D. R. I. E.
Data Dictionary
Concepts, Services, and Facilities

Data Management Centre
September 1987

DMC DATA DICTIONARY
CONCEPTS, SERVICES AND FACILITIES

1.	INTRODUCTION (15 slides)	5 MIN.
2.	DATA DICTIONARY CONCEPTS IN THE DRIE ENVIRONMENT (40 slides)	40 MIN.
3.	DMC DICTIONARY SERVICES AND PROCEDURES (9 slides)	20 MIN.
4.	DMC MANUALS AND REFERENCE MATERIAL (2 slides)	5 MIN.
5.	IRMIS DEMONSTRATION (3 slides and demo)	30 MIN.
6.	WRAP-UP AND QUESTIONS	5 MIN.
		105 MIN.

DMC DATA DICTIONARY

- Concepts
- Services
- Facilities

This is the last of a series of 4 presentations

- perhaps you are thinking that this comment is very appropriate

DMC DATA DICTIONARY CONCEPTS, SERVICES AND FACILITIES

(A) • Data Dictionary Concepts in the DRIE Environment

(B) • DMC Dictionary Services and Procedures

(C) • DMC Manuals and Reference Material

(D) • IRMIS On-line Demonstration

- the bulk of this 1 hour presentation will be on the concepts

GOALS OF THIS PRESENTATION

- Create a greater awareness of the underlying dictionary concepts
  - Why certain standards exist
  - Why certain information is requested
  - How to take control of the integrity of the information you are putting into the dictionary
- Create a greater awareness of
  - How easy it is to query the dictionary on-line
  - Dictionary terminology and DRIE entry forms
- Create a greater awareness of DMC
  - How to interface with them
  - DMC dictionary related services and procedures

- knowledge in these areas should help everyone get more value from the dictionary on an individual basis and a corporate basis

THE CONFIDENT DICTIONARY USER?

- in general, it is hoped that this presentation will increase everyone's dictionary knowledge and confidence

A. DATA DICTIONARY CONCEPTS IN THE DRIE ENVIRONMENT

A.1 Dictionary Design
1. The Inter-active Dictionary
2. The Integrated Data Base
3. Dictionary Control and Standards
   i) Naming Conventions
   ii) Aliases
   iii) Dictionary Security
   iv) Dictionary Verification and Quality Control
   v) Change Control Procedures
   vi) Dummy Entries

4. Data Dictionary Working Statuses
5. Dictionary Content Deletion / Archiving

A.2 Data Entry Concepts
1. Member Types
2. Pre-Structured Environments
3. Dictionary Entry Forms
   i) Name
   ii) Description
   iii) Catalogues
   iv) Aliases
   v) Attributes
   vi) References
   vi) Texts
   vii) Responsibility
   ix) Change Control

DATA DICTIONARY CONCEPTS IN THE DRIE ENVIRONMENT

A.1 • DICTIONARY DESIGN

1. The inter-active Dictionary
2. The Integrated Data Base
3. Dictionary Control and Standards
   - i) Naming Conventions
   - ii) Aliases
   - iii) Dictionary Security
   - iv) Dictionary Verification & Quality Control
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4. Data Dictionary Working Statuses
5. Dictionary Content Deletion / Archiving

A.1 DICTIONARY DESIGN

1. ● The Inter-active Dictionary

   - DATAMANAGER is an inter-active dictionary
   - Thus it interfaces with a variety of DBM's (ADABAS, IMAGE, IMS, TOTAL, etc.)

   Impact

   - DATAMANAGER generates ADABAS loader definitions
   - From element attributes
     - "HELD-AS"
     - numeric, binary
     - size M.N
     - suppression (null, fixed)
   - From file descriptions
     - descriptors, sub-descriptors, super descriptors
     - placement of super descriptors via byte designation

A.1 DICTIONARY DESIGN

1. The Inter-active Dictionary

Generate source code

- COBOL and PL1 definitions
- For use in copy libraries

Purpose

- Consistency, reduces manual effort, standardization

A.1 DICTIONARY DESIGN

2. • The Integrated Data Base
   - DRIE has an integrated corporate data base
   - Thus the data and data definitions are shared across applications
   - Data elements, data structures, userviews, screens, reports, etc., are recorded in the dictionary

   Impact
   - Greater consistency of terminology
   - Changes to definitions and attributes in the dictionary affect all users of the corporate data base

   Purpose
   - Create consistency of data when rolled up
   - Reduces data entry when files are shared

DATA DICTIONARY CONCEPTS IN THE DRIE ENVIRONMENT

A.1 • DICTIONARY DESIGN

1. The inter-active Dictionary
2. The Integrated Data Base
3. Dictionary Control and Standards
   - i) Naming Conventions
   - ii) Aliases
   - iii) Dictionary Security
   - iv) Dictionary Verification & Quality Control
   - v) Change Control Procedures
   - vi) Dummy Entries
4. Data Dictionary Working Statuses
5. Dictionary Content Deletion / Archiving

A.1 DICTIONARY DESIGN

3. Dictionary Control and Standards

i) Naming conventions

- What are they?
  - Set of rules and standards (IRD Reference Manual)
  - E.g. element names end in one of code, indicator, identifier, etc.

Member - a dictionary member type, an entity e.g., programs, elements, files

MemberName - 32 character DD name

A.1 DICTIONARY DESIGN

i) Naming Conventions (cont'd)

- **Why have them ?**
  - **Permits standard interpretation of dictionary contents, e.g. everyone knows the difference between a "code" and an "indicator"**
  - **Permits keyword searching and grouping when names must be comprised of standard keywords**
  - **Permits automatic translation of names and abbreviations to the full meanings**
  - **Helps ensure accuracy of names**

Standard Interpretation - without this people mix up the uses

Keyword Searching - list of words with standard abbreviations

NOTE: - DMC has the final authority on name selection for new members
- ensure meaningful names

A.1 DICTIONARY DESIGN

3. Dictionary Control and Standards

ii) Aliases

- **What are they?**
  - **Alternate identifiers for an element or any other member**
  - **There is always only 1 unique member-name**
  - **Aliases names are alternate reference terms**
  - **2 or more different reference names depending on context**
    e.g. DD members name - Schedule Sequence Number
    user alias - MB Number
  - **Dictionary implementation**
    - **14 available aliases**
    - **e.g. NATURAL, COBOL, DOWNLOADING, TITLE (E&F), HEADING (E&F), USER, ACRONYM (E&F), ASSEMBLER, PL1, ABBREVIATION, GENERAL, CODE, IMAGE**

- it is always desirable to reduce the number of aliases used because of the communication problems they present

NOTE: - USER alias not desirable on the whole
- if possible, eliminate
- sometimes unavoidable
- environment dependent
e.g., - if isolated, application like machinery brandh system, there is more flexibility
- if using a common file/common fields like project cost, USER alias should be avoided

- Program aliases sometimes necessary
e.g., NATURAL alias, COBOL alias

A.1 DICTIONARY DESIGN

3. DICTIONARY CONTROL AND STANDARDS

ii) Aliases (continued)

- Not an Alias
  - Different physical attributes
    e.g. Product Code
      - diff lengths: 8,6
      - diff characters: alphanumeric, numeric, binary

  - Dictionary implementation
    - different "Versions" of physical attributes
    - version 01, 02, 03 are prespecified
    - version 05 to 15 are available for specific use
    - e.g. codes have only prespecified version-01-alphameric
      - use version 05 for cases where the code can only be numeric

- some people have had the mistaken impression that different physical attributes have required different members

- you can use the aliases and versions to accommodate non-standard elements which may exist in the micro environment

10. DD CONCEPTS

ALPHANUMERIC TYPE - GENRE ALPHANUMÉRIQUE			NUMERIC TYPE - GENRE NUMÉRIQUE			COMPUTATIONAL TYPE — GENRE COMPUTATIONNEL		
Code / Indicator / Identifier - Code / Indicateur / Indentificateur Description / Name / Address - Description / Nom / Adresse			Number / Date / Time - Nombre / Date / Heure			Value / Count / Rate - Valeur / Compteur / Taux		
FORM FORMAT	VERSION	DESCRIPTION & LENGTH DESCRIPTION & LONGUEUR	FORM FORMAT	VERSION	DESCRIPTION & LENGTH DESCRIPTION & LONGUEUR	FORM FORMAT	VERSION	DESCRIPTION & LENGTH DESCRIPTION & LONGUEUR
ENTERED - AS	01	ALPHAMERIC m	ENTERED - AS	01	ALPHAMERIC m+n	ENTERED - AS	01	ALPHAMERIC m+n
HELD - AS	01	ALPHAMERIC m	ENTERED - AS	02	NUMERIC m.n	ENTERED - AS	02	NUMERIC m.n
REPORTED - AS	01	PICTURE x (m)	HELD - AS	01	NUMERIC m.n	HELD - AS	01	PACKED signed m.n
			REPORTED - AS	01	PICTURE 9(m) v9(n)	HELD - AS	02	BINARY signed m.n
						HELD - AS	03	NUMERIC signed m.n
						REPORTED - AS	01	PICTURE z(m) v9(n) -
						REPORTED - AS	02	PICTURE z(m) v9(n) -
						REPORTED - AS	03	PICTURE z(m) v9(n) -

"Entered-As" version - indicates how the data enters the system
- numbers in green underlining are sometimes entered alphanumeric format and edited

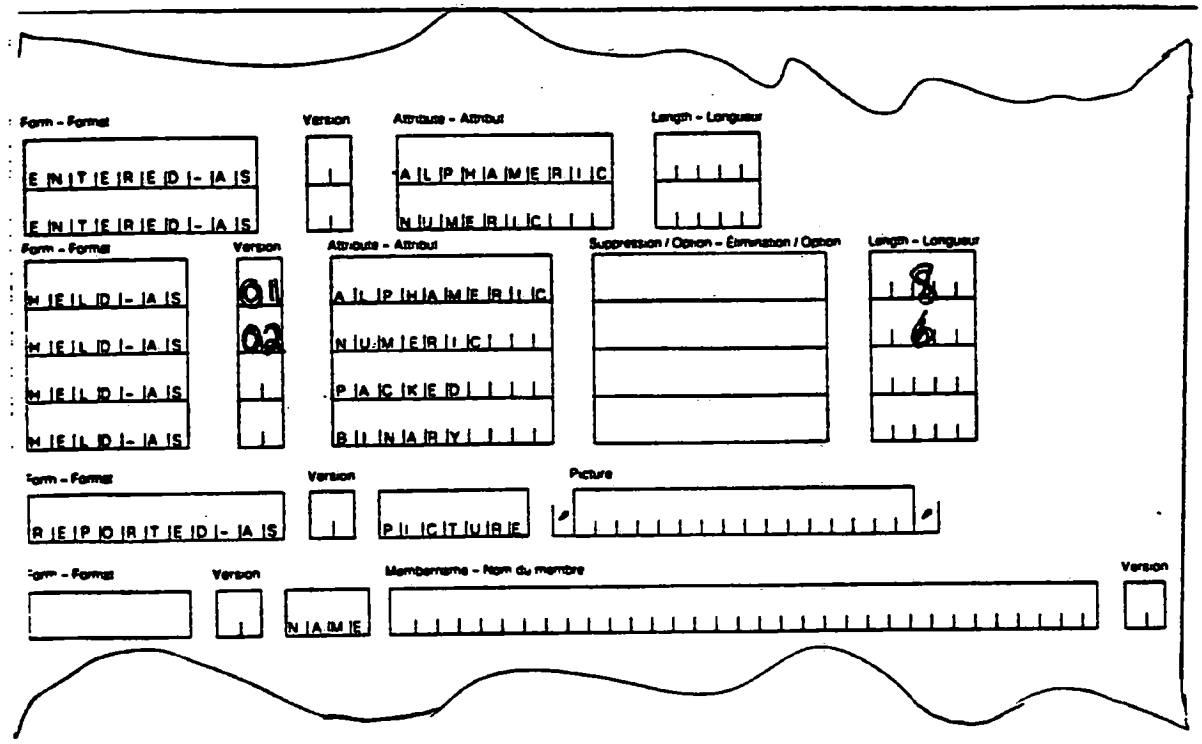
"Held-As" version - this is the most importan version because it is the one which drives the ADABAS loader definitions
- this version signifies how the data will be stored on the data base

"Reported-As" version - indicates how the element is outputted

- This chart appears at the bottom of the element attribute sheet

- It indicates what versions are prespecified for each element type

- "01" is assumed, unless otherwise specified



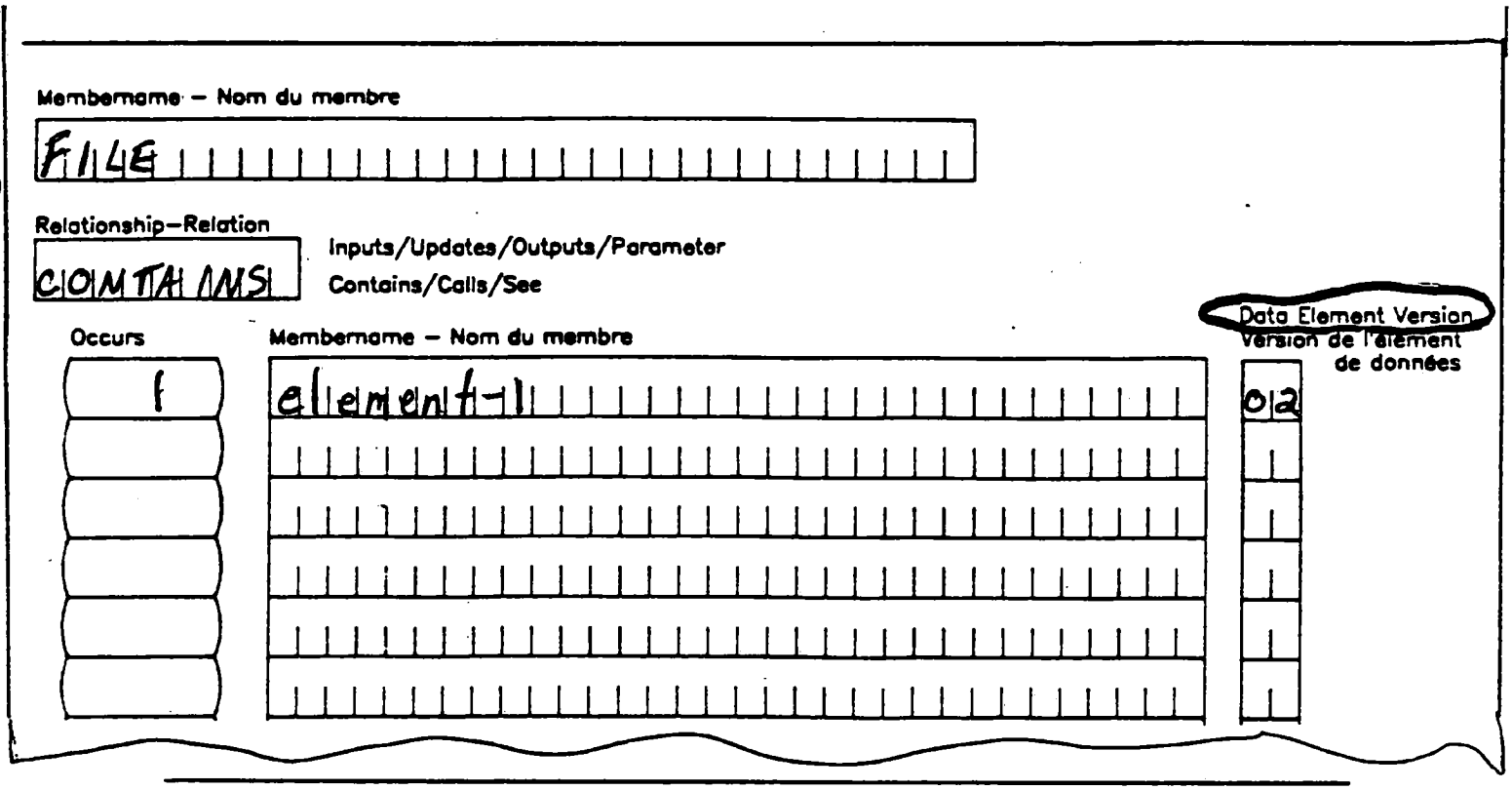
- This is the top part of the element attribute sheet

- This is where you specify which versions are applicable in the
  "Entered-as" form
  "Held-As" form
  "Reported-As" form

- For example
  - if an element is stored on one file as alphanumeric, 8 characters long, and on another file as numeric, 6 characters long

  - this is not encouraged but is sometimes unavoidable

  - this is how you specify the versions



- when the files are documented in the dictionary, it is the "version" column of the reference sheet that specifies which version is held on the file

- this is especially important for tape files and work files, where the storage environment is controlled by the project team, and not the DBA area

A.1 DICTIONARY DESIGN

3. DICTIONARY CONTROL AND STANDARDS

iii) Dictionary security

- Controlled with DATAMANAGER security which is based on passwords

  - Access / retrieval passwords - for IRMIS
  - Update / change passwords - available for team data entry
  - Removal / delete passwords - only for DMC personnel

- DATAMANAGER has provided relatively powerful security facilities which are not really needed in the DRIE environment

A.1 DICTIONARY DESIGN

3. DICTIONARY CONTROL AND STANDARDS

iv) Dictionary verification and quality control

- DMC verifies the completed dictionary forms for:
  - Adherence to naming conventions
  - Adherenced to DRIE standards
  - Completeness

A.1 DICTIONARY DESIGN

3. DICTIONARY CONTROL AND STANDARDS

iv) Dictionary verification and quality control (continued)

- DMC personnel is responsible for maintaining dictionary integrity
  - Element control
    - unique - if not, then aliases result in inconsistency of data on the data base
    - apt names - if not, then people are misled with respect to the meaning of the element
    - good definitions - elements must be described sufficiently for others to understand them, recognize them and use the elements when applicable
- DMC require a "work request" form to accompany the dictionary forms to be reviewed

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element control

unique - when aliases get on the database, data inconsistency results

- when there are 2 or more dictionary membertypes which actually represent the same thing
- these elements can now be updated at different points in time
  - the values entered can be different
  - the use of the data can contradict each other
- this can be, and often is, embarassing to the Corporation as a whole

A.1 DICTIONARY DESIGN

3. DICTIONARY CONTROL AND STANDARDS

v) Change control procedures

- What are they?
  - A new "Change Control" manual, August 1987 is available
  - Specifies Data Dictionary procedures as well as other change procedures
  - Checklist of procedures to obtain changes of information in the dictionary

    e.g. - generate DD impact analysis report
    - circulate "Multi-Application Change Approval" form to impacted systems and DMC
    - meet with DMC personnel
    - complete dictionary forms
    - obtain sign-off, etc.

Checklists

1. New Files and Tables check list
2. Structural Modifications to de, files/tables checklist
3. Table data values modifications checklist

A.1 DICTIONARY DESIGN

3. DICTIONARY CONTROL AND STANDARDS

v) Change Control Procedures (continued)

- Why have change control?
  - Imperative when data is shared and there is an integrated (i.e. shared) corporate data base environment

Why have change control?

- structural changes affect the programs of all applications using that structure
- changes in definitions affect the interpretation of all users of that definition
- terminology is important to understanding
- changes in table values affect everyone

A.1 DICTIONARY DESIGN

3. DICTIONARY CONTROL AND STANDARDS

vi) Dummy entries

- What are they ?
  - These are skeleton dictionary entries created by DATAMANAGER
  - Dummy entries are identified on the member list report
  - They exist in name only with no definition
  - They are usually the result of a mistake
    e.g. when filling in the "contains" or other referencing column of a file or program, (the element is written incorrectly)
    - since DATAMANAGER can't find the member with the name given, it creates a new one

A.1 DICTIONARY DESIGN

3. DICTIONARY CONTROL AND STANDARDS

vi) Dummy Entries (cont'd)

- Action
  - All dummy entries should be eliminated by resolving the problem and correcting the references
  - Especially important when project teams do their own data entry

13 AUG 1987 00.03.37
NON-FROZEN STATUS TEST

MANAGER SOFTWARE PRODUCTS
DICTIONARY IRD

LIST OF SELECTED MEMBERS

5	SUB-DESCRIPTORS
1	SUPER-DESCRIPTOR
25	GROUPS
2	SCREENS
1	FORM
9	RECORDS
25	DIRECTORIES
1	DOCUMENT
4	FILES
18	ADABAS FILES
24	ADABAS USERVIEWS
1	ADABAS DATABASE
1	PROGRAM
5	SYSTEMS
2	PROCEDURES
1	LOCATION
2	END USER APPLICATIONS
33	SOFTWARE
10	COMMAND STREAMS
8	DUMMIES
2	CONTAINING SOURCE DETAILS ONLY
258	MEMBERS IN TOTAL

- This summary appears at the end of many dictionary reports

- Note that in this report there were 8 dummies

12 AUG 1987 23.55.25
FROZEN STATUS PRODUCTION

MANAGER SOFTWARE PRODUCTS
DICTIONARY IRD

LIST OF MEMBERS

MEMBER NAME	TYPE	USAGE	CONDITION	AC	ALT	REM	OWNER
SHORT-TERM-ECNMC-ANALYSIS-SYSTEM	SYSTEM	1	SCE ENC	0	0	0	
SHOWER	DEFINITION	0	SCE ENC	0	0	0	
SHR-FUND-CUM-DT-PRTNR-XPNDTR-AMT	DATA ELEMENT	46	SCE ENC	0	0	0	
SHR-FUNDG-CUM-DT-DRIE-XPNDTR-AMT	DATA ELEMENT	48	SCE ENC	0	0	0	
SHR-FUNDG-CUM-DT-REIMBSMT-AMT	DATA ELEMENT	46	SCE ENC	0	0	0	
SHRINKAGE	DEFINITION	0	SCE ENC	0	0	0	
SIC-CITC-CONCORDANCE-TBL-INFO	GROUP	4	SCE ENC	0	0	0	
SIC-CODE	DATA ELEMENT	100	SCE ENC	0	0	0	
SIC-CODE-2	DATA ELEMENT	3	SCE ENC	0	0	0	
SIC-CODE-3	DATA ELEMENT	3	* DUM	0	0	0	
SIC-DIVISION-CODE	DATA ELEMENT	28	SCE ENC	0	0	0	
SIC-DIVISION-TABLE	GROUP	3	SCE ENC	0	0	0	
SIC-DIVISION-TABLE-FILE	ADABAS UV	22	SCE ENC	0	0	0	
SIC-LONG-DESC-ENGLISH	DATA ELEMENT	6	SCE ENC	0	0	0	
SIC-LONG-DESC-FRENCH	DATA ELEMENT	6	SCE ENC	0	0	0	
SIC-ORG-TABLE	GROUP	2	SCE ENC	0	0	0	
SIC-ORG-TABLE-FILE	ADABAS UV	106	SCE ENC	0	0	0	
SIC-SHORT-DESC-ENGLISH	DATA ELEMENT	32	SCE ENC	0	0	0	
SIC-SHORT-DESC-FRENCH	DATA ELEMENT	31	SCE ENC	0	0	0	
SIC-SPLIT-ORG-CODE-TABLE-FILE	ADABAS UV	17	SCE ENC	0	0	0	
SIGN	DEFINITION	0	SCE ENC	0	0	0	
SIGNATURE	DEFINITION	0	SCE ENC	0	0	0	
SIM-PC-USAGE-INDICATOR	DATA ELEMENT	4	SCE ENC	0	0	0	

- The list of the members at the start of the report indicate dummies by

  - an asterisk
  - "DUM" in the condition column

DATA DICTIONARY CONCEPTS IN THE DRIE ENVIRONMENT

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4. Data Dictionary Working Statuses
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A.1 DICTIONARY DESIGN

4. DATA DICTIONARY WORKING STATUSES

- What are they ?
  - Different views of the dictionary
  - A specific collection of dictionary members with specific definitions

A.1 DICTIONARY DESIGN

4. DATA DICTIONARY WORKING STATUSES

- Types
  - "Proposed" Status
    - before data base userviews exist
    - new system development projects
    - major changes / enhancements to existing systems
  - "Test" Status
    - when database userviews are required
    - work is not in production
  - "Production" Status
    - work is in production
    - no dictionary changes are made to the production version of the dictionary
    - changes are made in the test version of the dictionary and copied into production

A.1 DICTIONARY DESIGN

4. DATA DICTIONARY WORKING STATUSES

- Transferring between statuses
  - The choice of "Test" or "Proposed" is up to the project team, but generally speaking "Proposed" is best in the feasibility and analysis stage
  - All transfers require a "Work Request" form
  - DMC personnel complete the transfer
  - In maintenance, most changes should have a time delay between the "Test" status and the "Production" status to ensure that the dictionary adequately reflects reality (time to program and test the requested change)
  - DMC performs weekly transfers into "production"

NOTE: since the transfer from "Test" to "Production" requires no data entry but is a 'copy' function, there should be no hesitation to use the statuses correctly and accurately

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A.1 DICTIONARY DESIGN

5. DICTIONARY CONTENT DELETION / ARCHIVING

- When to use?
  - As systems evolve, there is a need to remove information stored in the dictionary which is inaccurate or is no longer pertinent for impact analysis
    e.g. - file becomes obsolete
      - data element is no longer collected or reported
      - programs not used anymore
  - When the dictionary is being used for impact analysis it is imperative that members which are no longer in use do not appear on the impact analysis reports

A.1 DICTIONARY DESIGN

5. DICTIONARY CONTENT DELETION/ARCHIVING

- Options
  - Obsolete definition
    - keeps information in dictionary until major restore of corporate dictionary (approximately once every 2 years)
    - removes all reference on impact analysis reports (not picked up)
  - Inactive catalogue
    - picked up on impact analysis reports
    - the choice of which option should be discussed and reviewed with DMC personnel and depends upon the objective

A. DATA DICTIONARY CONCEPTS IN THE DRIE ENVIRONMENT

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A.2 Data Entry Concepts
1. Member Types
2. Pre-Structured Environments
3. Dictionary Entry Forms
   i) Name
   ii) Description
   iii) Catalogues
   iv) Aliases
   v) Attributes
   vi) References
   vi) Texts
   vii) Responsibility
   ix) Change Control

DATA DICTIONARY CONCEPTS IN THE DRIE ENVIRONMENT

A.2 • DATA ENTRY CONCEPTS

1. Member Types
2. Pre-structured Environments
3. Dictionary Entry Forms
   - i) Name
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A.2 DATA ENTRY CONCEPTS

1. MEMBER TYPES

- 64 member types exist now (IRD Reference Manual)
- These consist of:

  familiar entities - e.g. element, group, file, userview
  unfamiliar entities - e.g. task, manual, position

- These member types have been chosen specifically for the current and future needs of DRIE by DMC
- The attributes and catalogues can be changed in the future when active use of the various members indicate a need for revision

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- the DD at DRIE is a database
- the database contains information about data holdings with the department
- like any other data base it has records
  - common in format
  - but the data values may differ
- therefore - a "screen" member record and
  - a "report" member record

  will have the same format
- the content of the record differs
  - different values

64 MEMBER TYPES

- ACTIVITY
- ADABAS DATABASE
- ADABAS FILE
- ADABAS USERVIEW
- APPLICATION
- CLIST
- COMMAND STREAM
- COMPOSITE DATA ELEMENT
- DATA ELEMENT
- DATABASE
- DATAFLOW
- DATAFLOW DIAGRAM
- DATASET
- DATASTORE
- DEFINITION
- DEVICE
- DIRECTORY
- DOCUMENT
- END USER APPLICATION
- ENTITY
- EXTERNAL ENTITY
- FILE
- FORM
- FUNCTION
- GROUP
- GUIDELINE
- IMAGE DATABASE
- IMAGE DATASET
- INTERFACE
- JOB
- JOB-STEP
- LIBRARY
- LOCATION
- LOGICAL FILE
- MANUAL
- MESSAGE
- MODEL
- ORGANIZATION
- PANEL
- POLICY
- POSITION
- PROC
- PROC-STEP
- PROCEDURE
- PROCEDURE-STEP
- PROCESS
- PROGRAM
- PROJECT
- RECORD
- RELATION
- RELATIONSHIP
- REPORT
- ROUTINE
- SCREEN
- SITE
- SKELETON
- SOFTWARE
- STANDARD
- SUB-DESCRIPTOR
- SUB-SYSTEM
- SUPER-DESCRIPTOR
- SYSTEM
- TASK
- UNIT
- USERVIEW
- UTILITY
- VIEWSET

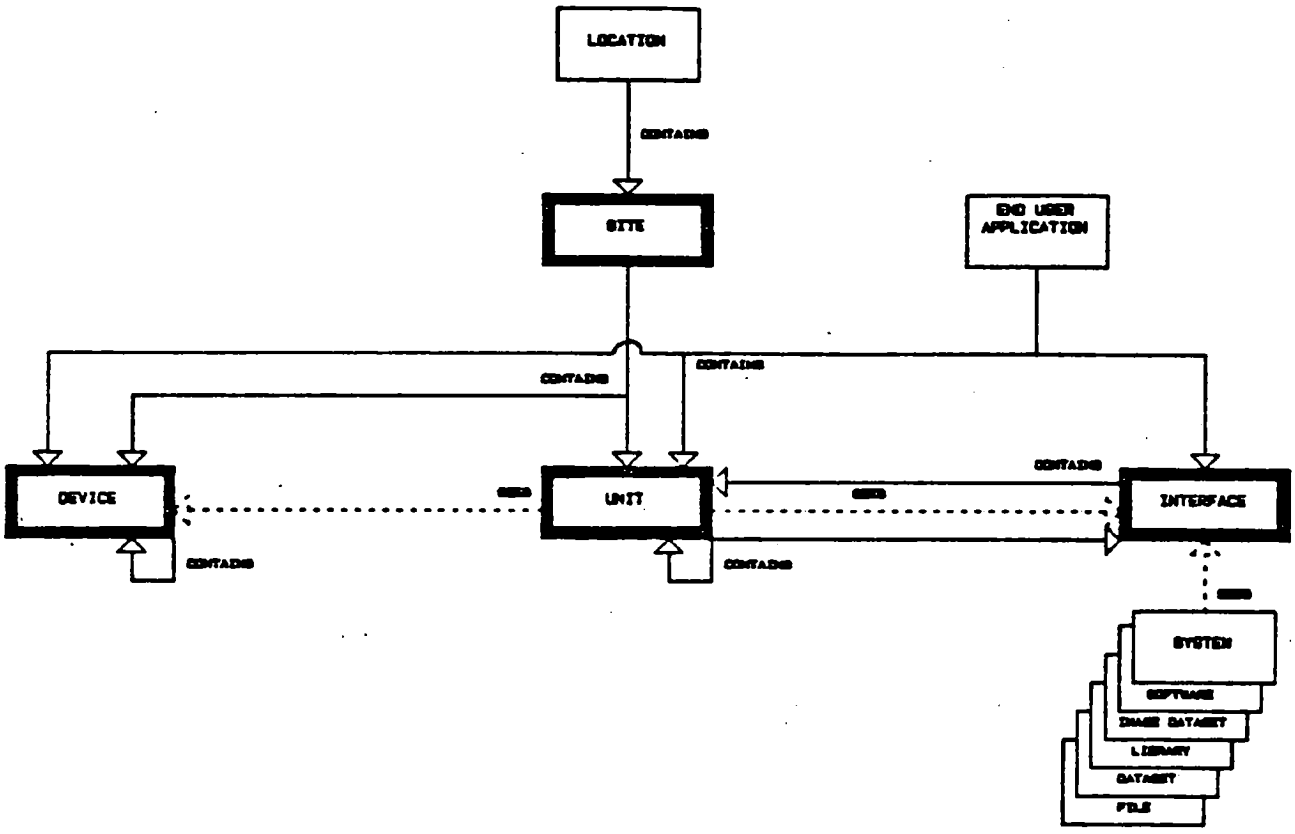
- you may ask yourself how anyone could need this many member types
- the answer is that no one user group would use them all
- to give a perception of how they might be used, DMC has established some pre-structured environments
- the dictionary is an integrated database
- it is big
- each member is structured identically

A.2 DATA ENTRY CONCEPTS

2. PRE-STRUCTURED ENVIRONMENTS

- Illustrate relationships between various membertypes e.g.
  - Business environment
  - Structured analysis and design environment
  - Data modelling environment
  - Hardware environment
  - Computer systems environment
- These are documented in the IRD Reference Manual
- It is possible to structure a specific environment with your own choice of member types

HARDWARE ENVIRONMENT



- this is a sample environment in the IRD Reference Manual

  eg. 1 location can have many sites

DATA DICTIONARY CONCEPTS IN THE DRIE ENVIRONMENT

A.2 • DATA ENTRY CONCEPTS

1. Member Types
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   - i) Name
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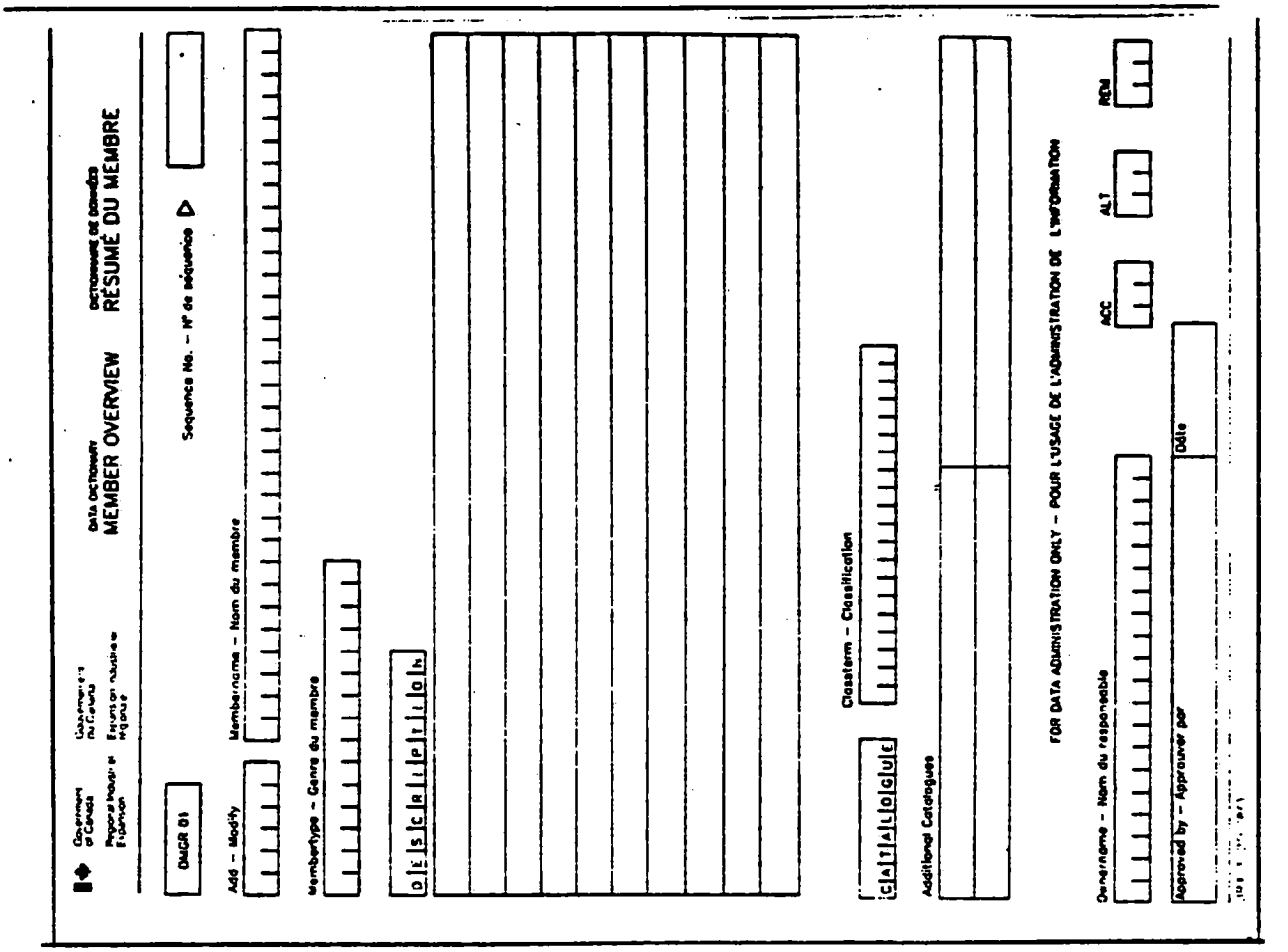
- basically every member contains information on these characteristics
- each member is structured identically, it shares a common structure
- these 9 characteristics represent the common structure
- these common characteristics may be thought of as a common record layout
- common across all membertypes



- this is the first form
- the next few pages will be close-ups of this form, from the top down

Government of Canada / Gouvernement du Canada
Regional Industrial Expansion / Expansion industrielle régionale

DATA DICTIONARY
MEMBER OVERVIEW

DICTIONNAIRE DE DONNÉES
RÉSUMÉ DU MEMBRE

DMGR 01

Sequence No. – N° de séquence ▷

Add – Modify

Membername – Nom du membre

Membertype – Genre du membre

element

Name - Member Name

- must conform to naming conventions
- must avoid abbreviations where possible
- must use approved keywords
- elements must end in a class term
  eg. DATE
  NUMBER
  CODE

36. DD CONCEPTS

DESCRIPTION

- additional lines may be added by attaching a piece of paper
- the description should be clear enough to indicate the uniqueness of the element/member
- also, the description should contain enough information for other applications to recognize what it is for future use

A.2 DATA ENTRY CONCEPTS

3. DICTIONARY ENTRY FORMS

iii) Catalogues

- Keywords
- Used for:

  Statistics generating:
  - the # of "Programs" which are "NATURAL"
  - the # of "Programs" which are "ON-LINE"
    ("NATURAL" and "ON-LINE" are catalogues available for "Programs")

  Collections within a membertype:
  - all "Locations" which are "Cities"
    (Location - membertype; City - catalogue)

- Catalogues permit the extraction of dictionary information in a variety of ways

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1. - CATALOGUES - powerful retrieval feature
                - automatic search, selection criteria

2. - catalogues have specific keywords for each membertype

   - this example indicates some of the catalogues for a Program ... they would not be appropriate for a "Location" membertype

3. - File catalogues - input - input file
                       master - master file
                       backup - backup file
                     - type of file

4. - Other Program catalogues - edit
                                download
                                updating

5. - element catalogues - keywords - keyword searching
                        - all else with project + application

Classterm – Classification

CATALOGUE

Additional Catalogues

FOR DATA ADMINISTRATION ONLY – POUR L'USAGE DE L'ADMINISTRATION DE L'INFORMATION

Ownername – Nom du responsable

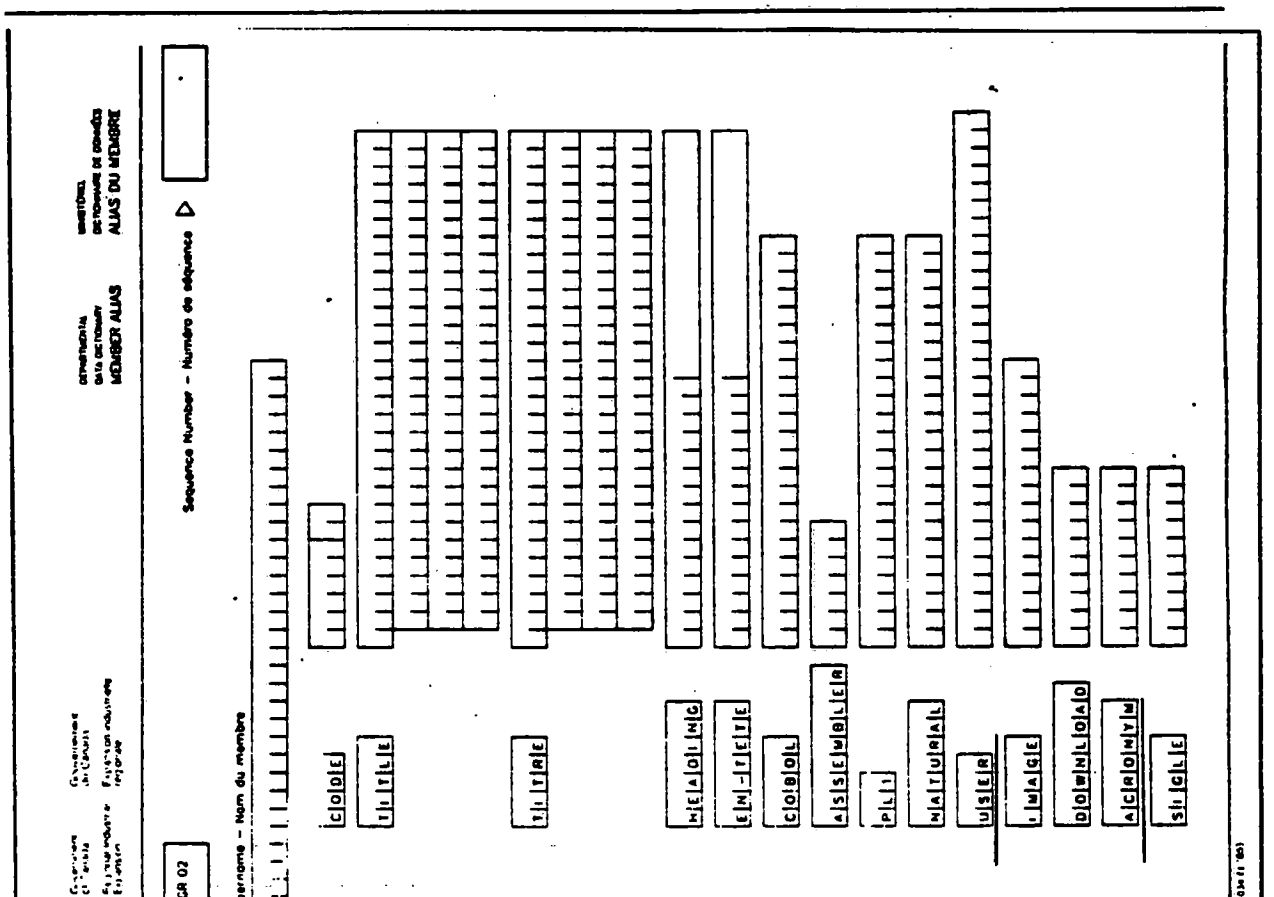
ACC ALT REM

Approved by – Approuver par	Date

1. CLASSTERM - Membertype or class; e.g., PROGRAM
   OR
   subroutine Program
   ie, file, group

   - also a catalogue for searching and grouping purposes

2. - if more flexibility needed for the catalogues of a specific membertype
   - more can be added
   - see DMC to explain need

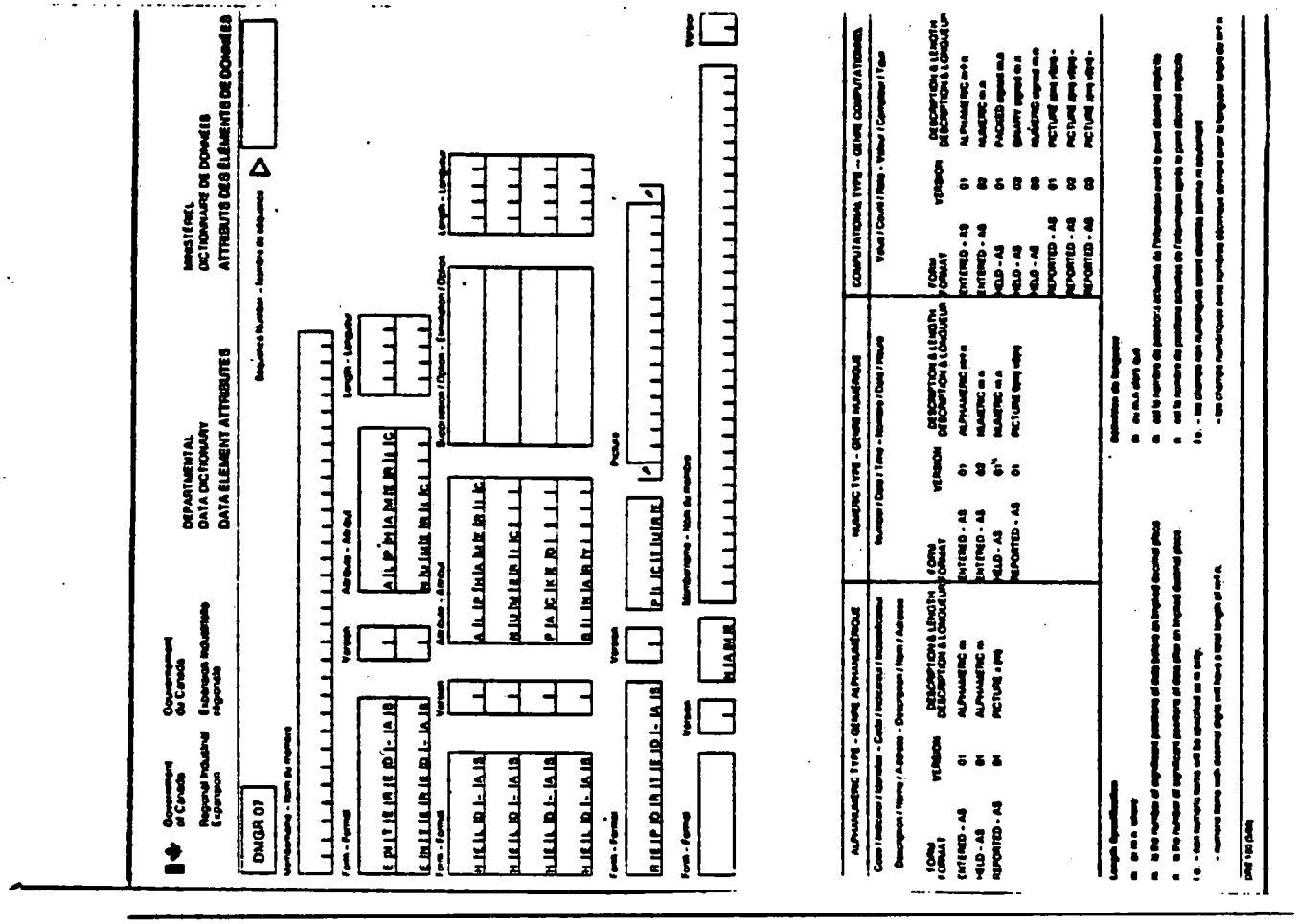


- aliases were discussed earlier

- this is the form used to assign them

- note the "USER" alias and the "ACRONYM"; these could prove very useful for some elements

- Heading alias - always for elements
  - screen ID
  - use of standard screen IDs help the data entry personnel
  - often have to enter data for many different systems
  - Proj cost always same label screen ID
  - also - screen layouts to descriptions



- this is the form for the "attributes" of an element

- this form was discussed earlier

- this form is only for data elements

NAME - links entries which must have more than 1 definition, but keeps 1 set of physical attributes

e.g., establishment #
applicant #
client #

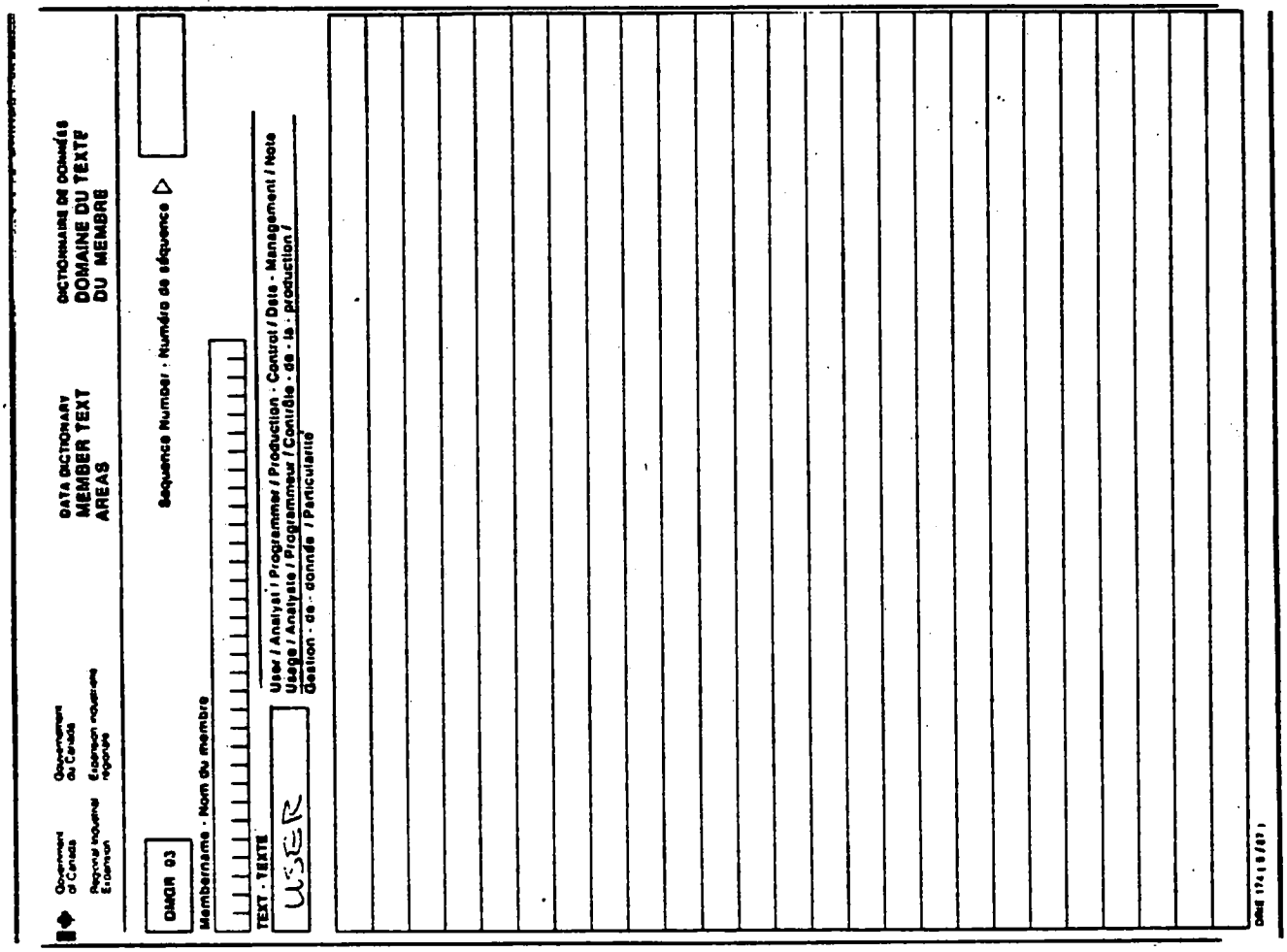
- rarely used!!

A.2 DATA ENTRY CONCEPTS

3. DICTIONARY ENTRY FORMS

iv) Texts

- Descriptive information to serve in adjunct with the definition
- To be useful, this textual information needs to be placed in context
- Used for :
  - Audience separation of descriptive information
  - Further clarification of an element
- Available texts :
  - User
  - Analyst
  - Programmer
  - Production control
  - Technical specification
  - Data management text
  - Note



- this is the form for all texts
- right now the analyst text is receiving some use
- the user text should receive more use in the future

A.2 DATA ENTRY CONCEPTS

3. DICTIONARY ENTRY FORMS

vi) References

- Refer to other members in the dictionary, e.g.
  - File refers to elements via "contains" reference
  - Program refers to files via "updates" reference
  - Program refers to reports via "outputs" reference
  - Program refers to programs via "calls" reference
  - System refers to programs via "contains" reference

- The "contains" reference is the most commonly used reference

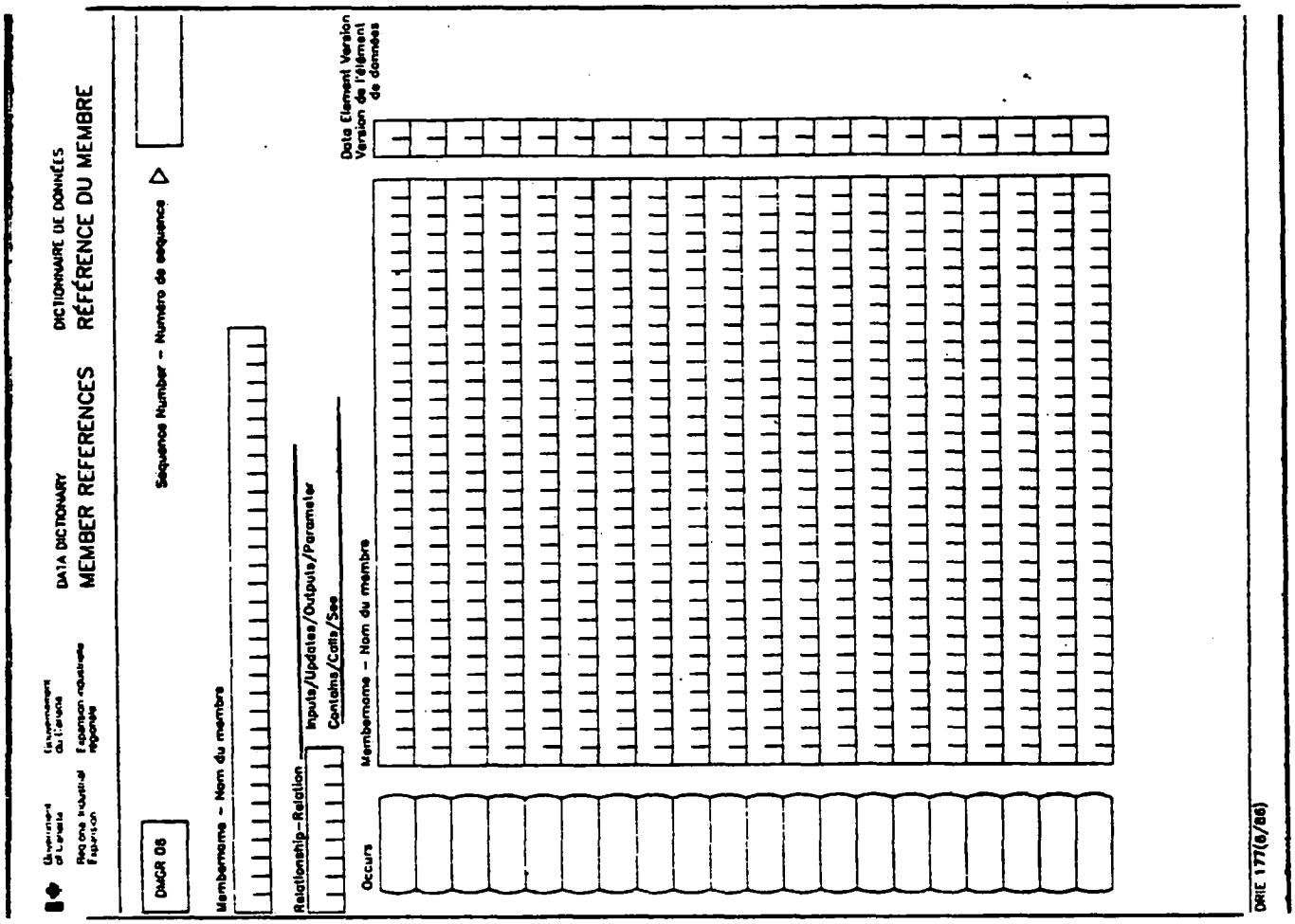
A.2 DICTIONARY ENTRY FORMS

3. DICTIONARY ENTRY FORMS

vi) References (continued)

- Available references

CALLS	INPUTS	IDENTIFIER
PASSING	UPDATES	MULTI-ATTRIBUTES
CONTAINS	OUTPUTS	ONE-ATTRIBUTES
DESCRIPTORS, SUB, SUPER	PROCESS-ADABAS	MULTI-ASSOC
FIELD-NAMES	NAME	ONE ASSOC
PARAMETER	LHS	DOMAIN
SEE	RHS	SUB-DOMAIN
	SUB-ENTITIES	



- this is the general reference form

- there are special forms for "descriptors" for files and "calls"/"passing" for programs

A.2 DATA ENTRY CONCEPTS

3. DICTIONARY ENTRY FORMS

vii) Responsibility

- "Functional responsibility" - the user organization who specified the member in non-EDP terms
  e.g. Program Affairs Branch for a "report"

- "Application responsibility" - the EDP group who developed the member and who is responsible for its enhancements
  e.g. PRISM team for a "program"

- "Technical responsibility" - the organization who ensures that the facilities required for the development and / or operation of the member are available
  e.g. DMC for ADABAS data base

A.2 DATA ENTRY CONCEPTS

3. DICTIONARY ENTRY FORMS

viii) Responsibility (cont'd)

- "Operational responsibility" - the organization who executes or runs the member on a routine basis
  e.g. Facilities Management for "MPM Job"

  - These responsibilities are not always applicable to each membertype

  - The "TEXT" form can be used to enter data in these fields

A.2 DATA ENTRY CONCEPTS

3. DICTIONARY ENTRY FORMS

ix) Change control

- "Last changed date" - the latest date that the dictionary member was changed
  e.g. description or size changes

- "Change control text" - a description of all changes made to the dictionary member
  e.g. instigators name, reason for change, description of the change

  - The "Text" form can be used to enter data in these fields

DMC DATA DICTIONARY CONCEPTS, SERVICES AND FACILITIES

(A) • Data Dictionary Concepts in the DRIE Environment

(B) • DMC Dictionary Services and Procedures

(C) • DMC Manuals and Reference Material

(D) • IRMIS On-line Demonstration

B. DATA DICTIONARY SERVICES AND PROCEDURES

B.1 Advice and Consultation
1. Services

B.2 Data Entry
1. Services
2. Facilities
3. Procedures

B.3 Data Dictionary Reporting
1. Services
2. Facilities
3. Procedures

B.1 ADVICE AND CONSULTATION

1. Services

- Aid dictionary users in the use of a Data Dictionary
  - Provide automated tools
  - Answer questions
  - Extend the dictionary capabilities

- Educate dictionary users
  - Provide reference material
  - Present information sessions
  - Provide demonstrations

B. DATA DICTIONARY SERVICES AND PROCEDURES

B.1 Advice and Consultation
1. Services

B.2 Data Entry
1. Services
2. Facilities
3. Procedures

B.3 Data Dictionary Reporting
1. Services
2. Facilities
3. Procedures

B.2 DATA ENTRY SERVICES, FACILITIES AND PROCEDURES

1. Services

- Data Dictionary updates
  - DMC personnel will undertake the data entry if the updates are not too numerous for the available resources

NOTE: New Data Dictionary Members - for new applications or major enhancements, data entry is the responsibility of the project team. A temporary resource may be hired specifically for this purpose by the project team and trained by DMC personnel

B.2 DATA ENTRY SERVICES, FACILITIES AND PROCEDURES

1. Services (cont'd)

- Data entry verification and quality control
  - All element additions and updates must be verified by DMC personnel for adherence to:
    - naming conventions
    - dictionary standards
    - dictionary philosophy

B.2 DATA ENTRY SERVICES, FACILITIES AND PROCEDURES

2. Facilities

- **Data Dictionary entry forms**
  - **Designed to assist data entry**
  - **Kept in cabinet in DMC area**

- **Information Resource Dictionary (IRD) reference manual**
  - **Describes the available membertypes**
  - **Describes the general member dictionary contents**
  - **Describes Data Dictionary concepts**

Note on Forms

- for special data entry jobs - large scale enhancements to programs
  - analysis, feasibility documents
- a unique form can be designed to meet the requirements
- reduce the number of pages required
- project team is responsible for design
- DMC will advise

B.2 DATA ENTRY SERVICES, FACILITIES AND PROCEDURES

3. Procedures

- Work request form
  - Any work or service to be done by DMC, such as data entry, requires a work request form containing
    - accounting information
    - work description
    - work authorization

B.2 DATA ENTRY SERVICES, FACILITIES AND PROCEDURES

3. Procedures (cont'd)

- How to fill in data entry forms
  - Documented in Information Resource Dictionary (IRD) reference manual
  - 64 member types-element, groups, files, etc.
  - DMC personnel will assist in identifying which forms for each membertype
  - DMC personnel will instruct in the content of the forms
  - Each data entry batch requires a Work Request Form if DMC is doing the data entry

B.2 DATA ENTRY SERVICES, FACILITIES AND PROCEDURES

3. Procedures (cont'd)

- Data Entry Steps
  - Meet with DMC personnel to determine who will do the data entry (determine the scope)
  - Meet with DMC personnel to design special data entry forms if necessary or desirable
  - Obtain instruction and documentation in
    - required forms
    - forms content
    - naming conventions
    - Data Dictionary concepts

B.2 DATA ENTRY SERVICES, FACILITIES AND PROCEDURES

3. Procedures (cont'd)

- Data Entry Steps
  - Obtain
    - keyword list
    - data entry forms
    - Information Resource Dictionary (IRD) reference manual
    - Work Request forms
  - Fill in
    - entry forms
    - Work Request forms
  - Submit data entry forms for verification to DMC personnel (submit in small batches to facilitate fast turn around)
  - Obtain data entry services
  - Verify data entry from Data Dictionary report

B. DATA DICTIONARY SERVICES AND PROCEDURES

B.1 Advice and Consultation
1. Services

B.2 Data Entry
1. Services
2. Facilities
3. Procedures

B.3 Data Dictionary Reporting
1. Services
2. Facilities
3. Procedures

B.3 DATA DICTIONARY REPORTING SERVICES, FACILITIES AND PROCEDURES

1. Services

- Special request reports
  - Not available from IRMIS
  - DMC personnel will submit these reports
  - DMC personnel will discuss the objective, format, priority and flexibility of these reports with the report requestor

  Adhoc reports
  - report requests which can be met by using DATAMANAGER commands

  Custom-tailored reports
  - report requests which must be programmed using high-level programming language, such as COBOL, NATURAL
  - these reports may require considerable effort by DMC personnel and may require clearance by DMC management

---

- remember the discussions with DMC personnel are crucial to the success of these reports

- through discussions many report requests can be met with an adhoc report, providing there is some flexibility in the output format

B.3 DATA DICTIONARY REPORTING SERVICES, FACILITIES AND PROCEDURES

2. Facilities

- **IRMIS**
  - **Information Resource Management Information System**
  - **Self-service reporting facility**
  - **In-house developed**
  - **See IRMIS User's Guide**

- **Standard reports**
  - **Pre-formatted batch reports**
    e.g. Impact analysis, Directory, Scan

- **On-line DATAMANAGER Query**
  - **Use DATAMANAGER commands**
    e.g. keyword search, impact analysis

Online DATAMANAGER Query

- see DMC personnel to obtain commands to meet the defined objective

OR

- use keyword search pamphlet

OR

- use DATAMANAGER packet command guide

B.3 DATA DICTIONARY REPORTING SERVICES, FACILITIES AND PROCEDURES

2. Facilities (cont'd)

- Batch dictionary execution
  - Establish your own stream of DATAMANAGER commands to submit a batch report

B.3 DATA DICTIONARY REPORTING SERVICES, FACILITIES AND PROCEDURES

3. Procedures

- Steps to obtain special request reports
  - Determine if the information resides in the dictionary
  - Ensure that the dictionary is up-to-date (use SCAN facility)
  - Do you want a Laser Print or will standard 15 inch paper suffice?
  - Do you want a "report" with no DATAMANAGER line numbers or do you want a "bulk" print?
  - Ensure that the report you want is not already available from IRMIS
  - Discuss the report with DMC personnel (objective, format, priority, flexibility, etc.)
  - Fill in a work request form

DMC DATA DICTIONARY CONCEPTS, SERVICES AND FACILITIES

(A) • Data Dictionary Concepts in the DRIE Environment

(B) • DMC Dictionary Services and Procedures

(C) • DMC Manuals and Reference Material

(D) • IRMIS On-line Demonstration

C.1 DMC MANUALS AND REFERENCE MATERIAL

C.1 Dictionary manuals

- IRMIS users guide
  - On-line use of the dictionary
  - Submitting standard dictionary reports
  - Using the SCAN facility
- IRD reference manual
  - Dictionary documentation standards
  - Dictionary design
  - DMC procedures
- Interfacing with DMC

IRD Reference Manual - supercedes IRD Design manual and the IRD Standards Manual

NOTE: The dictionary manuals and reference material are available for distribution after this presentation

C. DMC MANUALS AND REFERENCE MATERIAL

C.2 Dictionary reference material

- "Find That Data Element" pamphlet
  - IRMIS on-line keyword search
  - IRMIS on-line impact analysis

- "Reporting Handbook"
  - Sample dictionary reports

C. DMC MANUALS AND REFERENCE MATERIAL

C.3 Technical manuals

- Natural standards and techniques
  - Screen and program design standards
- ADABAS tutorial
  - ADABAS architecture and concepts
  - ADABAS commands and technical information

C. DMC MANUALS AND REFERENCE MATERIAL

C.4 General manuals

- **Data administration introduction**
  - **Data administration concepts**
  - **Data administration policies**
  - **Data administration functions**

- **Writing standard operating procedures**
  - **Guidelines for writing "Operating Procedure" manual**

Writing Standard Operating Procedures

- This is a manual which is intended for internal DMC use but may be of use to external audiences

DMC DATA DICTIONARY CONCEPTS, SERVICES AND FACILITIES

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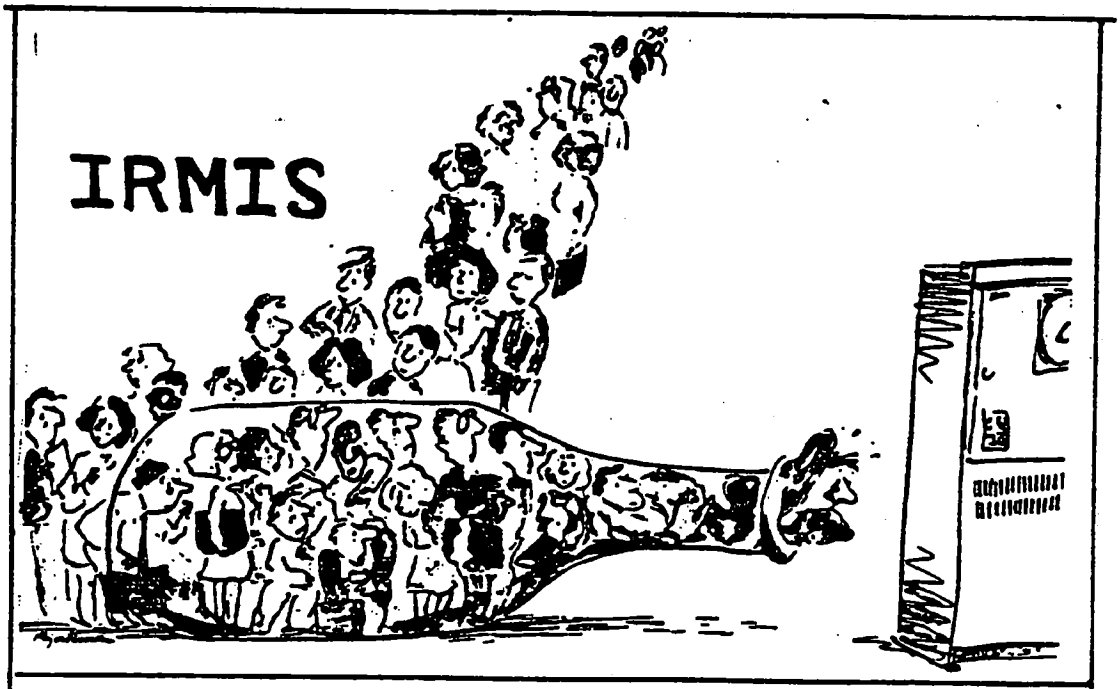


announcing the end of the dictionary output bottleneck

D. IRMIS DEMONSTRATION

- On-line execution
  - Keyword search
  - Impact analysis up hierarchy
  - Impact analysis down hierarchy
- Report generation
  - ADABAS userview listing

- to wrap up this presentation, lets demonstrate how to use IRMIS

DATAMANAGER COMMANDS

- **Keyword search**
  - **Keep what forms "$ product"**
- **Impact analysis up hierarchy**
  - **Keep what directly uses mpc-apltn-item-product-code**
- **Impact analysis down hierarchy**
  - **Keep what directly constitutes parameter-line-item-adabas-fl**
- **Report member**
  - **Report mpc-apltn-ln-item-product-code**
- **Display list of found items**
  - **Display**

- all you really need is 5 basic commands
- there is a "Find that data element" pamphlet available at the end of this presentation which shows the
  - keyword search
    and
  - the impact analysis down the hierarchy
- some people feel that IRMIS is difficult to use
- I think this pamphlet and the demonstration will change your mind

IRMIS PREPARATION

- Get a TSO account from the Technology Centre (tell them you need access to IRMIS)
- Get a Data Dictionary Logon ID and password from DMC
- Logon to a CSG terminal

- this will show you how easy it is to use IRMIS

==========

NOTES for the Remaining IRMIS Slides

- These slides are not to be shown at the presentation; they represent what should be demonstrated on the terminal

6.1 IRMIS

- This will show you how easy it is to use IRMIS

Notes for the Remaining IRMIS Slides

- **These slides are not to be shown at the presentation, they represent what should be demonstrated on the terminal**

Suggested Presentation Setup

The following is the set up procedure for the Online IRMIS demonstration

Equipment Needed:

- Sayette display
- Zenith 151 PC with 2 comm ports (Blair Stannard's)
- SIMPC software
- local loop to PACX
- EIA breakup box and Female/Female Connector Cable
- overhead projectors and screen

in 3W lobby for communication with CSG mainframe and demonstration of IRMIS and Data Dictionary functions

Equipment Sources

1. Sayette display arranged by Peggy Story through LGS Consulting
2. Zenith 151 from Blair Stannard (IMB)
3. EIA box and Female/Female Connector Cable (from Operations)
   *** (SEE DETAILED SETUP INSTRUCTIONS) ***
   *** ***
4. Overhead projectors and large screen are obtained from Audio/Visual group on 02 WEST

6.2 IRMIS

Support:

- **Room reservations are made through IMB Secretary**
- **Tech/Comm support provided by Serge/Tony (IMB Technical Support)**
- **Logistics support provided by Kathy W./Lydia (IMB Operations)**

NOTE: - This setup projects a bigger image than the 26" SONY screen

NOTE: - When using SIMPC and the SAYETTE, set colours to CYAN, WHITE or GREEN in SIMPC. Some colours (e.g. red) do not show up on SAYETTE

Detailed Set-up of Equipment for DMC Online IRMIS Presentation

1. Book Room (3 West Lobby), SAYETTE, Micro-computer, 2 overhead projectors, large screen, EIA breakup box, etc. ... (see Sources on previous page)

2. Connect cable labelled "CONF1" in 3 West Lobby to the "OFF" side outlet of the EIA box. (Note: GANDALF Modem is ON CONF1)

3. Set all box switches to "ON" position. (i.e. "ON" side down)

4. Plug "ON" side outlet of EIA box into Female/Female Connector Cable

5. Plug other end of Female/Female Connector Cable to COMM PORT 2 of Micro-computer. (Bottom slot)

6. Plug 25-pin plug from SAYETTE into COMM PORT 1 (TOP)

7. Plug 5-pin SAYETTE plug from SAYETTE cord into SAYETTE Convertor plug. (wire with black box on end)

8. Plug SAYETTE converter box into wall outlet

9. Plug 9-pin SAYETTE plug (the one in the middle of the SAYETTE cord - NOT the end one) into the 9-pin outlet in back of the Micro-computer

10. Plug 9-pin SAYETTE plug (at the end of the SAYETTE cord) into the 9-pin connection on the grey Micro-computer cable

11. Plug 25-pin end of the Micro-computer cable into the back of the monitor

12. Get an extension cord (with at least 3 - 3-pin outlets). Plug in power for:
    - Monitor
    - the CPU (Micro-computer)
    - the overhead projectors

13. Start up

LOGON STEPS

- Enter service request
  type
  tso

- IKJ56700A enter userid
  type
  "type the tso userid given to you"

- TSS750A please enter your top secret password
  type
  "type your 1 to 8 character password"
  Ready

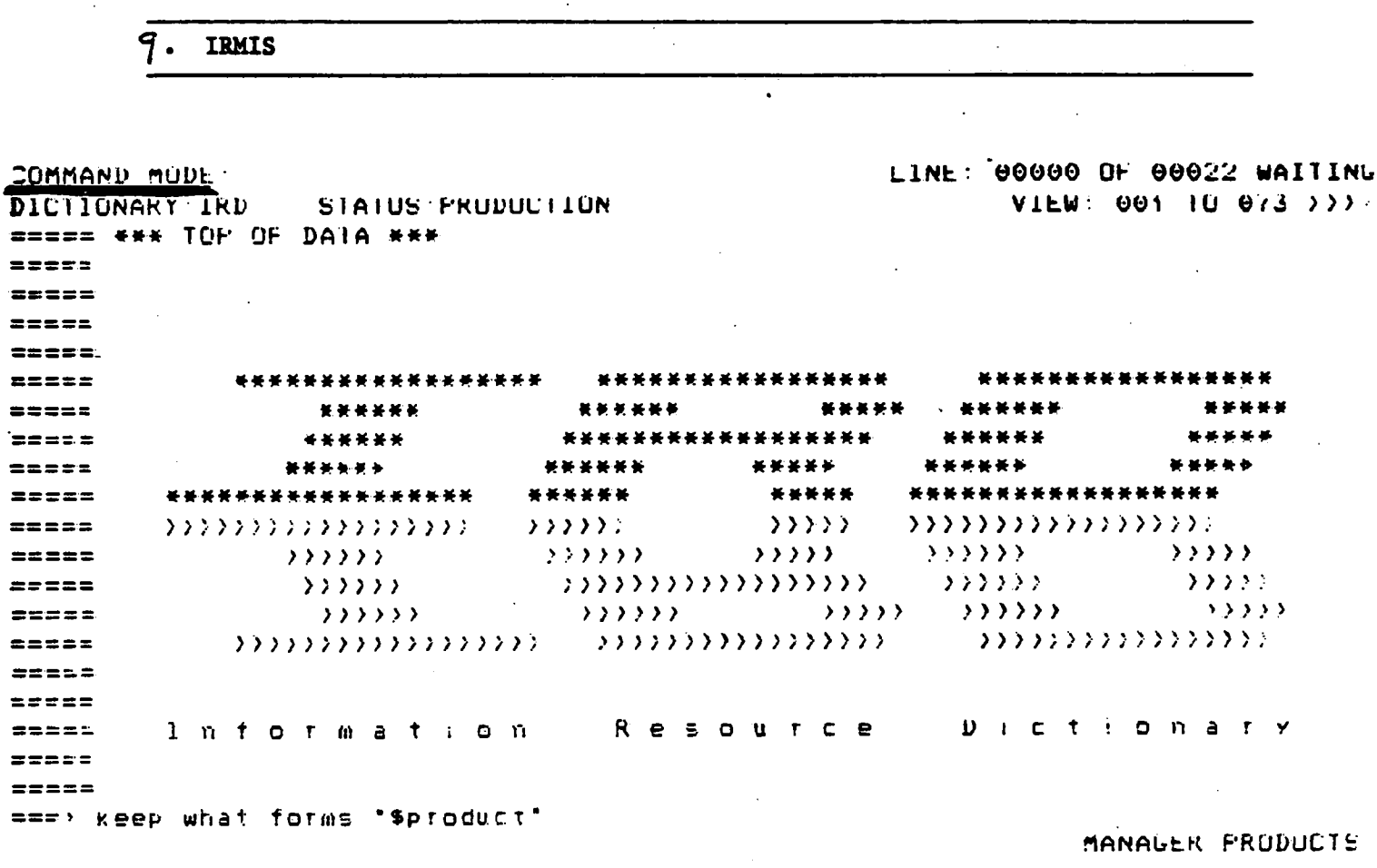
- Type
  IRMIS

8. IRMIS

```
                    DEPARTMENT OF REGIONAL INDUSTRIAL EXPANSION
SDN501 ----- INFORMATION RESOURCE MANAGEMENT INFORMATION SYSTEM

                                PRIMARY MENU PANEL

SELECT PROCESSING OPTION

OPTION          PROCESS

  1     INFORMATION RESOURCE DICTIONARY - ON-LINE EXECUTION

  2     INFORMATION RESOURCE DICTIONARY - BATCH EXECUTION

  3     NATURAL SOURCE CODE MANAGEMENT

  4     EDIT AND SUBMIT PREPARED JOB STREAMS

  5     STANDARD GENERATED OUTPUT AND REPORTING


  X     TERMINATE PROCESSING

    OPTION ===) 1
```

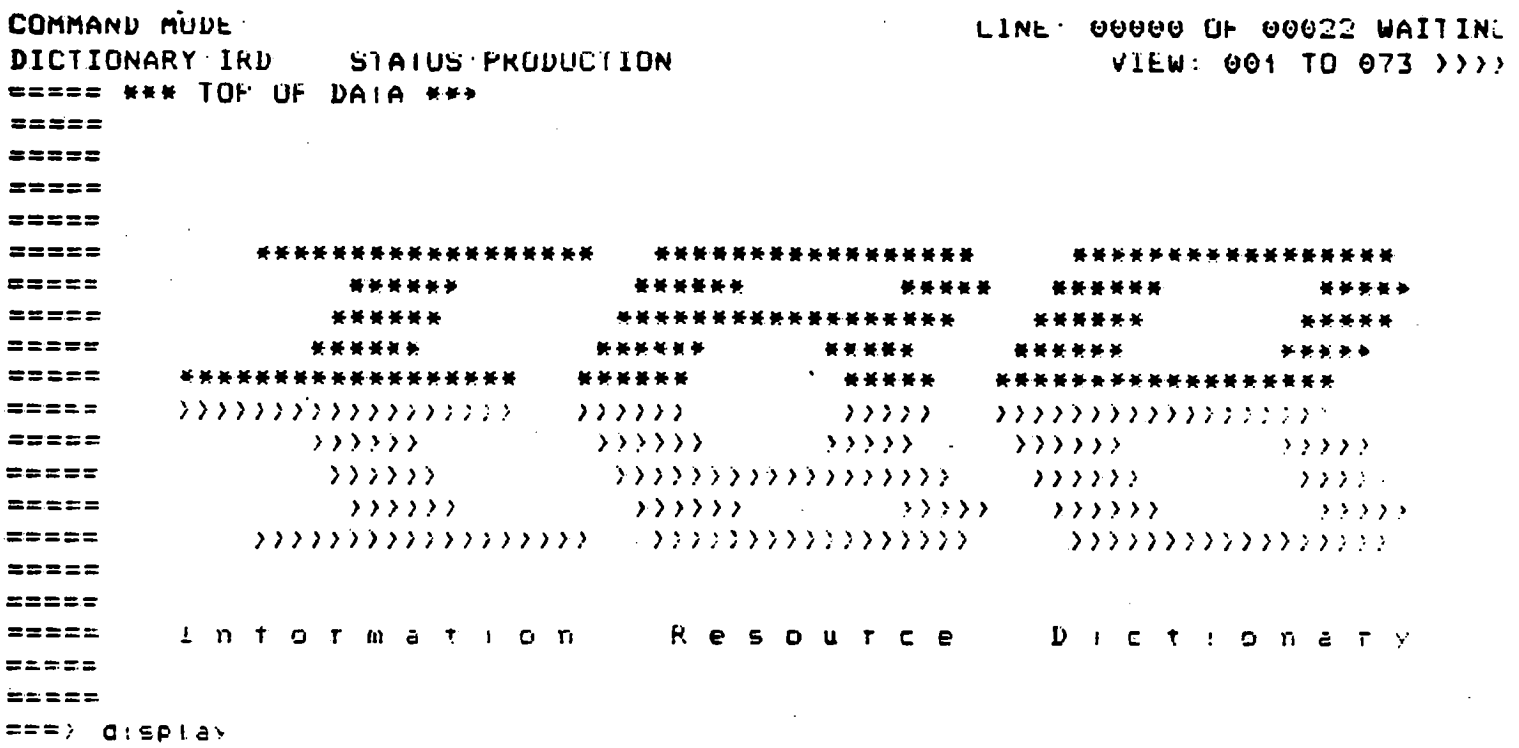
- after this type your Dictionary logonid and password

9. IRMS



- keyword search
- note the "COMMAND MODE" in the upper left-hand corner
  - this means you are at the right level to issue general DATAMANAGER commands

10. **IRMIS**



- display - displays what DATAMANAGER has found

```
COMMAND MODE                                          LINE: 00000 OF 00065 WAITING
DICTIONARY:IRD     STATUS:PRODUCTION                        VIEW: 001 TO 075
===== *** TOP OF DATA ***
===== LIST OF SELECTED MEMBERS
=====    MEMBER NAME                          TYPE          USAGE CONDITION AC ALT REP
=====    BOSS-PRODUCT-EXISTANCE-ID            DATA ELEMENT      1  SCE ENC YES YES YES
=====    BOSS-PRODUCT-MICROFICHE-ID           DATA ELEMENT      4  SCE ENC YES YES YES
=====    BOSS-PRODUCT-REGISTER-CODE           DATA ELEMENT      3  SCE ENC YES YES YES
rep==    MFC-APLTN-LN-ITEM-PRODUCT-CODE       DATA ELEMENT    110  SCE ENC YES YES YES
=====    MFC-APLTN-WTH-PRDCT-TOT-QTY          DATA ELEMENT      1  SCE ENC YES YES YES
=====    MFC-GNRC-PRDCT-CD-ACMLT-PCT-CNT      DATA ELEMENT      1  SCE ENC YES YES YES
=====    MFC-GNRC-PRDCT-CD-APRVD-CNT          DATA ELEMENT      1  SCE ENC YES YES YES
=====    MFC-GNRC-PRDCT-CD-NOT-APRVD-CNT      DATA ELEMENT      1  SCE ENC YES YES YES
=====    MFC-GNRC-PRDCT-CD-YES-AND-NO-CNT     DATA ELEMENT      1  SCE ENC YES YES YES
=====    MFC-GNRC-PRDCT-PCT-GRAND-TOT-CNT     DATA ELEMENT      1  SCE ENC YES YES YES
=====    MFC-LN-ITEM-WTH-PRDCT-CD-TOT-QTY     DATA ELEMENT      1  SCE ENC YES YES YES
=====    MFC-OLD-PRODUCT-CODE                 DATA ELEMENT     24  SCE ENC YES YES YES
=====    MFC-OLD-PRODUCT-CODE-NUMBER          DATA ELEMENT     27  SCE ENC YES YES YES
=====    MFC-PARTIAL-LN-ITEM-PRODUCT-NO       DATA ELEMENT      8  SCE ENC YES YES YES
=====    MFC-PRDCT-CD-SUBTOT-YES-NO-CNT       DATA ELEMENT      3  SCE ENC YES YES YES
=====    MFC-PRDCT-CD-TOT-YES-AND-NO-CNT      DATA ELEMENT      1  SCE ENC YES YES YES
=====    MFC-PRDCT-CODE-ACMLT-PCT-CNT         DATA ELEMENT      1  SCE ENC YES YES YES
===>
                                                                  MANAGER PRODUCTS
```

- rep - report

  - shows or reports from the dictionary for those members that satisfy the selection criteria

```
LOOKASIDE                                          LINE: 00000 OF 00033 WAITING
DICTIONARY IRD    STATUS:PRODUCTION                      VIEW: 001 TO 073
===== *** TOP OF DATA ***
===== REPORT OF DATA ELEMENT MFG-APLIN-LN-ITEM-PRODUCT-CODE
=====   EDITION 1 ENCODED BY MASTER AT 22.05.13 ON 04 FEB 1987
=====   STATUS PRODUCTION
=====   PROTECTION: REMOVE,ALTER,ACCESS
=====   ALIAS
=====     COBOL APLIN-LN-ITM-PRDCT-CD
=====     NATURAL APLIN-LN-ITM-PRDCT-CD
=====     TITLE APPLICATION LINE ITEM PRODUCT CODE
=====     HEADING APLIN-LN-ITM-PRDCT-CD
=====   CATALOGUED AS
=====     CODE
=====     DATA-ELEMENT
=====     $APPLICATION
=====     $LINE-ITEM
=====     $PRODUCT
=====     $CODE
=====   DESCRIPTION
=====      THIS IS THE UNIQUE PRODUCT NUMBER WHICH IS ASSIGNED TO EACH
=====     LINE ITEM APPEARING ON THE APPLICATION. THE LAST 2 DIGITS ARE
===> d 6
                                                   MANAGER PRODUCTS
```

- d 6 - down the screen 6 lines to see all of the description

- u 6 - up 6 lines

```
                                                    LINE: 00006 OF 00033 WAITING
LOOKASIDE:                                           VIEW: 001 TO 073
DICTIONARY:IRD     STATUS:PRODUCTION
=====      COBOL APLTN-LN-ITM-PRDCT-CD
=====      NATURAL APLTN-LN-ITM-PRDCT-CD
=====      TITLE APPLICATION LINE ITEM PRODUCT CODE
=====      HEADING APLTN-LN-ITM-PRDCT-CD
=====    CATALOGUED AS
=====      CODE
=====      DATA-ELEMENT
=====      $APPLICATION
=====      $LINE-ITEM
=====      $PRODUCT
=====      $CODE
=====    DESCRIPTION
=====       THIS IS THE UNIQUE PRODUCT NUMBER WHICH IS ASSIGNED TO EACH
=====      LINE ITEM APPEARING ON THE APPLICATION. THE LAST 2 DIGITS ARE
=====      USED TO IDENTIFY A PARTICULAR CATEGORY OF PRODUCTS.
=====    NOTE
=====       THE LAST TWO DIGITS ARE USED TO IDENTIFY A PARTICULAR
=====      CATEGORY AND EXIST AS A SUBDESCRIPTOR IN THE LINE ITEM FILE.
=====    THIS MEMBER IS DIRECTLY REFERRED TO 110 TIMES
=====    THIS MEMBER CONTAINS 0 DIRECT REFERENCES
===> quit
                                                    MANAGER PRODUCTS
```

- quit - will take the user back to "command mode"

  - note that we have gone to a secondary level, this is indicated by "LOOKASIDE"

  - "command mode" is where most datamanager commands must be issued

```
COMMAND MODE:                                          LINE: 00000 OF 00065 WAITING
DICTIONARY:IRD    STATUS:PRODUCTION                          VIEW: 001 TO 073
===== *** TOP OF DATA ***
===== LIST OF SELECTED MEMBERS
=====   MEMBER NAME                              TYPE          USAGE CONDITION AC ALT REM
=====   BOSS-PRODUCT-EXISTANCE-ID                DATA ELEMENT      1  SCE ENC YES YES YES
=====   BOSS-PRODUCT-MICROFICHE-ID               DATA ELEMENT      4  SCE ENC YES YES YES
wud==   BOSS-PRODUCT-REGISTER-CODE               DATA ELEMENT      3  SCE ENC YES YES YES
=====   MFC-APLTN-LN-ITEM-PRODUCT-CODE           DATA ELEMENT    110  SCE ENC YES YES YES
=====   MFC-APLTN-WTH-PRDCT-TOT-QTY              DATA ELEMENT      1  SCE ENC YES YES YES
=====   MFC-GNRC-PRDCT-CD-ACMLT-PCT-CNT          DATA ELEMENT      1  SCE ENC YES YES YES
=====   MFC-GNRC-PRDCT-CD-APRVD-CNT              DATA ELEMENT      1  SCE ENC YES YES YES
=====   MFC-GNRC-PRDCT-CD-NOT-APRVD-CNT          DATA ELEMENT      1  SCE ENC YES YES YES
=====   MFC-GNRC-PRDCT-CD-YES-AND-NO-CNT         DATA ELEMENT      1  SCE ENC YES YES YES
=====   MFC-GNRC-PRDCT-PCT-GRAND-TOT-CNT         DATA ELEMENT      1  SCE ENC YES YES YES
=====   MFC-LN-ITEM-WTH-PRDCT-CD-TOT-QTY         DATA ELEMENT      1  SCE ENC YES YES YES
=====   MFC-OLD-PRODUCT-CODE                     DATA ELEMENT     24  SCE ENC YES YES YES
=====   MFC-OLD-PRODUCT-CODE-NUMBER              DATA ELEMENT     27  SCE ENC YES YES YES
=====   MFC-PARTIAL-LN-ITEM-PRODUCT-NO           DATA ELEMENT      8  SCE ENC YES YES YES
=====   MFC-PRDCT-CD-SUBTOT-YES-NO-CNT           DATA ELEMENT      3  SCE ENC YES YES YES
=====   MFC-PRDCT-CD-TOT-YES-AND-NO-CNT          DATA ELEMENT      1  SCE ENC YES YES YES
=====   MFC-PRDCT-CODE-ACMLT-PCT-CNT             DATA ELEMENT      1  SCE ENC YES YES YES
===>
                                                                    MANAGER PRODUCTS
```

- note that the previous hit list is still there
- note that we are now in "command mode"
- now we will do impact analysis up the hierarchy
- wud == what uses directly this element
- note that there are 3 references/usages

```
LOOKASIDE:                                          LINE: 00000 OF 00004 WAITING
DICTIONARY:IRD     STATUS:PRODUCTION                      VIEW: 001 TO 073
===== *** TOP OF DATA ***
=====    DATA ELEMENT                          BOSS-PRODUCT-REGISTER-CODE IS USED BY
=====      ADABAS USERVIEW                       CITC-ENGLISH-TABLE-FILE
=====      GROUP                                 CITC-ENGLISH-TABLE-INFORMATION
=====      ADABAS FILE                           PRODUCT-TABLE-ADABAS-FILE
===== *** END OF DATA ***
```

```
===> quit
                                                MANAGER PRODUCTS
```

- note that the 3 reference show

- go back to original list with uquit

16. IRMIS

```
COMMAND MODE                                          LINE: 00000 OF 00065 WAITING
DICTIONARY:IRD    STATUS:PRODUCTION                       VIEW: 001 TO 073
===== *** TOP OF DATA ***
===== LIST OF SELECTED MEMBERS
=====   MEMBER NAME                          TYPE         USAGE CONDITION AC ALT REM
=====   BOSS-PRODUCT-EXISTANCE-ID            DATA ELEMENT     1  SCE ENC YES YES YES
=====   BOSS-PRODUCT-MICROFICHE-ID           DATA ELEMENT     4  SCE ENC YES YES YES
=====   BOSS-PRODUCT-REGISTER-CODE           DATA ELEMENT     3  SCE ENC YES YES YES
wud==   MFC-APLTN-LN-ITEM-PRODUCT-CODE       DATA ELEMENT   110  SCE ENC YES YES YES
=====   MFC-APLTN-WTH-PRDCT-TOT-QTY          DATA ELEMENT     1  SCE ENC YES YES YES
=====   MFC-GNRC-PRDCT-CD-ACMLT-PCT-CNT      DATA ELEMENT     1  SCE ENC YES YES YES
=====   MFC-GNRC-PRDCT-CD-APRVD-CNT          DATA ELEMENT     1  SCE ENC YES YES YES
=====   MFC-GNRC-PRDCT-CD-NOT-APRVD-CNT      DATA ELEMENT     1  SCE ENC YES YES YES
=====   MFC-GNRC-PRDCT-CD-YES-AND-NO-CNT     DATA ELEMENT     1  SCE ENC YES YES YES
=====   MFC-GNRC-PRDCT-PCT-GRAND-TOT-CNT     DATA ELEMENT     1  SCE ENC YES YES YES
=====   MFC-LN-ITEM-WTH-PRDCT-CD-TOT-QTY     DATA ELEMENT     1  SCE ENC YES YES YES
=====   MFC-OLD-PRODUCT-CODE                 DATA ELEMENT    24  SCE ENC YES YES YES
=====   MFC-OLD-PRODUCT-CODE-NUMBER          DATA ELEMENT    27  SCE ENC YES YES YES
=====   MFC-PARTIAL-LN-ITEM-PRODUCT-NO       DATA ELEMENT     8  SCE ENC YES YES YES
=====   MFC-PRDCT-CD-SUBTOT-YES-NO-CNT       DATA ELEMENT     3  SCE ENC YES YES YES
=====   MFC-PRDCT-CD-TOT-YES-AND-NO-CNT      DATA ELEMENT     1  SCE ENC YES YES YES
=====   MFC-PRDCT-CODE-ACMLT-PCT-CNT         DATA ELEMENT     1  SCE ENC YES YES YES
===>
                                                                  MANAGER PRODUCTS
```

- note that the element below has 110 usages

- lets do an impact analysis on it

- wud - "what uses directly"

- directly = refers to primary references
  - not secondary

  = primary - element refers to group
  element refers to file 1

  secondary - group refers to file 2, file 3, file 4

  = without directly you get everything

```
LOOKASIDE:                                          LINE: 00000 OF 00111 WAITIN
DICTIONARY:IRD     STATUS:PRODUCTION                      VIEW: 001 TO 073 >>>
===== *** TOP OF DATA ***
=====    DATA ELEMENT                    MPC-APLTN-LN-ITEM-PRODUCT-CODE IS USE
=====      ADABAS FILE                     CANADIAN-MANUFACTURER-ADABAS-FL
=====      ADABAS FILE                     CANADIAN-MANUFACTURER-ADABAS-FL
=====      ADABAS FILE                     CANADIAN-MANUFACTURER-ADABAS-FL
=====      ADABAS FILE                     LINE-ITEM-ADABAS-FILE
=====      ADABAS FILE                     LINE-ITEM-ADABAS-FILE
=====      ADABAS FILE                     LINE-ITEM-ADABAS-FILE
=====      ADABAS FILE                     LINE-ITEM-ADABAS-FILE
=====      ADABAS FILE                     LINE-ITEM-OLD-IMAGE-ADABAS-FL
=====      ADABAS FILE                     LINE-ITEM-OLD-IMAGE-ADABAS-FL
=====      ADABAS FILE                     LINE-ITEM-OLD-IMAGE-ADABAS-FL
=====      ADABAS FILE                     MPC-CANADIAN-MFR-FILE
=====      ADABAS USERVIEW                 MPC-CANADIAN-MFR-FILE
=====      ADABAS USERVIEW                 MPC-CANADIAN-MFR-FILE
=====      ADABAS USERVIEW                 MPC-CANADIAN-MFR-SURVEY-DOCUMENT
=====      DOCUMENT                        MPC-CREATE-APRVD-LN-ITEM-FL-PGM
=====      PROGRAM                         MPC-DUMP-LINE-ITEM-INFO-PGM
=====      PROGRAM                         MPC-DUTY-REMISSION-APLTN-DOC
=====      DOCUMENT                        MPC-ENG-APLTN-LINE-ADD-EDIT-PGM
=====      PROGRAM
===> quit                                                MANAGER PRODUCTS
```

- using the wud, we find out that some information appears to be repeated
- the wud prints each reference, does not consolidate the list
- for elements with a lot of references/usages, there is a better command
- multiple references result from cases like the following

  file references product code

  i) descriptor
  ii) sub-descriptor
  iii) contains clause

- each reference is picked up

```
COMMAND MODE                                          LINE: 00000 OF 00065 WAITING
DICTIONARY:IRD    STATUS:PRODUCTION                          VIEW 001 TO 073
===== *** TOP OF DATA ***
===== LIST OF SELECTED MEMBERS
=====   MEMBER NAME                          TYPE          USAGE CONDITION AC ALT REM
=====   BOSS-PRODUCT-EXISTANCE-ID            DATA ELEMENT      1  SCE ENC YES YES YES
=====   BOSS-PRODUCT-MICROFICHE-ID           DATA ELEMENT      4  SCE ENC YES YES YES
=====   BOSS-PRODUCT-REGISTER-CODE           DATA ELEMENT      3  SCE ENC YES YES YES
=====   MPC-APLTN-LN-ITEM-PRODUCT-CODE       DATA ELEMENT    110  SCE ENC YES YES YES
=====   MPC-APLTN-WTH-PRDCT-TOT-QTY          DATA ELEMENT      1  SCE ENC YES YES YES
=====   MPC-GNRC-PRDCT-CD-ACMLT-PCT-CNT      DATA ELEMENT      1  SCE ENC YES YES YES
=====   MPC-GNRC-PRDCT-CD-APRVD-CNT          DATA ELEMENT      1  SCE ENC YES YES YES
=====   MPC-GNRC-PRDCT-CD-NOT-APRVD-CNT      DATA ELEMENT      1  SCE ENC YES YES YES
=====   MPC-GNRC-PRDCT-CD-YES-AND-NO-CNT     DATA ELEMENT      1  SCE ENC YES YES YES
=====   MPC-GNRC-PRDCT-PCT-GRAND-TOT-CNT     DATA ELEMENT      1  SCE ENC YES YES YES
=====   MPC-LN-ITEM-WTH-PRDCT-CD-TOT-QTY     DATA ELEMENT      1  SCE ENC YES YES YES
=====   MPC-OLD-PRODUCT-CODE                 DATA ELEMENT     24  SCE ENC YES YES YES
=====   MPC-OLD-PRODUCT-CODE-NUMBER          DATA ELEMENT     27  SCE ENC YES YES YES
=====   MPC-PARTIAL-LN-ITEM-PRODUCT-NO       DATA ELEMENT      8  SCE ENC YES YES YES
=====   MPC-PRDCT-CD-SUBTOT-YES-NO-CNT       DATA ELEMENT      3  SCE ENC YES YES YES
=====   MPC-PRDCT-CD-TOT-YES-AND-NO-CNT      DATA ELEMENT      1  SCE ENC YES YES YES
=====   MPC-PRDCT-CODE-ACMLT-PCT-CNT         DATA ELEMENT      1  SCE ENC YES YES YES
===> keep what directly uses mpc-apltn-ln-item-product-code
                                                    MANAGER PRODUCTS
```

- by adding the "keep" to the command, we get a consolidated list

```
COMMAND MODE:                                          LINE: 00000 OF 00065 WAITING
DICTIONARY:IRD    STATUS:PRODUCTION                        VIEW: 001 TO 073
===== *** TOP OF DATA ***
===== LIST OF SELECTED MEMBERS
=====   MEMBER NAME                          TYPE          USAGE CONDITION AC ALT REM
=====   BOSS-PRODUCT-EXISTANCE-ID            DATA ELEMENT    1   SCE ENC YES YES YES
=====   BOSS-PRODUCT-MICROFICHE-ID           DATA ELEMENT    4   SCE ENC YES YES YES
=====   BOSS-PRODUCT-REGISTER-CODE           DATA ELEMENT    3   SCE ENC YES YES YES
=====   MFC-APLTN-LN-ITEM-PRODUCT-CODE       DATA ELEMENT  110   SCE ENC YES YES YES
=====   MFC-APLTN-WTH-PRDCT-TOT-QTY          DATA ELEMENT    1   SCE ENC YES YES YES
=====   MFC-GNRC-PRDCT-CD-ACMLT-FCT-CNT      DATA ELEMENT    1   SCE ENC YES YES YES
=====   MFC-GNRC-PRDCT-CD-APRVD-CNT          DATA ELEMENT    1   SCE ENC YES YES YES
=====   MFC-GNRC-PRDCT-CD-NOT-APRVD-CNT      DATA ELEMENT    1   SCE ENC YES YES YES
=====   MFC-GNRC-PRDCT-CD-YES-AND-NO-CNT     DATA ELEMENT    1   SCE ENC YES YES YES
=====   MFC-GNRC-PRDCT-FCT-GRAND-TOT-CNT     DATA ELEMENT    1   SCE ENC YES YES YES
=====   MFC-LN-ITEM-WTH-PRDCT-CD-TOT-QTY     DATA ELEMENT    1   SCE ENC YES YES YES
=====   MFC-OLD-PRODUCT-CODE                 DATA ELEMENT   24   SCE ENC YES YES YES
=====   MFC-OLD-PRODUCT-CODE-NUMBER          DATA ELEMENT   27   SCE ENC YES YES YES
=====   MFC-PARTIAL-LN-ITEM-PRODUCT-NO       DATA ELEMENT    8   SCE ENC YES YES YES
=====   MFC-PRDCT-CD-SUBTOT-YES-NO-CNT       DATA ELEMENT    3   SCE ENC YES YES YES
=====   MFC-PRDCT-CD-TOT-YES-AND-NO-CNT      DATA ELEMENT    1   SCE ENC YES YES YES
=====   MFC-PRDCT-CODE-ACMLT-FCT-CNT         DATA ELEMENT    1   SCE ENC YES YES YES
===> display
DM01541I          78 ENTRIES ADDED TO KEPT-DATA LIST
```

```
COMMAND MODE                                          LINE  00000 OF 00090 WAITING
DICTIONARY IRD    STATUS PRODUCTION                        VIEW  001 TO 073
===== *** TOP OF DATA ***
===== LIST OF SELECTED MEMBERS
=====   MEMBER NAME                          TYPE          USAGE CONDITION AC ALT REM
=====   CANADIAN-MANUFACTURER-ADABAS-FL      ADABAS FILE       2  SCE ENC YES YES YES
=====   LINE-ITEM-ADABAS-FILE                ADABAS FILE       2  SCE ENC YES YES YES
=====   LINE-ITEM-OLD-IMAGE-ADABAS-FL        ADABAS FILE       2  SCE ENC YES YES YES
=====   MFC-CANADIAN-MFR-FILE                ADABAS UV        50  SCE ENC YES YES YES
=====   MFC-CANADIAN-MFR-SURVEY-DOCUMENT     DOCUMENT          0  SCE ENC YES YES YES
=====   MFC-CREATE-APRVD-LN-ITEM-FL-PGM      PROGRAM           1  SCE ENC YES YES YES
=====   MFC-DUMP-LINE-ITEM-INFO-PGM          PROGRAM           1  SCE ENC YES YES YES
=====   MFC-DUTY-REMISSION-APLTN-DOC         DOCUMENT          0  SCE ENC YES YES YES
=====   MFC-ENG-APLTN-LINE-ADD-EDIT-PGM      PROGRAM           1  SCE ENC YES YES YES
=====   MFC-ENG-APLTN-LINE-ADD-INPUT-PGM     PROGRAM           3  SCE ENC YES YES YES
=====   MFC-ENG-APLTN-LINE-ADD-UPDT-PGM      PROGRAM           1  SCE ENC YES YES YES
=====   MFC-ENG-APLTN-LINE-DELETE-PGM        PROGRAM           1  SCE ENC YES YES YES
=====   MFC-ENG-APLTN-LINE-INQUIRY-PGM       PROGRAM           1  SCE ENC YES YES YES
=====   MFC-ENG-APLTN-LN-ITEM-SCREEN         SCREEN            0  SCE ENC YES YES YES
=====   MFC-ENG-APLTN-LN-MDFY-EDIT-PGM       PROGRAM           1  SCE ENC YES YES YES
=====   MFC-ENG-APLTN-LN-MDFY-INPUT-PGM      PROGRAM           2  SCE ENC YES YES YES
=====   MFC-ENG-APLTN-LN-MDFY-UPDATE-PGM     PROGRAM           1  SCE ENC YES YES YES
===> d 120
                                                        MANAGER PRODUCTS
```

- note that each item appears only once

- at the bottom of the list there is a summary

```
COMMAND MODE                                                LINE: 00074 OF 00090 WAITING
DICTIONARY:IRD    STATUS:PRODUCTION                           VIEW: 001 TO 073
=====   MFC-USER-TRANSMITTAL-SLIP-1-DOC  DOCUMENT        0  SCE ENC YES YES YES
=====   MFC-USER-TRANSMITTAL-SLIP-5-DOC  DOCUMENT        0  SCE ENC YES YES YES
=====   PARAMETER-LINE-ITEM-ADABAS-FL    ADABAS FILE     2  SCE ENC YES YES YES
=====   PRODUCT-NUMBER-SUB-DESCRIPTOR    SUB-DSCPTR      3  SCE ENC YES YES YES
=====   MFC-FR-PRDCT-CODE-ACTIVITY-PGM   PROGRAM         1  SCE ENC YES YES YES
=====   MFC-ENG-SCHEDULE-REPORTING-PGM   PROGRAM         0  SCE ENC YES YES YES
=====   MFC-FR-SCHEDULE-REPORTING-PGM    PROGRAM         0  SCE ENC YES YES YES
=====   LIST CONTAINS          1 SUB-DESCRIPTOR
=====                          3 GROUPS
=====                          4 SCREENS
=====                          3 RECORDS
=====                         13 REPORTS
=====                          5 DOCUMENTS
=====                          4 ADABAS FILES
=====                          4 ADABAS USERVIEWS
=====                         41 PROGRAMS
=====                         78 MEMBERS IN TOTAL
===== *** END OF DATA ***


===>
                                                    MANAGER PRODUCTS
```

- here is the bottom of the list, and the summary

```
COMMAND MODE:                                              LINE: 00074 OF 00090 WAITING
DICTIONARY:IRD    STATUS:PRODUCTION                          VIEW: 001 TO 073
=====   MFC-USER-TRANSMITTAL-SLIP-1-DOC  DOCUMENT        0  SCE ENC YES YES YES
=====   MFC-USER-TRANSMITTAL-SLIP-5-DOC  DOCUMENT        0  SCE ENC YES YES YES
=====   PARAMETER-LINE-ITEM-ADABAS-FL    ADABAS FILE     2  SCE ENC YES YES YES
=====   PRODUCT-NUMBER-SUB-DESCRIPTOR    SUB-DSCPTR      3  SCE ENC YES YES YES
=====   MFC-FR-PRDCT-CODE-ACTIVITY-PGM   PROGRAM         1  SCE ENC YES YES YES
=====   MFC-ENG-SCHEDULE-REPORTING-PGM   PROGRAM         0  SCE ENC YES YES YES
=====   MFC-FR-SCHEDULE-REPORTING-PGM    PROGRAM         0  SCE ENC YES YES YES
=====   LIST CONTAINS          1 SUB-DESCRIPTOR
=====                          3 GROUPS
=====                          4 SCREENS
=====                          3 RECORDS
=====                         13 REPORTS
=====                          5 DOCUMENTS
=====                          4 ADABAS FILES
=====                          4 ADABAS USERVIEWS
=====                         41 PROGRAMS
=====                         78 MEMBERS IN TOTAL
===== *** END OF DATA ***


===> keep what directly constitutes parameter-line-item-adabas-fl
                                                    MANAGER PRODUCTS
```

- now lets take an upper level entity and do an impact analysis downwards

- "constitutes"

```
COMMAND MODE:                                          LINE: 00000 OF 00023 WAITING
DICTIONARY:IRD    STATUS:PRODUCTION                          VIEW: 001 TO 073
===== *** TOP OF DATA ***
===== LIST OF SELECTED MEMBERS
=====   MEMBER NAME                          TYPE          USAGE CONDITION AC ALT REM
=====   MFC-PARAMETER-LN-ITEM-FILE           ADABAS UV        26  SCE ENC YES YES YES
=====   MFC-OPERATOR-NUMBER-PARAMETER        DATA ELEMENT    105  SCE ENC YES YES YES
=====   MFC-ACTION-RUN-TIME                  DATA ELEMENT     42  SCE ENC YES YES YES
=====   MFC-BASE-APPLICATION-NUMBER          DATA ELEMENT    216  SCE ENC YES YES YES
=====   MFC-SUB-APPLICATION-DIGIT-NUMBER     DATA ELEMENT    185  SCE ENC YES YES YES
=====   MFC-APLTN-LN-ITEM-NUMBER             DATA ELEMENT    113  SCE ENC YES YES YES
=====   MFC-APLTN-LN-ITEM-PRODUCT-CODE       DATA ELEMENT    110  SCE ENC YES YES YES
=====   MFC-APLTN-LN-ITEM-TARIFF-CODE        DATA ELEMENT     63  SCE ENC YES YES YES
=====   MFC-APLTN-ITEM-APRVL-INDICATOR       DATA ELEMENT     73  SCE ENC YES YES YES
=====   MFC-APLTN-LN-ITEM-SCHDL-B-CODE       DATA ELEMENT     67  SCE ENC YES YES YES
=====   MFC-APLTN-LN-ITEM-DESCRIPTION        DATA ELEMENT     70  SCE ENC YES YES YES
=====   MFC-APLTN-LN-ITEM-EXPIRY-DATE        DATA ELEMENT     81  SCE ENC YES YES YES
=====   MFC-APLTN-LN-ITEM-QUANTITY           DATA ELEMENT     65  SCE ENC YES YES YES
=====   MFC-APLTN-LN-ITEM-TOTAL-VALUE        DATA ELEMENT     46  SCE ENC YES YES YES
=====   MFC-APLTN-LN-ITEM-REMISSION-VLU      DATA ELEMENT     40  SCE ENC YES YES YES
=====   MFC-CANADIAN-MFR-DESCRIPTION         DATA ELEMENT     63  SCE ENC YES YES YES
=====   UNIQUE-USER-INFO-SUPER-DSCPTR        SPR-DSCPTR       40  SCE ENC YES YES YES
===>
                                                                    MANAGER PRODUCTS
```

- F8 - down full page to bottom of list

23. IRMIS

```
COMMAND MODE:                                                LINE: 00017 OF 00023 WAITING
DICTIONARY:IRD     STATUS:PRODUCTION                                  VIEW: 001 TO 073
=====    MFC-APLTN-LN-ITEM-REMISSION-VLU  DATA ELEMENT  40  SCE ENC YES YES YES
=====    MFC-CANADIAN-MFR-DESCRIPTION     DATA ELEMENT  63  SCE ENC YES YES YES
=====    UNIQUE-USER-INFO-SUPER-DSCPTR    SPR-DSCPTR    40  SCE ENC YES YES YES
=====    LIST CONTAINS        15 DATA ELEMENTS
=====                          1 SUPER-DESCRIPTOR
=====                          1 ADABAS USERVIEW
=====                         17 MEMBERS IN TOTAL
===== *** END OF DATA ***
```

===> logoff

MANAGER PRODUCTS

- this is the summary at the bottom
- note that DATAMANAGER has a far greater range of commands available and that it is possible to get more specific with the syntax
- what has been shown here are the 3 basic activities that I feel will be most useful to the audience
- it represents about 5% of the DATAMANAGER capabilities
- once people become familiar with these activities, then an advanced DATAMANAGER presentation may be in order
- note that the pamphlet will hand-lead people through most of what has been demonstrated here

```
                    DEPARTMENT OF REGIONAL INDUSTRIAL EXPANSION
SDN501 ----- INFORMATION RESOURCE MANAGEMENT INFORMATION SYSTEM

                                PRIMARY MENU PANEL

SELECT PROCESSING OPTION

OPTION              PROCESS

  1      INFORMATION RESOURCE DICTIONARY - ON-LINE EXECUTION

  2      INFORMATION RESOURCE DICTIONARY - BATCH EXECUTION

  3      NATURAL SOURCE CODE MANAGEMENT

  4      EDIT AND SUBMIT PREPARED JOB STREAMS

  5      STANDARD GENERATED OUTPUT AND REPORTING


  X      TERMINATE PROCESSING

    OPTION ===) 5
```

- if time permits, it may be in order to repeat the reporting demo using a different report from presentation 3 - Reporting

25. IRMIS

DEPARTMENT OF REGIONAL INDUSTRIAL EXPANSION
SDN525 ------- IRMIS STANDARD GENERATED OUTPUT AND REPORTING ----------

SELECT TYPE OF OUTPUT REQUIRED

OPTION	AVAILABLE OUTPUTS
1	GRAPHICS
2	STANDARD REPORTS

OPTION ===> 2

PRESS PF3 TO TERMINATE PROCESSING PRESS PF1 FOR ADDITIONAL INFORMATION

```
                DEPARTMENT OF REGIONAL INDUSTRIAL EXPANSION
SDN560 ---------------- IRMIS STANDARD REPORTS ------------------------------

 SELECT REPORTING OPTION

 OPTION              REPORT

    1      IMPACT ANALYSIS REPORT (DATA USAGE BY PROGRAM)

    2      DIRECTORY REPORTS (LASER PRINTED)

    3      ADABAS USERVIEW LISTINGS (LISTFILE)

    4      NATURAL NAME TO DATAMANAGER NAME CORRELATION REPORT


      OPTION ===> 3


PRESS PF3 TO TERMINATE PROCESSING          PRESS PF1 FOR ADDITIONAL INFORMATIO
```

27. IRMIS

```
                    DEPARTMENT OF REGIONAL INDUSTRIAL EXPANSION
N570 ------------ I.R.M.I.S. ADABAS USERVIEW LIST REPORT --------------------

 SELECT UP TO 30 ADABAS USERVIEWS (NATURAL NAME)

      1.  canadian-mfr                16.
      2.                              17.
      3.                              18.
      4.                              19.
      5.                              20.
      6.                              21.
      7.                              22.
      8.                              23.
      9.                              24.
     10.                              25.
     11.                              26.
     12.                              27.
     13.                              28.
     14.                              29.
     15.                              30.
         DO YOU WISH LASER OUTPUT (Y/N)?  n

PRESS PF3 TO TERMINATE PROCESSING          PRESS PF1 FOR ADDITIONAL INFORMATION
```

- don't forget to use the "NATURAL NAME"

```
                    DEPARTMENT OF INDUSTRY, SCIENCE AND TECHNOLOGY
N905 ----------------  JOB SUBMISSION INFORMATION  ------------------------

 SELECT ONE OF THE FOLLOWING JOB SUBMISSION OPTIONS

   OPTION ===> 1

      1  -  CREATE AND SUBMIT JOB STREAM, THEN DELETE (I.E. TEMPORARY JCL SET)

      2  -  CREATE AND SUBMIT JOB STREAM AND RETAIN A COPY ON A DATASET

      3  -  CREATE JOB STREAM AND RETAIN ON A DATASET, (I.E JOB NOT SUBMITTED)

-------------------------------------------------------------------------------
 THE FOLLOWING INFORMATION IS APPLICABLE FOR OPTIONS 2 OR 3 ABOVE:

    DATASET NAME ===> XXXXXX.XXXXX.XXXXX

     MEMBER NAME ===> XXXXXXXX


  PRESS PF3 TO TERMINATE PROCESSING
  PRESS PF1 FOR ADDITIONAL INFORMATION
```

29. IRMIS

```
JOB RYEPLDAD(JOB03297) SUBMITTED
***
```

HANDOUT

DMC MANUALS AND REFERENCE MATERIAL

DICTIONARY MANUALS

1. IRMIS Users Guide:

   - online use of the dictionary
   - submitting standard dictionary reports
   - using the SCAN facility

2. IRD Reference Manual:

   - dictionary documentation standards
   - dictionary design
   - DMC procedures

3. DATAMANAGER "TERMINAL USERS QUICK REFERENCE GUIDE":

   - DATAMANAGER syntax guide

DICTIONARY REFERENCE MATERIAL

1. "Find That Data Element" Pamphlet:

   - IRMIS online keyword search
   - IRMIS online impact analysis

2. "Reporting Handbook":

   - sample dictionary reports

TECHNICAL MANUALS

1. NATURAL Standards and Techniques:

   - screen and program design standards

2. ADABAS Tutorial:

   - ADABAS architecture and concepts
   - ADABAS commands and technical information

GENERAL MANUALS

1. Data Administration Introduction:

   - data administration concepts
   - data administration policies
   - data administration functions

2. Writing Standard Operating Procedures:

   - guidelines for writing "Operating Procedure" manuals

HANDOUT

DMC MANUALS AND REFERENCE MATERIAL

DICTIONARY MANUALS

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   - submitting standard dictionary reports
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2. IRD Reference Manual:

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   - dictionary design
   - DMC procedures

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   - DATAMANAGER syntax guide

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