

Sample 9: RPC Service in Context Mode with Primary, Secondary and Lookup files

Task: Generate an RPC service based on the travelling information to process on your PC via Excel.

The RPC Generation is executed in Context mode.

Prerequisites

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

If your 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-YACHT
Secondary File	SAG-TOURS-E-CRUISE
Link field in primary file	YACHT-ID
Link field in secondary file	ID-YACHT
Lookup File	SAG-TOURS-E-PERSON
Link field in secondary file	ID-SKIPPER
Link field in lookup file	PERSON-ID
Display Fields	1: YACHT-NAME 2: YACHT-ID 3: START-DATE 4: START-HARBOR 5: DESTINATION-HARBOR 6: FIRST-NAME-1 7: SURNAME 8: COUNTRY
Selection Criteria	YACHT-ID EQ 140 THRU 180 AND ID-SKIPPER GT 0

This section covers the following topics:

- Create the Transaction SAMPLE9
- Generate the RPC Service
- Proceed the data on your PC

Create the Transaction SAMPLE9

To Add a Transaction

1. Issue the ADD TRANSACTION SAMPLE9 command.

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

2. Type the description "Context Mode with Primary, Secondary and Lookup Files" in the Description field (optional).

To Choose Primary File

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

1. Type the file name SAG-TOURS-E-YACHT in the FileName field. You can alternatively use the Asterisk (*) List function.

2. Press Enter.

The Worksheet appears.

To Choose Secondary File

1. Issue the INCLUDE command

The Include Files window appears.

2. Enter SAG-TOURS-E-CRUISE in the Secondary File field.

```

17:31          ***** Super Natural *****          2000-10-13
SAMPLE9          - Worksheet -                          SN3011

Ref DB   Field Name   +-----Include Files-----+
BE       _____ !                                     !
BF       _____ ! Primary File ..... SAG-TOURS-E-YACHT _____ !
BG       _____ ! Secondary File ... sag-tours-e-cruise_____ !
BH       _____ !                                     !
BI       _____ ! Add Lookup File .. _____ !
BJ       _____ ! Process Lookups .. _ _____ !
BK       _____ !                                     !
BL       _____ +-----+-----+-----+-----+-----+
BM       _____ |_____ |_____ |_____ |_____ |_____ |_____ |
BN       _____ |_____ |_____ |_____ |_____ |_____ |_____ |
BO       _____ |_____ |_____ |_____ |_____ |_____ |_____ |
BP       _____ |_____ |_____ |_____ |_____ |_____ |_____ |
BQ       _____ |_____ |_____ |_____ |_____ |_____ |_____ |
BR       _____ |_____ |_____ |_____ |_____ |_____ |_____ |

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

Note:

You can also use the Asterisk (*) Listfunction.

The Define File Link window appears.

3. Type YACHT-ID in the Link Field in Primary File field.
4. Type ID-YACHT in the Link Field in Secondary File field.

```

17:31          ***** Super Natural *****          2000-10-13
SAMPLE9          - Worksheet -          SN3011

Ref DB      Field Name      +-----+-----+-----+-----+
BE          _____      !           !           !           !
BF          _____      ! Primary File . ! Primary File           !
BG          _____      ! Secondary File !   SAG-TOURS-E-YACHT    !
BH          _____      !           ! Link field in primary file !
BI          _____      ! Add Lookup Fil !   yacht-id_____      !
BJ          _____      ! Process Lookup ! From position .. ...   !
BK          _____      !           !   to position .. ...   !
BL          _____      +-----+-----+-----+-----+
BM          _____      ! Secondary File           !
BN          _____      !   SAG-TOURS-E-CRUISE    !
BO          _____      ! Link field in secondary file !
BP          _____      !   id-yacht_____      !
BQ          _____      !           !           !           !
BR          _____      +-----+-----+-----+-----+
    
```

Note:

You can also use the Asterisk (*) Listfunction to review the field list for each file.

5. Press Enter.

The Define File Link window closes.

6. Press Enter.

The Include Files window closes.

 **To Choose Lookup File**

1. Issue the INCLUDE command.

The Include Files window appears.

2. Enter SAG-TOURS-E-PERSON in the Add Lookup File field.

Note:

You can also use the Asterisk (*) Listfunction.

The Define File Lookup window appears.

3. Type ID-SKIPPER in the Lookup Link File field.
4. Type PERSON-ID in the Lookup Field in Lookup File.

Note:

You can also use the Asterisk (*) Listfunction to review the field list for each file.

5. Press Enter.

Because the Select Lookup Display Fields field is marked by default, the Field Selection List window for the lookup file appears.

6. Mark the fields SURNAME, FIRST-NAME-1 and COUNTRY to select them.

To Choose Fields

The report requires data stored in the fields YACHT-ID, YACHT-NAME, START-DATE, START-HARBOR, DESTINATION-HARBOR, ID-YACHT, ID-SKIPPER, PERSON-ID, SURNAME, FIRST-NAME-1, COUNTRY.

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

To Determine Display Sequence

1. Type "1" in the Sequence column next to the field YACHT-NAME.
2. Type "2" in the Sequence column next to the field YACHT-ID.
3. Type "3" in the Sequence column next to the field START-DATE.
4. Type "4" in the Sequence column next to the field START-HARBOR.
5. Type "5" in the Sequence column next to the field DESTINATION-HARBOR.
6. Type "6" in the Sequence column next to the field FIRST-NAME-1.
7. Type "7" in the Sequence column next to the field SURNAME.
8. Type "8" in the Sequence column next to the field COUNTRY.

Now your worksheet looks as follows:

```

18:27                ***** SUPER NATURAL *****                2000-09-29
SAMPLE9                - Worksheet -                                SN3011

Ref DB      Field Name                               Seq   S/C   Func Def   Info Del
AA  1K      YACHT-ID .....                               2___  ___   ___   ___   ___
AB  1K      YACHT-NAME .....                              1___  ___   ___   ___   ___
AS  2K 2    START-DATE .....                              3___  ___   ___   ___   ___
AX  2K      START-HARBOR .....                             4___  ___   ___   ___   ___
AY  2K      DESTINATION-HARBOR .....                       5___  ___   ___   ___   ___
AZ  2K      ID-YACHT .....                                ___   ___   ___   ___   ___
BG  2K 2    ID-SKIPPER .....                              ___   ___   ___   ___   ___
BS  LK 3    PERSON-ID .....                              ___   ___   ___   ___   ___
BT  L 3    SURNAME .....                               7___  ___   ___   ___   ___
BU  L 3    FIRST-NAME-1 .....                          6___  ___   ___   ___   ___
BX  L 3    COUNTRY .....                               8___  ___   ___   ___   ___
BY
BZ
CA

Transaction SAMPLE9 successfully executed
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 Yacht-IDs and the Skipper-IDs.

1. Press PF10.

The SELECTION command is issued and the Selection Editor appears.

2. Enter "YACHT-ID EQ 140 THRU 180 AND ID-SKIPPER GT 0" in the editor area.

The Selection Editor has the following content:

```

18:19                ***** SUPER NATURAL *****                2000-09-29
SAMPLE9              - Selection Editor -                            SNZUL-S

      1 < YACHT-ID EQ 140 THRU 180 AND ID-SKIPPER GT 0          > 1
      2 <                                                         > 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

```

Note:

You can use the CHECK command to prompt you through defining the dynamic input fields.

 **To Run the Transaction**

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

The report is displayed:

```

2000-09-29  YACHT-ID EQ 140 THRU 180 AND ID-SKIPPER GT 0          1
18:25:10
ISAMPLE9

```

YACHT-NAME	YACHT-ID	START-DATE	START-HARBOR	DESTI
FLYING DUTCHMAN	144	19911012	ELBA	ALGHER
FLYING DUTCHMAN	144	19911026	ALGHERO	PALMA
FLYING DUTCHMAN	144	19911109	PALMA	ANDRAI
FLYING DUTCHMAN	144	19911123	ANDRAITX	ALICAN
FLYING DUTCHMAN	144	19911207	ALICANTE	MALAGA
FLYING DUTCHMAN	144	19911221	MALAGA	VILAMO
FLYING DUTCHMAN	144	19920104	VILAMOURA	HUELVA
FLYING DUTCHMAN	144	19920118	HUELVA	CADIZ
FLYING DUTCHMAN	144	19920201	CADIZ	VILAMO
FLYING DUTCHMAN	144	19920215	VILAMOURA	HUELVA
FLYING DUTCHMAN	144	19920229	HUELVA	JOSE B
CUCA RACHA	145	19911019	KORFU	KALAMA
CUCA RACHA	145	19911005	AQUILEIA	KORFU
CUCA RACHA	145	19911102	KALAMATA	HERAKL
CUCA RACHA	145	19911116	HERAKLEION	HERAKL

```

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

```

```

2000-09-29  YACHT-ID EQ 140 THRU 180 AND ID-SKIPPER GT 0          15
18:27:14
ISAMPLE9

```

YACHT-NAME	YACHT-ID	START-DATE	START-HARBOR	DESTI
*** End of report ***				
Number of records processed: = 196				

3. Press PF3.

The Worksheet appears:

```

18:27                ***** SUPER NATURAL *****                2000-09-29
SAMPLE9              - Worksheet -                                SN3011

Ref DB      Field Name                Seq   S/C   Func Def   Info Del
AA  1K      YACHT-ID .....                2_   ___   ___   ___   ___
AB  1K      YACHT-NAME .....                1_   ___   ___   ___   ___
AS  2K  2    START-DATE .....                3_   ___   ___   ___   ___
AX  2K      START-HARBOR .....                4_   ___   ___   ___   ___
AY  2K      DESTINATION-HARBOR .....            5_   ___   ___   ___   ___
AZ  2K      ID-YACHT .....                    ___   ___   ___   ___   ___
BG  2K  2    ID-SKIPPER .....                ___   ___   ___   ___   ___
BS  LK  3    PERSON-ID .....                ___   ___   ___   ___   ___
BT  L   3    SURNAME .....                  7_   ___   ___   ___   ___
BU  L   3    FIRST-NAME-1 .....              6_   ___   ___   ___   ___
BX  L   3    COUNTRY .....                  8_   ___   ___   ___   ___
BY
BZ
CA

Transaction SAMPLE9 successfully executed
Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help Next Exit Field Incl Flip - + Sel Run Canc
    
```

Generate the RPC Service

 **To generate the RPC Service for the transaction SAMPLE9**

1. Issue the command GENERATE RPC in the Worksheet of the transaction SAMPLE9 and press Enter.

The following window appears:

```

18:27                ***** SUPER NATURAL *****                2000-09-29
SAMPLE9              - Worksheet -                                SN3011
!-----!
Ref DB      Field Name                !           RPC-Service Generation           !
AA  1K      YACHT-ID .....                !           !
AB  1K      YACHT-NAME .....                ! The RPC Service will be stored with !
AS  2K  2    START-DATE .....                ! Object Name ..... !
AX  2K      START-HARBOR .....                ! in Library ..... !
AY  2K      DESTINATION-HARBOR .....            ! with Generation Mode ..... Context !
AZ  2K      ID-YACHT .....                    ! and Result Record Limit .. 1092 !
BG  2K  2    ID-SKIPPER .....                !           !
BS  LK  3    PERSON-ID .....                ! _ Generate with these options !
BT  L   3    SURNAME .....                  ! X Change options before generation !
BU  L   3    FIRST-NAME-1 .....              ! _ Modify Transaction !
BX  L   3    COUNTRY .....                !-----!
BY
BZ
CA

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:

```

19:49                ***** SUPER NATURAL *****                2000-10-17
SAMPLE9              - Worksheet -                                SN3011
!-----!
Ref DB   Field Name   !   RPC-Service - Modify Generation Options   !
AA  1K   YACHT-ID     !   !
AB  1K   YACHT-NAME   !   RPC Service Object Name .....   !
AS  2K  2   START-DATE .....   !   Library .....   !
AX  2K   START-HARBOR .....   !   !
AY  2K   DESTINATION-HARBOR . !   Generation Mode ..... C Context !
AZ  2K   ID-YACHT     !   Limit of Result Records ..... 1092___ !
BG  2K  2   ID-SKIPPER .....   !   (Max. possible Result Records .. 1092   ) !
BS  LK  3   PERSON-ID  .....   !-----!
BT  L   3   SURNAME    .....   !   !
BU  L   3   FIRST-NAME-1 .....   !   _ Modify Transaction   !
BX  L   3   COUNTRY    .....   !-----!
BY
BZ
CA

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

3. Specify the RPC Service Object Name "RPCSMPL1" and the Library "NSNSAMPL" to generate the RPC Service.
4. Select Generation Mode Context.
5. Delete the Record Limit and press Enter to receive the recommended record limit for the generation.
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.

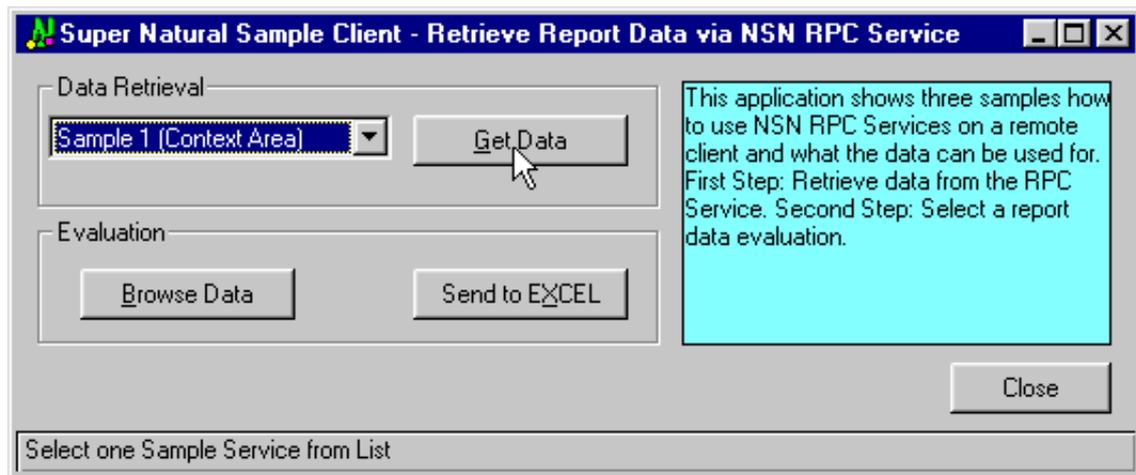
Proceed the data on your PC

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 1 (Context Area) in the Data Retrieval field.

4. Choose Get Data to load the sample data.

Now you can browse the data.

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

The data is sent to Excel and inserted into a table.