2L FIELD DEVELOPER v 7.1

COMMUNICATION AND HANDHELD CONFIGURATION

1. 2L Field on the handheld computer

2L Field normally is installed on a Compact flash or SD kaart.
This card has at least 3 folders
1. **2L**
2. **2L** Projects
3. Drivers

The **2L** folder consiststhe following runtime programma's :

2L	the main program. There will be a link to this program on your handheld desktop or program menu. This program will allow you to select one of the existing projects (in the **2L** Projects folder). Within the selected project you can select your form (or start the START.FRM application) to begin the actual data collection process.
2LForm	this program does the actual data collection in forms mode, using the definitions from the selected form.
2LSheet	this program does the actual data collection in spreadsheet mode
2LInit	this program is only needed during (re)installation of **2L Field** on the handheld.

The **2L** Projects folder contains one or more project folders. All forms, datasets, lists, pictures etc. needed for a specific project must be present in this particular project folder.

The Drivers folder will contain all standard “drivers” for e.g. barcode-scanning, weighing scale reading, transponder scanning etc.
User-developed and /or 3rd party developed drivers can also be placed in this Drivers folder.
Drivers communicate partly via the registry with the **2L** runtime programs, so if you are planning to develop your own drivers, please ask for the document on driver development.

Note:
The **2L Field Evaluation** version uses the programs **2LEvaluation**, **2LForm**, **2LSheet** and **2LInitEvaluation**. **2L Field Evaluation** does not save any of the collected data.

2. Automatic backup feature

During installation, **2L Field** can be set up with the automatic backup feature installed on a (separate) memory card (another Flash card, SD card or the handhelds internal memory card).
With this automatic backup facility installed, the risk to lose valuable data will be minimal.
The backup feature will make a daily logfile, and will log all major activities during data collection with a date and time stamp.
Logged activities are : opening and closing of forms and datasets and adding, deleting or changing records in the dataset.
The daily logfile will be named something like B2L20041024.DAT
B2L stands for **2L** Backup file , 2004 denoted the year (YYYY), 10 denotes the month (MM) and 24 denotes the day (DD)
After a crash on the handheld you can recover your data by importing the appropriate backup logfile from the backup card into Excel on your PC.

3. Communication

Normally the handheld computer will be placed on a cradle, which is connected via a serial or USB-cable to a PC. With Active Sync an automatic connection can be established.
With **2L Connect** or **2L Comms** installed on the PC, files can be easily transferred to and from the handheld.
2L Connect (which is part of the professional version of **2L Field Developer**) uses Active Sync as the connection interface between handheld and PC. **2L Comms** is a separate comms manager program on the PC which uses the Comms driver (one of the standard **2L** drivers) on the handheld. This program is not a standard feature of **2L Field Developer**.

Without **2L Connect** or **2L Comms**, you can use Active Sync (in Windows Explorer) to transfer new projects or new forms and data sets to the handheld and collected data on the handheld to the PC,

With **2L Connect** or **2L Comms**, this process can be done partly or fully automatic, combined with conversion of **2L** data sets (#-separated DAT files) to and from CSV files (;-separated Excel files), DBF files (Dbase tables), XML files (Web based data tables) etc.

4. *2L* Connect

***2L* Connect** is a user friendly tool to transfer your data to and from the handheld. To make ***2L* Connect** work on your handheld you only have to establish a connection between your handheld and Active Sync. Once this connection is made you can start ***2L* Connect**.
The program ***2L* Connect** can be used in manual mode and in automatic script-mode.

In manual mode you start ***2L* Connect**.
A window wil pop up with a display of the selected projects on the PC and the handheld, and 2 tabs . The tabs indicate 'Manual' and 'Script'.

In the 'manual' tab you can manually transfer data from and to your PC. Changing the active project on the PC and /or on the handheld can be done by doubleclick on the appropriate project-name. The program will let you select another project or let you create a new project. In the manual tab, again there are two more tabs, 'From PC to Handheld' and 'From Handheld to PC'. On the left side, a selection list will be shown where you can select individual files with a mouse click. On the right a listbox (initially empty) is shown. Any transfer action will be listed here.
With the “>>” button you can send the selected files. With the “All” button you can select all files in the selection list. With the “None” button you can deselect all files.
Files transferred will appear on the right side with the message <sent> behind the files. To facilitate the search process for a certain file you want to transfer, you can filter files with a certain extension eg. *.DAT files.

Via the 'Script' tab you can create your own scripts for automatic file transfer to and from the handheld. Script files will have the extension .2LS. Scripts can be useful in case you have to carry out the same file transfers regularly. An integrated Script-editor will help you to create your scripts.

In automatic script-mode, you can start a 2LS script file from the Windows Explorer (select the program ***2L* Connect** as default program to run 2LS files). During execution of the selected script an activity log is shown. At the end of the script the activity log can be closed, which will also close the ***2L* Connect** script.

5 Script commands to be used with *2L* Connect

APPEND <file1> <file2>
Add contents of <File1> to <File2>

BYE Close connection with handheld

CONVERT <conversion> <infilespecs> <outfilespecs>
Do automatic conversion using <conversion>.exe file

COPY <oldfilename> <newfilename>
Copy <oldfilename> to <newfilename>, overwrite <newfilename> on the PC.

CWD <newdir>
Change working directory on the PC to <newdir> Eg. 2L\data\map2

DEL <filespecs> Delete the files in <filespecs> from the PC.

DIR <filespecs> List the files in <filespecs> in the log.

ECHO <text> Add <text> to the log

GET <filespecs> Get the files specified in <filespecs> from the handheld.

GETHHID
Get the serial number from the handheld and save it as HHID.TXT on the PC

MD <newdir> Create <newdir> on the PC, or change to this <newdir> if it already existed.

RENAME <oldfile> <newfile>
Rename <oldfile> to <newfile> on the PC

SEND <filespecs>
Send all the files as specified in <filespecs> to the handheld.

TYPE <filespecs>
Display the contents of the files in <filespecs> in the log.

REMOTE COPY <oldfilename> <newfilename>
Copy <oldfilename> to <newfilename>, overwrite <newfilename> on the handheld.

REMOTE CWD <newdir>
Change working directory on the handheld to <newdir> Eg. \iPAQ File store\data\map2

REMOTE DEL <filespecs>
Delete the files in <filespecs> on the handheld.

REMOTE DIR <filespecs>
Get a filelist specified in <filespecs> in the log from the handheld.

REMOTE MD <newdir>
Create <newdir> on the handheld, or change to this <newdir> if it already existed.

REMOTE RENAME <oldfile> <newfile>
Rename <oldfile> to <newfile> on the handheld.

REMOTE PROJECT <Project>
Select <Project> on the handheld. (In the 2L Projects folder)
If <Project> does not exist, create this project.

DEBUG ON Run the commands step by step and show the result of each step.

DEBUG OFF Continue running the commands in normal mode.

RUN <Program> (<Parameter>)
Start <Program> (with parameters) <Program> must be available either in the active directory or in the 2L_Connect-directory
The script will wait for the program to finish. If the program is cancelled, the script will fail.

6 Script commands to be used with *2L* Comms

APPEND <file1> <file2>
Add contents of <File1> to <File2>

BYE Close connection with handheld

CONVERT <conversion> <infilespecs> <outfilespecs>
Do automatic conversion using <conversion>.exe file

COPY <oldfilename> <newfilename>
Copy <oldfilename> to <newfilename>, overwrite <newfilename> on the PC.

CWD <newdir>
Change working directory on the PC to <newdir> Eg. 2L\data\map2

DEL <filespecs> Delete the files in <filespecs> from the PC.

DIR <filespecs> List the files in <filespecs> in the log.

ECHO <text> Add <text> to the log

GET <filespecs> Get the files specified in <filespecs> from the handheld.

GETHHID
Get the serial number from the handheld and save it as HHID.TXT on the PC

MD <newdir> Create <newdir> on the PC, or change to this <newdir> if it already existed.

RENAME <oldfile> <newfile>
Rename <oldfile> to <newfile> on the PC

SEND <filespecs>
Send all the files as specified in <filespecs> to the handheld.

TYPE <filespecs>
Display the contents of the files in <filespecs> in the log.

REMOTE COPY <oldfilename> <newfilename>
Copy <oldfilename> to <newfilename>, overwrite <newfilename> on the handheld.

REMOTE DEL <filespecs>
Delete the files in <filespecs> on the handheld.

REMOTE DIR <filespecs>
Get a filelist specified in <filespecs> in the log from the handheld.

REMOTE RENAME <oldfile> <newfile>
Rename <oldfile> to <newfile> on the handheld.