

## New Manual Functions and Runs

The MAPPER System release level 36R1 includes several new manual functions and runs.

### Delete and Yank Line Function

The Delete and Yank Line function deletes lines and then copies them into a temporary buffer.

### Drawer List Function

The Drawer List (DL) function displays a list of drawers in a cabinet. From this list, you can select a drawer from which to display a list of reports. The DL function is similar to the Reports key with the exception that the DL control line procedure allows you to specify a different cabinet.

### Hold Characters Function

The Hold Characters (HCn) function holds a specified number of characters on the left side of the screen as you shift the report.

### Report List Function

The Report List (RL) function displays a list of reports in a specified drawer. From this list, you can select a report to display. If you do not specify a drawer, the RL function is similar to the Reports key with the exception that only the drawers in your current cabinet are listed.

## Enhanced Manual Functions and Runs

MAPPER System release level 36R1 includes enhancements to the following manual functions and runs.

### BF Function

The Binary Find (BF) function has a new option, Z, that specifies that blank data lines are sorted with nonblank data lines. It also has a new @ parameter for finding blank fields.

### BVT Run

The BVT (Build Variable Table) run has a new option, S, that sorts the variable table by variable name instead of by number.

### Delete in Edit Mode

The Edit function key bar includes a Delete key for deleting and yanking lines in a report.

### ENCODE and DECODE Functions

The Encode Report and Decode Report functions are now compatible with ENCODE/DECODE functions in U Series release level 4R2 MAPPER systems. They also have new fields to specify whether or not the encoded report can be displayed.

### ENTRY Run

The APT ENTRY run now allows you to store the following kinds of information in the data dictionary for use by the APT SCGEN run:

- Predefined context-sensitive information
- Editing for required fields
- Editing for a valid range of values
- List of values

### Line Zero Information Screen

The Line Zero Information screen contains a new access field, which is blank if the report is a standard MAPPER report with open access; otherwise, it contains a descriptive word indicating the type of access (for example, contains the word ENCODED if the report is encoded).

### RPW Run

The RPW (Report Writer) run has several new features, including the following:

- A new command, D80, to create an 80-character default report; complements the DFL command, which creates 132-character reports
- Report (page) footers, printed on each page, containing date, page number, and customized text

- Field footers, similar to field headers, printed on each page, containing additional lines with customized text
- Row headers (titles), printed on each page, containing up to 48 lines of customized text
- Horizontal field positioning defined by the user by column number
- Line spacing of one, two, or three lines
- Additional subtotaling subgroups, including average, minimum, maximum, percentage, and count
- Floating currency symbol, from one to three characters, for all numbers generated

## SCGEN Run

The APT SCGEN run now builds Screen Control EDIT commands for verifying user input in the following ways:

- Checks for fields that must be filled in
- Validates the input against a range of values
- Displays a list of acceptable values

## TOT Function

The TOT (Totalize) function has a new option, B, that fills duplicate line occurrences of a subtotal parameter with spaces.

## Security Enhancement

The MAPPER system coordinator can now register user-ids to correspond with a security group, which in turn determines which drawers can be accessed directly.

## New Run Statement

MAPPER System release level 36R1 includes the new Delete and Yank Line (LND) run statement. The LND run statement deletes lines from a report and then copies them into a temporary buffer.

## Enhanced Run Statements

MAPPER System release level 36R1 includes enhancements to the following run statements.

### BFN Run Statement

The Binary Find (BFN) run statement has a new option, Z, that specifies that blank data lines are sorted with nonblank data lines. It also has a new @ parameter for finding blank fields.

The BFN statement also returns several new status codes in the STAT1\$ reserved word and the system message number in the STAT2\$ reserved word.

## CAL Run Statement

When dividing by zero or blank, the CAL statement with no option specified now always gives a result of zero; it does not cause the run to fail. To flag these invalid results, use the option.

## DEF Run Statement

The Define (DEF) run statement has a new option, Q, that determines the number of members if the variable is an array.

## ECR and DCR Run Statements

The Encode Report (ECR) and Decode Report (DCR) run statements are now compatible with ECR/DCR statements in level 4R2 MAPPER systems.

The ECR run statement has a new subfield, nodsp?, where you can specify to create a displayed or undisplayed result.

## LZR Run Statement

The Line Zero (LZR) run statement loads an additional variable (vrtyp) that indicates whether the report is a normal MAPPER report or a binary or encoded report.

## NRT Run Statement

The Network Return (NRT) run statement can return a report or result and variables.

## TOT Run Statement

The Totalize (TOT) run statement has a new option, B, that space-fills duplicate line occurrences of a subtotal parameter.

## WAT Run Statement

The Wait (WAT) run statement has two new subfields: M, where you suspend the run until an outstanding message is received or until the time specified by ms elapses; and lab, where you specify a label to go to if an outstanding message is received.

## Screen Control Enhancements

MAPPER System release level 36R1 includes enhancements to screen control.

## DATA Command

The DATA command L option allows you to specify a list of data. Precede the DATA command with a LIST command to specify the source of the data.

You may now also assign attributes to the data.

## AREA Command

The AREA command fldchar field enables you to specify a character that delimits fields within the AREA data.

## LIST Command

The LIST command creates a list from a report and displays the list on a screen control form. The list can be rolled forward and backward using the function keys.

## New Reserved Words

MAPPER System release level 36R1 includes these new reserved words:

Word	Description
ACTINP\$	Window handle of last window accessed (valid with Designer Workbench only).
ACTWIN\$	Window handle of last window accessed by the Define Window (WIN) run statement (valid with Designer Workbench only).
LITEM\$	Line number in a list box from which the user transmitted.
NETDRW\$	Drawer number of the Network Configuration drawer.
NETRPT\$	Report number of the Network Configuration report.
OPRIV\$	User has operator privileges (if nonzero, yes; if 0, no).
SECDRW\$	Drawer number of the Security Registration reports.
SECGRP\$	User's security group number, 1 through 200.
SECRPT\$	Report number of the user's security registration (1 through 2000 in the Security Registration drawer).
WNDS\$	Main window handle (valid with Designer Workbench only).
WS\$	Workstation flag (if 0, terminal is not a Designer Workbench workstation).

# OS 1100 MAPPER Level 36R1 New Features

## (Features for End Users and Run Designers)

### New Manual Functions and Runs

---

<b>Delete and Yank Line</b>	The Delete and Yank Line function deletes lines from a report and then copies them into a temporary buffer.
<b>Drawer List</b>	The Drawer List (DL) function displays a list of drawers in a cabinet from which you can select to display a list of reports in that drawer. The DL function is similar to the Reports key with the exception that the DL control line procedure allows you to specify a different cabinet.
<b>Hold Characters</b>	The Hold Characters (HCh) function holds a specified number of characters on the left side of the screen as you shift the report.
<b>Report List</b>	The Report List (RL) function displays a list of reports in a specified drawer from which you can select a report. If you do not specify a drawer, the RL function is similar to the Reports key with the exception that only the drawers in your current cabinet are listed.

### Enhancements to Manual Functions and Runs

---

<b>BF</b>	The Binary Find (BF) function has a new option, Z, that specifies that blank data lines are sorted with nonblank data lines. It also has a new @ parameter for finding blank fields.
<b>BVT</b>	The BVT (Build Variable Table) run has a new option, S, that sorts the variable table by variable name instead of by number.
<b>Delete In Edit Mode</b>	The Edit function key bar includes a Delete key for deleting and yanking lines in a report.
<b>ENCODE/DECODE</b>	The Encode Report and Decode Report functions are now compatible with ENCODE/DECODE functions in level 4R2 MAPPER systems. They also have new fields to specify whether or not the encoded report can be displayed.
<b>ENTRY</b>	The ENTRY run now allows you to store the following kinds of information in the data dictionary for use by the SCGEN run: <ul style="list-style-type: none"><li>- Predefined context-sensitive information</li><li>- Editing for required fields</li><li>- Editing for a valid range of values</li><li>- List of values</li></ul>
<b>LZ</b>	The Line Zero Information screen contains a new access field, which is blank if the report is a standard MAPPER report with open access; otherwise, it contains a descriptive word indicating the type of access (for example, contains the word ENCODED if the report is encoded).

- A new command, D80, to create an 80-character default report; complements the DFL command, which creates 132-character reports
- Report (page) footers, printed on each page, containing date, page number, and customized text
- Field footers, similar to field headers, printed on each page, containing additional lines with customized text
- Row headers (titles), printed on each page, containing up to 48 lines of customized text
- Horizontal field positioning defined by the user by column number
- Line spacing of one, two, or three lines
- Additional subtotaling subgroups, including average, minimum, maximum, percentage, and count
- Floating currency symbol, from one to three characters, for all numbers generated

#### SCGEN

The SCGEN run now builds Screen Control EDIT commands for verifying user input in the following ways:

- Checks for fields that must be filled in
- Validates the input against a range of values
- Displays a list of acceptable values

#### TOT

The TOT (Totalize) function has a new option, B, that space-fills duplicate line occurrences of a subtotal parameter.

### Security Enhancement

---

#### Security Enhancement

The MAPPER system coordinator can now register your user-id to correspond with a security group, which in turn determines which drawers you can access directly. See your coordinator for more information.

### Enhancements to Run Statements

---

#### BFN

The Binary Find (BFN) run statement has a new option, Z, that specifies that blank data lines are sorted with nonblank data lines. It also has a new @ parameter for finding blank fields.

The BFN statement also returns several new status codes in STAT1\$ and the system message number in STAT2\$.

#### DEF

The Define (DEF) run statement has a new option, Q, that determines the number of members if the variable is an array.

#### ECR/DCR

The Encode Report (ECR) and Decode Report (DCR) run statements are now compatible with ECR/DCR statements in level 4R2 MAPPER systems.

The ECR run statement has a new subfield, *nodsp?*, where you can specify to create a displayable or nondisplayable result.

#### LZR

The Line Zero (LZR) run statement loads an additional variable (*vrtyp*) that indicates whether the report is a normal MAPPER report or a binary or encoded report.

<b>TOT</b>	The Totalize (TOT) run statement has a new option, B, that space-fills duplicate line occurrences of a subtotal parameter.
<b>WAT</b>	The Wait (WAT) run statement has two new subfields: M, where you suspend the run until an outstanding message is received or until the time specified by <i>ms</i> elapses, and <i>lab</i> , where you specify a label to go to if an outstanding message is received.

## Screen Control Enhancements

---

<b>DATA Command</b>	The DATA command L option allows you to specify a list of data. Precede the DATA command with a LIST command to specify the source of the data.  You may now also assign attributes to the data.
<b>AREA Command</b>	The AREA command <i>fldchar</i> field enables you to specify a character that delimits fields within the AREA data.
<b>LIST Command</b>	The LIST command creates a list from a report and displays the list on a screen control form. The list can be rolled forward and backward using the function keys.
<b>KEY Action</b>	The KEY action <i>text</i> field enables you to input data items to the run. The run captures them with reserved word INPUT\$.
<b>Verifying User Input</b>	You can verify user input using the EDIT command.
<b>Pass Screen and List Values</b>	Pass Screen and List Values parameters enable use of unprotected screen fields and fields from a selected LIST data record in FKEY actions. You can insert the value of a LIST data field, specify a number of the field that the cursor was in at the time the key was pressed, or provide a report line number of the currently selected list record.

## New Reserved Words

---

<b>ACTINP\$</b>	Window handle of last window accessed (valid with workstations only).
<b>ACTWINS</b>	Window handle of last window accessed by the Define Window (WIN) run statement (valid with workstations only).
<b>LITEM\$</b>	Line number in a workstation list box from which the user transmitted.
<b>NETDRW\$</b>	Drawer number of the Network Configuration drawer.
<b>NETRPT\$</b>	Report number of the Network Configuration report.
<b>OPRIV\$</b>	User has operator privileges (if nonzero, yes; if 0, no).
<b>SECDRW\$</b>	Drawer number of the Security Registration reports.
<b>SECGRP\$</b>	User's security group number, 1 through 200.
<b>SECRPT\$</b>	Report number of the user's security registration (1 through 2000 in the Security Registration drawer).
<b>WNDS</b>	Main window handle (valid with workstations only).
<b>WS\$</b>	Workstation flag (if 0, terminal is not a workstation).



## MAPPER Relational Interface (MRI) Enhancements

---

**Access to Databases** MRI (MAPPER Relational Interface) and RDI (Relational Database Interface) have new enhancements so that you can now access:

- Remote INFORMIX
- Remote A-Series DMS II
- Remote ORACLE (performance enhancements)
- SQL\*Net 1100 Interface

MRI run statements and RDI commands support local and remote access to relational databases.

**Internet Interface** The TCP/IP interface to CMS/TSAM will be supported by MRI.

## Using MAPPER Software On a Workstation

---

**Introduction** The run statements presented below work within a window environment.

In the window environment, the user can access MAPPER reports, graphics, and PC applications. Mouse and touchscreen interfaces are also available within this environment.

**Note:** To use workstation run statements listed below, you should have MAPPER software, Designer Workbench (DW) software, and Microsoft Windows software installed and fully operational.

Also, to use workstation run statements, you should know how to use MAPPER and Microsoft Windows software, and be familiar with terminology associated with this software. If you are unfamiliar with any of this software, refer to the appropriate documentation.

### Creating and Managing Windows

The following run statements create and manage windows:

- |     |   |
|-----|---|
| WIN | The Define Window (WIN) run statement defines a window and displays it on the user screen.  |
| SHW | The Show Window (SHW) run statement temporarily redisplay an existing window on the user screen.  |
| CLS | The Close Window (CLS) run statement terminates a MAPPER window on the user screen.   |
| HID | The Hide Window (HID) run statement removes a window (and all windows within it) from the user screen. This statement is similar to the CLS run statement except that the window or control still exists.                       |
| INP | The Accept Input (INP) run statement temporarily suspends a run, waits for input identifying which window was last selected, and specifies where the run should continue processing, depending on a selection made by the user. |

## Creating Boxes

The following run statements create boxes that appear within windows. When you use the BTN, EDT, LST, and WSF statements in conjunction with the INP run statement, the user can use the boxes to make selections and decisions.

BTN	The Define Button (BTN) run statement defines a button and displays it on the user screen.
EDT	The Define Edit Box (EDT) run statement defines an edit box and displays it on the user screen.
LST	The Define List Box (LST) run statement defines a list box and displays it on the user screen.
MBX	The Define Message Box (MBX) run statement defines a message box and displays it on the user screen and waits for user input.
WSF	The Display Workstation Form (WSF) run statement opens a dialog-style form.
PIC	The Display Image (PIC) run statement displays an image or a graph within a window.
TXT	The Define Text Box (TXT) run statement defines a text box and displays it on the user screen.

## Providing Window Attributes

The following run statements provide attributes to windows.

FON	The Font (FON) run statement changes the character font being displayed.
MNU	The Define Menu Bar (MNU) run statement defines a menu bar and displays it on the screen.
DFC	The Set Default Color (DFC) run statement sets the default foreground and background colors.

## Using Reports and Applications

The run statements listed below use reports and applications within windows.

PCR	The Transfer from PC (PCR) run statement transfers data from a local PC file into a MAPPER report.
PCW	The Transfer to PC (PCW) run statement transfers data from a MAPPER report to a file on the local PC.
PC	The Run PC Program (PC) run statement executes a local PC application.

## Data Transfer Module (DTM) and SCHDLR Enhancement

---

### UCS COBOL

The Data Transfer Module (DTM) now supports UCS COBOL compilers. See cabinet 226, report 8F for an example.

### QABT Call

The new COBOL function call QABT aborts an input message if processing input. If it is a two-way message, the system passes the designated error code and error message in the return message.