

# Sample 11: RPC Service in Direct Mode with Summary Functionality

**Task: Generate an RPC service based on the shipping data using the summary functionality to process on your PC via Excel.**

This transaction uses the summary function to show cumulated data for statistical purposes. The RPC Generation is executed in Direct Mode.

## Prerequisites

Your administrator has to set the Service Type of the Service Generation Options in you user profile to R.

If you Server is running under Natural Security, you have to set up your RPC example client to run this example correctly.

### To set up the RPC sample client for Natural Security

1. Execute the Program USR1071P from the system librarySYSEXT in your Natural for Windows.
2. Fill the following fields in the appearing screens as follows:
  - Set RPC Data field to X
  - Set Code field to T
  - Set User-ID field to the Logon-ID of Natural Mainframe
  - Set User ID's Password field to the Password of Natural Mainframe

## Transaction Specification

Primary File	SAG-TOURS-E-CONTRACT
Display System Functions	cnt DATE-BOOKING sumPRICE avg PRICE maxPRICE min PRICE oldBOOK-MONTH
Control Field	C1: DATE-BOOKING
Selection Criteria	DATE-BOOKING = 19910101 THRU 19911231 AND DATE-CANCELLATION EQ 0

This section covers the following topics:

- Create the Transaction SAMPLE11
  - Generate the RPC Service
  - Proceed the data on your PC
- 

## Create the Transaction SAMPLE11

### To Add a Transaction

1. Issue the ADD TRANSACTION SAMPLE11 command.

The Add Transaction window appears with the transaction name already entered in the Transaction ID field.

### To Choose File

The report requires data from the file SAG-TOURS-E-CONTRACT.

1. Type the file name SAG-TOURS-E-CONTRACT in the File Name field. You can alternatively use the Asterisk (\*) List function.
2. Press Enter.

The Worksheet appears.

### To Choose Fields

The report requires data stored in the fields CONTRACT-ID, PRICE, DATE-BOOKING and DATE-CANCELLATION.

1. Choose the fields as described in Step 3 of **Sample 1**.

### To Create the User Field BOOK-MONTH

1. Type BOOK-MONTH into the Field Name column and press Enter.

The Define User Field window appears:

2. Fill in the required information as shown in the following screen:

```

20:41          ***** SUPER NATURAL *****          2000-10-17
SAMPLE11          - Worksheet -                          SN3011
!-----!
Ref DB   Field Name   !           Define User Field           !
AA 1K   CONTRACT-ID ... !   Field: BOOK-MONTH                     !
AC 1    PRICE ..... !                                     !
AF 1K   DATE-BOOKING .. !   Name or value .. BOOK-MONTH_____ !
AG 1K   DATE-CANCELLATI !   Format ..... n                         !
AR      BOOK-MONTH_____ !   Length ..... 6 _                      !
AS      _____ !   Dec. places .... _                   !
AT      _____ !   Subfield of .... DATE-BOOKING_____ !
AU      _____ !   Offset ..... _                       !
AV      _____ !   Dynamic input .. _                   !
AW      _____ !-----!
AX      _____
AY      _____
AZ      _____
BA      _____

Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help      Exit      Flip      Canc

```

3. Press Enter.

The Worksheet appears. The field BOOK-MONTH is inserted as a user field.

#### To Create the Control Break

- Type "C1" in the Control column next to the field DATE-BOOKING.

#### To Define the System Function

1. Type "SF" in the Func column next to the field PRICE.
2. Press Enter.

The Specify System Functions screen appears.

3. Mark Sum, Avg, Max and Min next to the Control Field DATE-BOOKING.
4. Type "SF" in the Func column next to the field DATE-BOOKING.
5. Press Enter.

The Specify System Functions window appears.

6. Mark Cnt next to the Control Field DATE-BOOKING.
7. Press Enter.

The Worksheet appears.

#### To Determine Display Sequence

1. Type "1" in the Sequence column next to the field BOOK-MONTH.

Now your worksheet looks as follows:

```

10:46                ***** SUPER NATURAL *****                2000-10-04
SAMPLE11              - Worksheet -                                SN3011

Ref DB   Field Name           Seq   S/C   Func Def   Info Del
AA  1K   CONTRACT-ID .....      ___   ___   ___  ___  ___
AC   1   PRICE .....          ___   ___   >_  ___  ___
AF  1K   DATE-BOOKING .....    ___   C1_   >_  ___  ___
AG  1K   DATE-CANCELLATION .....  ___   ___   ___  ___  ___
AR   U   BOOK-MONTH .....        1_   ___   ___  ___  ___
AS
AT
AU
AV
AW
AX
AY
AZ
BA

Enter "*" in Fieldname column to select fields or enter NEXT
Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help Next Exit Field Incl Flip   -   +           Sel Run  Canc
    
```

 **To Define Selection Criteria**

The report requires information on the Date of booking and cancellation.

1. Press PF10.

The SELECTION command is issued and the Selection Editor appears.

2. Enter "DATE-BOOKING = 19910101 THRU 19911231 AND DATE-CANCELLATION EQ 0" in the editor area.

The Selection Editor has the following content:

```

10:49                      ***** SUPER NATURAL *****                2000-10-04
SAMPLE11                    - Selection Editor -                          SNZUL-S

      1 < DATE-BOOKING = 19910101 THRU 19911231                        > 1
      2 < AND DATE-CANCELLATION EQ 0                                    > 2
      3 <                                                                > 3
      4 <                                                                > 4
      5 <                                                                > 5
      6 <                                                                > 6
      7 <                                                                > 7
      8 <                                                                > 8
      9 <                                                                > 9
     10 <                                                                > 10
     11 <                                                                > 11
     12 <                                                                > 12
     13 <                                                                > 13
     14 <                                                                > 14
     15 <                                                                > 15

Define selection lines or use CONTINUE
Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help Next  Exit  Field Check Flip  -      +      Cont Run  Canc

```

### ▶ To Run the Transaction

1. Issue the RUN command. This command is allocated to PF11.
2. Press Enter.

The report is displayed.

```

2000-10-17  DATE-BOOKING = 19910101 THRU 19911231                      1
20:55:09    AND DATE-CANCELLATION EQ 0
SAMPLE11
      BOOK-MONTH
      -----

** Control Break (1) **
      DATE-BOOKING :   19910127

Old        199101
Cnt        DATE-BOOKING =           100
Sum        PRICE =           415590.000
Avg        PRICE =           4155.900
Max        PRICE =           18700.000
Min        PRICE =           1360.000

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Print Exit                      Flip          +                      Canc

```

3. Press PF3.

The Worksheet appears again.

## Generate the RPC Service

**▶ To generate the RPC Service for the transaction SAMPLE11**

1. Issue the command GENERATE RPC in the Worksheet of the transaction SAMPLE11 and press Enter.

The following window appears:

```

10:56                ***** SUPER NATURAL *****                2000-10-04
SAMPLE11                - Worksheet -                                SN3011
!-----!
Ref DB   Field Name      !           RPC-Service Generation           !
AA  1K   CONTRACT-ID ..... !           !           !
AC   1   PRICE .....      ! The RPC Service will be stored with      !
AF   1K   DATE-BOOKING ..... !           Object Name .....           !
AG   1K   DATE-CANCELLATION ..... !           in Library .....           !
AR   U   BOOK-MONTH .....  !           with Generation Mode ..... Direct  !
AS       _____ !           and Result Record Limit .. 5      !
AT       _____ !           !           !
AU       _____ !           _ Generate with these options      !
AV       _____ !           X Change options before generation    !
AW       _____ !           _ Modify Transaction                !
AX       _____ !-----!
AY       _____
AZ       _____
BA       _____

Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
                                           Flip                               Canc
    
```

2. Mark the option Change options before generation and press Enter.

The following window appears:

```

20:57                ***** SUPER NATURAL *****                2000-10-17
SAMPLE11            - Worksheet -                                SN3011
!-----!
Ref DB   Field Name   !   RPC-Service - Modify Generation Options   !
AA 1K   CONTRACT-ID ..... !
AC 1    PRICE .....   !   RPC Service Object Name .....           !
AF 1K   DATE-BOOKING ..... !                               Library .....                               !
AG 1K   DATE-CANCELLATION ... !
AR  U   BOOK-MONTH ..... !   Generation Mode ..... D Direct !
AS      _____ !   Limit of Result Records ..... 5_____ !
AT      _____ !   (Max. possible Result Records .. 714   ) !
AU      _____ !-----!
AV      _____ !                               !
AW      _____ !   _ Modify Transaction           !
AX      _____ !-----!
AY      _____
AZ      _____
BA      _____

Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
                               Flip                               Canc
    
```

3. Specify the RPC Service Object Name "RPCSMPL3" and the Library NSNSAMPL to generate the RPC Service.
4. Select Generation Mode Direct.
5. Set the Record Limit to "5" and press Enter to limit the number of retrieved records.
6. Press Enter.

The RPC Service is generated. You can view it by logging on to the respective library and choosing the RPC Service Object. You will find the description of the source in the Super Natural Administration Manual.

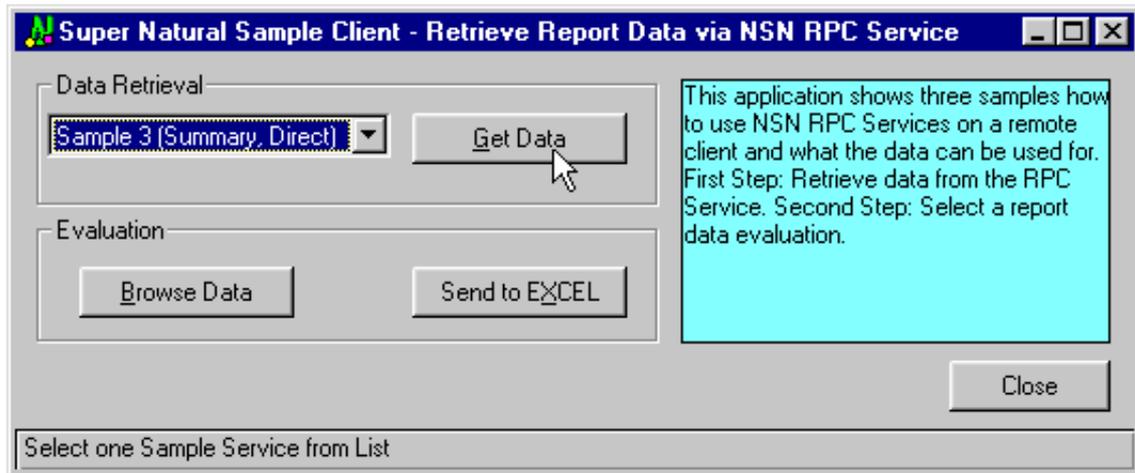
## Proceed the data on your PC

### To proceed the data on your PC

Before you can work with the generated RPC Service, you have to set up your Natural environment and load the example data from the Documentation CD to your Natural for Windows environment. You will find the description how to set up your environment for the RPC Service in the Super Natural Installation Manual.

1. Open your Natural for Windows.
2. Execute User Libraries > NSNSAMPL > Dialogs > Menu by using the Execute button in the symbol list.

The following dialog appears:



3. Select Sample 3 (Summary, Direct) in the Data Retrieval field.
4. Choose Get Data to load the sample data.
5. Select OK.

The data is loaded from your mainframe environment and displayed on your PC where you can browse the data.

6. In order to proceed with this data on your PC, send it to Excel by selecting the Send to Excel button.

The selected data is sent to Excel, inserted into a table and displayed as a chart.

