

Radios 1.0

Copyright © 2003 by Bernd R. Fix. All Rights Reserved.



This work is freeware and must not be used as part of any commercial products without written permission of the author. Results produced with this work contain code and data that are part of the work; therefore results have the same restrictions as the original work and must not be used in commercial products without permission. Contact the author at brf@brainon.ch for more information.

Contents

RADIOS 1.0	1
CONTENTS	1
INTRODUCTION	2
INSTALLATION	2
PALM	2
SERVER	2
START-UP	2
CREATING A LIST.....	2
STARTING THE SERVER.....	3
STARTING THE PALM APP	3
USING "RADIOS"	4
<i>DTA - Loading a list</i>	4
<i>Browsing the list</i>	4
<i>COD - Play morse code</i>	4
<i>SET - Set ADF frequency</i>	4
<i>CRS / ID - Toggle course/id display</i>	4

Introduction

Radios is a Palm tool for ADF navigation in Microsoft Flight Simulator 2k+. It allows you to connect a Palm device to the Flight Simulator and to use it as an “extended gauge” in the air-craft panel managing ADF frequencies.

The application allows you to transfer a list of NDBs to the Palm, browse the list and to set ADF frequencies in the simulator directly from the list. You can also play the morse code of the beacon ID or show the preset course to the beacon.

Installation

The application consists of two parts: a Palm and a server application. The server app must be running on the same PC as flight simulator (or WideFS).

Palm

The Palm application is based on SuperWaba, a handheld-optimized Java VM and SDK. You need to download the SuperWaba runtime environment for the Palm before you can use “Radios”. You find the required package at <http://www.superwaba.org/install>. Although Super-Waba is available for PocketPCs also, “Radios” is not approved for that platform.

After installing SuperWaba, unzip the archive “Palm.zip” into a temporary directory. Install all *.prc and *.pdb files from the archive onto your Palm.

Server

Unzip the archive “Server.zip” into a directory of your choice. You find a “Server.exe” executable and a subdirectory called “\Lists” after unpacking.

Start-up

Creating a list

Radios needs a list of NDB beacons to work on. Until now there is no interface into a flight planning application, so you have to write that list by hand.

The list starts with a single number in a single line defining the number of NDB beacons in the following list; each beacon definition is on a separate line. An example list might look like:

```
9
FSB;Fassberg;1;284.00;307
HAM;Hamburg;1;339.00;356
GLX;Gluckstadt;1;365.00;296
NDO;Nordholz;1;372.00;262
DON;Donna;1;355.00;312
TR;Tor;1;375.00;324
ULA;Ula;1;380.00;335
SPA;Sleipner A;1;349.00;343
SBH;Sumburgh;1;351.00;318
```

The five fields in the list are separated by semicolons. The first field is the beacon ID (max. 5 characters), name (max. 20 chars, 12 displayable), type (must always be 1 in this version!!), ADF frequency (floating point) and course (integer).

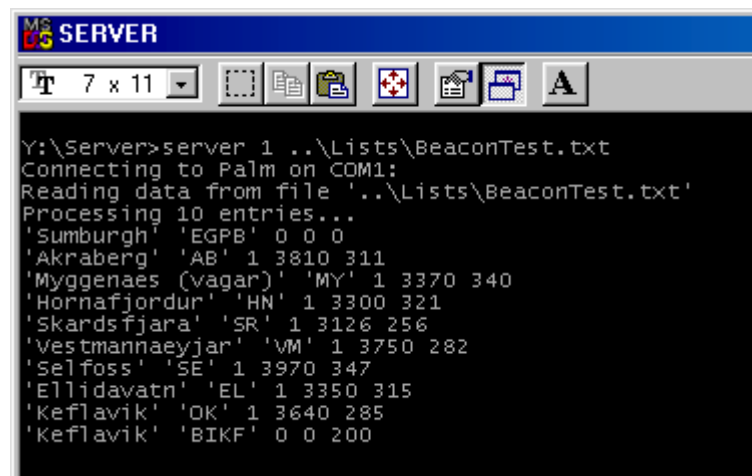
Starting the server

Make sure you close the Palm HotSync Manager before you start the server application – otherwise two apps will try to work on the same port. You also have to start the Flight Simulator (or WideFS) first.

Open a DOS command shell and enter the following command:

```
Server 1 ..\Lists\BeaconTest.txt
```

There are two arguments: The first argument (integer) specifies the port to use for the Palm connection (in this case COM1). The server will start up and read the NDB list from the file passed in as an argument:



```
Y:\Server>server 1 ..\Lists\BeaconTest.txt
Connecting to Palm on COM1:
Reading data from file '..\Lists\BeaconTest.txt'
Processing 10 entries...
'Sumburgh' 'EGPB' 0 0 0
'Akraberg' 'AB' 1 3810 311
'Myggenaes (vagar)' 'MY' 1 3370 340
'Hornafjordur' 'HN' 1 3300 321
'Skardsfjara' 'SR' 1 3126 256
'Vestmannaeyjar' 'VM' 1 3750 282
'Selfoss' 'SE' 1 3970 347
'Ellidavatn' 'EL' 1 3350 315
'Keflavik' 'OK' 1 3640 285
'Keflavik' 'BIKF' 0 0 200
```

If you forgot to start FS first, the server can't connect to the simulator and issues the following error message:



The server will then terminate. Make sure that FS is started before starting the server.

Starting the Palm app

The Palm device must be placed in the cradle; the cradle must be connected to a serial port of the PC. Radios can't work over an infrared link. Switch on the Palm and start the Radio app by clicking on the Radios icon in the app list.

When the app is started it uses a "default" beacon list (this is just to have a list even with no server running). Forget this list, you normally override it with your own list first.

Using “Radios”



After you have started the application, your Palm display should look like the image above.

The complete application is controlled with the hard keys, so no fiddling around with graffiti and pens is necessary. The hard keys are labelled at the bottom of the screen; their labels read “DTA”, “COD”, “SET” and “CRS”. You use the “Up” and “Down” keys to scroll the list up and down.

DTA - Loading a list

This method requests a beacon list from the server. Any existing list is removed and the data is transferred from the server. If the process is finished, you see a new beacon list in the display.

Browsing the list

Use the “Up” and “Down” keys to browse the list. You can move the selected entry up and down by pressing the associated key.

COD - Play morse code

If you have activated audio output for ADF, you will hear the ID of the beacon in morse code from time to time. If you want to check that ID, press the “COD” button and the ID of the selected beacon will be played in morse for comparison.

SET - Set ADF frequency

If you press the “SET” key, the frequency of the currently selected beacon is set in the radio stack. This works with any aircraft or panel in MSFS2k+.

CRS / ID - Toggle course/id display

You can toggle between ID and course display of the selected beacon by pressing the “CRS” key. The display now shows the (preset) course to the beacon and the key is labelled “ID” pressing that key again switched back to ID display (start-up default).