computer Society to identify the specific candidates involved in the irregularity.

In such circumstances, the Society may withhold the scores of candidates not directly implicated in the irregularity and, if necessary, may require those candidates to take an additional examination at a later date to ensure the validity of all scores.

## Revocation of Certification

The IEEE Computer Society has the right to revoke any CSDP certification issued if the certificate holder is found to have engaged in any of the following:

## Application Instructions

- Misrepresentation with the intent to deceive in the application process.
- Divulging examination content.
- False representation (either misrepresenting yourself or attempting to take the examination for someone else).
- Fraud in the certification renewal process
- Cheating on the certification examination.

Members of the IEEE Computer Society may have their certificates revoked by the IEEE Computer Society Board of Governors if the certificate holder is found to have engaged in any of the following:

- Unethical practice of software engineering.
- Activities that discredit the software engineering profession.

### Certification Renewal Requirements

Certification is valid for three years. To maintain and renew certification, a CSDP must earn continuing education credits within the three-year certification cycle.

A detailed description of the renewal process will be mailed to passing candidates along with your test score and certificate.

### Reporting of Credits

A CSDP Certification Renewal Reporting Form is included in the packet of information mailed to every CSDP with their certificate and can be found on the IEEE Computer Society Web at <http://computer.org/certification/continuing/renewalform.htm>. The form must be completed and returned to the IEEE Computer Society thirty days prior to the certification expiration date.

### Approved Certification Renewal Activities

A list of courses, course subjects and other approved certification renewal activities can be found on the IEEE Computer Society web site at <http://computer.org/certification/continuing>.

## Application Instructions

Read all instructions carefully before beginning to complete the application. Applications must be typed or printed legibly. Illegible applications will be returned.

The fee must be in the form of a check or money order made payable to the IEEE Computer Society and drawn on a U.S. bank or charged on a Visa, MasterCard, American Express or Diners Club. To avoid duplicate charges to your credit card, please do not mail previously faxed applications.

The CSDP Program will send notice of the candidate's application status shortly after the application is received. If eligible, an Authorization to Test letter will be sent.

To be complete, the application must include:

- Form 1 – General Registration Form
- Form 2 – Report of Education and Professionalism Form
- Form 3 – Report of Experience Form(s)
- A copy of diploma or transcript for baccalaureate or equivalent university degree
- A current resume/curriculum vitae detailing work experience and educational background (please provide the name and complete address of all employers and schools attended)

To avoid unnecessary delay, all supporting documents, attachments, and the fee should accompany the completed application. It is the candidate's responsibility to notify the IEEE Computer Society of any name or address change that occurs after submitting the application.

The IEEE Computer Society's Policies and Procedures and Certification Handbook, which are subject to change from time to time without notice, contain specific provisions concerning eligibility for the examinations administered by the IEEE Computer Society:

- An admission appeals process, which is available under certain circumstances.
- The application process;

## Application Instructions and Candidate Agreement

- The examination processes;
- A description of the circumstances under which candidates will be required to reactivate an existing application, or submit a new application, or repeat an examination;
- A list of occurrences that could lead the IEEE Computer Society to revoke a certificate previously issued by it or to place an individual on probation; and
- Other matters relating to the IEEE Computer Society's examination and certification/recertification processes.

Many, but not all, of these provisions are summarized or described in this Brochure. In the event of an inconsistency between the IEEE Computer Society's Policies and Procedures and Certification Handbook and this Brochure, or any omission from this Brochure of any provision of the Policies and Procedures, the Policies and Procedures shall govern.

Copies of the Policies and Procedures are available upon request from the IEEE Computer Society's Headquarters Office.

Completed application, supporting documents, forms and fees are to be sent to:

IEEE Computer Society  
CSDP  
Department 6006  
Washington, DC 20042-6006  
USA  
Fax: +1.202.728.0884

Completed application, supporting documents, forms and fees must be received by the IEEE Computer Society no later than 1 April for the 1 April - 30 June testing window.

### CSDP Candidate Agreement

By initialing the statement provided at the bottom of the General Registration Form (Form 1), you represent and agree to these terms, conditions and releases related to CSDP Certification.

I authorize investigation of all statements contained in these forms. I understand that misrepresentation or omission of facts is cause for denial or revocation of the right to use the CSDP credential and that I have a continuing obligation to disclose promptly to the IEEE Computer Society the existence or occurrence of any circumstances causing me to fail to satisfy the foregoing conditions of eligibility to apply for and take any examination administered by the IEEE Computer Society. I understand that I may not use the credential until I have received official notification of my certification by the IEEE Computer Society. To the best of my knowledge, the facts contained herein are accurate and complete. I agree not to discuss or release any form of the examination contents. I have read and agree to be bound by the policies and procedures related to certification as described in the Certified Software Development Professional Program Candidate Bulletin.

In the event there is any dispute between the applicant and the IEEE Computer Society arising out of or relating to the certification process (the "Dispute") and the parties themselves cannot resolve such Dispute, applicant agrees that the Dispute shall be settled by non-binding mediation in Washington, D.C., in accordance with the then governing Commercial Mediation Rules of the American Arbitration Association. If mediation fails to reach a settlement of any or all of the issues of the Dispute or, upon mutual agreement of the parties in lieu of first submitting the Dispute to non-binding mediation, the parties shall submit the Dispute to the American Arbitration Association (the "Association") for arbitration, and any such proceedings shall be conducted in the Washington, D.C. metropolitan area. Any such arbitration shall be before a panel of three (3) arbitrators and shall be conducted in accordance with the rules of the Association. No arbitrator shall have any prior or existing connection to the parties to this Agreement. The arbitrators shall have the right to award or include in their award any relief that could be properly awarded by a court of competent jurisdiction, including, without limitation, money damages, interest, specific performance, attorney's fees, cost and expenses incurred, but not exemplary or punitive damages. The award and decision of the arbitrators shall be conclusive and binding upon all parties and may be entered in any court of competent jurisdiction. The parties agree to bring all claims in this arbitration which relate to the original claim. If the applicant resorts to legal action in violation of this provision, the applicant shall be liable for all legal costs, including reasonable attorney's fees arising from such legal action.

I hereby release, discharge and indemnify the IEEE Computer Society, its directors, officers, members, examiners, employees, attorneys, representatives, agents and the CSDP Certification Program from any and all actions, suits, obligations, damages, claims or demands arising out of or relating to this application, the administration of and/or the scores given in respect to the examination, and any other action taken by the Society with regard to certification, testing and professional development. I understand and agree that any decision concerning my application and/or qualification for certification rests within the sole and exclusive discretion of the IEEE Computer Society and that these decisions are final.

## General Registration Form (Form 1)

Completed application, supporting documents, forms and fees must be received by the IEEE Computer Society no later than 1 April for the 1 April – 30 June testing window.

IEEE/IEEE Computer Society Membership Number \_\_\_\_\_  Male  Female Date of birth \_\_\_\_\_

Mr./Ms./Dr./Mrs. First Name Middle Initial Last Name

Address \_\_\_\_\_

City, State/Province Zip/Postal Code Country

Home Telephone Work Telephone Preferred email

Request Special Accommodations  Yes  No

### Fees

	Application Fee	Examination Fee	Total Registration Fee
<input type="checkbox"/> Member	\$100	\$250	\$350
<input type="checkbox"/> Non-member	\$100	\$350	\$450

Please send the completed application with the appropriate fee (check, money order or credit card information) to:

**IEEE Computer Society  
CSDP  
Department 6006  
Washington, DC 20042-6006  
Fax: +1.202.728.0884**

### Payment Information

Checks should be made payable to the IEEE Computer Society and drawn on a US bank

Certified or Company check Check number \_\_\_\_\_

Visa  MasterCard  American Express  Diners Club

Account number Expiration date

Cardholder's name Home Phone Number

Billing address  Same as above (check box)

City, State/Province Zip/Postal Code Country

Please sign below to indicate that you have read and accept the responsibilities outlined in the CSDP Candidate Agreement on page 19.

## Report of Education and Professionalism (Form 2)

Applicant Name \_\_\_\_\_

### Section A: Education

First professional degree completed \_\_\_\_\_ Month/Year degree received \_\_\_\_\_

Program Major/Course of study \_\_\_\_\_

College/University \_\_\_\_\_ State/Province, Country \_\_\_\_\_

Highest technical degree received \_\_\_\_\_ Month/Year degree received \_\_\_\_\_

Program Major/Course of study \_\_\_\_\_

College/University \_\_\_\_\_ State/Province, Country \_\_\_\_\_

### Section B: Proof of Professionalism

Code of Ethics - I have read the *Software Engineering Code of Ethics* located on page 23 of this brochure.

Signature of Candidate \_\_\_\_\_

**FORM 3**

**Report of Experience**

**Report of Experience (Form 3)**

The number of hours on the Report of Experience Form must total at least 9,000 hours and the experience dates must indicate that the candidate has at least two years of software engineering experience within the four-year period prior to the application

Project Title \_\_\_\_\_

Your role on project \_\_\_\_\_

Project Start Date/Completion Date \_\_\_\_\_

*For this project, please indicate the approximate number of hours spent working in each of the eleven areas listed below*

Business Practices and Engineering Economics ..... \_\_\_\_\_

Software Requirements..... \_\_\_\_\_

Software Design..... \_\_\_\_\_

Software Construction..... \_\_\_\_\_

Software Testing ..... \_\_\_\_\_

Software Maintenance ..... \_\_\_\_\_

Software Configuration Management..... \_\_\_\_\_

Software Engineering Management..... \_\_\_\_\_

Software Engineering Process..... \_\_\_\_\_

Software Engineering Tools and Methods..... \_\_\_\_\_

Software Quality ..... \_\_\_\_\_

Total hours for project..... \_\_\_\_\_

*Please photocopy this form as needed for additional projects.*

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Software Design..... \_\_\_\_\_

Software Construction..... \_\_\_\_\_

Software Testing ..... \_\_\_\_\_

Software Maintenance ..... \_\_\_\_\_

Software Configuration Management..... \_\_\_\_\_

Software Engineering Management..... \_\_\_\_\_

Software Engineering Process..... \_\_\_\_\_

Software Engineering Tools and Methods..... \_\_\_\_\_

Software Quality ..... \_\_\_\_\_

Total hours for project..... \_\_\_\_\_

*Please photocopy this form as needed for additional projects.*

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Software Construction..... \_\_\_\_\_

Software Testing ..... \_\_\_\_\_

Software Maintenance ..... \_\_\_\_\_

Software Configuration Management..... \_\_\_\_\_

Software Engineering Management..... \_\_\_\_\_

Software Engineering Process..... \_\_\_\_\_

Software Engineering Tools and Methods..... \_\_\_\_\_

Software Quality ..... \_\_\_\_\_

Total hours for project..... \_\_\_\_\_

*Please photocopy this form as needed for additional projects.*

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Software Requirements..... \_\_\_\_\_

Software Design..... \_\_\_\_\_

Software Construction..... \_\_\_\_\_

Software Testing ..... \_\_\_\_\_

Software Maintenance ..... \_\_\_\_\_

Software Configuration Management..... \_\_\_\_\_

Software Engineering Management..... \_\_\_\_\_

Software Engineering Process..... \_\_\_\_\_

Software Engineering Tools and Methods..... \_\_\_\_\_

Software Quality ..... \_\_\_\_\_

Total hours for project..... \_\_\_\_\_

*Please photocopy this form as needed for additional projects.*

# Test Center Locations

## Prometric Technology Test Centers

All U.S. and Canadian residents should first call the Prometric Technology Center. If you are unable to contact the test center of your choice, call the Candidate Services Call Center (CSCC) at +1.800.473.4481.

Residents outside of the US and Canada must call the Prometric Technology Center directly.

**IMPORTANT:** When you call the test center or CSCC, inform the representative that you wish to schedule for the IEEE Computer Society program.

### ALASKA

ANCHORAGE

### ALABAMA

BIRMINGHAM  
DECATUR  
DOTHAN  
MOBILE  
MONTGOMERY

### ARKANSAS

ARKADELPHIA  
FT SMITH  
LITTLE ROCK

### ARIZONA

PHOENIX/GOODYEAR

### CALIFORNIA

ANAHEIM  
ATASCADERO  
BREA/FULLERTON  
CAMARILLO  
DIAMOND BAR  
FAIR OAKS/SACRAMENTO  
GARDENA  
GLENDALE  
IRVINE  
LOS ANGELES/CULVER CITY  
PALM DESERT  
PIEDMONT  
RANCHO CUCAMONGA  
REDLANDS  
RIVERSIDE  
SAN DIEGO/LA MESA  
SAN DIEGO/SORRENTO VALLEY  
SAN FRANCISCO  
SAN JOSE  
SANTA ROSA  
SOUTH SAN FRANCISCO

### COLORADO

COLORADO SPRINGS  
ENGLEWOOD (2)  
LONGMONT  
PUEBLO

### CONNECTICUT

GLASTONBURY  
HAMDEN  
NORWALK

### DELAWARE

WILMINGTON

### DISTRICT OF COLUMBIA

WASHINGTON DC

### FLORIDA

CORAL SPRINGS  
FT.MYERS  
GAINESVILLE  
JACKSONVILLE  
MIAMI/DAVIE  
MIAMI/HOLLYWOOD  
ORLANDO/MAITLAND  
ORLANDO/CASSELBERRY

SARASOTA

TALLAHASSEE

TAMPA

TEMPLE TERRACE

### GEORGIA

ALBANY  
ATLANTA (2)  
ATLANTA/JONESBORO  
ATLANTA/MARIETTA  
AUGUSTA  
MACON  
SAVANNAH  
VALDOSTA

### HAWAII

HONOLULU

### IOWA

AMES  
BETTENDORF  
URBANDALE

### IDAHO

GARDEN CITY

### ILLINOIS

CARBONDALE  
CHICAGO  
HOMewood  
NORTHBROOK  
PEORIA  
SPRINGFIELD  
SYCAMORE  
WESTCHESTER

### INDIANA

EVANSVILLE  
INDIANAPOLIS (2)  
LAFAYETTE  
MERRILLVILLE  
MISHAWAKA  
TERRE HAUTE

### KANSAS

TOPEKA  
WICHITA

### KENTUCKY

LEXINGTON  
LOUISVILLE

### LOUISIANA

BATON ROUGE  
BOSSIER CITY

METAIRIE

### MASSACHUSETTS

BOSTON  
BOSTON/BRAINTREE  
BOSTON/BROOKLINE  
BOSTON/LEXINGTON  
BOSTON/WALTHAM  
E.LONGMEADOW  
WORCESTER

### MARYLAND

BALTIMORE  
BETHESDA

COLUMBIA

LANHAM

PIKESVILLE

SALISBURY

TOWSON

### MAINE

ORONO

SOUTH PORTLAND

### MICHIGAN

ANN ARBOR  
GRAND RAPIDS  
LANSING  
LIVONIA  
PORTAGE  
TROY  
UTICA

### MINNESOTA

DULUTH  
EDINA  
ROCHESTER  
WOODBURY

### MISSOURI

BALLWIN  
CAPE GIRARDEAU  
HAZELWOOD  
JEFFERSON CITY  
LEE'S SUMMIT  
SPRINGFIELD  
ST. JOSEPH

### MISSISSIPPI

JACKSON  
TUPELO

### MONTANA

BILLINGS  
HELENA

### NORTH CAROLINA

ASHEVILLE  
CHARLOTTE (2)  
GREENSBORO  
GREENVILLE  
RALEIGH  
WILMINGTON

### NORTH DAKOTA

BISMARCK  
FARGO

### NEBRASKA

COLUMBUS  
LINCOLN  
OMAHA

### NEW HAMPSHIRE

PORTSMOUTH

### NEW JERSEY

DEPTFORD  
FAIR LAWN  
HAMILTON TOWNSHIP  
TOMS RIVER  
UNION  
VERONA

### NEW MEXICO

ALBUQUERQUE

### NEVADA

LAS VEGAS  
RENO

### NEW YORK

ALBANY  
BROOKLYN HEIGHTS  
BUFFALO/AMHERST  
EAST SYRACUSE  
GARDEN CITY  
ITHACA  
MANHASSET  
MELVILLE  
NEW YORK/MIDTOWN  
NEW YORK/PENN PLAZA  
QUEENS/REGO PARK  
ROCHESTER  
STATEN ISLAND  
VESTAL  
WAPPINGERS FALLS  
WHITE PLAINS

### OHIO

AKRON/STOW  
CINCINNATI  
COLUMBUS  
DAYTON  
HILLIARD  
LIMA  
MENTOR  
NILES  
REYNOLDSBURG  
STRONGSVILLE  
TOLEDO

### OKLAHOMA

OKLAHOMA CITY  
TULSA

### OREGON

EUGENE  
MILWAUKIE  
PORTLAND  
CLARKS SUMMIT  
ERIE  
HARRISBURG  
LANCASTER

### PENNSYLVANIA

ALLENTOWN  
CLARKS SUMMIT  
ERIE  
HARRISBURG  
LANCASTER  
PHILADELPHIA  
PHIL./NORTH WALES  
PITTSBURGH  
PITTSBURGH(N. HILLS)  
YORK

### PUERTO RICO

GUAYNABO

### RHODE ISLAND

WARWICK

### SOUTH CAROLINA

CHARLESTON  
COLUMBIA  
GREENVILLE  
MYRTLE BEACH

### SOUTH DAKOTA

SIoux FALLS

### TENNESSEE

CHATTANOOGA  
CLARKSVILLE  
FRANKLIN  
KNOXVILLE  
MADISON  
MEMPHIS

### TEXAS

ABILENE  
AMARILLO  
BEAUMONT

CORPUS CHRISTI

DALLAS

DALLAS/MESQUITE

EL PASO

FT. WORTH/ARLINGTON

HOUSTON/KINGWOOD

HOUSTON/SUGAR LAND (2)

MIDLAND

NEW BRAUNFELS

SAN ANTONIO (2)

TYLER

WACO

WEBSTER

### UTAH

OGDEN

OREM

SALT LAKE CITY

### VIRGINIA

FAIRFAX

GLEN ALLEN

LYNCHBURG

MECHANICSVILLE

NEWPORT NEWS

ROANOKE

### US VIRGIN ISLANDS

ST. CROIX

### VERMONT

WILLISTON

### WASHINGTON

SEATTLE/MOUNTLAKE

TERRACE

SEATTLE/PUYALLUP

SPOKANE

### WISCONSIN

MADISON

MILWAUKEE/FOX POINT

MILWAUKEE/NEW BERLIN

MILWAUKEE/RACINE

### WEST VIRGINIA

CHARLESTON

MORGANTOWN

### WYOMING

CASPER

### CANADA

CALGARY ALBERTA

CAMBRIDGE ONTARIO

COQUITLAM, BRITISH COLUMBIA

DETROIT/WINDSOR ONTARIO

EDMONTON ALBERTA

ETOBICOKE/TORONTO ONTARIO

HALIFAX NOVA SCOTIA

LONDON ONTARIO

MONTREAL QUEBEC

OTTAWA ONTARIO

RICHMOND, BRITISH COLUMBIA

SASKATOON SASKATCHEWAN

WHITBY ONTARIO

WINNIPEG MANITOBA

### CHINA

BEIJING

SHANGHAI

### EUROPE

BUDAPEST, HUNGARY

DUBLIN, IRELAND

MOSCOW, RUSSIA

### INDIA

BANGALORE

### JAPAN

TOKYO

### SOUTH AMERICA

CURITIBA, BRAZIL

## **SOFTWARE ENGINEERING CODE OF ETHICS AND PROFESSIONAL PRACTICE**

(Version 5.2) as recommended by the  
IEEE-CS/ACM Joint Task Force on Software Engineering Ethics  
and Professional Practices  
Short Version

### **PREAMBLE**

The short version of the code summarizes aspirations at a high level of the abstraction; the clauses that are included in the full version give examples and details of how these aspirations change the way we act as software engineering professionals. Without the aspirations, the details can become legalistic and tedious; without the details, the aspirations can become high sounding but empty; together, the aspirations and the details form a cohesive code.

Software engineers shall commit themselves to making the analysis, specification, design, development, testing and maintenance of software a beneficial and respected profession. In accordance with their commitment to the health, safety and welfare of the public, software engineers shall adhere to the following Eight Principles:

1. **PUBLIC** - Software engineers shall act consistently with the public interest.
2. **CLIENT AND EMPLOYER** - Software engineers shall act in a manner that is in the best interests of their client and employer consistent with the public interest.
3. **PRODUCT** - Software engineers shall ensure that their products and related modifications meet the highest professional standards possible.
4. **JUDGMENT** - Software engineers shall maintain integrity and independence in their professional judgment.
5. **MANAGEMENT** - Software engineering managers and leaders shall subscribe to and promote an ethical approach to the management of software development and maintenance.
6. **PROFESSION** - Software engineers shall advance the integrity and reputation of the profession consistent with the public interest.
7. **COLLEAGUES** - Software engineers shall be fair to and supportive of their colleagues.
8. **SELF** - Software engineers shall participate in lifelong learning regarding the practice of their profession and shall promote an ethical approach to the practice of the profession.

This Code was developed by the IEEE-CS/ACM Joint Task Force on Software Engineering Ethics and Professional Practices (SEEPP).

A full version of the Software Engineering Code of Ethics can be found on the IEEE Computer Society web site at <http://computer.org/certification/ethics.htm>.

