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1. **Panoramic for Android**

Panoramic for Android is available by the executable `panoramic.apk` which can be installed on all equipment with Android greater than or equal to 4.1.

It is an interpreter executing text sources created from scratch or modified, or downloaded from a computer.

It is still in development and some features do not work normally.

The syntax is the same as Panoramic for Windows: the cross-platform development between Windows and Android is my target.

2. **Installation procedure**

2.1. **Pre-requisite**

To install `panoramic.apk` on an Android equipment (called Phone), you must have:
- a USB cable between Computer and Android equipment,
- a Computer able to browse Phone by an installed driver.

2.2. **Installation of `panoramic.apk`**

- on Phone, starts « Setting »,
- in « Developer Options », authorize « Debug mode when USB is connected » in USB debugging,
- connect Phone to Computer PC with USB cable,
- on Computer, with Windows Explorer, find the Phone directory Download,
- transfer `panoramic.apk` to Download directory,
- on Phone, with « File Commander » or « Android File Manager » or other File Browser, find `panoramic.apk` in Download directory,
- tap the file `panoramic.apk` : the installation process starts, authorize it,
- that’s all : Panoramic for Android is installed.

Its icon can be seen on Phone:
3. How to use Panoramic for Android

3.1. Main Page

Touch PA icon: Panoramic starts and the main page is displayed.

Main Page has 3 buttons: LOAD, NEW, QUIT and some information are displayed:
- Name
- Version
- Generation date
- Screen size in pixels

3.2. Button QUIT

Button QUIT displays a confirmation message with 2 buttons YES and NO.

YES stops Panoramic, NO comes back to Main Page.
3.3. **Button LOAD**

Button **LOAD** lists available source files in Phone Download directory. Example files are set into this directory and can be used to get familiar with Panoramic.

By touching one of these files, its content is displayed, and a button **RUN** is displayed for execution.

When the file content is displayed, it is possible:
- to alter it by the virtual keyboard of android then to run it (**RUN**) or to save it (**SAVE**),
- to run it directly by button **RUN**.
Example of proposed example file:

```
LOAD  RUN  SAVE  QUIT

LABEL CLIC

BUTTON 1
TOP 1,10:LEFT 1,20
WIDTH 1,250:HEIGHT 1,50
CAPTION 1,"Click on me"
ON_CLICK 1,CLIC
END

CLIC:
CAPTION 1,"Made with Panoramic"
RETURN
```

3.4. Button NEW

Button **NEW** of Main Page starts file edition with a blank page. A new source can be edited with Android means (virtual keyboard, select and paste):
3.5. **Button SAVE**

Button **SAVE** is used to save modified sources (created from scratch by **NEW**, or get by **LOAD** then modified). Name of file must be given:

![Image of Name of file prompt]

4. **Source files**

4.1. **Source file format**

Source files are in text format.

Two extensions are possible: **BAS** or **TXT**. Panoramic uses BAS or TXT.

A source file can be generated by an Android word processing, provided that you save it in text format (ANSI option).

4.2. **Source file from Computer to Phone**

It is more easy to edit a source file in a Computer.

A source file can be transferred from Computer to Phone by a USB cable:

- connect Phone to Computer PC with USB cable,
- on Computer, with Windows Explorer, find the directory Download of Phone,
- transfer source file (.bas or .txt) to Phone Download directory,

Button **LOAD** of Main Page will then display the file.
5. Differences between Windows and Android

Change your habits!

With Android, there is:

- No mouse,
- No menu (then no `MAIN_MENU` and no `SUB_MENU`),
- No objects to browse directories (then no `OPEN_DIALOG` and no `SAVE_DIALOG`).

To simplify the development, I remove (for the moment) objects `SCENE2D` and `SCENE3D`. I will develop them in the future.

6. The cross-platform development

Panoramic for Windows and Panoramic for Android have the same syntax.

There are a lot of common key-words, so if your application runs on Windows, it runs on Android and vice versa.

The cross-platform development is the base Panoramic for Android.

7. Objects used by Panoramic for Android

Today, the following objects can be used by Panoramic for Android:

```
BUTTON
EDIT
MEMO
COMBO
ALPHA
LIST
PICTURE
CHECK
OPTION
SOUND
TRACK_BAR
SCROLL_BAR
PROGRESS_BAR
GRID
CONTAINER
DLIST
TIMER
PANEL
IMAGE
```

Specific Phone objects are planned:

```
Camera,
GPS,
Compass,
Gyroscope, ...
```