

## CHAPTER

## 12

## Example of Combining Remote Library Services (RLS) and Data Transfer Services

Introduction 89

Example 1. RLS and UPLOAD/DOWNLOAD Combined: Distribution of Reports over a Network 90

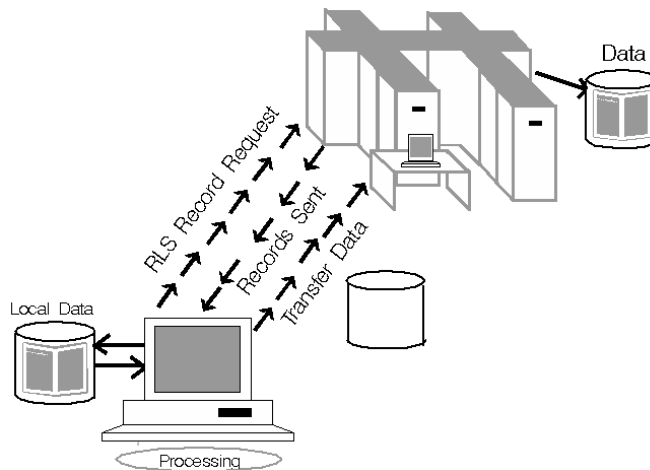
Purpose 90

Program 90

### Introduction

When the amount of information that is needed from a remote host is small, (for example, the value of one variable for no more than a dozen records), RLS can be used to move the data to a local host. As Figure 12.1 on page 89 illustrates, when the data is at the local host, the data can be used in a larger processing task and the results (for example, reports) can be transferred by using PROC UPLOAD across the network as required.

**Figure 12.1** Combined RLS and Data Transfer Services Processing Model



---

## Example 1. RLS and UPLOAD/DOWNLOAD Combined: Distribution of Reports over a Network

---

### Purpose

The following SCL program fragment enables distribution of production reports from a company's headquarters location to each of its franchise offices based on the information contained in the control data set maintained by each of the franchise offices. This application was implemented by using the macro facility to enable the mainframe to initiate a conversation with each of the franchise workstations and transfer a set of reports to the franchise based on selection criteria.

---

### Program

```

/*****/
/* Name: DISTREPORT.SCL          */
/*                               */
/* This program distributes reports */
/* to the franchise offices.      */
/*****/
length rc 8;

INIT:

submit continue;
/*****/
/* set up distribution macro      */
/*****/
❶ %macro distribution;

❷ %let franchise_city=
    Atlanta NYC LA Dallas Chicago;
%let franchise_host=
    tsoatl unixnyc unixla wntdal cmsdq;

❸ %let j=1;
%do %while(%scan(&franchise_city,&j) ne );
%let nextfran=%scan(&franchise_city,&j);
%let nextrem=%scan(&franchise_host,&j);

...

%let j=%eval(&j+1);
%end;

❹ options remote=&nextrem
    comamid=communication-access-method;
filename rlink 'script-file-name';
signon;

```

```

5 x "alloc fi(xferrpt)
   da('sasinfo.sugil8.xferrpt') shr";

6 rsubmit;
   filename frptlib
     "d:\counter\reports\prod";
   endrsubmit;

   /*****
   /* use SAS/CONNECT server          */
   *****/

7 libname rpt "d:\counter\reports"
   server=&nextrem;
8 data _null_;
   set rpt.preport end=finish;
   file xferrpt;
   if _n_ =1 then put "rsubmit;";

   /*****
   /* transfer desired reports        */
   /* named by variable name in       */
   /* reports data set                */
   *****/

9   if (copy="Y") then do;
       put "proc upload infile=
         'sasinfo.sugil8."name"'";
       put "outfile=frptlib("name")
         status=no;run;";
     end;
   if finish then put "endrsubmit;";
run;

   /*****
   /* upload desired reports          */
   *****/

10 %include xferrpt;

   signoff;
   %end;

   %end;
   %mend;

   /*****
   /* invoke macro to distribute      */
   /* reports                          */
   *****/

11 %distribution;
   endsubmit;

   _status_='H';

   return;

```

```
MAIN:
    return;

TERM:
    return;
```

- ① Begin the distribution macro definition.
- ② Initialize the list of remote franchise offices ( **franchise\_city**) and their node names ( **franchise\_host**) to be used as the REMOTE= value.
- ③ Scan to the next office and node name to be processed.
- ④ Specify the remote office nodename as the REMOTE= value and sign on to the remote franchise.
- ⑤ Allocate an OS/390 file that will contain generated UPLOAD statements.
- ⑥ Remote submit a fileref to define the PC library to which reports will be uploaded.
- ⑦ Connect to single-user server to access the library that contains the report-selection data set.
- ⑧ Execute the DATA step to evaluate report-selection data (RPT.PREPORT) and create UPLOAD statements to transfer reports (XFERRPT).
- ⑨ If the selection criterion is yes, create the appropriate PROC UPLOAD statement for the particular report.
- ⑩ Include the generated SAS job in the local OS/390 SAS session for execution.
- ⑪ Invoke the macro.

The correct bibliographic citation for this manual is as follows: SAS Institute Inc., *SAS/CONNECT User's Guide, Version 8*, Cary, NC: SAS Institute Inc., 1999. pp. 537.

**SAS/CONNECT User's Guide, Version 8**

Copyright © 1999 by SAS Institute Inc., Cary, NC, USA.

ISBN 1-58025-477-2

All rights reserved. Printed in the United States of America. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, or otherwise, without the prior written permission of the publisher, SAS Institute Inc.

**U.S. Government Restricted Rights Notice.** Use, duplication, or disclosure of the software by the government is subject to restrictions as set forth in FAR 52.227-19 Commercial Computer Software-Restricted Rights (June 1987).

SAS Institute Inc., SAS Campus Drive, Cary, North Carolina 27513.

1st printing, September 1999

SAS® and all other SAS Institute Inc. product or service names are registered trademarks or trademarks of SAS Institute Inc. in the USA and other countries.® indicates USA registration.

IBM®, AIX®, DB2®, OS/2®, OS/390®, RS/6000®, System/370™, and System/390® are registered trademarks or trademarks of International Business Machines Corporation. ORACLE® is a registered trademark or trademark of Oracle Corporation. ® indicates USA registration.

Other brand and product names are registered trademarks or trademarks of their respective companies.

The Institute is a private company devoted to the support and further development of its software and related services.