

Klinkmann WAP Emulator

User Guide
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1. Overview

KLINKMANN WAP Emulator is a Microsoft Windows general purpose application program for viewing the contents of WAP Applications created, for viewing WML pages from world-wide WAP sites available for browsing as well as created and/or driven by **KLINKMANN WAP Tool**. The WAP Emulator can be useful for testing purposes when WAP enabled phone/device is not available. The WAP Emulator reads pages from WAP sites and converts them to HTML format, allowing to examine the WML content in the user-friendly mode. The connection from WAP Emulator to WAP sites is performed through Internet and no WAP Gateway is involved. The browsing throughout WML pages is performed inside WAP Emulator main window, which simulates Nokia 6210 mobile phone and navigation can be done by clicking on links, Navi Roller simulated buttons and left and right soft keys of the phone picture.

2. Installing and running the WAP Emulator

The WAP Emulator is created to be easy to use and there is no special installation of KLINKMANN WAP Emulator needed – the WAP Emulator consists from one executable named **P106_xxx.exe**, where **xxx** is the current (latest) version of KLINKMANN WAP Emulator. KLINKMANN WAP Emulator can be downloaded from Klinkmann's web site <http://www.klinkmann.com>, it is supplied also as a part of KLINKMANN WAP Tool standard software package.

To run the KLINKMANN WAP Emulator, your computer must be connected to Internet. The following appears at KLINKMANN WAP Emulator start-up:



3. Using WAP Emulator

3.1. WAP Emulator Interface

Basically, KLINKMANN WAP Emulator interface consists of *Screen* that is similar to the Nokia 6210 display, buttons that simulate the original Nokia 6210 *Scroll keys* and buttons that simulate the left and right *Selection Keys*.

Screen represents visual information like it is displayed on Nokia 6210. It displays WML pages, including formatted text and wireless images.



Scroll keys are used to view a WAP page. These keys can be operated by simply clicking on them with mouse pointer. If you are planning to scroll a screen for more than few pixels, you can hold down the mouse button. This will make a screen scroll in selected direction.



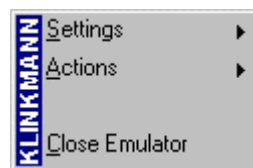
Selection keys are used to execute commands that are shown on the screen, above the corresponding Selection key. For example, when the Emulator is started, you will see label "Menu" above the left Selection key. This means that clicking this Key you will open the Menu. This works similar like on Nokia 6210.



Note: On Nokia 6210, the Dial (green) key is used to select a link. On WAP Emulator, the link can be selected directly by positioning mouse over selected link and clicking mouse left button.

3.2. WAP Emulator Tray Icon

The KLINKMANN WAP Emulator Tray Icon is displayed on the MS Windows Taskbar right side (bottom right side of display) after starting the WAP Emulator. The WAP Emulator Tray Icon can be used to hide or make WAP Emulator visible, to enable/disable WAP Emulator "Always On Top" and to close WAP Emulator. To use the WAP Emulator Tray Icon, right-click on the Tray Icon and popup menu will appear:



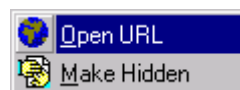
The "Settings" selections has two sub-items (options):



Make "Always On Top" option enables the WAP Emulator to be on top of all other applications windows, whether it is active or not. This can be useful when user is working on some pages and wishes to look on the emulator's screen or use it very often.

Color option is not available yet, but it will be possible to change Emulator's "skin" to other standard NOKIA 6210 "skins".

The "Actions" selections has two sub-items (options):



Open URL option could be useful when user wishes not to browse WAP Emulator's menus, but simply wants to open new URL without even WAP Emulator on the screen. By selecting this option the WAP Emulator becomes visible (if not already) and displays the same menu as by selecting Menu->Navigation from Emulator's interface manually.

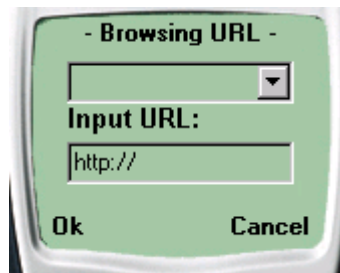
Make Visible option works the same way as double-click on the Tray Icon. It makes WAP Emulator visible (if not already) and vice-versa.

3.3. Accessing WML pages

In order to access to WML pages, at first you should enter the Menu by clicking the left Soft Button (when you see “Menu” label above it) and then select “Navigation” menu item on the screen by clicking the mouse pointer:



The Navigation menu will appear, where you can select one of previously browsed URLs or type-in a new one. In order to load the URL, you should click on the left Soft Button (with the “Ok” label above it). By clicking on right Soft Button (with “Cancel” label above it) you will return to the main screen.



In case the URL can not be found or for some reason is not working, the “Service Unavailable” result image will be displayed.

In order to close the KLINKMANN WAP Emulator, you have to click on the Exit button on the upper-left part of phone image.

4. WAP Emulator features

KLINKMANN WAP Emulator main features are listed and briefly described below.

4.1. Supported WML tags

For now, most of the basic and essential WML tags are supported. This makes WAP Emulator useful in most cases. Main purpose of KLINKMANN WAP Emulator is to work with WAP Applications created by the KLINKMANN WAP Tool, so it supports the following WML tags:

- Multiple cards in one WML file and links from one card to another in the same WML file without reloading, thus caching the WML file in memory.
- Anchor tag with various definitions of postfield sub-tag. This means the search, accept etc. form can be operated and the result can be displayed. Various definitions of postfield tag means that emulator can operate static values as well as values acquired from the form, in two ways: \$value, \$(value).
- Timer tag, which redirects emulator to another WML page.
- Input, select, option tags.

- Various size images, converting these from WBMP (Wireless Bitmap) format to BMP (Standard Windows Bitmap) in order to show them on Emulator screen.
- Go sub-tag is also supported. This redirects emulator to another link.
- Text formatting tags, i.e.
, <p>, <table>, <tr>, <td>.

KLINKMANN WAP Emulator partially supports also WML-Scripts, allowing to browse pages where some simple WML-Script is used; also WML variables are supported.

Note:

The WAP Application created by WAP Tool consists of several items and in the WML content generated by WAP Tool each of these items is enclosed in the paragraph (<p>) element (in purpose to enable line wrap and alignment), so in Klinkmann WAP Emulator when converting WML content to HTML format there is always an empty line added between items. On real WAP phones (e.g. Nokia 6210 or Siemens S35i) there is no empty line added.

4.2. Additional features

The following additional features already implemented:

- Card title is displayed on Emulator's screen upper part.
- Refresh feature is realized from the phone main menu.
- Links to previously browsed pages are stored, so they can be accessed through the "Navigation" menu.

5. Troubleshooting

5.1. Returned errors

If some error happens then there are two following ways how KLINKMANN WAP Emulator will react:

- 1) By simply displaying "Service unavailable" and "STOP" sign on WAP Emulator, similarly like on Nokia 6210. This will happen at any fault event, for example if "page is in HTML format", "page is corrupted", "page is unavailable" etc.
- 2) By displaying error screen combined with popup windows. At some serious faults the reaction is a bit different: Emulator at first creates one or two popup windows with information "host not found" and "null remote address", thus informing the "Get" command for the user's link was unsuccessful. Perhaps the file or host is absent or unavailable. Afterwards the "Service unavailable" is displayed.

Note: WAP Emulator uses "C:\TEMP\" folder as it's own temporary folder, writing all temporary page data there. So, there should be "C:\TEMP\" folder on the computer where WAP Emulator is used.

5.2. How to eliminate possible errors

This section describes what to do if some error happened. For now, here are covered solutions only for a few problems, but this section will be updated with the next versions of KLINKMANN WAP Emulator:

- If WAP Emulator screen looks disordered and items on the screen are located wrong way ...

It seems you are using “Large Fonts” in your Windows NT/95/98/2000 screen settings. Font size settings should be changed to standard “Small Fonts”.

- If pop-up window with “Access violation at address ...” or similar appears...

Most likely it indicates the accessed page is seriously damaged or corrupted, or written/generated in improper format. User should check the browsed page path or try to access the page later or go to another page.

- If pop-up window with “Can’t create bmp file” or something similar appears...

This most likely happened because user has tried to browse some page, while some process happened with the currently loading page. User should close the emulator and restart it again in order to proceed with browsing pages with images.

Product support and responsibility

Klinkmann has tested the Klinkmann WAP Emulator with extensive tests, however as Klinkmann WAP Emulator is a free software, Klinkmann is not taking any product responsibility or giving technical support for the software.