

EUROPEAN COMPUTER DRIVING LICENCE (ECDL) AND INTERNATIONAL COMPUTER DRIVING LICENCE (ICDL)

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Abstract: *The European Computer Driving Licence (ECDL) certificate is the standard document for the basic qualification in computers use, recognized at an international level, proving the holder’s ability to efficiently use a computer and is widely adopted by governments, international organizations and corporations alike. It is known as the International Computer Driving Licence (ICDL) in countries outside of Europe. The ECDL mission is to raise the Information Technology (IT) knowledge level and increase the competence in using personal computers and usual computer applications for the general public. Many European countries have ECDL as a standard for testing public employees and in various education levels. Starting with September 2002 the European Computer Driving Licence is available in Romania too. The ECDL Romania created a national network of accredited testing centers, which is still in full development, following to cover all the districts of the country and currently counts over 200 centers.*

Keywords: *certificate, ECDL, level, knowledge, test, module.*

1. THE EUROPEAN COMPUTER DRIVING LICENCE



Fig. 1 ECDL Logo

The European Computer Driving Licence (ECDL) [8], Fig.1, certifies that the holder has knowledge of the basic concepts of Information Technology (IT) and is able to use a personal computer and common computer applications at a basic level of competence.

In practice the ECDL certificate indicates that the holder has passed one theoretical test that assesses his or her knowledge of the basic concepts of Information Technology (IT), and six practice-based tests which assess the holder's basic competence in using a personal computer and working with common computer applications.

The European Computer Driving Licence is an internationally accepted certificate. It can

simplify employment procedures and assure the employer that applicants and staff have the necessary level of knowledge and competence to use common computer applications.

The ECDL is a certificate of knowledge and proven competence and is based on a single agreed Syllabus [6]. The overall objective of the ECDL programme is an improvement in the level of basic knowledge about Information Technology (IT) and a higher level of basic competence in using personal computers and common computer applications throughout Europe and internationally.

The ECDL is deployed and monitored by the European Computer Driving Licence Foundation (ECDL – F).

The ECDL Foundation mission is to facilitate access for all to the Information Society by providing all people - irrespective of age, gender, status, ability or race - with the skills necessary to use computers in daily life.

The role of the Foundation is to promote and coordinate the development of the ECDL concept. The ECDL – F is the guarantor of the

ECDL standard and the Foundation ensures that the ECDL is administered in an equitable manner throughout Europe and internationally. Its role has now developed to cover the International Computer Driving Licence (ICDL).

The European Computer Driving Licence Foundation was formed to co-ordinate the introduction and operation of the ECDL concept throughout Europe. The ECDL concept is owned by the ECDL Foundation.

The Foundation is a not for profit organization that licences a national Licensee to use the ECDL concept and establish an ECDL dissemination programme in that country.

Within Europe the national Licensee must be a member of the Council of European Professional Informatics Societies (CEPIS). Outside Europe the ECDL Foundation will licence organizations qualified by the ECDL Foundation as Licensees.

History of ECDL Foundation 1995 - CEPIS Task Force

The Council of European Professional Informatics Societies (CEPIS) created a task force in 1995 to examine how to raise IT skills levels in industry throughout Europe.

The task force identified the Finnish Computer Driving Licence as a potentially suitable vehicle to do this and carried out pilot tests during 1995 and early 1996.

The new test was launched as the European Computer Driving Licence (ECDL) in August 1996 in Sweden.

1997 - ECDL Foundation Established



Fig. 2 ECDL Foundation Logo

The ECDL Foundation, Fig. 2, was planned that it should gain European wide acceptance as soon as possible. It became clear that the project would need to have a central co-ordinating body in order to ensure that the

implementation of the ECDL was at an equal standard throughout Europe, and subsequently throughout the whole world.

The CEPIS members started to consider the setting up of the ECDL Foundation in September 1996, and the ECDL Foundation was established on the 8th January 1997 in Dublin, Ireland, a city with a growing reputation for high tech know-how and quality transport and communications links with the rest of the world. The ECDL Foundation is a company limited by guarantee, has no share capital, and is registered in Ireland.

The ECDL Foundation owns the Intellectual Property Rights to the ECDL / ICDL concept and it actively works to implement this concept.

This is done through licence agreements between the ECDL Foundation and organisations in individual countries. Within Europe, the Licensee in each country is the local member of CEPIS.

1999 - ICDL introduced



Fig. 3 ICDL Logo

As the ECDL gained prominence within European states, with Candidate numbers moving over 1 million and then quickly accelerating, countries outside Europe began to take a strong interest in the concept.

Outside Europe, the core certification is known as ICDL (International Computer Driving Licence), Fig. 3, although the syllabus, testing and certification are identical to the ECDL.

Computer societies and development organisations in Africa and South America began piloting the ICDL, and a particular milestone was reached when UNESCO, through its Cairo office, became an ICDL Licensee for a large number of Arab States.

Operations in North America and Asia quickly followed, and ECDL / ICDL is now the only truly global standard in the field, with over 6 million Candidates registered by midway through 2006.

2007 - Beyond ECDL / ICDL

In the recent past, the ECDL Foundation has worked with Licensees and distributors to expand the range of certifications we offer through our vast network of over 20,000 training and Test Centres.

These include basic skills courses for the uninitiated, advanced level certifications [1] for those looking to gain recognition for expert skills, and specialised programmes for those working in particular fields or using niche applications. Many European countries have ECDL as a standard for testing public employees and in various education levels.

Starting with September 2002 the European Computer Driving Licence is available in Romania too. ECDL is used by renowned European companies.

The administration and the practice of these rights are made exclusively through ECDL Romania SA [6], Fig. 4, the only authorized entity by ECDL F. and ATIC to promote and develop the ECDL concept in Romania.



Fig. 4 ECDL Romania Logo

The importance of introducing the ECDL in Romania was noticed by the governmental authorities too.

In the G. Resolution 1007/2001 [4] regarding the preparation of the public office workers as users of informational technology, the following things are referred:

“The instruction and improvement courses will follow the ECDL model, which has been adopted as standard by the government of many countries.

The Ministry of Education and Research has to recommend this approach to all technical profiled high – schools; ECDL was suggested to all the member states of the UE, as standard certification for the essential qualification in using the computer.

The courses will consist mostly of actual practice on the computer and will require

proper structures in the whole country. Centers with laboratories for the ECDL instruction and certification will be founded in all the residence towns and in many high schools as well as in a few university departments.

The first stage of the program will involve approximately 250000 public employees.”

GR 1007 / 2001 was completed by the order of the Ministry of Public Administration with the article no. 252 / 2003 [5], in order to approve the Methodological Standards for the education and specialization of the public office workers in the IT and stipulates using ECDL standard at the elementary instruction level. The candidates testing are made only in the ECDL testing centers accredited by ECDL Romania, according to the ECDL Foundation’s standard tests. You can find the list of the accredited centers and of the ones that are about to be accredited on Testing Centers page.

The ECDL Romania created a national network of accredited testing centers, which is still in full development, following to cover all the districts of the country and currently counts over 200 centers. Among these centers you can find educational institutions (universities, high – schools, and even secondary schools dedicated mostly to obtaining the Start License [2]), administration training centers and centers for vocational training in all the cities of the country.

2. OBJECTIVES OF THE ECDL

- To promote and encourage computer literacy for all.
- To raise the level of knowledge about Information Technology (IT) and the level of competence in using personal computers and common computer applications for all citizens within Europe and internationally.
- To ensure all computer users understand best practices and the advantages of using a personal computer.
- To increase the productivity of all employees who need to use computers in their work.

- To enable better returns from investments in Information Technology (IT).
- To provide a basic qualification which will allow all people, regardless of their background, to be part of the Information Society.

3. BENEFITS OF THE ECDL

Today, computer skills are increasingly important to people in all walks of life. The ECDL is an information technology certificate for all citizens.

It is intended for those who need to, or wish to, know how to use a personal computer.

It is suitable for people from every work discipline, for people entering the job market, and for all ages.

Some of the benefits of the ECDL are that it provides:

- An IT skills qualification for everyone.
- An innovative and tangible method of skills measurement and validation.
- A model for education and training in the Information Society.
- A highly effective training delivery model.
- Greater public awareness of the benefits of active participation in the Information Society.
- A flexible and accessible qualification that offers increased mobility to holders.

4. ECDL TARGET POPULATION

The target population for the ECDL is the general public who want to use a personal computer competently.

The ECDL qualification allows workers, students and citizens to formally show, with their certification, that they have basic knowledge and competence in personal computer use.

For example, office workers who want their skills using a personal computer formally recognized will want to take the ECDL tests and obtain certification.

Formal certification of computer competency is also valuable to employers to assess an employee or potential employee's skill.

As such the target group for ECDL is a very broad population.

5. LEVEL OF DIFFICULTY

The ECDL is a certificate of knowledge and competence in personal computer use at a basic level.

This basic level of knowledge and competence is expressed in the ECDL Syllabus by giving a detailed list of the Knowledge Areas and Knowledge Items (Module 1) and Skill Sets and Task Items (Modules 2-7) covered by the ECDL Syllabus.

The Knowledge Areas and Skill Sets included in the ECDL Syllabus are those recognized by expert practitioners in the various domains as being necessary to cover basic knowledge and competence in using a personal computer and common computer applications.

6. THE ECDL STANDARD

The document presented in this publication is the ECDL Foundation EQTB Version 4.0 Sample Part-Tests. The ECDL standard consists of the following:

- The ECDL Syllabus, which is the detailed description of the Knowledge Areas and Skill Sets covered by the standard.
- The European Question and Test Base (EQTB), which comprises the questions and tests used to certify the ECDL standard.
- The Guidelines for ECDL Certification.

For the computer user the physical ECDL products are the ECDL certificate itself and the European Computer Skills Card (ECSC).

Conformance to the ECDL standard and the deployment programme of the ECDL is monitored and ensured by the European Computer Driving Licence Foundation.

The ECDL syllabus describes the knowledge and the skills required to achieve the ECDL standard. It covers basic computer skills and the use of common applications in the workplace, the home and in society in general. It is divided into seven modules, 6 practical and 1 theoretical.

A test in each module must be passed before the ECDL is awarded.

All the above are elements of the ECDL standard [3]. They are described in more detail in the following sections.

6.1. MODULE DOMAINS

Module 1 – Basic Concepts of Information Technology (IT), requires the candidate to have an understanding of some of the main concepts of IT at a general level.

The candidate is required to understand the make-up of a personal computer in terms of hardware and software and to understand some of the concepts of Information Technology (IT) such as data storage and memory.

The candidate shall also understand how information networks are used within computing and be aware of the uses of computer-based software applications in everyday life.

The candidate shall appreciate health and safety issues as well as some environmental factors involved in using computers.

The candidate shall be aware of some of the important security and legal issues associated with computers.

Module 2 – Using the Computer and Managing Files, requires the candidate to demonstrate knowledge and competence in using the common functions of a personal computer and its operating system.

The candidate shall be able to adjust main settings, use the built-in help features and deal with a non-responding application.

He or she shall be able to operate effectively within the desktop environment and work with desktop icons and windows.

The candidate shall be able to manage and organize files and directories/folders and know how to duplicate, move and delete files and directories/folders, and compress and extract files. The candidate shall also understand what a computer virus is and be able to use virus scanning software.

The candidate shall demonstrate the ability to use simple editing tools and print management facilities available within the operating system.

Module 3 – Word Processing, requires the candidate to demonstrate the ability to use a word processing application on a computer.

The candidate shall be able to accomplish everyday tasks associated with creating, formatting and finishing small sized word processing document ready for distribution.

He or she shall be able to duplicate and move text within and between documents.

The candidate shall demonstrate competence in using some of the features associated with word processing applications such as creating standard tables, using pictures and images within a document, and using mail merge tools.

Module 4 – Spreadsheets, requires the candidate to understand the concept of spreadsheets and to demonstrate the ability to use a spreadsheet application on a computer.

The candidate shall understand and be able to accomplish basic operations associated with developing, formatting, modifying and using a spreadsheet of limited scope ready for distribution.

He or she shall also be able to generate and apply standard mathematical and logical formulas using standard formulas and functions. The candidate shall demonstrate competence in creating and formatting graphs/charts.

Module 5 – Database, requires the candidate to understand some of the main concepts of databases and demonstrate the ability to use a database on a computer.

The candidate shall be able to create and modify tables, queries, forms and reports, and prepare outputs ready for distribution.

The candidate shall be able to relate tables and to retrieve and manipulate information from a database by using query and sort tools available in the package.

Module 6 – Presentation, requires the candidate to demonstrate competence in using presentation tools on a computer.

The candidate shall be able to accomplish tasks such as creating, formatting, modifying and preparing presentations using different slide layouts for display and printed distribution.

He or she shall also be able to duplicate and move text, pictures, images and charts within the presentation and between presentations.

The candidate shall demonstrate the ability to accomplish common operations with images, charts and drawn objects and to use various slide show effects.

Module 7 – Information and Communication, is divided in two sections.

The first section, **Information**, requires the candidate to understand some of the concepts and terms associated with using the Internet and to appreciate some of the security situations.

The candidate shall also be able to accomplish common Web search tasks using a Web browsing application and available search engine tools. He or she shall be able to bookmark Web sites, and to print Web pages and search outputs.

The candidate shall also be able to navigate within and use Web – based forms.

In the second section, **Communication**, the candidate is required to understand some of the concepts of electronic mail (e-mail) together with having an appreciation of some of the security considerations associated with using e – mail.

The candidate shall also demonstrate the ability to use e-mail software to send and receive messages, and to attach files to mail messages. The candidate shall also be able to organize and manage message folders/directories within e – mail software.

6.2. THE ECDL SYLLABUS

The purpose of the ECDL Syllabus is to list the Knowledge Areas and Knowledge Items and the Skill Sets and Task Items covered by the ECDL standard and to express in general terms the level of knowledge and skill required to achieve the ECDL standard.

The ECDL standard is based on the computer user knowing certain basic facts about Information Technology (IT) and having the basic knowledge and skills to use a personal computer and its software applications to carry out everyday tasks.

The Knowledge Areas and the Skill Sets necessary to be mastered in the ECDL standard are described in the ECDL Syllabus.

The purpose of the ECDL Syllabus is to list the facts to be known and the skills to be mastered that are covered by the ECDL standard. ECDL Syllabus Version 4.0 is published on the ECDL Foundation Web site.

6.3. THE QUESTION AND TEST BASE (QTB)

The Question and Test Base (QTB) comprises the questions and tests used within ECDL certification. The QTB is the property of the ECDL Foundation and is not in the public domain.

The ECDL tests are software vendor independent. The ECDL may be certified by manual evaluation testing or by automatic evaluation testing.

6.4. THE ECDL TESTS

The ECDL may be certified by a set of tests undertaken at the computer with manual evaluation or alternatively by undertaking a set of tests at the computer with automatic evaluation. The ECDL certification procedure is moving towards automatic evaluation testing.

6.5. DEPLOYMENT OF THE ECDL

The ECDL is deployed and monitored by the European Computer Driving Licence Foundation (ECDL – F). In order to maintain the ECDL standard, all countries must have an Organization authorized by the ECDL Foundation to monitor that all the tests are based on the ECDL Syllabus.

The education and examination procedures can differ between countries, however the ECDL Foundation requires that a valid and well-defined examination process together with a reliably operated testing process be in place at all approved Test Centres. The process of awarding an ECDL is audited by the ECDL Foundation to maintain the standard.

The ECDL is based on the standard ECDL Syllabus written in English. The Syllabus

defines the areas of knowledge and practical competencies required in the ECDL.

The standard test is localized for use in different countries, while using the same Syllabus and therefore documenting the same level of knowledge and competence in computing. The process of authorizing a localized QTB is audited and recorded by the ECDL Foundation.

The ECDL dissemination programme differs from most national or international education programmes, since it is based on a standard test or examination instead of a standardized teaching approach.

The ECDL always certifies the some standard of knowledge and competence, irrespective of a person's nationality, education, age or sex. An ECDL that is certified in one country is valid in another.

6.6. THE ECDL PRODUCT

The ECDL Product, for the user, consists of two physical items: the European Computer Driving Licence itself and the European Computer Skills Card (ECSC), which is an official record of the tests passed so far. ECDL Start is a certificate that may be awarded after any four modules have been passed within an ECDL test programme.

The European Computer Driving Licence (ECDL) is the certificate that attests to the holder's ability to use a personal computer and common computer applications, and states that he or she has been tested according to the ECDL standard and the authorized ECDL Syllabus. The ECDL is an internationally accepted document and has a similar format throughout Europe. For the candidate, gaining a complete ECDL builds around the European Computer Skills Card (ECSC).

The candidate will obtain a Skills Card before taking the first test. A Skills Card is an official form that is used to record each test successfully completed. As he or she passes each test, the Skills Card will be updated.

When all seven tests have been passed, the candidate will be eligible for a European Computer Driving Licence.

The candidate or the Test Center sends the completed ECSC to the country's national

ECDL office where it will be exchanged for a European Computer Driving Licence.

The modules can be taken in any sequence and the tests can be taken in different Test Centres and indeed in different countries.

An ECDL or an ECSC that is granted in one country is valid in another. Both the ECDL and the ECSC are internationally recognized certificates.

7. CONCLUSION

The European Computer Driving Licence (ECDL), known as the ICDL outside Europe, is the global standard in end-user computer skills.

The ECDL is an efficient program. There are a lot of courses of operating a computer. This confuses both the employers and the potential candidates.

The ECDL is a standard program, recognized internationally that measures the computer operating abilities.

It offers equilibrium between the employers' needs and the employees' abilities.

That is why the ECDL became the most frequent qualification in the entire world registering until now more than 4,7 million candidates.

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