ClearVote 2.1

ClearDesign Maintenance Guide

ClearDesign Maintenance Guide

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Document history

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Preface

This section defines the purpose of this document. It contains the following subsections.

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About this document

This document provides information about maintenance for ClearDesign.

> ✓ A ClearVote® system can comprise the ClearAccess®, ClearAudit®, ClearCast®, ClearCount®, and ClearDesign® products. Jurisdictions are not required to purchase all products. You can ignore references to any ClearVote products that are not part of your voting system. Also ignore implementation options that are not relevant to your policies and procedures.

Scope of this document

The document contains the following chapters:

- Chapter 1. Hardware maintenance
- Chapter 2. Software maintenance
- Chapter 3. Maintenance facilities and support

Intended audience

The document is for state and federal election officials and their voting system test laboratories as part of the Technical Data Package (TDP) required to certify the ClearVote system for use. This document is also used by Clear Ballot personnel who support election officials and staff.

Contact us

Clear Ballot Group welcomes your feedback on our documentation. Please send comments to Documentation@ClearBallot.com.

If you have questions about using your product, contact your Clear Ballot representative.

Chapter 1. Hardware maintenance

This chapter describes maintenance for ClearDesign hardware, which involve inspecting the hardware and cleaning the monitor.

For additional information about ClearDesign hardware, see the following:

- For a summary description of the hardware, see the table "Hardware components of ClearDesign" in the *ClearDesign System Overview*.

- For specific models of hardware used for ClearDesign, see Approved components in the *ClearVote Approved Parts List*.

- Because ClearDesign uses commercial off-the-shelf hardware (COTS), see the documentation of the hardware manufacturer for details. You can get this documentation from Clear Ballot or directly from the hardware manufacturer.

1.1 Hardware inspection

No hardware maintenance is required other than making sure that:

- There is no physical damage to the computer.

- The cables and power cords are attached.

- The computer turns on.

- You can log on to check if the monitor, keyboard, and mouse are working properly.

1.2 Cleaning the monitor

Clean the monitor according to the manufacturer's recommendation.

Chapter 2. Software maintenance

This chapter describes maintenance for the ClearDesign software.

The information technology (IT) resource or vendor of a jurisdiction can perform all the software maintenance tasks listed in this chapter. For software updates, contact Clear Ballot Technical Support.

Some software maintenance tasks involved using USB drives. Clear Ballot recommends the use of encrypted USB drives.

2.1 Updating Windows Defender Antivirus on DesignStations

Microsoft provides the Windows Defender antivirus program with its Windows operating system that runs on DesignStations. To keep the antivirus definitions current, Microsoft recommends updating Windows Defender at least once a week.

Because ClearDesign computers are over a closed, wired Ethernet, you must update the antivirus definitions offline by using removable memory media such as a CD or DVD.

2.1.1 Downloading antivirus definitions offline

To download antivirus definitions offline:

1. Locate a computer outside the closed ClearDesign Ethernet that has a USB port and Internet connection.

2. Navigate to https://www.microsoft.com/security/portal/definitions/adl.aspx.

3. Download the antivirus definitions according to the instructions on that site for your operating system and bit version.

   The antivirus definitions are downloaded to a file named `mpam-fe.exe` or something similar.

4. Insert an encrypted USB drive into a USB port on the computer where you downloaded the antivirus definition file.

5. Copy the antivirus definition file to the encrypted USB drive.

6. Eject the encrypted USB drive.

2.1.2 Temporarily disabling software restrictions

When updating third-party software, such as antivirus definitions, on the DesignStations, temporarily disable any software restriction policy that you set up during system configuration so that the update can run.

After installing the update, be sure to reenable the software restriction policy.

To disable the software restrictions, follow these steps:

1. Log in to the DesignStation as the Windows administrator.

2. From the task bar, type **gpedit** into the **Search** field and select **Edit group policy** from the search results.

   Windows displays the Local Group Policy Editor.

3. In the left pane of the Local Group Policy Editor, select **Computer Configuration > Windows Settings > Security Settings> Software Restriction Policies > Security Levels**.

4. In the right pane, double-click **Unrestricted** to open the Unrestricted Properties dialog.

5. Click the **Set as Default** button and then click **OK**.

6. Close the Local Group Policy Editor.

2.1.3 Adding updated antivirus definitions to a DesignStation

To add updated antivirus definitions to a DesignStation:

1. Log in to the DesignStation as the Windows administrator.

2. From the task bar, type **defender** into the **Search** field and then select **Windows Defender Security Center** from the search results.

3. Click **Virus & threat protection**.

4. Click **Protection Updates**.

   Note the date and time that the definitions were created. Do not close the Protection Updates window.

5. Insert the encrypted USB drive containing the updated antivirus definitions into a USB port on the DesignStation and browse to the file.

6. Right-click the file and select the **Run as Administrator** option from the pop-up menu.

7. When the User Account Control dialog appears, click **Yes** to run the update.

   You may see the mouse pointer spinning as the update progresses. If not, wait 30 seconds.

8. Return to the Protection Updates window and check the date and time that the definitions were created.

   The date should be the date you downloaded the file. Close the Protection Updates window.

9. Re-enable the software restriction policy as described in Updating third-party software.

2.1.4 Reenabling software restrictions

After updating antivirus definitions on a DesignStation, you must reenable software restrictions.

Follow these steps:

1. Log on to the computer as the Windows administrator.

2. From the taskbar, type **gpedit** in the **Search** field.

   Windows displays the Local Group Policy Editor.

3. In the left navigation pane of the Local Group Policy Editor, select C**omputer Configuration > Windows Settings > Software Restriction Policies > Security Levels**.

4. In the right pane, double-click **Disallowed**.

   Windows displays the Disallowed Properties dialog.

5. Click the **Set as Default** button and then click **OK**.

6. Close the Local Group Policy Editor.

2.2 Backing up an election

For information about backing up elections, see "Election backup and export" in the *ClearDesign User Guide*.

2.3 Database analysis and performance tuning

A ClearDesign database is self-tuning. No customer tuning is required. Database performance analysis is not required. If a jurisdiction is concerned about database performance, contact Clear Ballot Technical Support.

2.4 Correcting deficiencies or faulty operations in software

Responsive to VVSG 2005, Volume 2, Section 2.9.2.2.b.

If you identify a defect, follow these guidelines:

1. Ensure that all settings are configured properly.

2. Repeat and write down the steps required to reproduce the defect.

3. If possible, capture a screen image.

4. Contact Clear Ballot Technical Support to see if there is a workaround.

If a patch or bug fix is required, Clear Ballot develops and certifies the fix as quickly as possible. Clear Ballot then makes the fix available through its standard distribution mechanisms.

Chapter 3. Maintenance facilities and support

Responsive to VVSG 2005, Volume 2, Section 2.9.5

This chapter identifies facilities and other supports required for equipment maintenance.

Jurisdictions may have their own specific maintenance requirements.

3.1 Spare or backup devices

The ClearDesign system runs on highly reliable, unmodified COTS hardware. The DesignServer and one of more DesignStations are connected over a closed, wired Ethernet.

If a jurisdiction has more than one DesignStation, one can be considered as a spare if the other DesignStation fails.

Some jurisdictions purchase a backup DesignServer to have on hand if the primary DesignServer malfunctions. Clear Ballot recommends putting the spare DesignServer through readiness and L&A testing so that it can be used immediately if a malfunction occurs.

ClearBallot recommends purchasing a maintenance contract from the supplier of the DesignServer and DesignStations.

3.2 Maintenance furnishings, fixtures, and utilities

Responsive to VVSG 2005, Volume 2, Section 2.8.2

Maintenance of the ClearDesign equipment requires: a table or desk, lighting, and power.