

## II.9.2-FFG-PRODGEN FLASH FLOOD GUIDANCE PRODUCT GENERATION PROGRAM (PRODGEN) PROCESSING INFORMATION

The Flash Flood Guidance (FFG) System Product Generation program (PRODGEN) is used to:

- o define parameters used to create FFG products
- o create FFG products using the parameters

### Parametric Data Requirements

The associated data bases for the workstation computer are described in this section.

1. Each combination of location identifier and data type code will form a unique filename.
2. If not found a new filename is created when defining parameters. An existing file is updated if the filename is found.
3. Capability to define data type GRPP for a group of FFG products. This data type generates a group of products in the sequence of identifiers entered for data type PROD. The input for a group of products definition is specified in Section VI.3.6B-SETUP-GROUP. The contents of the parametric data base for data type GRPP is specified in Section VI.3.6C-INFILE-GROUP. The data type PROD must be defined before a type GRPP is defined.
4. Capability to define data type PROD for product headings and contents. Communication circuit designations, specific locations or areas, tabular headings and sequence of locations are specified by this data type. The input for product heading definition is specified in Section VI.3.6B-SETUP-PROD. The contents of the parametric data base for data type PROD is specified in Section VI.3.6C-INFILE-PROD. Data types TEXT, HFFG and AFFG must be defined as appropriate before PROD is defined.
5. Capability to define data type TEXT for any text to appear in a product. The input for including text in a product is specified in Section VI.3.6B-SETUP-TEXT. The contents of the parametric data base for data type TEXT is specified in Section VI.3.6C-INFILE-TEXT.

### Setup Function

The setup sequence for the PRODGEN program is as follows:

Data type TEXT for text (Figure 1):

1. Any text is used verbatim. However, several key words are reserved for special uses. The key words and their functions are listed in the following steps.

2. DOTB - SHEF format and .B header.
3. GRIB - GRIB format for gridded output.
4. ISSUED - inserts current local time and date line.
5. UGCODE - provides dates and times for universal generic code.
6. ENDTEXT - terminates text input.

Data type PROD for communications headings, product format and location identifier:

1. Checks parameter records to verify that listed identifiers and data type codes have been defined. Data type codes checked are TEXT, HFFG and AFFG.
2. Pseudo-identifier ENDID terminates list of identifiers for PROD.

Data type GRPP for a group of products to be generated:

1. Checks parameter records to verify that listed identifiers for data type PROD have been defined.
2. Pseudo-identifier ENDID terminates list of identifiers for GRPP.

#### Execute Function

The execution sequence for the PRODDGEN program (Figure 2) is as follows:

1. Get current date and time.
2. For a group of products defined by an identifier and data type code GRPP, get the first (next) product identifier and data type code PROD.
3. Generate communications headings with current date and time based on product type code of SHEF or GRIB.
4. Get first (next) location identifier (or pseudo-location identifier) with data type code TEXT, AFFG, or HFFG as described below.
5. Process data type code TEXT outputs alphanumeric characters including blank lines defined using program PRODDGEN. Several key words provide the following options:

DOTB outputs a SHEF .B header including the creation date and time.

GRIB outputs a GRIB header.

ISSUED inserts the current local time and date line.

UGCODE inserts the current date and time with the universal generic code.

6. Process 'Grid'.
  - a. Get the FFG grid arrays from the AWIPS DBMS.
  - b. Convert each array to GRIB format.
  - c. Write to database.
7. Process 'Area'.
  - a. Get the identifier, name and FFG values from the AFFG record.
  - b. Write information in step a to output database.
  - c. Repeat steps a and b for each requested AFFG record.
8. Process 'Headwater'.
  - a. Get the identifier, name and FFG values from the HFFG record.
  - b. Write information in step a to output database.
  - c. Repeat steps a and b for each requested HFFG record.
9. Process pseudo-identifier SKIPLINE. A reserved location identifier that inserts a blank line. No data type code is used with SKIPLINE.
10. Repeat steps 4 to 9 as defined by the data type code HEAD record.

Figure 1. Defining Product Generation Parameters in PROGEN

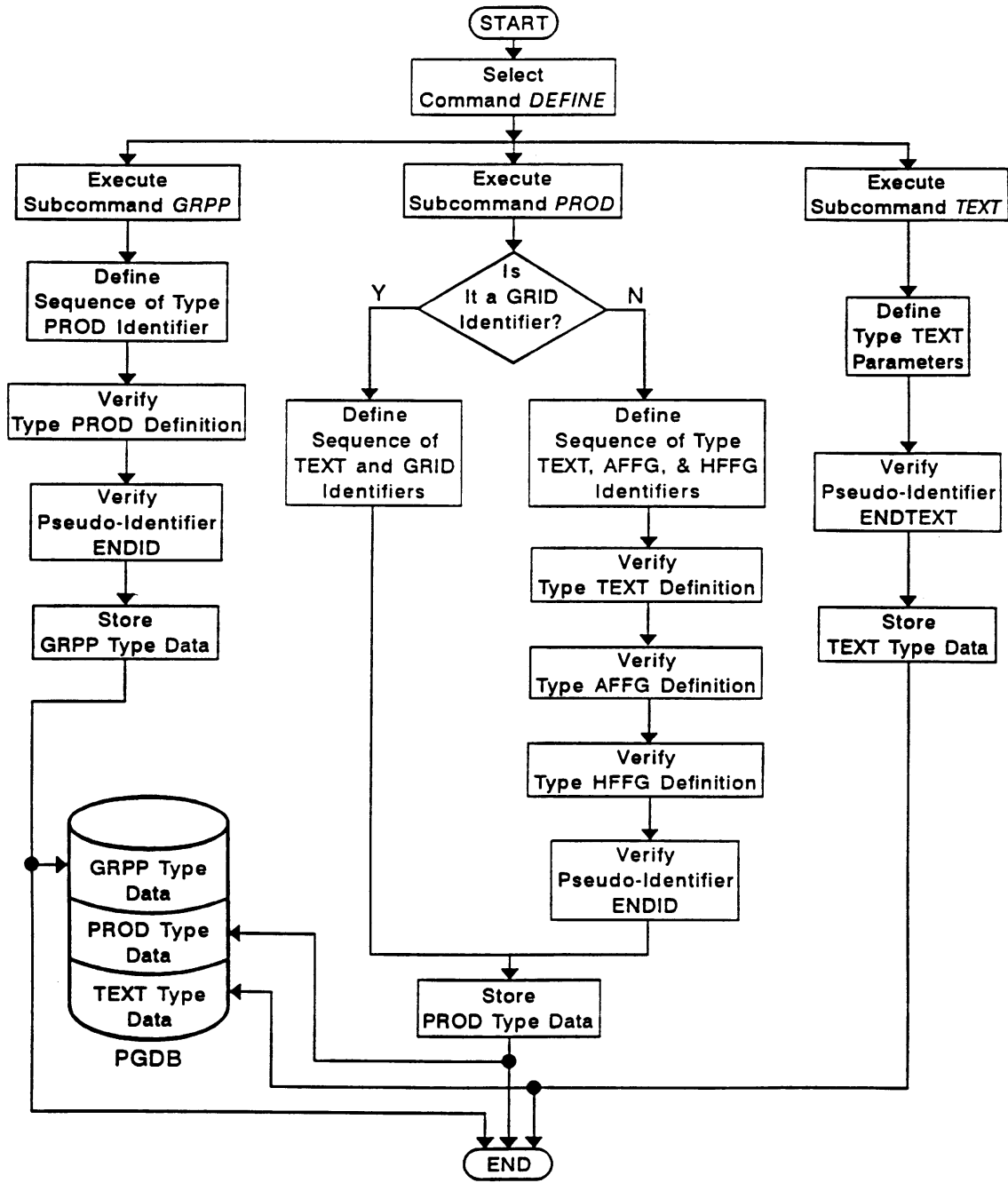


Figure 2. Executing Product Generation in PRODDEN

