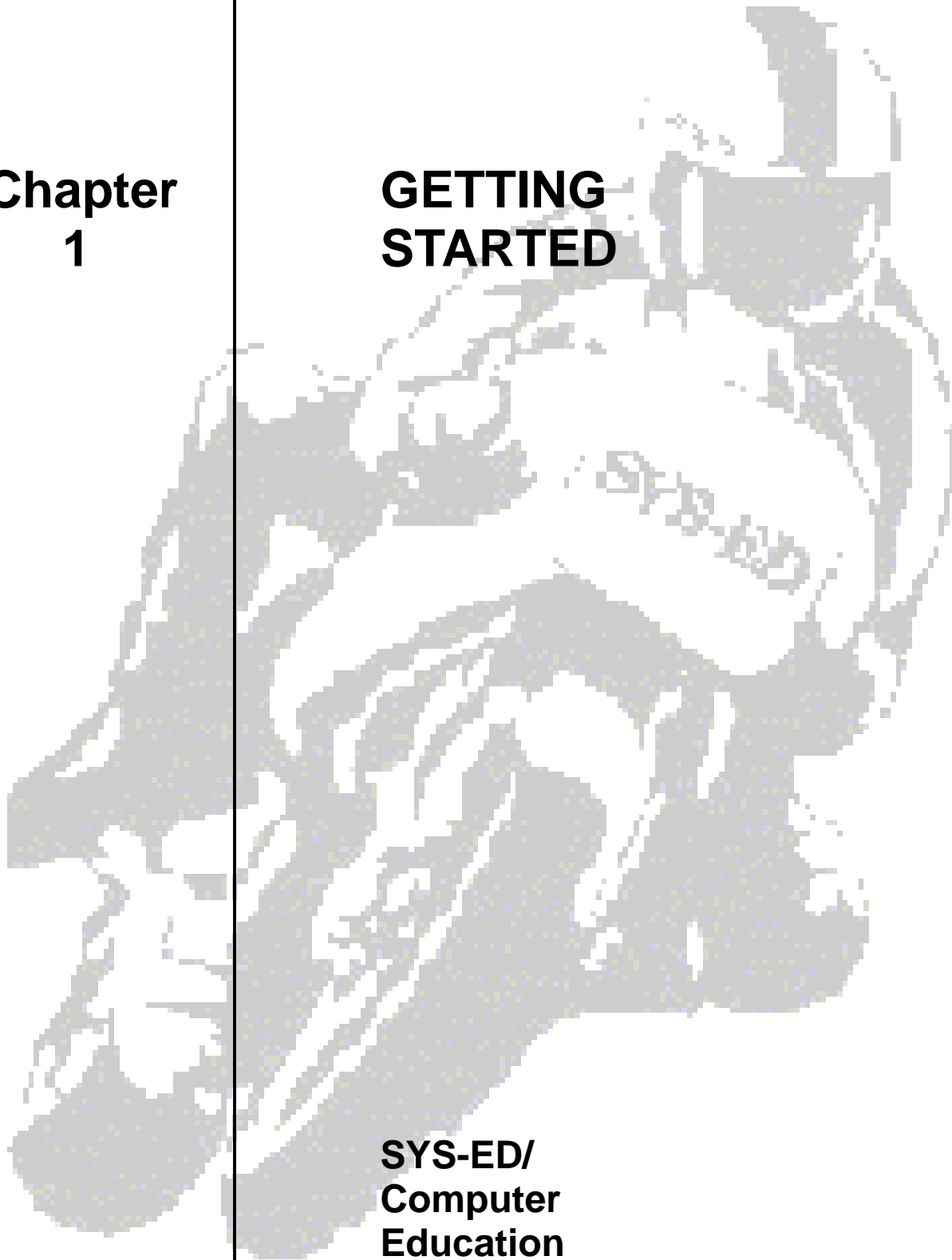


**Chapter
1**

**GETTING
STARTED**

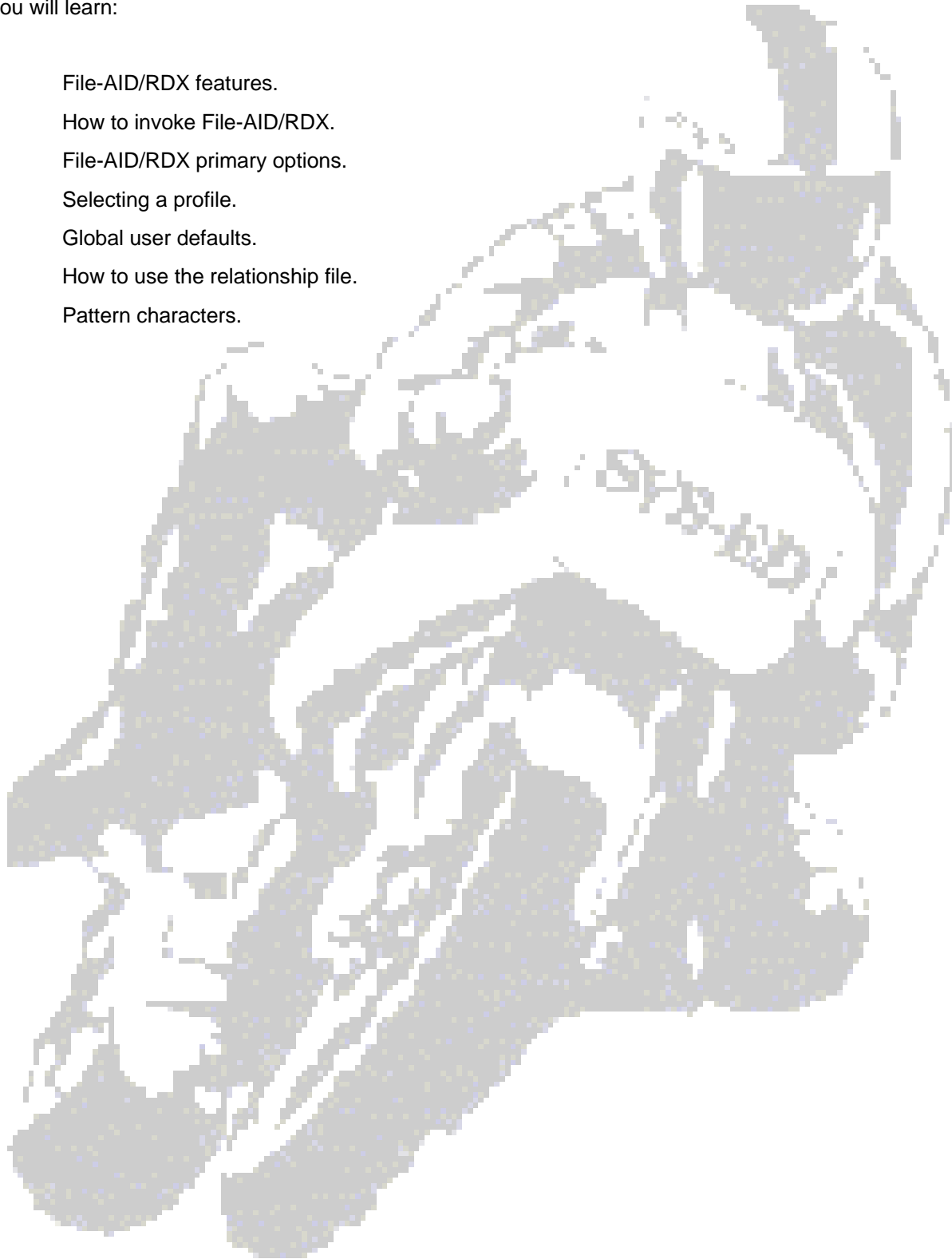


**SYS-ED/
Computer
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Techniques, Inc.**

Objectives

You will learn:

- File-AID/RDX features.
- How to invoke File-AID/RDX.
- File-AID/RDX primary options.
- Selecting a profile.
- Global user defaults.
- How to use the relationship file.
- Pattern characters.



1 Overview

File-AID/RDX is an abbreviation of File-AID/Related Data XPERT. It has been designed to enable programmers and database administrators to extract, load, and delete a subset of related data from DB2 objects and/or system files.

Major advantages in using File-AID/RDX are:

- Data related by referential integrity, or application-defined relationships can be copied within their respective DB2 or z/OS environments, with full support for all relationship constraints.
- It uses a ISPF-like format to create and populate test objects that accurately reflect the production relationships. A major benefit is that it contains only a relevant subset of the data and this is without the need to code SQL or write programs.
- Related sets of data can be migrated from one DB2 subsystem and/or z/OS environment to another.

1.1 Features

Profiles Set Extract and Load Environments

The profile utility captures vital extract and load variables. Once a profile has been selected, the extract and load functions will be preset.

Extracting Data from Multiple Related and Unrelated Objects

The automatic extraction of data from one or more related or unrelated objects, including DB2 tables and MVS files.

Extracting Criteria can be used for Customized Extraction

This feature provides for the creation and saving of multiple sets of extraction selection criteria without programming SQL for each object in an extract.

Extract criteria options include:

- Specification of WHERE clause values online without creating an SQL SELECT statement.
- Specification of a maximum number of rows (records) and/or select every nth row to extract.
- Exclusion of referential integrity and user-defined application relationships that are not required to test a specific application.
- Specification of a keyfile as selection criteria for a DB2 driving object.
- Specification of formatted selection criteria and selection options for MVS objects.
- Specification of the navigation controls that determine how File-AID/RDX chases the relationships during extract processing.

Load Related Objects

File-AID/RDX loads extracted data into multiple objects. Data can be loaded into existing objects that are empty or already contain data. If the requirement is to specify new target objects, File-AID/RDX will automatically create the objects before loading the data.

Support for Insert or Replace Data in Load Option

If data already exists in the object to be loaded, it is possible to specify that duplicate data be replaced with the extracted data or discarded.

Column-to-column Mapping in Load Option

It is possible to load data to objects that are defined differently than the objects from which data was extracted. A screen is provided that enables "from" table columns, or fields, to be mapped to "to" columns, or fields, of the same or different types and lengths.

Load Default Values (literals) in Load Option

When loading extracted data to objects, a default value for target columns or fields can be inserted in place of the extracted column or field data.

Deleting Extracted Records from Source

Records can be deleted from one or more related DB2 or MVS objects from which data has been previously extracted. File-AID/RDX determines which records to delete based on the contents of the File-AID/RDX extract file that has been specified.

Graphical Relationship Display

Relationships can be viewed in a graphical display.

Downloading File-AID/RDX Extract Data to DB2

Extract data can automatically be download to DB2. DB2 tables can be automatically updated prior to loading or download to existing DB2 tables.

Reporting

File-AID/RDX generates reports after performing the extract, delete, and load processes.

2 Invoking File-AID/RDX

File-AID/RDX executes as a dialog under IBM's ISPF dialog manager facility. It can be invoked by selecting the File-AID/RDX option from a customized version of the ISPF Primary Option Menu, or from a sub-menu panel.

In order to select an option from the File-AID/RDX Primary Option Menu, type the appropriate code in the OPTION field and press Enter.

In order to access any one of options 0 through G from the File-AID/RDX Primary Options Menu, it will be necessary to specify a valid SITE or USER profile. If the Profile field has been left blank or a pattern has been entered, a profile can be selected from a list.

```
File-AID/RDX 4.1 ----- Primary Option Menu -----
Option ==> G
          USERID - TSOID01
0 PROFILE      - Select, Create or Change Profiles TIME - 14:15
1 RELATIONSHIPS - Relationship Facilitator TERMINAL - 3278
2 EXTRACT      - Extract from Related Objects PF KEYS - 24
3 LOAD        - Load Data Records
4 DELETE      - Delete Extracted Rows from DB2 Tables and/or MVS Files
G GLOBAL DEFAULTS - Define User Parm
FD FADB2      - Transfer to File-AID for DB2
C CHANGES    - Summary of File-AID/Related Data XPERTc hanges
TT UTORIAL    - Information about File-AID/Related Data XPERT
X EXIT        - Exit File-AID/Related Data XPERT
Profile ==>
Type ==> SITE (SITE, USER or userid)
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Unpublished - rights reserved under the Copyright Laws of the US.
```

2.1 File-AID/RDX Primary Options

Option 0—Profile	Select and define File-AID/RDX profiles for extract and load functions.
Option 1—Relationships	The Relationship Facilitator represents an alternate approach to maintaining relationships.
Option 2—Extract	Extract relationally intact sets of data from one or more related or unrelated objects. Extra criteria can be modified or created to extract criteria for application during the extract process.
Option 3—Load	Load relationally intact sets of data into one or more related objects. The SQL INSERT statements or DB2 LOAD Utility can be used for loading DB2 objects.
Option 4—Delete	Delete records from one or more related DB2 or MVS objects from which data has been previously extracted. The determination of which records should be deleted is based on the contents of a previously specified File-AID/RDX extract file.
Option G—Global Defaults	Specifies the maximum number of entries in the Extract and Load Reference lists and enters default job statement information.
Option FD—FADB2	Transfer to File-AID for DB2.
Option C—Changes	Summary of changes.
Option T—Tutorial	Online tutorial.
Option X—Exit	Terminates a File-AID/RDX session.

3 Profile Selection

File-AID/RDX displays the “Select Profile” screen when the Profile field has been left blank or a pattern has been entered.

This screen will select the current profile.

```
File-AID/RDX ----- Select Profile ----- Row 1 to 3 of 3
Command ==>>                               Scroll ==>> CSR

Profile dataset ==>> SITE (SITE, USER or USERID)
                                FARDX.SITE.PROFILE

Line commands - Enter S = Select, R = Rename, C to Copy, D to Delete
- Profile - New Name - Description -----
_ RDXFLOW                RDXFLOW - FLOW THROUGH THE MENU OPTIONS
_ RDXMENU                 RDXMENU - DISPLAY ALL OF THE MENU OPTIONS
S RDXQUICK              RDXQUICK - THE QUICKER SETTER UPPER
***** Bottom of data *****
```

If SITE is not displayed, type SITE and press Enter to see the list of SITE profiles.

Type the S line command in front of profile and press Enter. File-AID/RDX makes the SITE profile the current profile and displays the Global User Defaults screen as selected on the Primary Options Menu (Option G).

Line Command

Enter line command in the first column of the list area.

C	Copy the profile.
R	Rename the profile.
S	Select the profile.
D	Delete the profile.

4 Global User Defaults

File-AID/RDX displays the "Global User Defaults" screen when selecting Option G from the File-AID/RDX Primary Option Menu.

The following screen is used for specifying global parameters for the extract and load reference lists, default job statement information, and current File-AID/RDX version.

```
File-AID/RDX ----- Global User Defaults -----  
Command ==>  
  
FA/RDX Version: V4R1M0  
  
Reference List controls:  
  Extract reference list entries ==> 75 Maximum Number of entries  
  Load reference list entries   ==> 25 Maximum Number of entries  
  
Increment job name ==> N (Y = Yes; N = No)  
  
Job Statement Information:  
  ==> //  
  ==> //  
  ==> //  
  ==> //  
  ==> //
```

NOTE: If the Job Statement Information is not specified via the RDX Profile, then the Job Statement Information specified here will be used. If no information is specified here, then the latest TSO Job Statement Information will be used.

4.1 Relationship File: Components

The relationship file stores information about relationships, including:

- parent and child object names.
- column/field names and attributes.
- DB2 subsystem ID.
- MVS record layout.

The relationships for which information is stored includes:

Referential Integrity	RI	DB2-defined referential integrity information taken from the DB2 catalog.
Application Relationship	AR	User-defined relationship information created from within File-AID/RDX for relations between DB2, MVS, and IMS objects.

4.2 Relationship File: Creation and Loading

As part of File-AID/RDX, a relationship file will be created which loads referential integrity relationships into it from the DB2 catalog.

A member, RIUPDssid, will be provided for each DB2 subsystem in the File-AID/RDX skeleton file, ISPSLIB, that performs an initial load of the referential integrity relationships from the DB2 catalog. This batch job is called RI UPDATE.

RI relationships defined on different subsystems can be loaded into a single relationship file by resubmitting the initial load job for each subsystem. It is also possible to load individual RI relationships using the Load RI option or the L (Load RI) line command in the Relationship Facilitator.

4.3 Relationship File: Use

File-AID/RDX is designed to exploit the advantages of having all users access a single, common relationship file. It will ensure a consistent model for use that is easy to keep up-to-date.

There are two major benefits associated with a common relationship file:

- It will not be necessary to set up and document RI and AR relationships individually.
- If a relationship has not been defined in the file, File-AID/RDX provides for the creation or loading of one.

Managing the Relationship File

Changes to the relationship file are implemented through the Option 1, Relationships, on the File-AID/RDX Primary Option Menu. Changes to RI relationships can be made using the Load RI option or L line command, to AR definitions using the Edit AR option or E line command.

With File-AID/RDX, all of the relationship definitions that exist in the relationship file can be viewed. In order to examine these relationships, select the Browse All option or B line command from Option 1, Relationships.

With DB2 objects, File-AID/RDX searches the relationship file for relationship definitions involving the name of the object that is specified to act as a point of reference. File-AID/RDX displays all of the objects with relationships that match the name of the DB2 object that has been specified, when using a pattern for the creator ID of the object.

4.4 Extra Process

In order for File-AID/RDX to include the relationships that are specified in the extract, it will be necessary to specify an object which describes that relationship. This is called the driving object.

When choosing this object, the following needs to be considered:

- The data to be extracted.
- How the objects in an environment are related.
- Scope of the extract.

File-AID/RDX enables the depth of an extract through the use of navigation and sampling controls with the Extract Scope option.

The extract request file consists of saved extract criteria that contains:

Relationship criteria	Relationships to include in the extract.
Navigation criteria	How to chase the relationships.
Selection criteria	Column and row extraction criteria.
Sampling criteria	Maximum records to extract, select every nth record.

5 Pattern Characters

Many screens accept pattern characters.

Valid pattern characters are:

Asterisk (*)	Matches all values.
Underscore (_)	Matches an occurrence of any single character.
Percent sign (%)	Matches the occurrence of no characters or an unlimited number of characters.