Revolution Installer

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1 Introduction

This document outlines the technical specifications and implementation of the program revolution-installer developed for Soviet Linux by the Soviet Linux development team and its front-end, Revolution. If you have inquires on this document or you wish to suggest changes please do so in our official Discord server.

2 Running Revolution-installer

Revolution-installer comes pre-packaged in the Soviet Linux official ISO image and can be executed as root user in bash by running the `revolution` command. This will execute the Revolution front-end program which will guide the user trough the installation process using TUI prompts. In addition it will also provide a "one command" installation process, which consists in executing the `revolution` command with a set of arguments to configure the system.

3 The Revolution-installer API

The Revolution-installer provides an API to install the system. This API is specific for the Soviet Linux system, however it could be ported to another operating system. The API makes use of the CCCP package manager and its library to install the system and additional packages.

3.1 Locale

3.1.1 setlocale

The `setlocale` API call will set the specified locale

3.1.2 showlocale

The `showlocale` API call will display all available locale

3.2 Keyboard format

3.2.1 setkb

The `setkb` API call will set the keyboard according to the argument passed by the user. It follows the standard naming scheme for keyboards

3.2.2 listkb

This API call will return a list of keyboard layouts that can be chosen by the user.

3.3 Hostname

To set a user defined hostname use the `sethost` API call. It will set the hostname for the system to be installed.

3.4 Time Zone

3.4.1 listzones

Returns a list of available zones. This API call will work differently depending on the argument passed. If the argument is an empty string or a NULL pointer the return will be a list of string representing the continent of the time zone. Otherwise if the argument is a continent then it will return a list of time zones available.

3.4.2 setzone

Set the time zone. It accepts two strings as arguments: one for the continent one for the time zone.

3.5 Root user and User creation

3.5.1 setrootpasswd

This API call sets the root password. It accepts one string argument.

3.5.2 createuser

This API call creates a new user. By default revolution-installer will set the default user settings as defined in `man useradd`, however it is possible to add additional arguments to this API call to change its behaviour. Here is a list of acceptable arguments:

This function returns an integer, defined as user id. Store this value as it will be necessary to complete the user setup.

3.5.3 setuserpasswd

This API call sets the user password using the argument passed. It require a user id to be passed as argument.

3.6 User Goups

After a user is created use the following calls to set its groups. It is necessary for a user to be already created for these calls to work properly.

3.6.1 listgroups

Given a user id, returned by `createuser`, it will return a list of groups structures. These structures contain the group name as well as a value indicating if the user is part of these groups: 1 if it is, 0 if it is not.

3.6.2 setgroups

Sets the groups for the user. Specify the groups in a list of groups structures and provide a user id.

3.7 Network

As of oviet Linux only officially supports only wired connections, so revolution-installer will support only those as well. This will be changed in future versions of the software.

3.8 Installation Medium Selection

Revolution-installer supports multiple ways to install the system. It is possible to install Soviet Linux from the local ISO, from the official rootfs tarball or trough the CCCP. The CCCP option require the system to be recompiled from scratc hbut it will provide the most up to date packages, while the tarball and the ISO will be faster to install but might be out of date.

3.8.1 setinstmethod

This call sets the installation method. It accepts one of the following arguments:

LOCAL uses the local ISO image to install the system

TARBALL uses the rootfs tarball to install the system

SOURCE uses CCCP to install the system

3.9 Disk partition

Disk partition, in Revolution-installer, occurs trough the use of partx as a backend. The API will simply act as a buffer between the front-end and partx. It will also simplify the interface.

3.10 File system

3.10.1 setfs

Accepts a disk id and a fs type. It will format the disk with that file system.

4 System Installation

After the setup is complete to install the system make the `install` API call. This call will begin the installation process following these steps:

- Partition the disk
- Install the fs

- Fetch the base system, if TARBALL is selected. It will fetch and compile the preliminary tools if SOURCE is selected.
- Unpack the downloaded tarball

5 Appendix A: License