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**PDA CF CARD PROCEDURE**

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**USAID-Funded Economic Governance II Project**



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## 1. INTRODUCTION

The Metering Survey to be carried out in Iraq to inspect and record the condition of the existing electricity meters will start in Baghdad and then be rolled out to the rest of Iraq. The information will be collected on handheld collection devices called Personal Digital Assistants (PDAs) and stored in a central database. This central database will be initially loaded with information from the existing billing files and updated with survey information on a weekly basis. This will be effected by collecting removable Compact Flash (CF) cards from the PDAs after each weeks' survey and returning them to the BE office for processing. The survey will continue during this processing time by using a replacement CF card for each PDA. The CF cards will be rotated on a weekly basis to enable continuous survey activity.

### 1.1. Purpose & Scope

The purpose of this deliverable is to detail the methodology of regular CF card exchange and processing.

### 1.2. Audience

The audience is the Ministry of Electricity Capacity Building Steering Committee, the Metering Subcommittee and the nominated survey personnel responsible for this activity.

## 2. PDA

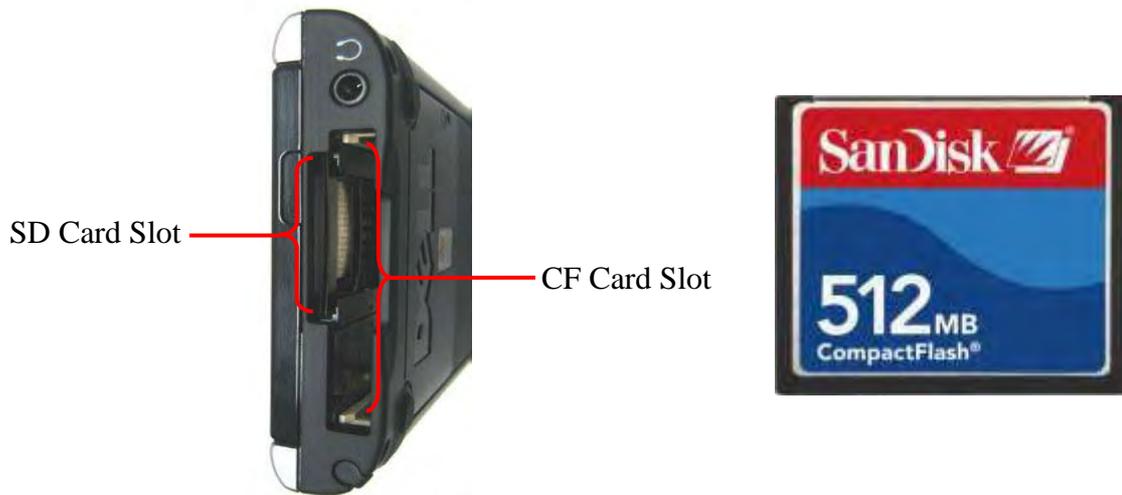
The PDA chosen for the survey is the Dell X50 and is fitted with a 512MB CF Card which holds all the metering information loaded from the existing billing files. The information collected during the survey is written to this card and is stored there until it is transferred to the central database. This transfer will be carried out by removing the CF card from each PDA on a weekly basis and synchronizing with the central database as described later in this document.



### 3. CF CARD CHANGING

#### Memory Card Slots

There are two memory card slots on the top edge of the PDA. One slot is for a Secure Digital (SD) Memory Card and the other slot is for a Compact Flash (CF) Memory Card. Only one card slot (CF) is used for survey purposes and this slot contains a 512MB CF Card as shown: }



#### To remove and replace the CompactFlash card:

Ensure that the PDA is turned off.

Lift the CF Card from the slot on top of the PDA using your finger nail to release it.

Withdraw the Card and store it in readiness for returning for synchronization with the main database.

Insert the replacement Card to enable the survey to continue:

- Align the tab on the back of the CompactFlash card with the notch in the CompactFlash card slot. The card is inserted as shown here
- Slide the card into the slot until it is securely seated in the PDA.



NOTE: Do not force the card. If there is any resistance, remove the card, check that it is the right way round and reinsert it.

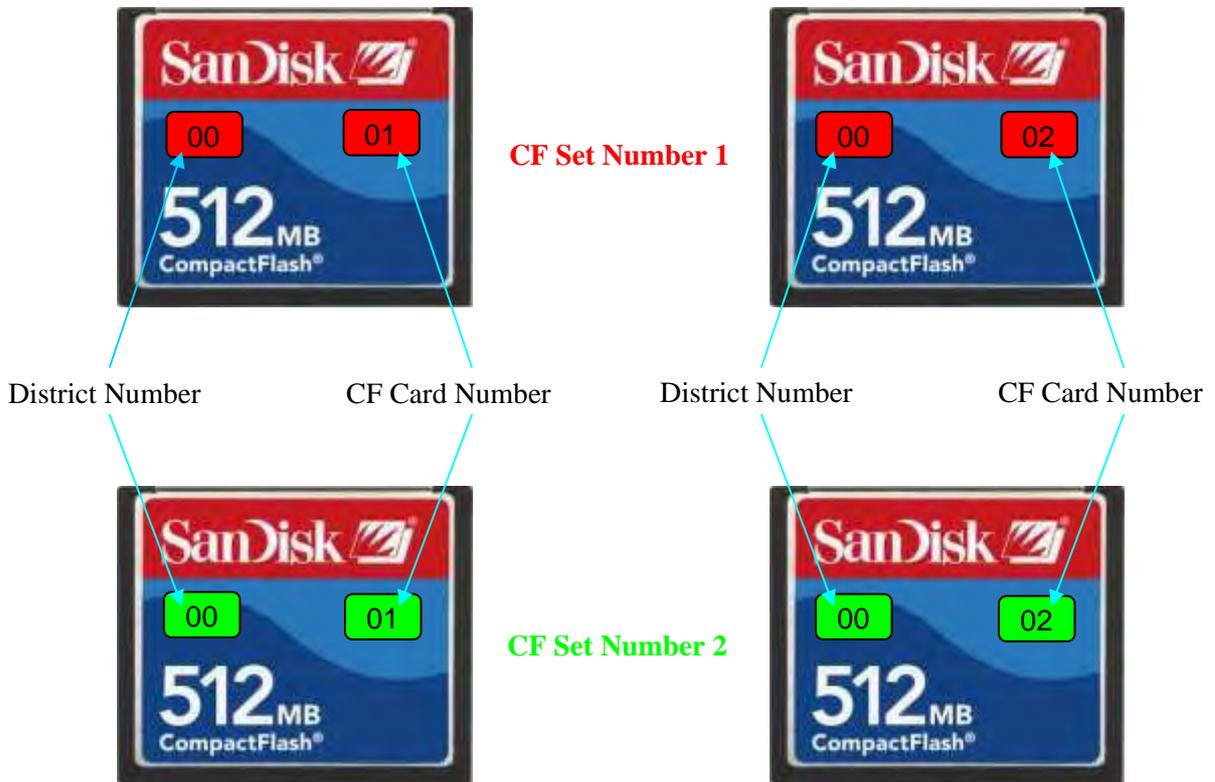
Turn on the PDA and open the Survey application to ensure that the card has been properly inserted.

#### 4. CONTROLLING THE ROTATION OF THE CF CARDS

There are two sets of CF cards for each District being surveyed. These sets will be identified by a coloured tab attached to each CF card. Each set will have a different colour to ensure that the cards are kept in sets. For example, District 00 has one set with red tabs and one set with green tabs:-



Each card within a set will have two tabs of the same colour: one to indicate the District database contained on the Card: and one to indicate the number of the card in the set as shown below.



The cards will be kept in sets for the duration of the survey in each District to ensure that the data flows smoothly and regularly from site to server database.

## 5. SYNCHRONIZATION

Once the cards have been removed from all the PDAs every week, they will be returned to the BE office for processing. This will require each CF card to be synchronised with the SQL database. As each PDA is synchronised, the newly collected data on the card is written to the database and any data in the database which is not already on the card is written to the card. This ensures that the CF card and the SQL database are fully synchronised. Since there are many CF cards for each District, the cards will require synchronising twice to bring them all up to date with all the data collected each week.

The process will be to synchronize the PDAs in numerical order from 1 to NN where NN is the number of surveyors carrying out the survey in the District and then resynchronize them in reverse order NN-1.

The synchronization process is as follows and as indicated in Appendix A:

1. Connect the PDA cradle to a laptop connected to the CAMPNET wireless network.
2. Insert a PDA into the cradle and connect to the laptop via ActiveSync
3. Insert CF card number 1 in the PDA
4. Open up the Survey application of the PDA and login
5. On the tools menu – press synchronise
6. The PDA will then synchronize any new data with the server
7. Close the Survey application
8. Remove CF card number 1 from the PDA
9. Repeat steps 3 to 8 until all cards have been synchronized
10. Reverse the order of the cards and repeat steps 3 to 8 for each card

After all the CF cards are synchronized, they will be returned to the Meter reading office in readiness for exchanging on completion of the current week's survey.

After completion of a District, the CF cards will be loaded with data for the next District to be surveyed and the process will be repeated throughout Iraq until all properties have been surveyed.

## 6. APPENDICES

### Appendix A – Synchronization process

