Information Systems Security Office
Information Management Department

# EDCS
## Client Requirements

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**Release History**

| Release Number | Date (yy.mm.dd) | Brief Summary of changes (Editor) |
|---|---|---|
| 1.00 | 04.02.02 | First release version (Crimson Logic Ltd.) |
| 1.10 | 04.04.27 | Requirements update according to current ACP procedures (GMHoward) |
| 1.20 | 04.05.05 | Updated iKey USB Token software (GMHoward) |
| 1.30 | 04.05.30 | Included PKCS11Wrapper.dll file downloa (Gmhoward) |

# Contents

# 1 INTRODUCTION

This document outlines the requirements for client's platform (e.g. personal computer) for the correct and optimal usage of digital certificates on the Electronic Data Collection System (EDCS). The requirements include all software and hardware needed for a user to digital sign a document submitted thru EDCS to ACP.

The majority of the EDCS requirements are software and hardware already familiar to the user. Perhaps the only new requirement is the USB Token. This token is a storage device, like a floppy or hard disk, where the user will keep all the data necessary to digitally sign the documents on EDCS. The advantages of using the USB token (over a floppy for example), are: (1) Data inside the token is protected thru the usage of a pass phrase. (2) Signing of the documents occurs only inside the token, protecting the signing process from viruses, worms and Trojan horses. (3) Token is tamper proof and highly portable.

ACP is using the USB token to provide a secure, robust and portable device so the user can protect his or her digital signature. The token also allows the ACP to comply with the requirements stated on Law No. 43 July 21, 2001 of The Republic of Panama which provides legal validity to digital signatures.

# 2 EDCS PLATFORM REQUIREMENTS AND INSTALLATION

## 2.1 Software/Hardware Requirements

The minimum hardware and software requirements are given as below:

| Client Hardware | Client Software |
|---|---|
| Pentium III CPU | Microsoft Windows 2000 with Service Pack 2 or Windows XP O/S platform |
| 64 MB RAM | Microsoft Internet Explorer 5.5 with Service Pack 2 and above |
| 250 MB Hard Disk (for installation of JRE, USB token drivers and temporary files) | Java Runtime Environment (JRE) version 1.4.2 or higher (for Java Plug-in) |
| 64 Kbps Internet connection | Rainbow ikey Driver |
| 1 USB port available | Datakey CIP Utilities software |
| Rainbow iKey USB token | Java PKCS #11 Library |

The recommended platform requirements for these modules are:

| Client Hardware | Client Software |
|---|---|
| Pentium IV CPU | Microsoft Windows 2000 with Service Pack 2 or Windows XP O/S platform |
| 256 MB RAM | Microsoft Internet Explorer 6.0 with Service Pack 1 and above |
| 500 MB Hard Disk (for installation of JRE, USB token drivers and temporary files) | Java Runtime Environment (JRE) version 1.4.2 or higher (for Java Plug-in) |
| 256 Kbps Internet connection | Rainbow ikey Driver |
| 1 USB port available | Datakey CIP Utilities software |
| Rainbow iKey USB token | Java PKCS #11 Library |

If client's platform does not meet the requirements or is not supported in this document, the Panama Canal Authority does not guarantee the performance and correct operation of the system.

## 2.2 Requirements Installation

To access EDCS, every person should previously obtain a user account from ACP. The company's authorized representative, also known as the company's EDCS account administrator, should submit the user account requests to edcs_registration@pancanal.com. The request forms available are MRT 337 (for account administrator) and MRT 339 (for additional user accounts).

Users are responsible for the installation of all software required on their computers to access EDCS. The operating system, Microsoft Windows 2000 or XP can be bought at computer shops or on the Internet. Service Packs for both operating systems can be obtained for free at Microsoft website: http://support.microsoft.com/default.aspx?scid=fh;en-us;sp.

Microsoft Internet Explorer can also be obtained for free at Microsoft Download Center website: http://www.microsoft.com/downloads/search.aspx?displaylang=en. You will have to select the language of your operating system on the website before downloading the software.

The Java Runtime Environment (JRE) can be downloaded for free at Sun Java website: http://javashoplm.sun.com/ECom/docs/Welcome.jsp?StoreId=22&PartDetailId=j2re-1.4.2_03-oth-JPR&SiteId=JSC&TransactionId=noreg. You will have to accept the License Agreement and click Continue to download the JRE.

Once the Internet Explorer browser and JRE are installed, user must make sure that Java applets are enabled on the browser. This is required for browser to support digital signing of online forms on EDCS. To enable Java applets or check if it is enabled on Internet Explorer 6.0 with SP1:

- Go to Tools menu → Internet Options…
- Change to the "Security tab
- Click "Custom Level…" button
- Scroll down until you find "Scripting of Java applets" and choose "Enable"
- Click OK
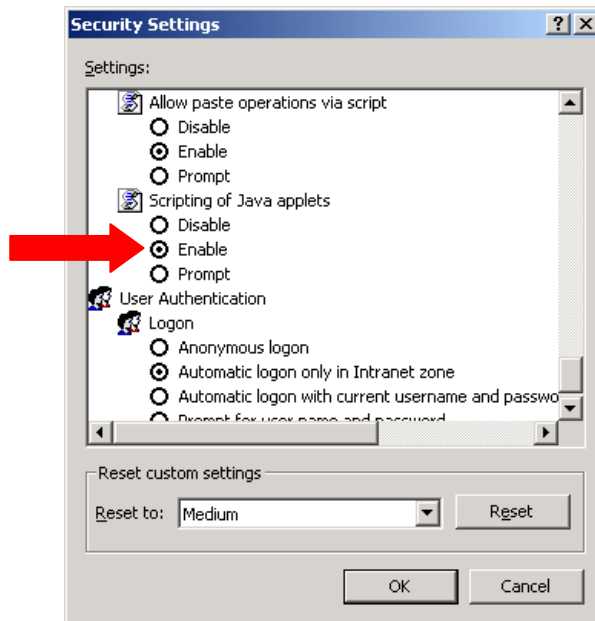


Each EDCS user should coordinate his/her connection to the Internet. Options and availability varies according to each geographical area. Please contact your local Internet Service Providers (ISP) for further details.

The Java Runtime Environment requires an additional file, the PKCS #11 Library (PKCS11Wrapper.dll). This file is available at the EDCS website: http://edcs.pancanal.com → Downloadable Software. This file should be downloaded or saved at the system32 subfolder, located inside the Windows operating system folder. For example, if you use Windows NT or 2000, the folder would be C:\WINNT\system32. If you have Windows XP, the folder would be C:\Windows\system32.

There is one more program necessary to access EDCS: CIP Utilities, which includes the iKey USB token driver. The software is also available at ACP EDCS website: http://edcs.pancanal.com/.

Installation of CIP Utilities software requires the following steps:
- Copy the file into a temporary folder in your computer.
- Open the compressed (zip) file and extract the files into the temporary folder.
- Search for file **setup.exe**, double click it.
- Click **Next** to start the installation wizard.
- Click **Yes** to the license agreement.
- Click **Next** (Files destination location window)
- **Uncheck everything** in the first windows (Application Support and Development Kit). Click **Next**.
- Make sure all 3 checkboxes are selected in the CIP Desktop Install Window and click **Next**.

- **Check only** the **iKey 2000** in the Reader Install Window.  Click **Next**.
- Click **Next** to start installation of files.
- It might ask you to insert the token for the installation to continue.  If so, **insert** the token in the USB port of the computer.
- Click **Finish** to allow the workstation to restart.

After the CIP Utilities is installed the user should find the Rainbow Technologies floder in the computer's Start Menu.  Go to Start → Rainbow Technologies → iKey 2000 Series Software → CIP Utilities.  The CIP Utilities allows the user to manage the USB Token and read the data that is stored inside the token.  The data is also protected by a pass phrase that only the user should know.  At any time the user can change the pass phrase using the CIP Utilities or also the Pass Phrase Utility.  To use the later option, go to Start → Rainbow Technologies → iKey 2000 Series Software and choose "PassPhrase Utility".

A Rainbow ikey USB token is individually assigned to each user to store the data required for him or her to digitally sign every document on EDCS.  As part of the data there is a digital certificate issued by the ACP.  Both are mandatory for any user to be able to sign documents.   To get your USB token and digital certificate, user should request it thru his or her EDCS user account administrator and contact the EDCS registration team at +507 272 5554 or send an email to edcs_registration@pancanal.com.

It is important to remember that all software mentioned on this document is subject to software manufacturer's license agreement.  The software provided by ACP should be exclusively used for ACP EDCS purposes.  The user is responsible for the correct licensing compliance at user's premises.  Under no circumstances shall the ACP be considered liable for any licensing problems that might arise from software usage at user's computer and network premises.

## 3 FINAL COMMENTS

Help us improve!   If you have any recommendation or comment to improve this document, please send it by email to edcs_registration@pancanal.com.   Write "EDCS Client Requirements Manual" on the subject line.  Thanks!

## 4 END OF THIS DOCUMENT