Chapter 1. PRINT.PAGE Quick Start

a. Highlights

PRINT.PAGE is a forms generator, or page based reporting system, that works with Unidata files. The usefulness of PRINT.PAGE comes from its ability to use multiple Unidata file dictionaries as well as combine these fields with internal PRINT.PAGE fields to describe the data that will be used on the form. Some outstanding features of PRINT.PAGE include:

- Multiple Unidata file dictionaries can be used without creating I-descriptors between them.

- Any I-descriptor or data field in the dictionary may be used on the form.

- PRINT.PAGE can prompt for the value of a field at run time.

- The value for a field can be computed based on dictionary fields from multiple files as well as internal PRINT.PAGE fields.

- The value for a field can be returned from a subroutine, and the subroutine is able to call ITYPE() if needed.

- PRINT.PAGE handles multi-valued fields and subvalues intelligently, allowing choices in how they are printed.

- PRINT.PAGE will work with expanded select lists created with the "BY.EXP" option.

- Data can be printed in fixed length format for columnar reports, in variable length format for use in word processing applications, or a mixture of both in the same document.

- The form description file is a text file, so the form can be designed or "painted" using any text editor, including full screen text editors.

- PRINT.PAGE can e-mail the resulting document(s) rather than sending them to the system printer.

- PRINT.PAGE may be run as a stand-alone utility, or the PRINT.PAGE routines may be called from other UniBasic programs.

b. Designing the Form

Use a text editor such as Unidata "AE" or Unix "vi" to create a template file (called a form description file) as in the following example. This example is designed to generate a letter to an applicant for a mortgage, informing the recipient that certain documents are required before the mortgage application can be processed.

```
:AE PP.FORMS APP.LETTER
    New record.
    ----:  I
    0001=  &DEFINITION
    0002=  FIELD CUSTOMER CUSTOMER.ID
    0003=  FIELD REF REFERENCE.NUMBER
    0004=  FIELD LOC LOCATION
    0005=      INSERTING
    0006=  FIELD NAME CUSTOMER.NAME
    0007=  FIELD CITY
    0008=      INSERTING
    0009=  FIELD ST STATE
    0010=  FIELD SALUTATION
    0011=      INSERTING
    0012=  &BODY
    0013=  Hometown Mortgage Company        Customer: %CUSTOMER%
    0014=  234 North Main Street               Agent: %AGENT%
    0015=  P.O. Box 567                         Date: %#DATE()%
    0016=  Springfield, KY 45555-0567      Reference: %REF%
    0017=
    0018=
    0019=  %NAME%
    0020=  %STREET%
    0021=  %CITY%, %ST%%ZIP%
    0022=
    0023=  Dear %SALUTATION%:
    0024=
    0025=  We have received your mortgage application for property
    0026=  located at %LOC%.
    0027=
    0028=  However, we need the following items in order to process
    0029=  your application:
    0030=
    0031=      %MISSING.ITEMS%
    0032=
    0033=  Your application will receive prompt attention as soon
    0034=  as we have received the missing items.
    0035=
```

```
 0036=  Sincerely,
 0037=
 0038=
 0039=
 0040=  John K. Hartsell
 0041=  Loan Officer
 0042=
Bottom at line 41.
----: FILE
"APP.LETTER" filed in file "PP.FORMS".
```

In this example, "PP.FORMS" is the name of the type-1 file (Unix directory or subdirectory) which will contain the form description file "APP.LETTER".

Here is the rationale for some of the entries in the definition section of form description file:

The FIELD statements (such as "FIELD CUSTOMER CUSTOMER.ID") indicate that the Unidata field "CUSTOMER.ID" is to be identified by a different name within the form description file (the PRINT.PAGE field name "CUSTOMER").

INSERTING tells PRINT.PAGE that the exact amount of room needed to print this field should be used. If the value of the "SALUTATION" field is shorter or longer than the space taken up by the field name on the form, the text to the right of the field name will adjusted to the left or right.

The fields AGENT, STREET, ZIP, DATE(), and MISSING.ITEMS are not included in the definition section because no changes from the default usage needed to be made.

Fields are included in the form section by enclosing the PRINT.PAGE field name with the character "%".

MISSING.ITEMS is a multi-valued field. By default, PRINT.PAGE prints all of the values and inserts print lines to make room for subsequent values.

The character "#" in front of the DATE() field marks this field as being a "predefined" field whose value is determined by PRINT.PAGE.

c. Running PRINT.PAGE

Now that the form has been designed and entered, run PRINT.PAGE:

```
:SELECT MORTGAGE.APPS WITH MISSING.ITEMS BY CUSTOMER.NAME
:PRINT.PAGE MORTGAGE.APPS PP.FORMS APP.LETTER -FORM MTGAPP
```

Note that the command to run PRINT.PAGE specifies the file to be used "MORTGAGE.APPS", the type-1 file containing the form description file "PP.FORMS", and the actual form description file to use "APP.LETTER". Output is spooled with attribute "MTGAPP".

Output for the example presented above would look like this:

```
Hometown Mortgage Company            Customer: 3824
234 North Main Street                   Agent: 48
P.O. Box 567                             Date: 05/18/97
Springfield, KY 45555-0567          Reference: 38-3829


Janice K. Wills
1978 Cherryblossom Way
West Jefferson, KY  45528

Dear Ms. Wills:

We have received your mortgage application for property located
at 38 North Wayne Avenue.

However, we need the following items in order to process
your application:

     Employment verification
     Termite inspection report
     Occupancy permit

Your application will receive prompt attention as soon
as we have received the missing items.

Sincerely,



John K. Hartsell
Loan Officer
```