

WAY4 ATM Management

Main Concept

ATM Management

Cash functions

- Cash withdrawal: from card, by code
- Cash acceptance (envelope/deposit and note acceptance)
- Currency exchange
- Cash bill payments
- Cash prepaid services

Payments and transfers

- —Account transfers
- —P2P fund transfers
- —Bill payments
- —Prepaid services
- —Self-service purchase (CAT/ADM)

Information services

- Balance inquiry / balance printing
- Credit limit and other account details
- Mini-statement (10 last transactions)
- Statements
- Interactive services
- OTP list printing
- Web/Mobile banking data

Account and profile management

- Block card
- Service activation
- My payments (client profile management)
- EMV PIN Change/PIN Set

Marketing

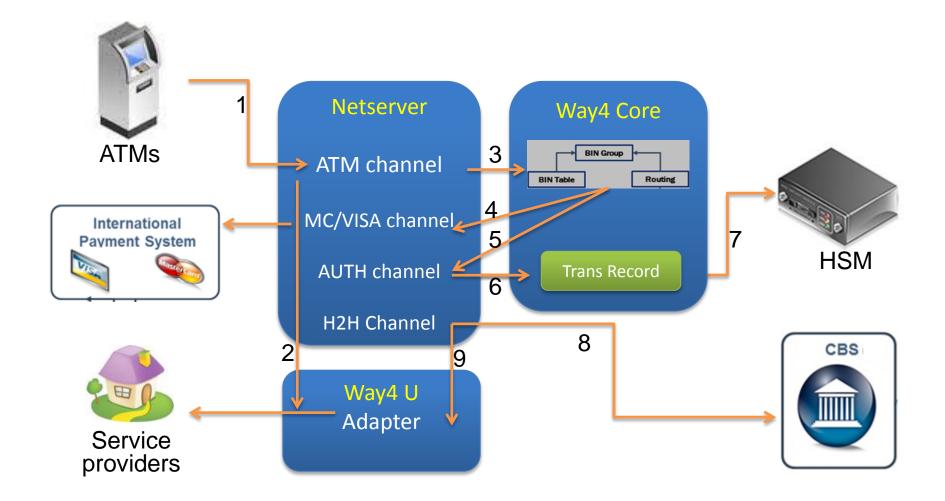
- Marketing messages
- Loyalty program support

ATM Management

- —24x7 ATM status management and monitoring
- —Real-time cassettes monitoring
- —Real-time hardware status monitoring
- —Automatic real-time per-transaction balancing
- —Dispense and Replenishment reconciliation
- —Integrated Accounting
- —NDC/DDC Configuration Builder
- —ATM/Kiosk Statistic Analyser

Main Components

ATM Transaction Flow



Components

ATM



ATM Controller in Net-server

Way4 DBM

Way4 Core

Netserver

ATM channel

MC/VISA channel

AUTH channel

H2H Channel

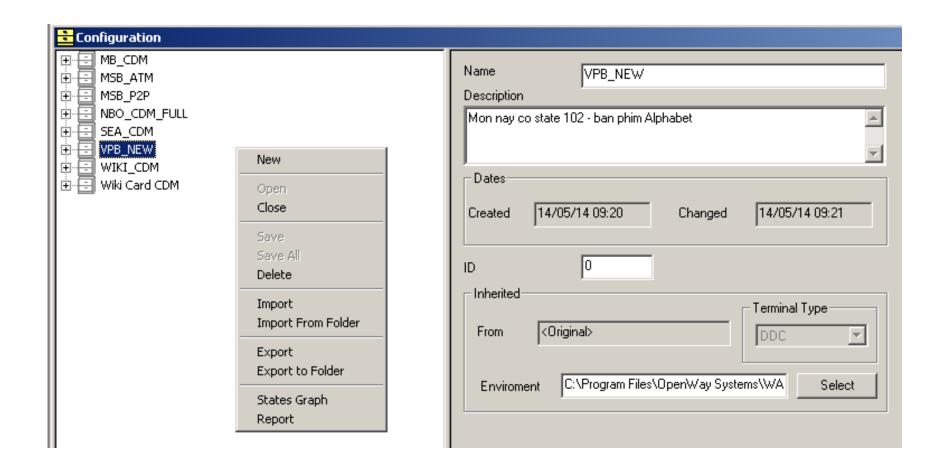
ATM

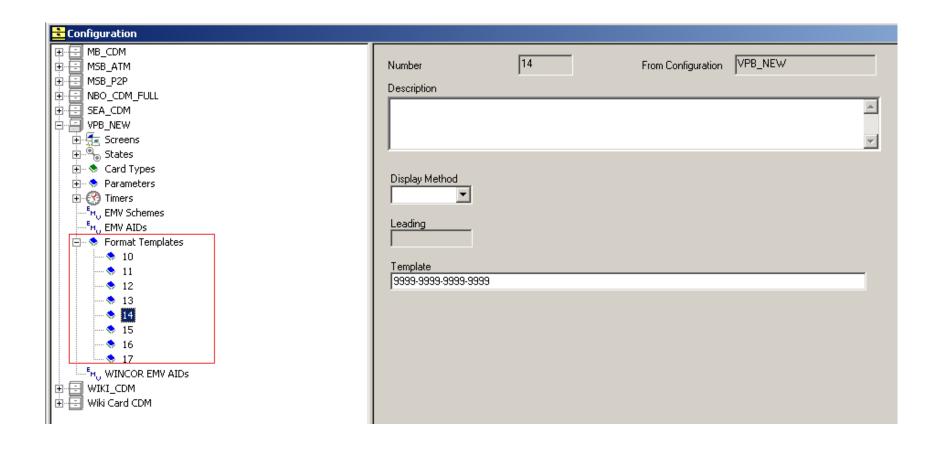
- ATM Screen
- ATM Screen Flow (Configuration File *.cfg)
- ATM Keys

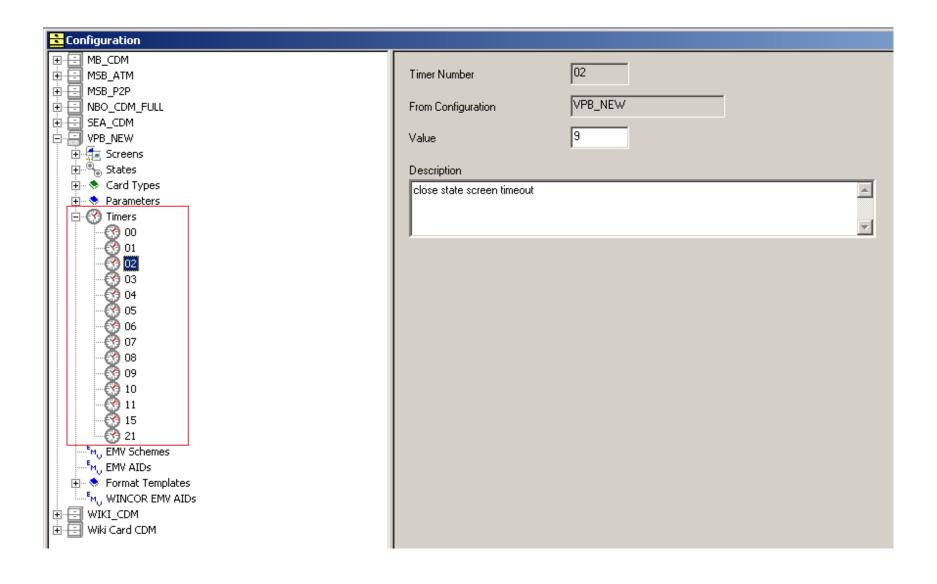
- GUI (Form based software)
- Helps user to develop the configuration files in GUI, not in text format.
- Is developed by Openway

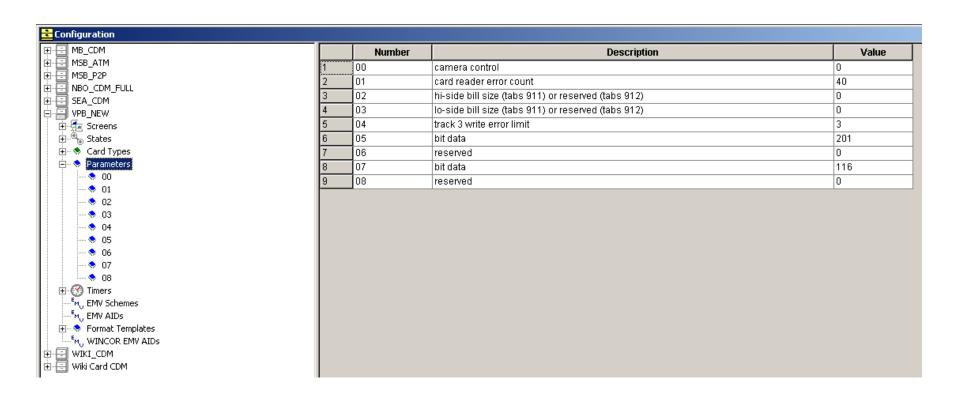
- Steps
 - File\Pictures
 - File\Fonts
 - File\Parameters\NDC/DDC Parameters\PredefinedPicture for Screen
 - File Configuration

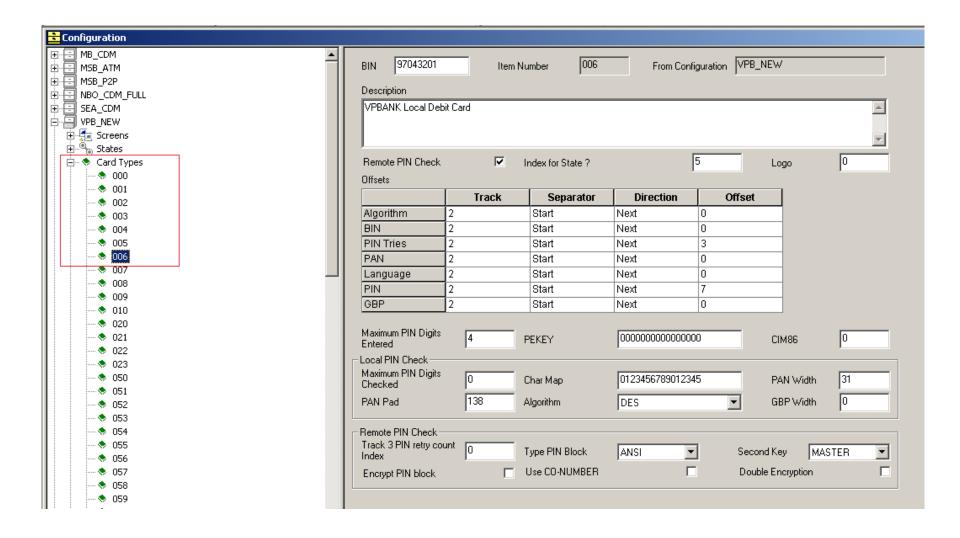


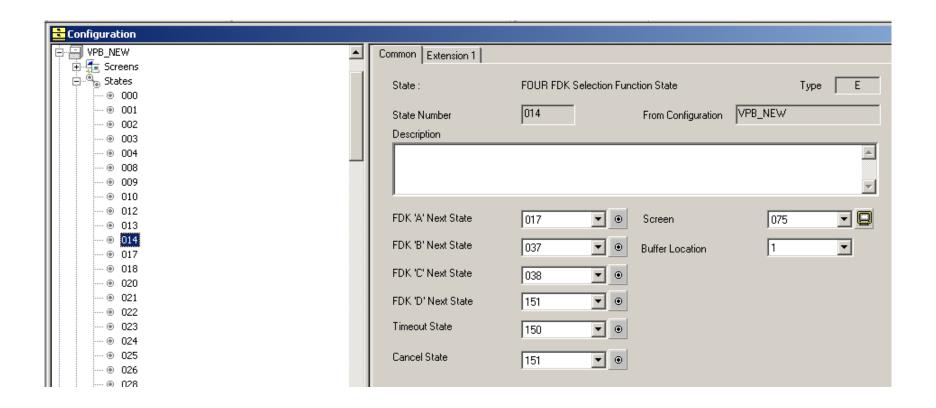


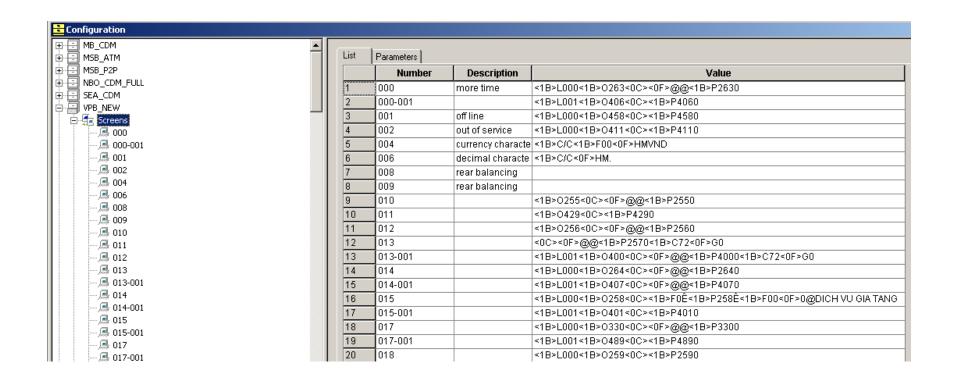












Finally, right Click and choose Export

- Main Principles
 - Not using Configuration Builder
 - Design (screen, state, flow...)

Components

ATM (Configuration builder)



ATM Controller in Net-server

Way4 DBM

Way4 Core

Netserver

ATM channel

MC/VISA channel

AUTH channel

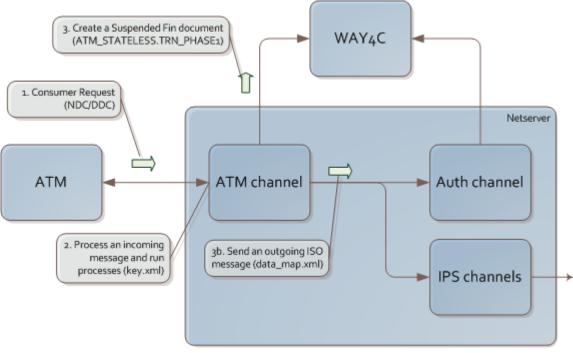
H2H Channel

ATM Controller

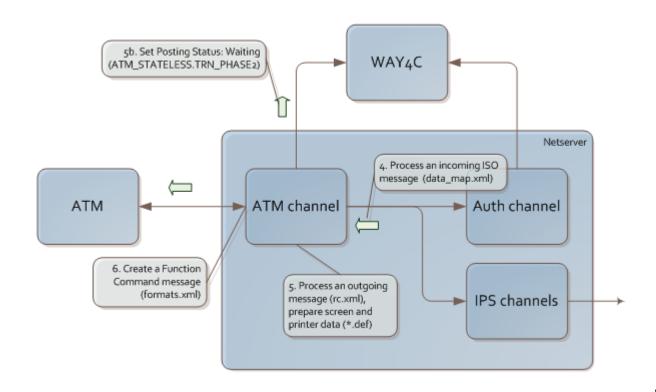
- Net-Server Channel
 - ATM channel
 - AUTH channel
 - HSM_XFACE channel
 - MC_DEBIT/MC_CREDIT channel
 - H2H channel

When processing operations made on ATMs, the following actions are taken:

- 1. A Consumer Request (NDC/DDC) message comes from the ATM.
- 2. Specific operations are executed, parameters installed and processes run by key.xml.
- 3. Processes can create and change the status of acquiring documents, as well as generate ISO messages using data map.xml.



- 4. If an outgoing ISO message was sent, the response message is parsed by sections of the Incoming data_map.xml file.
- 5. After all key.xml processes have completed, response parameters are installed using rc.xml and template files (*.def).
- 6. The formats.xml file is used to generate a Function Command message and send it to an ATM on the NDC/DDC protocol.



- ATM Controller File:
 - Key.xml
 - Rc.xml
 - C_receipt.def/a_receipt.def/s_receipt.def/j_receipt.def/scr_tmpl.def
- H2H online interface
 - Core Banking System
 - SmartLink/Banknet

- ATM Controller configuration files (key.xml, rc.xml, data_map.xml, formats.xml) are xml files in which the following set of tags may be used:
 - Condition
 - PARAMETERS
 - PARAMETER
 - Process

```
new 1 new 2 new 3 new 4 plan.txt cust_live_20140317.sql abc.txt data_map.xml formats.xml new 6 keyBill.xml
     □<OperationKeys>
         <PARAMETERS LANGUAGE="Eng" RECEIPT="YES" FROM ACCOUNT="DEFAULT"/>
         <Condition OPERATION KEY="A">
           <PARAMETERS OPERATION="CASH WITHDRAWAL"/>
  6
           <!--CUONG Add 13112010/-->
           <PARAMETER Name="VNM OWN CARD" Value="&apos;N&apos;"/>
  8
           <PARAMETER Name="VNM BIN" Value="substr(ACCOUNT, &apos; 1&apos; , &apos; 8&apos;) "/>
  9
           <PARAMETER Name="VNM BIN1" Value="substr(ACCOUNT, &apos; 1&apos; 6&apos; 6&apos; ) "/>
           <Condition VNM BIN1="&apos;970432&apos;">
           <!--CUONG Add 13112010/-->
 23
           <Condition OPERATION KEY="*A">
 24
             <PARAMETERS REQUEST CURRENCY="&apos;704&apos;" EXPONENT="0"/>
 25
           </Condition>
 26
           <Condition OPERATION KEY="*B">
           <Condition OPERATION KEY="*C">
           <Condition OPERATION KEY="*I">
 41
           <Condition OPERATION KEY="*H">
 44
           <Condition OPERATION KEY="*G">
 47
           <Condition OPERATION KEY="**B">
           <Condition OPERATION KEY="***B">
           <Condition OPERATION KEY="***C">
 56
           <Condition OPERATION KEY="***D">
 59
           <Condition OPERATION KEY="***F">
           <Condition OPERATION KEY="******B">
           <Condition OPERATION KEY="******C">
 66
            <PARAMETERS LANGUAGE="Ger"/>
 67
           </Condition>
 68
 69
           <Process Name="Start Enhanced Operation"/>
           <Condition RC="00" OPERATION KEY="***D">
           <!--End multi account -->
```

Rc.xml

```
new 1 new 2 new 3 new 4 plan.txt cust_live_20140317.sql abc.txt data_map.xml formats.xml new 6 rcBill.xml
 56
        <PARAMETERS NextStateID="396"/>
        <PARAMETERS RC DESCRIPTION="System malfunction"/>
 57
 58
        <Condition RC="00">
 59
          <Condition OPERATION="CASH WITHDRAWAL">
            <!--Condition Phase="RETRY">
 60
            <!-- HA thay doi theo yc a Cham de tra tien truoc khi tra the ATM -->
 71
 72
            <PARAMETERS Scenario="BASE"/>
 73
            <!-- Thay doi theo yeu cau cua TTT ID: 77789 ngay 05-12-2012 -->
 74
            <!--PARAMETERS Scenario="2"/-->
 75
 76
            <PARAMETERS RC DESCRIPTION="Transaction approved"/>
 77
            <PARAMETERS NextStateID="223"/>
 78
            <PARAMETERS Screen1="070"/>
 79
            <PARAMETERS Screen2="024"/>
 80
            <PARAMETERS Screen3="071"/>
 81
            <!--CUONG add 131120003/-->
 82
            <!--
            <!--CUONG add 131120003/-->
 96
 97
 98
            <Condition RECEIPT="YES">
 99
              <PARAMETERS Printer1="Consumer" PrnTemplate1="CONSUMER RECEIPT"/>
              <PARAMETERS Printer2="Journal" PrnTemplate2="JOURNAL RECEIPT"/>
100
101
               <PARAMETERS Screen4="072"/>
102
            </Condition>
103
            <Condition RECEIPT="NO">
              <PARAMETERS Printer1="Journal" PrnTemplate1="JOURNAL RECEIPT"/>
104
105
            </Condition>
          </Condition>
106
107
          <!-- Hoang Anh changed ngay 20120813 theo yc thay doi PIN verification -->
108
```

C_receipt.def

```
new 1 new 2 new 3 new 4 plan.txt cust_live_20140317.sql abc.txt data_map.xml formats.xml new 6 rcBill.xml creceipBill.def
  1 <ATM i"DIEBOLD"
  2 <LANGUAGE="Eng"
  3 <CASH WITHDRAWAL
              CASH WITHDRAWAL
     DATE:
                 TIME:
                             ATM ID:
     %DD%-%MM%-%YY% %TIME% %LUNO%
 10 CARD NO: %CARDNUM%
     ACCOUNT: %EXTERNAL ACCOUNT ID 1%
 12
 DISPENSED AMOUNT: %amount(AMOUNT, ISO_CURRENCY1,' , , 0')% %CurrencySwiftCode(ISO_CURRENCY1)%
     Auth./Seg.:%AUTHCODE%/%RRN%
 15
 16 >
    <PIN CHANGE
 18
 19
             PIN CHANGE
     DATE:
                 TIME:
                             ATM ID:
     %DD%-%MM%-%YY% %TIME%
                                 %LUNO%
 24 CARD NO: %CARDNUM%
 25
     Auth./Seq.:%AUTHCODE%/%RRN%
 27
 28 >
    <NOTE_ACCEPTANCE
              NOTE ACCEPTANCE
```

Components

ATM (Configuration builder)



ATM Controller in Net-server

Way4 DBM

Way4 Core

Netserver

ATM channel

MC/VISA channel

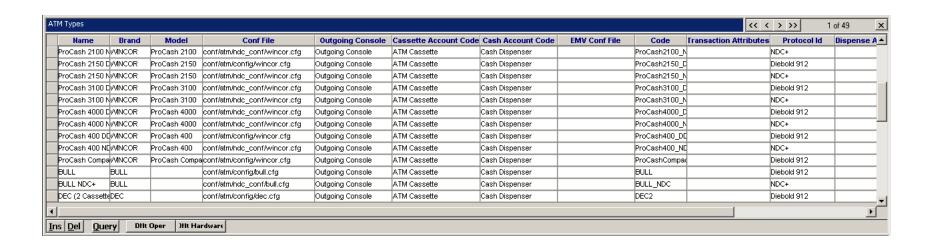
AUTH channel

H2H Channel

- ATM Type
- ATM Denomination
- ATM Message Type
- Enter ATM Contract
- ATM Monitoring
 - Hardware status
 - Cassettes status
 - Send command to ATM

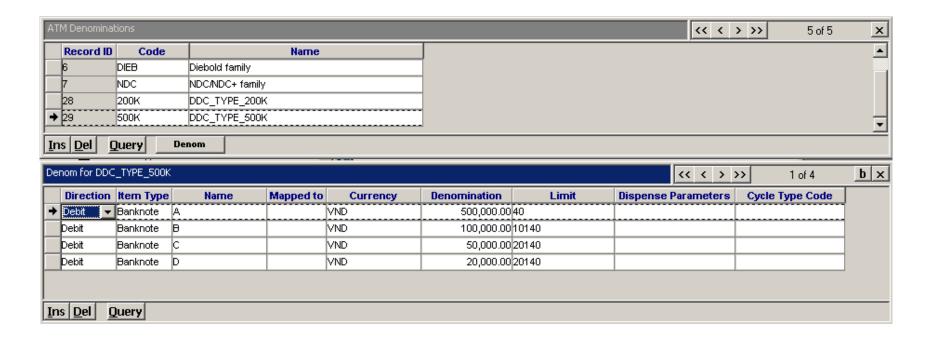
OpenWay\Full\Configuration Setup\Merchant Device Setup\ATM Types

- ATM Types
 - Path to configuration file in net-server
 - Brand
 - Protocol id



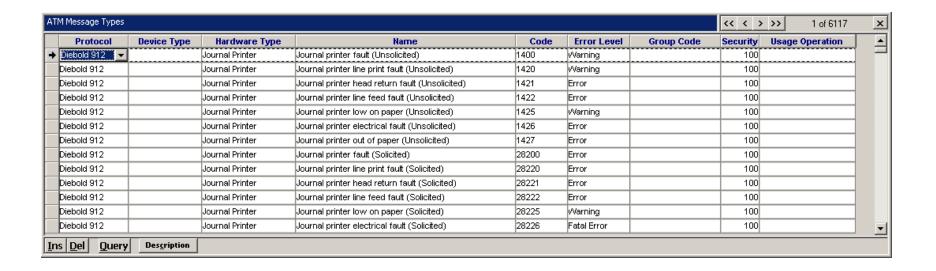
OpenWay\Full\Configuration Setup\Merchant Device Setup\ATM Denominations

- ATM Denomination
 - Denomination
 - Limit



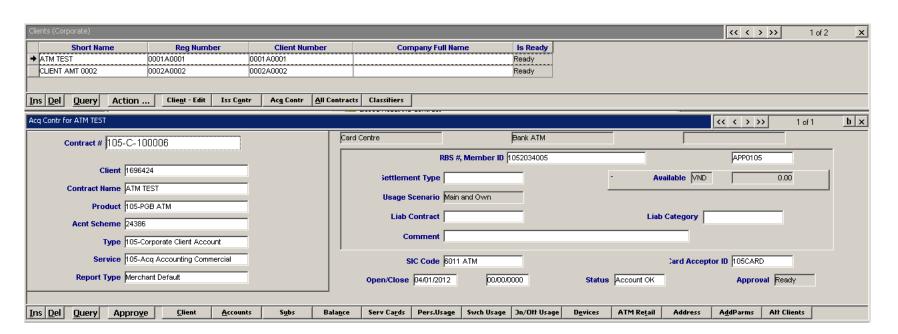
OpenWay\Full\Configuration Setup\Merchant Device Setup\ATM Message Types

- ATM Message Types
 - Error Level

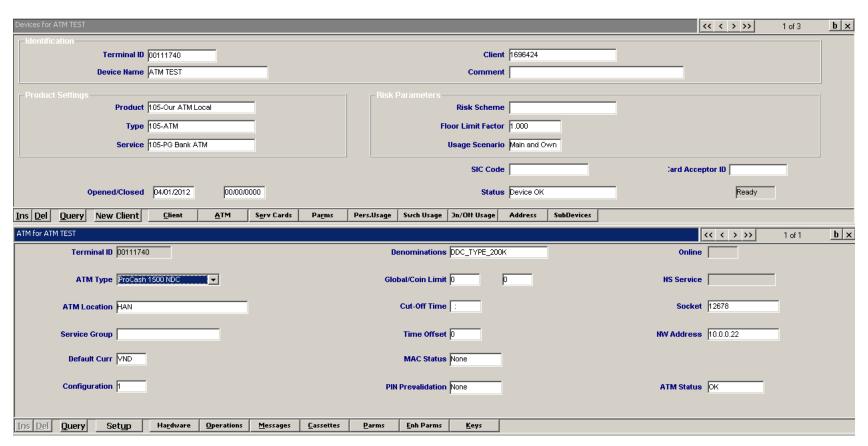


OpenWay\Full\Acquiring\Acquiring Contracts\Clients (Corporate)

- Enter ATM Contract
 - Client Contract
 - Acquiring Contract



Device Contract/ATM contract



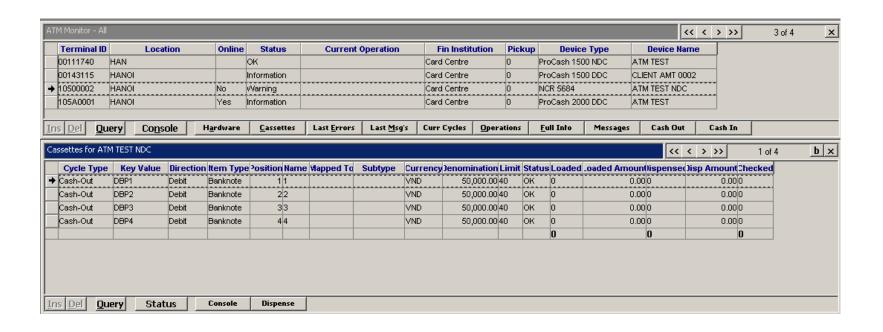
- Mandatory Properties for ATM
 - SIC contract parameter
 - Card Acceptor Id (ISO Field 42)
 - contract parameter
 - City (ISO Field 43) address parameter
 - Country (ISO Field 43) address parameter
 - Merchant Name (ISO Field 43)
 - address parameter
 - URL

ATM Keys

- TMK (Terminal Master Key)
- TPK (Terminal PIN Key)
- TAK (Terminal Authentication Key)

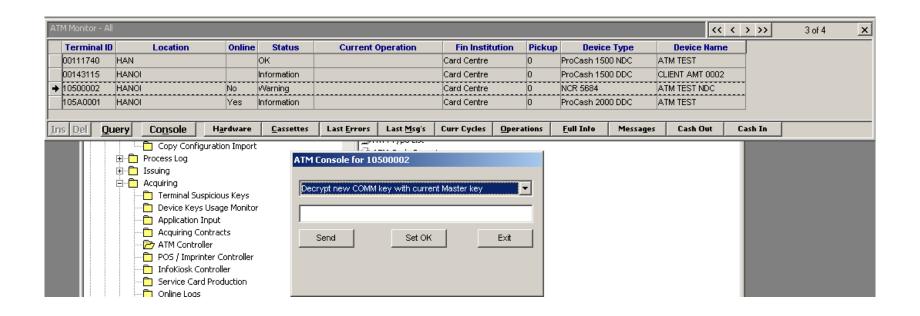
OpenWay\Full\Acquiring\ATM Controller\ATM Monitor - All

- ATM Monitoring
 - Cassettes



OpenWay\Full\Acquiring\ATM Controller\ATM Monitor - All

- ATM Monitoring
 - Send Console Command to ATM



Question

Thanks you for your attention

Do you have any question?



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