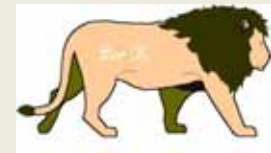




Excel 2010

More Than A Spreadsheet

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Some Office Suites

- **Microsoft Office 97**
- **Microsoft Office 2000**
- **Microsoft Office 2003**
- **Microsoft Office 2007**
- **Microsoft Office 2010**
- **Star Office**
- **Open Office**
- **IBM Lotus Symphony**

Microsoft Office 2010

- **Microsoft Excel**
- **Microsoft Access**
- **Microsoft Power Point**
- **Microsoft Word**

- **Various combinations of these and others are sold**
- **Requires Windows XP or later**

Microsoft Excel

Excel is the most popular spreadsheet in existence.

It has many features that you do not know about

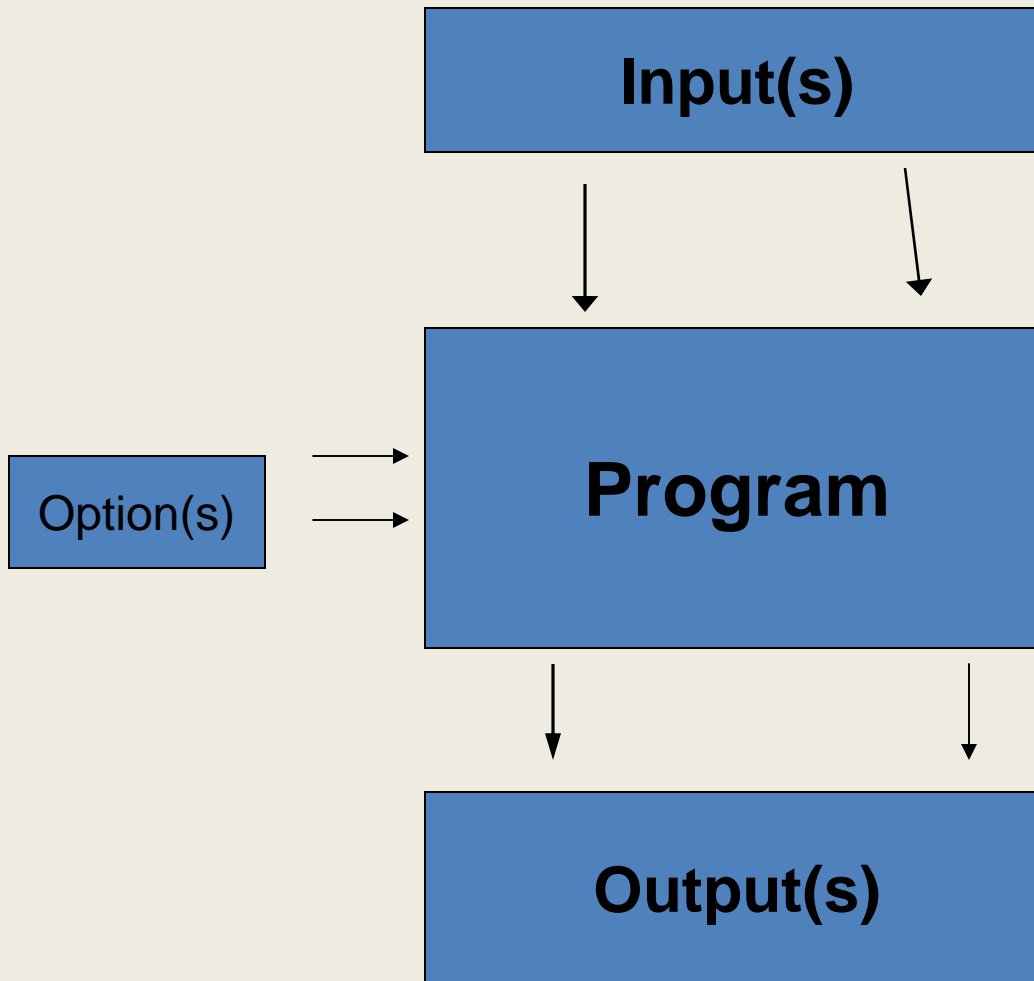
It is arguably the best program to learn and use.

Excel Is Useful

- Buying a car
- Blood sugar
- Phone Bill
- Medications
- Genealogy
- Income tax
- “To Do” List
- Assets, stocks, bonds
- Inventories
- Budgets

Any “Flat File” database

Computing 101



Spreadsheet Features

- Rows and Columns
- Cells
- Built in functions
- Formulas
- Inputs and outputs to/from cells only
- Mathematics, flat databases, tables
- Everything is in one or more cells except graphs and pictures which “float”

Stepwise Refinement

- Classic way to solve a problem
<http://sunnyday.mit.edu/16.355/wirth-refinement.html>
- Leo's preferred method of programming development
 1. Think
 2. Write some code
 3. If it works – count your blessings and QUIT
 4. Else if it is better than the saved version, SAVE IT
 5. Go back to 1

Programming and debugging = skill, art, and patience

Examples 1

- C:\LKEXCEL\No_Macros\Party2011.xls
- C:\LKEXCEL\No_Macros\SellCars.xlsx
- C:\LKEXCEL\No_Macros\Graphing\Central_Tendency.xlsx
- C:\LKEXCEL\No_Macros\Graphing\Coupons.xlsx
- C:\LKEXCEL\No_Macros\Graphing\Cumulative.xlsx
- User_Forms\Dessert.xlsm

What is A1 ?

A block of memory or a table that is controlled by Excel containing:

- A value (numeric or string)
- Properties
 - Font size and type
 - Foreground Color
 - Background color
 - Borders
 - How to display the value

Procedures

- Modern versions of Excel include VBA (Visual Basic for Applications) which allows “procedures” i.e. User Functions and Macros
- Excel workbooks containing procedures (.XLSM) should be saved in “trusted” directories.
- Functions and macros (except those with user forms which are saved with the form) are stored in “Modules”. Use the “Developer” tab and VBE (Visual Basic Editor) to create/modify.

Inputs To Procedures

- Calling Sequence (functions only)
- Worksheet cells
 - In the Current Workbook (.XLSM)
 - In Other Open Workbooks
 - With and without Selection(s)
- Other
 - OLE (Object Linking and Embedding)
 - Files
 - User Responses
 - Visual Basic for Applications
 - User Forms

Examples 2

- C:\LKEXCEL\Macros_NoForms\Case_Change.xlsm
- C:\LKEXCEL\Macros_NoForms\Kreport.xlsm
- C:\LKEXCEL\Macros_NoForms\USP.xlsm
- C:\LKEXCEL\Macros_NoForms\Skel.xlsm

Starting Procedures

- Function – put its name and arguments (if any) into a cell =MyFun(26)
- Macros
 - Click on a picture that has an assigned macro or
 - Tools – Macro –Macros or
 - Automatically – Sub Auto_Open or
 - A macro or function can call another macro or
 - Type a “shortcut key” (c/n or c/s/n)

Procedure Outputs

- Worksheet cells
 - Current Workbook
 - Other Open Workbooks
 - Calling sequence (functions only)
- Other
 - OLE To Other Office Applications
 - Files
 - User Screen

A Function **CANNOT** alter worksheet contents

User Forms

- A Graphical User Interface (GUI)
- Sometimes called a “dialog box”
- Has most of the features of Visual Basic 6
- Has one or more “controls”
- Has its own subroutines and optional functions but can interface with worksheet functions and subroutines.

User Form Controls

- Some important “Controls” i.e. icons
 - Command Button
 - Label
 - Text Box
 - Check Box
 - Option Button
 - Scroll Bars
 - Others

Examples 3

C:\LKEXCEL\User_Forms\GeorgiaNetLibrary.xlsm

C:\LKEXCEL\User_Forms\Christmas.xlsm

C:\LKEXCEL\User_Forms\FormCase.xlsm

C:\LKEXCEL\User_Forms\Wagner.xlsm