The Open Group® Professional
Certification Program

Configuration Document for the Data Scientist Profession (Open CDS)

Version 2.0
June 2023

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Configuration Document for the Data Scientist Profession (Open CDS)

Contents

1. Overview

The Open Group Professional Certification Program (the Program) is designed to validate the existence of those qualities and skills in a professional that enable the effective development, implementation, and operation of Business or IT-related specializations. The Program is skills and experience-based and goes beyond validating the mastery of any specific knowledge base.

The Program covers multiple Professions. This document is for the Data Scientist Profession, which leads to certification as an Open Certified Data Scientist (Open CDS).

The Open Group supports two different routes to certification:

- The first route is Direct Certification by The Open Group
- The second route is Indirect Certification through third-party programs accredited by The Open Group

The Conformance Requirements for each of the Professions in the Program apply equally to Direct and Indirect Certification.

This document is intended for individuals who wish to pursue Direct Certification in the Data Scientist Profession as Open Certified Data Scientists, and for organizations that wish to run Accredited Certification Programs internally.

1.1 Key Documents

The Data Scientist Profession is based upon three key documents:

- The Open Group Professional Certification Program Certification Policy, which sets out the policies and processes by which a Data Scientist may achieve certification
- The Open Group Professional Certification Program Conformance Requirements for the Data Scientist Profession (Open CDS), in which are documented the skills and experience that a Data Scientist must possess to achieve certification
- The Open Group Professional Certification Program Configuration Document for the Data Scientist Profession (Open CDS) (this document), which outlines the specific certification policies and processes for the Data Scientist Profession

Practical information about the certification process is available through the Open Professions FAQ and other Open Professions documentation on the Certification Authority's website.

1.2 Conformance Requirements

The Conformance Requirements for the Data Scientist Profession for this version of the Configuration Document are defined in The Open Group Professional Certification Program Conformance Requirements for the Data Scientist Profession (Open CDS), Version 2.0, published by The Open Group, June 2023, Document No. X23C.

1.3 Credentials and Levels of Certification

The Program recognizes one credential and three levels of certification:

Associate: A professional or student who is knowledgeable about data science and has some hands-on project experience, possibly in an educational or training setting.

Level 1: A professional who is able to perform with assistance/supervision with a wide range of appropriate skills as a contributing professional.

Level 2: A professional who is able to perform independently and take responsibility for delivery of solutions as lead professional.

Level 3: A professional who has significant breadth and depth of impact on the business through the application of their Profession.

1.4 Terminology and Definitions

Please see Section 1.5 (Terminology and Definitions) of The Open Group Professional Certification Program Certification Policy for the definition of terms.

1.5 Migration and Change History

This section details changes made to the Open CDS Configuration Document.

Version No.	Date	Change
1.0	December 2018	First publication.
2.0	June 2023	Addition of Associate Data Scientist credential. Application of Problem Reports PR69 and PR84.

2. Credential

2.1 Associate Data Scientist

The Associate Data Scientist credential demonstrates career readiness for individuals who have built skills through the application of learning in education or training settings. These individuals may have graduated from college or university programs or may be looking to change careers and have completed hands-on projects, such as a capstone. For recent graduates or those looking to re-skill, this credential offers early recognition of your skills and experiences prior to your certification as an Open Certified Data Scientist.

The Conformance Requirements for an Associate Data Scientist require conceptual knowledge and practical experience in the following areas:

- Core Basic skills
- Data Scientist Basic skills
- Experience Profile requirements
- Professional Development requirements
- Community Contribution requirements
- Experience requirements

Candidates complete a single application to apply for the Associate Data Scientist credential.

Credential	Conformance Requirements[1]	Evaluation By	Lifetime after which the Credential Ceases to be Valid	Badge ID
Associate	CBS01, CBS02, CBS06, DSS01, DSS02, DSS03, DSS04, DSS05, DSS06, DSS07, DSS08, DSS09, DSS10, EXP01, PD01, PD02, PD04, CC01, CC02, EC01, EC02, EC03, EC04	Peer Review Board Member Review	Once earned, a credential does not expire	Open ADS

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[1] As defined in The Open Group Professional Certification Program Conformance Requirements for the Data Scientist Profession (Open CDS).

3. Certification

3.1 Milestones and Milestone Badges

The Data Scientist Profession includes three types of Milestone Badges as part of the certification process. These are:

- The Open CDS Professional Communication Milestone Badge, which covers Core Basic skills relating to communication

- The Open CDS Professional Development Milestone Badge, which includes the Professional Development and Community Contribution requirements

- The Open CDS Experience Profile Milestone Badge, which includes the remaining Core Basic skills, the Data Science Basic skills, and the Experience Profile attributes

Candidates may apply for Milestone Badges at any time and in any order. Each level of certification has its own set of Milestone Applications.

Milestone	Conformance Requirements[2]	Evaluation By[3]	Lifetime after which the Badge Ceases to be Valid	Milestone Badge ID
Professional Communication (Level 1 and Level 2)	CBS01, CBS02	Certification Authority	The Badge is valid for as long as there is at least one (1) example/activity cited for each of CBS01 and CBS02 that is within the last three (3) years	Open CDS PC L1 Open CDS PC L2
Professional Communication (Level 3)	No separate Milestone as Executive Communication is covered by DDS06 and is evaluated in each of the Level 3 Experience Profile Milestone Applications.			
Professional Development (Level 1 and Level 2)	If the Candidate is already Open CDS certified: PD02, PD03, PD04, CC01, CC02 If the Candidate is *not* already Open CDS certified: PD01, PD02, PD03, PD04, CC01, CC02	Certification Authority	The Badge is valid for as long as there is at least one (1) example/activity cited for each of PD02, PD03, PD04, CC01, and CC02 that is within the last three (3) years	Open CDS PD L1 Open CDS PD L2

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[2] As defined in The Open Group Professional Certification Program Conformance Requirements for the Data Scientist Profession (Open CDS)**.**

[3] As defined by The Open Group Professional Certification Program Certification Policy.

Milestone	Conformance Requirements[2]	Evaluation By[3]	Lifetime after which the Badge Ceases to be Valid	Milestone Badge ID
Professional Development (Level 3)	DPD02, DPD03, DCC01, DCC02	Certification Authority	The Badge is valid for as long as there is at least one (1) example/activity cited for each of DPD02, DPD03, DCC01, and DCC02 that is within the last three (3) years	Open CDS PD L3
Experience Profile (Level 1 and Level 2)	CBS03, CBS05, CBS06, CBS07, DSS01, DSS02, DSS03, DSS04, DSS05, DSS06, DSS07, DSS08, DSS09, DSS10, EXP01, EXP02	Peer Review Board Member Review	Eight (8) years from the end date of your involvement in the project cited	Open CDS EXP L1 Open CDS EXP L2
Experience Profile (Level 3)	DDS01, DDS02, DDS03, DDS04, DSCF05, DDS06, DSCF07, DDS08, DDS09, DDS10, DDS11, DDS12, DEXP01, DEXP02, DEXP03	Peer Review Board Member Review	Eight (8) years from the end date of your involvement in the project cited	Open CDS EXP L3

3.2 Certification Application

After achieving the necessary Milestone Badges, a Candidate must complete a Certification Application, which enables a Candidate to show that the experience profiles presented for their Experience Profile Milestone Badges meet a set of criteria called the Experience Requirements.

Certification Level	Experience Requirements	Evaluation By
Level 1 or Level 2	CBS04, EC01, EC02, EC03, EC04	Peer Review Board
Level 3	DEC01, DEC02, DEC03, DEC04, DEC05	Peer Review Board

3.3 Achieving Certification

After achieving the necessary Milestone Badges, a Candidate may apply for certification by completing and submitting a Certification Application to the Certification Authority.

At the time of applying for certification, all of the constituent Milestone Badges must be valid and at least one (1) Experience Profile Milestone Badge must have a start date less than three (3) years before the submission of the Certification Application.

Candidates applying for Level 1 or Level 2 certification are not required to have been certified in the Profession previously. Candidates applying for Level 3 certification must have been previously certified at Level 2 in the Profession – such certification need not be current and may be to a previous version of the Program.

Certification is valid for three (3) years.

Certification Level	Milestone Professional Communication	Milestone Professional Development	Milestone Experience Profile	Evaluation Process[4]
Level 1	A valid Open CDS PC L1 or Open CDS PC L2 Milestone Badge is required.	A valid Open CDS PD L1 or Open CDS PD L2 Milestone Badge is required.	Two (2) valid Open CDS EXP L1 or Open CDS EXP L2 Experience Profile Milestone Badges are required.[5] At least one (1) Experience Profile Milestone Badge must have a start date less than three (3) years before the submission of the Certification Application to the Certification Authority.	Single Board Member Review Additional Board Member(s) assigned if declined
Level 2	A valid Open CDS PC L2 Milestone Badge is required.	A valid Open CDS PD L2 Milestone Badge is required.	Three (3) valid Open CDS EXP L2 Experience Profile Milestone Badges are required. At least one (1) Experience Profile Milestone Badge must have a start date less than three (3) years before the submission of the Certification Application to the Certification Authority.	Peer Review Board Review

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[4] See Section 6 (Evaluation) of The Open Group Professional Certification Program Certification Policy for further information.

[5] For Level 1 certification, a Candidate may use Level 1 or Level 2 Experience Profile Milestone Badges or any combination thereof. Note that Level 3 milestones are qualitatively different from Level 1 and 2 and therefore cannot be used to support an application for certification at Level 1 or 2.

Certification Level	Milestone Professional Communication	Milestone Professional Development	Milestone Experience Profile	Evaluation Process[4]
Level 3	Not required.	A valid Open CDS PD L3 Milestone Badge is required.	Three (3) valid Open CDS EXP L3 Experience Profile Milestone Badges are required. At least one (1) Experience Profile Milestone Badge must have a start date less than three (3) years before the submission of the Certification Application to the Certification Authority.	Peer Review Board Review

3.4 Re-Certification

Re-certification is required to maintain currency as an Open Certified Data Scientist. Refer to Section 9 (Re-Certification) of The Open Group Professional Certification Program Certification Policy.

Certification Level	Milestone Professional Communication	Milestone Professional Development	Milestone Experience Profile	Evaluation Process[6]
Re-certification (Levels 1, 2, and 3)	Not required.	Must hold a valid Milestone Badge for Professional Development at the same (or higher) level: • Open CDS PD L1 • Open CDS PD L2 • Open CDS PD L3	Must hold at least one (1) Experience Profile Milestone Badge at the same (or higher) level issued within the last three (3) years: • Open CDS EXP L1 • Open CDS EXP L2 • Open CDS EXP L3	If the required Milestone Badges are held at the certification expiry date, then re-certification is automatic.
			OR: Must submit a Declaration of Continued Practice.	Single Board Member Review Additional Board Member(s) assigned if declined

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[6] See Section 6 (Evaluation) of The Open Group Professional Certification Program Certification Policy for further information.

4. Additional Topics

4.1 The Specification Authority for the Profession and Program

The Open Group Open CDS Work Group is the Specification Authority for the Data Scientist Profession.

The Open Group Open Professions Work Group is the Specification Authority for the Program.

4.2 Logos and Labels for Use by Certified Professionals

The Open Group Professional Certification Program Trademark License Agreement defines the Certification Logo that may be used for the Data Scientist Profession, along with the following labels that identify the level of certification achieved:

- Level 1: Certified Data Scientist
- Level 2: Master Certified Data Scientist
- Level 3: Distinguished Data Scientist