

## MODULE 4

### SPREADSHEETS

#### Teacher Notes

#### Time Allocation

Total length of classes – 40 study hours.

Recommended course sequence	Number and name of ECDL module	Approximate course length (study hours)
1.	1. Concepts of information and communication technology	2
2.	2. Using the computer and managing files	4
3.	3. Word processing	10
4.	7. Web browsing and communication	5
5.	6. Presentation	6
<b>6.</b>	<b>4. Spreadsheets</b>	<b>6</b>
7.	5. Databases	7
		40

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# CLASSROOM EQUIPMENT

The study material examines version **3.2** of **OpenOffice.org Calc** in the **Gnome** environment of **Linux Ubuntu 10.10**.

The recommended minimum system requirements:

- **x86** processor with a clock rate of **1 Ghz**;
- **1 GB** of random-access memory
- Hard drive capacity (free space for parallel installation of operating systems) – **8 GB**;
- Video card and monitor with a resolution of **1024 × 768**
- USB port
- CD/DVD drive
- Internet connection
- Operating system **Linux Ubuntu 10.10** or newer with the **Gnome** graphical environment (version 2.32 or newer)
- OpenOffice.org (version 3.2 or newer) application suite, including the application **Calc**.

## Note:

The latest versions of Ubuntu may include the identical software **LibreOffice** in place of the **OpenOffice.org** application suite.

The latest versions of Linux Ubuntu use the graphical environment **Unity** by default. It is recommended to use the **Gnome** environment for better correspondence with the tasks of the study material.

## Virtual Environment

If the classroom computers are equipped with a Windows operating system, it is possible to use a virtual work environment.

### To create a virtual environment:

1. Download the free **VirtualBox** software from **www.virtualbox.org**;
2. Install **VirtualBox** in the **Windows** environment;
3. Create a new virtual machine;
4. In the environment of the virtual machine, install **Linux Ubuntu**;
5. Install **VirtualBox** on the classroom computers;
6. Copy the previously created virtual machine disk onto the classroom computers;
7. On the computers, create a new virtual machine in **VirtualBox**, choosing to use the copied virtual disk.

## Note:

Advanced technical knowledge may be needed for creation of the virtual environment and installation of the operating system.

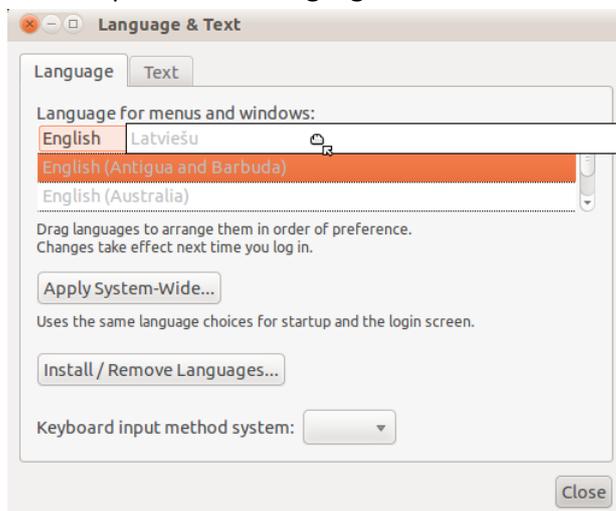
The user manual of **VirtualBox** can be found in the **Documentation** section of its website: [http://www.virtualbox.org/wiki/End-user\\_documentation](http://www.virtualbox.org/wiki/End-user_documentation).

## Language Selection

In **Linux Ubuntu**, it is possible to choose the language of the graphical environment (interface) for both the operating system and the **OpenOffice.org** suite.

**To change the interface language:**

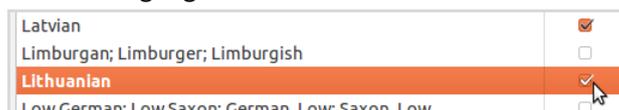
1. Perform the top panel menu command **System→Administration→Language Support**;
2. In the **Language** tab of the **Language & Text** dialogue box, drag the desired language to the top in the list “**Language for menus and windows**”:



3. Click **Apply System-Wide**;
4. Enter the administrator password;
5. In the **Text** tab, choose the number, currency, date format;
6. Close the dialogue box by clicking **Close**;
7. Restart the computer (or log out and log in again).

**If the list does not contain the desired language:**

1. Click **Install/ Remove Languages**;
2. In the following dialogue box **Installed Languages**, tick the checkbox next to the desired language:



3. Click **Apply Changes**;
4. Enter the administrator password.

## Before Starting the Course

- It is recommended to create a new user account with a password for the study course (**System→Administration→Users and Groups**);
- Copy the folder **4\_izklajlapas** with task templates to the **Documents** folder of the user account;
- Get thoroughly acquainted with the study material and tasks;
- It is recommended to complete all the practical tasks included in the material;
- Complete the final task **4.9\_test** on a classroom computer.

## Practical Task Files

The files of ECDL module 4 **Spreadsheets** are located in the folder **4\_izklajlapas**. Task templates and files for completion of the tasks are in subfolders whose names begin with the number of the respective task. Each task folder contains a subfolder called **final**, which contains an example of a file obtained as a result of completing the task.

## Course Outcome

- Work with spreadsheets and save them in different file formats;
- Choose built-in options such as the Help function within the application to enhance productivity;
- Enter data into cells and use good practice in creating tables. Select, sort and copy, move and delete data;
- Edit rows and columns in a worksheet. Copy, move, delete and appropriately rename worksheets;
- Create mathematical and logical formulas using standard spreadsheet functions. Use good practice in formula creation and recognize error values in formulas.
- Format numbers and text content in a spreadsheet;
- Choose, create and format charts to communicate information meaningfully;
- Adjust spreadsheet page settings and check and correct spreadsheet content before finally printing spreadsheets.

## Independent Work

The final task **4.9\_test** is intended as an independent test of knowledge and assessment of readiness for the exam.

## Customizing the Work Environment

### Appearance

- Display (hide) toolbars: **View→Toolbars→(Toolbar name)**.
- Formula bar: **View→Formula Bar**.
- Visual size of the document: Zoom slider in the application's status bar.



- Display (hide) column and row headers: **View→Column & Row Headers**.

- Page break preview: **View→Page Break Preview**.
- Restore normal view: **View→Normal**.

### Units of measurement

1. **Tools→Options**;
2. Expand the list **OpenOffice.org Calc**;
3. In the expanded **Calc** list, choose **General**;
4. Choose the units of measurement in the **Calc–General** pane of the dialogue box.

### Decimal mark

1. **Tools→Options**;
2. Expand the **Language Settings** menu;
3. Choose **Languages**;
4. Select the country in the **Locale setting** menu of the **Language of** pane.

## Frequently Used Commands

### Insertion

- Picture: **Insert→Picture→From File**.
- Chart: **Insert→Chart**.
- Row, column: **Insert→Rows (Columns)**.
- Sheet: **Insert→Sheet**.
- Comment: **Insert→Comment**.

### Formatting

- Change the page format: **Format→Page**.
- Format column, set width: **Format→Column→Width**.
- Format row, set height: **Format→Row→Height**.
- Merge cells: **Format→Merge Cells**.
- Position and size of selected image: **Format→Graphic→Position and Size**.

### Printing

- Print preview: **File→Page Preview**.
- Define print range: **Format→Print Ranges→Define**.
- Create header, footer: **Format→Page; Header** tab.
- Fitting: **Format→Page; Sheet** tab; in the **Scaling mode** menu of the **Scale** pane, choose **Fit print range(s) to width/ height**.

### Spelling check

- Spelling check: press the function key **F7** on the keyboard.

## Error tracing

- **Tools**→**Detective**→**Trace Error**
- **#VALUE** – incorrect value within the formula – e.g., text in place of numbers.
- **#REF!** – invalid cell or cell range address.
- **#NAME?** – incorrect function name or text not placed inside quotation marks.
- **#DIV/0!** – division by zero.
- **Err:509** – message with an error number.