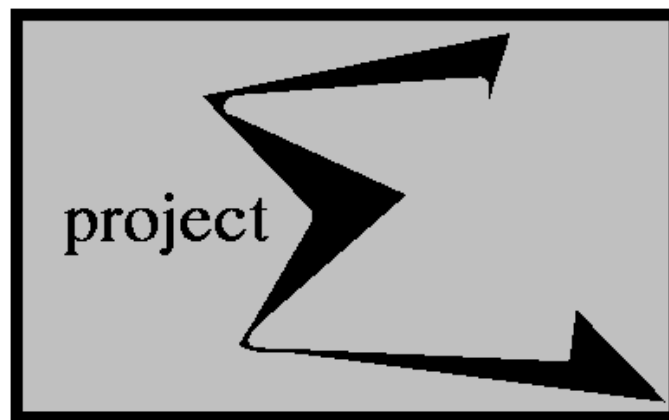


# Project SIGMA Diary Study, Essex University



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# Introduction To The SDA Program Suite

## The Project SIGMA Diary Study: History

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Project SIGMA began its life at Cardiff University under the guidance of Prof.A.P.M.Coxon and Dr. P.M.Davies. Dr T.McManus was also involved in the study from an early stage, though from Kings College London.

Project SIGMA has two main groups; those concentrating on the interview data (which was based at Southbank University) and those working on the diary study at Essex University. The diary investigation takes place in parallel with the interview study. Each respondent is given an interview, and completes a week long retrospective diary during this interview. After the interview, the respondent completes a month long sexual diary, recording all that he did during that period.

Respondents are enrolled on the study by responding to advertisements in the Gay Press. Publications providing these adverts include Gay Times, Capitol Gay, The Pink Paper, and Boyz). These papers cover a national readership, so SIGMA currently has respondents from Birmingham, Bristol, Cardiff, Liverpool, London, Newcastle, Norwich, Portsmouth, Teeside, and York. We currently have upwards of 850 respondents who have written diaries (either week or month long), and some have written diaries constantly since beginning the study. In the diary study, respondents are usually referred to as 'diarists'.

The study takes place in annual cycles, called '**waves**'. There are currently four waves for the diaries taken during interviewing by SIGMA at London and Cardiff. There is also a more recent pure diary study done separately from the interview schedule whose aim was to assess the validity of diary recording methods. Wave five is currently in progress.

## The Sexual Diary Code

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In order to store all the diaries in a useful form, they have to be encoded so that a computer can read them. This led to the development of a precise sexual language that is capable of expressing all forms of sexual behaviour. This language is referred to as the 'sexual diary code' and currently exists as a revised version of the infamous 'Chriscode' , which allows ejaculate destinations to be recorded, as well as the physical progression of a sexual 'session'. This sexual code is described in detail in ***The Sexual Diary Code: Syntax and Semantics***.

## The Diary Form

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Each diarist is asked to record everything they did during the month the diary was written. Each sexual encounter is referred to as a 'session'. The diarist may have any number of sessions a day. With each session, the diarist records all the sexual acts that occurred, use of condoms, lubricants, and 'poppers', the date and time, where it was, and who it was with. Also recorded with each diary includes general information such as their HIV status (**Neg, Pos, Not Tested**), their unique identifying code number, and the relationship type (expressed as a Roman Numeral between **I** and **IX**). Details of the layout of the diary and can be found in ***The Sexual Diary Code: Syntax and Semantics***.

The diary has many advantages over interviewing techniques, especially concerning recall. It has been found that people tend to overestimate the frequency with which they engage in certain behaviours, and memory recall affects the validity of interview data. The diary is written as soon as possible after the sexual session occurred. It is perhaps susceptible to becoming a record of fantasy, though from reading most diaries, one can see that there appears to be very little of this occurring. Also, the diary code preserves the order in which the session occurred, so that behavioural patterns can be identified. For example, fellatio is the most common precedent to anal-intercourse. In short, the diary lends itself to quantitative analysis that is reliable.

## Storing Sexual Diary Data

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Every diary from each respondent is entered into a database called **Cardbox™** that is used to record all information contained in the diaries. These files can be thought of simply as a set of cards, one for each session. Each card has a set of pre-defined '*fields*' which contain data elements such as the code number, the HIV status, their relationship type, the date of the session, the session itself etc. A description of this format can be found in ***The SDA file system: organisation and file formats***.

**Cardbox™** provides a facility for copying the information out into special files that may be read by programs written to analyse the data. These special files are called '*dump*' files, and all end with the file name extension '**DMP**'. These files are very important with respect to the sexual diary analysis (**SDA**) programs because this is the only format the programs can read. Cardbox calls this file type '**BASIC**'. See ***The SDA file system: organisation and file formats***

**Cardbox™** is not a particularly sophisticated piece of software engineering and does not provide data management utilities required to maintain the data set. For this reason, the integrity of the data must be maintained manually. This is no simple task since the most programs are very much dependent on particular orderings of the data set. Suggested methods can be found in ***The SDA File System: Organisation and File Format***.

The inputting of the data has been done by many staff of SIGMA, past and present. Among them include Philip Looker, Angela Jones, Ceri Summers, Ian Clarke, Greg Whitam (for it is he!), Jason Lewis, Kerry Stagg, whose work is much appreciated.

## Layout of the File System

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The sexual diary data and SDA program suite are all stored under the directory SIG1993 in various sub-directories whose purpose is outlined below:

SIG1993\C	C source code for programs
SIG1993\CARDBOX.DIA	Cardbox files of all diaries
SIG1993\DOCUMENT	Full Documentation
SIG1993\EXECUTE	Executable programs (and data files)
SIG1993\GPRESS.DIA	Gay Press (validity) data (dump files)
SIG1993\INDIVID.DIA	Individual sorted diaries (dump files)
SIG1993\INTERVIE	Some interview data
SIG1993\MAINDMP.DIA	Unsorted data (dump files)
SIG1993\WAVES.DIA	Individual and wave sorted data (dump files)

All programs required for analysing the data can be found in **SIG1993\EXECUTE**. Files that they use are found in **SIG1993\INDIVID.DIA** or **SIG1993\WAVES.DIA**. It is worth noting at this point that *all* directories with 'DIA' in their names actually contain the *totality* of diary data, and only differ by their ordering or format. The user need only be concerned about using the data stored in **SIG1993\INDIVID.DIA** directory, or those in **SIG1993\WAVES.DIA**

## Overview of the SDA program suite

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There are a wide collection of programs with the SDA program suite. These perform many types of standard analysis techniques. The co-occurrence program produces output suitable for further analysis in the **PC-MDS©** package for multi-dimensional scaling. Most utility programs produce data in a text format that may be read directly into any word processor (called **ASCII** text) or altered with an editor to be read into a statistical analysis package, such as **UNISTAT** or **SPSS**.

Most programs just produce a statistical summary of the analysis, ready for further use. They should be seen as a stepping stone between the database and final analysis.

One program in the suite is very different. This program is called the '*data sieve and program manager*'. It allows the user to select portions of the data set that they are interested in, and then run various utility programs to analyse this data. The program has a text windowing front end which integrates all the analysis utility programs with a program manager. It is also capable of running 'batch' scripts for long or tedious analysis sessions. This program is central to the whole SDA program suite, and will usually be the main platform from which all work is done. This program is documented in ***Data Sieve and Program Manager: Users Guide***.

Currently, the system keeps all the program and data files separately (in sub directories **EXECUTE** and **INDIVID.DIA** respectively). To use a program on data, you will need to copy the program into the directory in which the data resides. It is probably best to copy all files in **EXECUTE** into the data directory before starting any analysis. You can use either **INDIVID.DIA** or **WAVES.DIA**, though prefer **WAVES.DIA** because it has only four files in it originally. You can do this by typing:

**startup [ENTER]**

from the **MS-DOS**© command line once in the directory **SIG1993**.

If you wish to start using the system straight away, turn to ***Data Sieve and Program Manager: Users Guide*** from where you can begin to become familiar with the system.



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# **Analysis Methods Used By the SDA Program Suite**

## Introduction to Analysis Methods

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The analysis methods used by the SDA program suite are generally quite simple. Most utility programs just perform frequency counts and proportion calculations. These methods are considered to be too simple to be discussed here. Instead, the manner in which some programs perform their calculations is discussed, along with the more complicated methods such as co-occurrence, precedence and successor analysis.

The analysis methods covered here include Bapn, Co-occurrence, Precedence, Successor, Risk, and Sesstype.

### Bapn Analysis

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BAPN is an acronym for **B**oth, **A**ctive, **P**assive and **N**either, and refers to the modalities that can be expressed over time by individuals for certain behaviours. In the sexual diary code, modalities are represented with the letters S H A P and M. See ***The Sexual Diary Code: Syntax and Semantics*** for a discussion of these modalities. The two important modalities of concern to this analysis method are **Active** and **Passive**. In a month diary, an individual may express either one of these modalities, both of these modalities or Neither of them. Each individual is either a B, A, P or N individual during their diary for *EACH behaviour*. Usually, we just concentrate on anal-intercourse, anilingus, fellatio and masturbation.

The BAPN program thus just reports the percentage of individuals expressing each role type for the behaviours that are specified, as discovered from all sessions that are recorded for each individual in the data set specified. Notice that the program getdiary should be run first to collect the data into diaries if a consistent time base is required.

### Co-Occurrence, Precedence and Successor Analysis

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These forms of analysis are best discussed together since they are very similar. All these analysis types are concerned with the occurrence of different acts within a session. Co-occurrence measures the 'similarity' of acts. i.e. if two different acts occur in the same session frequently, they are considered similar. For example program results have shown that AS and PS are similar, as are AF and PF, as we would expect. We may plot acts in an n-dimensional space (usually 2 or 3) and the distances between the acts is an indication of their similarity.

Precedence measures the number of times an act precedes another, and successor analysis measures the number of times an act succeeds another.

The COOCUR program deals solely with co-occurrence. Co-occurrence may be performed by this program in one of six forms. The first three are act specific and the last three are session specific. In order to understand this distinction a proper definition of the method is required.

We define three operators **C** **P** and **S**. Which represent the analysis methods Co-occurrence, precedence and successor respectively. All these operators work on a session. The session may be thought of as a two dimensional array. Each act in the session labels the rows and columns. Eg: imagine the session:

AW PW AS AF HW

There are five acts. We thus have a matrix:

	AW	PW	AS	AF	HW
AW					
PW					
AS					
AF					
HW					

The entries in the table represent the results of the analysis for the session. Instead of writing the acts out each time, we label the two dimensions with numbers from **0..n-1** where n is the number of acts in the session. We let **i** be the labels of the columns, and **j** be the labels of the rows.

When you run the programs, you provide an actlist. These are the acts that form the rows and columns of this table. An act from this list may or may not exist in any particular session in the data. This is covered in the definition of the analysis methods.

The main co-occurrence method (**C1** in the program) is defined thus:

**C<sub>ij</sub>** = The greater frequency of act **i** and act **j** if both exist in the session, or zero if the frequency of act **i** OR act **j** is zero.

*Precedence and Successor are defined as below:*

**P<sub>ij</sub>** = The frequency of act **i** occurring before act **j** in the same session if act **i** and act **j** exist within the defined width and summed over each occurrence of act **i**.

**S<sub>ij</sub>** = The frequency of act **i** occurring after act **j** in the same session if act **i** and act **j** exist within the defined width and summed over

each occurrence of act *i*.

Width may be set in the CPSANAL program, and only applies to precedence and successor analysis. It sets the number of acts visible before or after act *i*.

From the definitions of precedence and successor, it can be seen that:

$$P_{ij} \Leftrightarrow S_{ji}$$

This equivalence is used by the program CPSANAL.

## The Co-Occurrence problem

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The co-occurrence problem has lead to the current implementation definition. Since there are a few different ways of defining co-occurrence, there are also different results. To illustrate the problem, consider the following:

Session:    A A A B

The possible results are:

	A	B		A	B		A	B
A	3	1	A	6	3	A	3	3
B	3	1	B	3	1	B	3	1

The first result follows the definition:

*"The frequency of act *i* if act *j* exists"*

This definition is not symmetric about  $i = j$ , so it is not true co-occurrence. The second result follows the definition:

*"The number of edges that may be drawn from act *i* to act *j*, or unity of act *i* is act *j* and it occurs only once"*

This gives a symmetric definition, but it does not preserve the frequencies in the  $i=j$  diagonal.

The third result uses:

*"The greater frequency of act *i* and act *j* if both exist, or zero if either act *i* or act *j* do not exist"*

This definition is used by both CPSANAL and method C1 in COOCUR. This form can be defined as below:

$$C_{ii} = \begin{cases} \text{freq}(i), & \text{if } \text{freq}(i) \geq \text{freq}(j) \\ 0, & \text{if } \text{freq}(i) = 0 \text{ OR } \text{freq}(j) = 0 \\ \text{freq}(j), & \text{if } \text{freq}(i) < \text{freq}(j) \end{cases}$$

As mentioned before, COOCUR has SIX co-occurrence methods, invoked by placing C1, C2, C3, C4, C5 or C6 into the directive file. Essentially, the only useful ones are C1 and C4.

C1 applies the same analysis defined above, and sums the matrix for each session over all sessions in the fileset. C4 is exactly the same as C1, except the sessional values may only be 1 or 0, i.e

$$C4_{ii} = \begin{cases} 1, & \text{if } \text{freq}(i) \geq \text{freq}(j) \\ 0, & \text{if } \text{freq}(i) = 0 \text{ OR } \text{freq}(j) = 0 \\ 1, & \text{if } \text{freq}(i) < \text{freq}(j) \end{cases}$$

This means the analysis method becomes sessions specific. The diagonal values become the number of sessions the acts occur in, and has a session level meaning, as opposed to an act level meaning for C1.

## RISK

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Risk concerns itself with the potential risk associated with sexual acts. Essentially, no sexual act is intrinsically risky. i.e. What makes a sexual act risky from the point of view of HIV transmission is not the act itself, but the *destination of the ejaculate*. This idea is used by RISK analysis. The risk of an act is therefore ranked (from lowest to greatest) as follows:

N	No ejaculate	0
X	Ejaculate elsewhere	1
I	Ejaculate on Alter	2
O	Ejaculate on Ego	2
C	Ejaculate into a condom	3
H	Ejaculate inside alter	4
M	Ejaculate inside ego	4

Potential risk of level 3 or less is considered 'safe', but level 4 is potentially risky sex. Risk analysis simple counts the frequency of all the outcomes for anal-intercourse, fellatio and masturbation, and also gives an overall frequency occurrence of each outcome. The program also counts all the acts of each behaviour, and these values serve as a denominator so that the proportion of outcomes for each act can be recorded. See **Utility programs: Usage and definitions** for an example of program output.

## SESSTYPE

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Sexual session may be categorised as being one of five types, these are known as follows:

Solo	Sessions in which no partner is present
Quick	Sessions containing one act
Role	Sessions in which the diarist tends to assume either an active or passive role for more than 50% of the session
Reciprocalational	Sessions in which the diarist and his partner tend to reciprocate behaviours for more than 50 % of the session. Eg: Session where Ax Px Ay Py Az Pz occur.
Other	Sessions in which the role and reciprocalational elements are perfectly balanced.

It has been observed that the proportion of reciprocalational to role sessions is approximately 2:1. i.e there are approximately twice as many reciprocalational sessions as role sessions.

Quick sessions tend to occur with diarists who have no regular partner, and solo sessions dominate those with no partner at all.

Examples of such sessions:

<i>Solo:</i>	<i>SW SFG</i>
<i>Quick:</i>	<i>MW,XX</i>
<i>Role:</i>	<i>AS AW AFG PW AF PF</i>
<i>Reciprocalational:</i>	<i>AW PW AS PS AF PF</i>
<i>Other:</i>	<i>AW PW AS</i>

## Summary

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Analysis methods used by the program suite are essentially simple and can be easily applied to whatever data sets are required by using the data sieve and the utility programs.

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# **The Sexual Diary Code: Syntax and Semantics**

## Background

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The sexual diary code was developed in order to provide a formal and accurate means of recording sexual activity in diaries. Originally, the code did not have a means for representing ejaculate outcome destinations, which are important for considering the potential risk associated with an act. With the advent of 'Chriscode', this was changed, and now includes codes for describing ejaculate destinations such as into a condom, inside or on a partner (or the diarist), elsewhere or no ejaculation. Originally, the code only had two outcome codes, 'O' (for orgasm) and 'X' for no orgasm. The sexual diary code is formally considered here, along with the definitions of other codes used in recording the diary such as HIV status, and relationship type.

## Introduction

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The sexual diary code is based on the vernacular descriptions found in written sex diaries. Essentially, each code is a short mnemonic for what it represents. For example, the code for masturbation is 'W' ('wanking'). Every sexual behaviour, (such as masturbation, fellatio, and anal-intercourse) needs another code associated with it to determine **who does (the behaviour) to whom**. This is called the 'modality'. We may think of the modality as a mathematical unary operator which adds to the meaning of the behaviour, disclosing who is doing it to whom. There are five distinct modalities, being **Self**, **His**, **Active**, **Passive** and **Mutual**. These modalities are egocentric in that they refer to who does what *from the point of view of the diarist*. For example, **SW** means self wank, **HW** means his wank, **AW** means Active wank, **PW** means Passive wank, and **MW** means mutual wank.

The diarist is referred to as '**Ego**' and his partner is referred to as '**Alter**'. So **S** means Ego does it to himself, **H** means Alter does it to himself, **A** means ego does it to alter, **P** means Ego has it done to himself, and **M** means they do it to each other simultaneously. For an informal introduction to the sexual diary code, please see the document '**Instructions for Encoding Sexual Diaries**' (revised 3/1/93).

## Formal Description Of The Sexual Diary Code

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The following sections formally describe the syntax and semantics of the revised sexual diary code. The code has a sentence like structure and preserves chronological integrity of the session. The following figure defines the syntax of the code and its lexical content. All emboldened items are tokens that are allowed in the lexicon of the language (Tokens are indivisible



elements of a language). The syntax defines the proper *ordering* of these tokens. The semantics defines the meaning of the language with respect to its syntax. The symbol '|' means 'OR'. The symbol '::=' means '*is defined as*' or '*consists of*'. Anything in single quotes is a literal token.

A session is either a single sexual act, or a possibly infinite list of space separated acts. An act or session may be parenthesised, but if it is, it must be followed by a backslash and a list of accompaniments. An act or session of this form may also be un-parenthesised, but in this form, the accompaniments are only associated with a single act. An act may also be a partner label (in multiple partner sessions) followed by the acts in the (sub) session that occur with the indicated partner.

## Formal Grammar of Revised Sexual Diary Code

<session>	::=	<act> <act> ' ' < session>	
<act>	::=	(' <session> ') / <accomp> <act> / <accomp> <partner_label> <session> <act> & <act> <modality> <behaviour> <modality> <behaviour> ',' <outcomes>	
<partner_label>	::=	# <integer> ':'	
<modality>	::=	{'S','H','A','P','M'}	
<behaviour>	::=	{'W','F','S','DK','V','VF','(Ri' 'RI'), (CN' 'Cn'),(TF' 'Tf'),(FG' 'Fg'), (FI' 'Fi'),(FG' 'Fg'),(BR' 'Br'), (MA' 'Ma'),(CP' 'Cp'),(TT' 'Tt'), (WS' 'Ws'),(BO','Bo'),(FD' 'Fd') }	
<outcomes>	::=	<outcome_ego> <outcome_alter> <outcome_ego>	
<outcome_ego>	::=	<outcome>	
<outcome_alter>	::=	<outcome>	
<outcome>	::=	{'N','I','X','O','H','M','N','C'}	
<integer>	::=	<digit> <digit> <integer>	
<digit>	::=	{'0','1','2','3','4','5','6','7','8','9'}	
<accomp>	::=	<accomp> <accomp> ',' <accomp>	
<accomp>	::=	<lowercase_let> <digit> <lowercase_let>	
<lowercase_let>	::=	{'a','b','c','d','e','f','g','h','i','j','k','l', 'm','n','o','p','q','r','s','t','u','v','w', 'x','y','z'}	

An act may be joined with another to form a simultaneous act using the ampersand symbol. An act may just be a modality followed by a behaviour, otherwise an act is a modality followed by a behaviour, a comma then the ejaculate outcomes.

A partner label is a hash sign followed by an integer number (representing the partner number) then a colon.

Modality is one of the token set 'S' 'H' 'A' 'P' 'M'. In a similar manner, a behaviour is one of the token set indicated. The outcomes may be either ego's outcome followed by alters outcome, or just ego's outcome (alters outcome may only be omitted if he does not orgasm, but this is a semantic issue, not a syntactic one). Ego's and alters outcome are just outcome codes drawn from the set 'N' 'I' 'X' 'O' 'H' 'M' 'C'.

An integer is just a digit, or a digit followed by an integer. A digit is drawn from the indicated set. accompaniments are either a sole accompaniment, or a comma separated (possibly infinite) list of accompaniments. Accompaniments have a syntax of being just a lowercase letter followed by a digit, or just a lowercase letter. Lowercase letters are drawn from the alphabet of lowercase letters as indicated.

## Semantics of the Diary Code

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The semantics of the diary code are described using an evaluation function **Eval[[ ]]** which translates the code into an english description. The code has no mathematical semantics, and can only be understood in terms of an english translation.

<b>Eval[[ W ]]</b>	=	masturbation
<b>Eval[[ F ]]</b>	=	anal-intercourse
<b>Eval[[ S ]]</b>	=	fellatio
<b>Eval[[ DK ]]</b>	=	Deep-kiss
<b>Eval[[ V ]]</b>	=	Vaginal intercourse
<b>Eval[[ VF ]]</b>	=	Vaginal intercourse (synonym)
<b>Eval[[ RI ]]</b>	=	Anilingus
<b>Eval[[ CN ]]</b>	=	Cunnilingus
<b>Eval[[ TF ]]</b>	=	Inter-femoral frottage
<b>Eval[[ FG ]]</b>	=	Ano-digital insertion
<b>Eval[[ FI ]]</b>	=	Ano-brachial insertion
<b>Eval[[ BR ]]</b>	=	Frottage
<b>Eval[[ MA ]]</b>	=	Massage
<b>Eval[[ CP ]]</b>	=	Corporal Punishment
<b>Eval[[ TT ]]</b>	=	Nipple play
<b>Eval[[ WS ]]</b>	=	Lindinism

**Eval[[ BO ]]** = Testicle play  
**Eval[[ FD ]]** = insertion of dildo

The ':' symbol represents the concatenation of a syntactic element with another syntactic element.

**Eval[[ act:rest\_session ]]** = **Eval[[ act ]]** **Eval [[rest\_session]]**  
**Eval[[ ( act ) / accomp ]]** = **Eval[[ act ]]** w.r.t  
 accompaniments  
**Eval[[ partner\_label session ]]** = **Eval[[ session ]]** w.r.t  
 partner\_label  
**Eval[[ act1 & act2 ]]** = **Eval[[ act1 ]]** w.r.t **Eval [[ act2 ]]**  
**Eval[[ modality behaviour ]]** = **Eval[[ modality(Eval[[ behaviour ]])]]**

*(We interpret modality as a function which operates on the behaviour)*

**Eval[[ modality behaviour , outcomes ]]** =  
**Eval[[ outcomes( Eval[[ modality(Eval[[ behaviour ] )]] )]]**

*(We interpret outcomes as a function which operates on the evaluation of the modality operating on the behaviour)*

**Eval[[ digit:integer ]]** = **Eval[[ digit ]]** + 10 X **Eval[[integer]]**

*(This evaluation assumes integers are in base 10)*

We interpret a session as the progressive interpretation of each act in the session. So we simple need to interpret each act in turn. If the act is parenthesised, we ignore the parentheses and interpret the act within them with respect to the accompaniments associated with the act. If a sub-session is preceded by partner label, we interpret the session with respect to the partner number. If an act is ampersanded, we interpret the first act with respect to the second and recognise that they are simultaneous. Otherwise, an act is just a modality followed by a behaviour, possibly with an outcome element. We understand a modality followed by a behaviour to be a function ( one of the five S, H, A,P or M) which operates on the interpretation of the behaviour. The function returns the meaning of the behaviour with respect to the modality operating on it. The same is true for interpreting outcomes. In partner labels, we interpret integers to be of base 10. Notice that the functions for modality and outcomes are undefined in this semantics because they are only really expressible in English. However, their meaning is obvious. To demonstrate the interpretation we study a few examples.

Session 1: SW

**Eval[[ SW ]]** = **Eval[[ S(Eval[[ W ]]) ]]**  
 = **Eval[[ S(Masturbation) ]]**  
 = Self masturbation

i.e.: SW means the evaluation of the whatever S returns after operating on masturbation. We expect **Eval[[ S( x ) ]]** = Self x So this evaluates to self masturbation.

Session 2: AF,HN

**Eval[[ AF,HN ]]** = **Eval[[ HN(Eval[[ A(Eval[[ F]] ) ] ) ]]**  
 = **Eval[[ HN(Eval[[ A( anal-intercourse) ]]) ]]**  
 = **Eval[[ HN(Active anal-intercourse) ]]**  
 = Active anal-intercourse, ego came in alter

Session 3: MS/l,c

**Eval[[ MS/l,c ]]** = **Eval[[ MS ]]** with respect to l,c  
 = **Eval[[ M( Eval[[ S ]]) ]]** with respect to l,c  
 = **Eval[[ M( Fellatio ) ]]** with respect to l,c  
 = mutual fellatio with respect to l,c  
 = mutual fellatio using lubricants and condoms.

*(NB: Outcome omitted means no ejaculation)*

## Token Descriptions

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The meaning of the behaviour tokens was given when defining the semantics. However, the meaning of the functions modality and outcome was touched upon, though not described. These functions have intuitively obvious return values, and they are outlined below:

### Modality:

- **S** Self (Ego to himself)
- **H** His (Alter to himself)
- **A** Active (Ego to alter)
- **P** Passive (Alter to ego)
- **M** Mutual (Simultaneous, ego to alter and alter to ego)

### Outcomes:

- **N** No ejaculate
- **I** On alter
- **X** Elsewhere
- **O** On ego
- **H** In alter
- **M** In ego

- **C** into a condom

### **Accompaniments:**

The accompaniments that may be associated with acts are not yet standardised, although the following are in common usage:

- **c** condoms
- **p** poppers
- **l** lubricants
- **d** drugs ( of the illegal variety)
- **a** alcohol
- **t** sex toys

### **The Sigma Relationship Typology**

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Project SIGMA has defined nine possible relationship/age categories that define the relationship type and age of the diarist. These are represented using the roman numerals I,II,III,IV,V,VI,VII,VIII,IX. The age ranges are under 21, 21 to 39 years and over 39 years old. The relationship types are *one sexually exclusive partner*, *one regular partner and other partners*, and *no regular sexual partner*. The combined relationship type and age categories are then looked up in the following table:

	<b>under 21</b>	<b>21 to 39</b>	<b>over 39</b>
<b>one exclusive partner</b>	<i>I</i>	<i>II</i>	<i>III</i>
<b>one regular partner and others</b>	<i>IV</i>	<i>V</i>	<i>VI</i>
<b>no regular partner</b>	<i>VII</i>	<i>VIII</i>	<i>IX</i>

### **HIV Status**

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When diarists are interviewed, they are also tested for HIV. They may or may not wish to know the results, and their wishes are respected. There are only three possible status types currently in use, though there used to be far more. These types are:

- **NEG** Negative
- **POS** Positive
- **NT** Not tested (or unknown)

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# Data Sieve and Program Manager: Users Guide

# The Data Sieve and Program Manager Users Guide

## Introduction : What Is It?

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The 'SDA Program suite' is a set of application programs, designed to be of use with the Project Sigma diary files for analysing data. As mentioned in the introduction, the diary files used by these programs are in **dump** format, which means they have been written out of **Cardbox™** (or **dbase IV™**) using the *BASIC* mode. All programs run from DOS, and most require command line arguments to tell the program what to do. The most important program, which forms the front end to the system is called SIEVE, and has two main functions, being;

- A data sieve, allowing selection of data by certain criteria, such as Type, Status, Wave, individual etc.
- A program manager, allowing the user to run application programs written for the analysis of the data, or even 'batch' file scripts for the automation of long or tedious analyses.

The use of batch file scripts is explained later in this document in *advanced use of the Data Sieve*. The program is very simple to use. It has context sensitive on-line help to aid the user, standard menu manipulation keys, and an easily understood text windowing system. The amount of entry by the user has been minimised to allow speed and efficiency during analysis, and ease of use.

## Introduction : What Does It Do?

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The program allows the user select any subset of data from the complete data set, and pass this to a file, ready for analysis by any application programs. This selected data *always* appears in **SIEVEDAT.DMP**. Note that each time you perform a selection, the new SIEVEDAT.DMP file overwrites any that currently exist.

These application programs are run and managed by the program, and include many useful routines, such as Co-occurrence, Precedence, and Successor analysis, Keyword in context analysis, BAPN analysis, act frequency counts. Analysis methods are described in ***Analysis methods used by the SDA program suite***. The programs themselves are described later in ***Utility Programs: Usage and Definitions***.



These application programs may also be run from the MS-DOS command line. Among the application programs, there are also database management programs, for sorting data and manipulating files.

The program manager will execute ANY executable file or batch script as long as there is enough memory, and the program is listed in the shell list, which is an easily updated file (called PROGS.DAT). Update of this file is described in *Advanced Use of the Data Sieve* (later in this section).

A few examples of things you can do with the SDA program suite are as follows:

A typical user may wish to select Type V respondents from London who are HIV negative and use this selected data in an application program such as BAPN analysis of anal-intercourse. This will give the role distribution of type V diarists practising anal-intercourse in each of the four roles **Both**, **Active**, **Passive** and **Neither**. (See **Coxon** et al. 'Sex Role separation in sex diaries of homosexual men', **AIDS**, June 1993)

The user may wish to write your own application programs to analyze the data, and add these to the program file list. You can also run normal DOS applications from the program shell if you add their names to the shell list file.

The user may also use the DOS shell to pop out to MS-DOS or DR-DOS or PC-DOS. This will let you shunt around files, write batch scripts etc., even during the operation of the program.

## Introduction : What Do I Need?

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The minimum hardware requirements are:

- 8086 processor
- 2Mb hard disk space.
- Colour monitor

The colour monitor is required for running the data sieve and CPSANAL, though most programs in the SDA suite will work without a colour monitor. These programs will still run on monochrome monitors, though distinctions between colours are not so visible.

## Introduction: How do I start it?

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As outlined in the introduction, setting up the program suite to begin work is very easy. Your computer should have a directory structure as described in the introduction, with the files from the program suite all installed. When you FIRST use the program suite do the following:

- Turn on your computer
- Log onto the C:> drive by typing **C:** ↵
- Now type **cd sig1993**
- Now type **startup** ↵

In a few moments, after a lot of files have been copied, the front end program SIEVE will be running, ready for you to use.

If you have done this before, just type:

```
cd sig1993\waves.dia ↵
sieve ↵
```

And you will be in the same place.

## Getting Started : A Tutorial of the SIEVE Program

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When using the program, there are some keys which are used very regularly. These are shown in the table below.

*Any words in square brackets refer to a single key;*

<b>[ENTER]</b>	The Enter or Return key ↵
<b>[UPARROW]</b>	The up arrow key ↑
<b>[RIGHTARROW]</b>	The right arrow key →.
<b>[ALT]</b>	The Alt key (left of the spacebar)

Key combinations are written with a '+' (plus) sign between them. The '+' key should **NOT** be pressed. Eg:

**[ALT] + h** Press the *alt* key and the '*h*' key **simultaneously**.

## Running the Program

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Once the program has started, you will see a message saying

```
'Please Wait, Program Initialisation Occurring'
```

in the centre of the screen. The program is doing some initial setting up that is essential before it begins. This will take some time, depending on how large the data set is and how fast your computer is.

Once it has finished initialisation, the message will disappear, and the program now awaits your input.

## Using the Program

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On the screen you will see two horizontal bars, one white and one Red. The red (bottom) bar shows the key combinations that are available at all times. They call up help, run a DOS shell and exit the program, which will be discussed later. The top (white) line appears as follows:

```
F1: Data Sieve      F2: Program Manager      Project Sigma 1992
```

**F1** and **F2** are 'function keys', and refer to the keys that are marked **F1** and **F2** on your keyboard. These can be found at the top of the keyboard or on the left hand side.

## The Data Sieve

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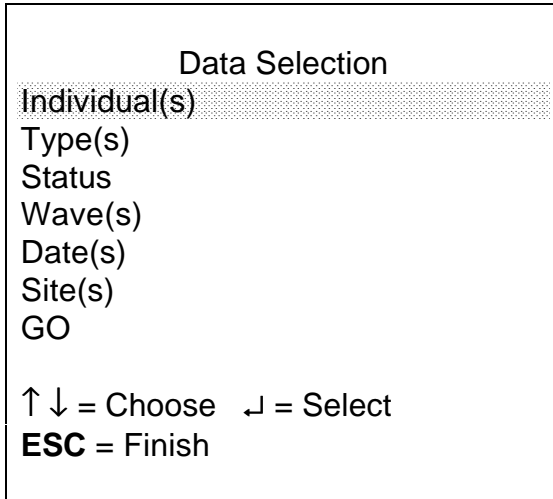
The data sieve simply sifts out the data that you specify and puts it in a file called

### **SIEVEDAT.DMP**

You will now be lead through an example on the following page to understand what the program does.

Press **F1**

You will see a window that appear as over the page



A dark blue cursor bar covers the line decorated with the text 'Individual(s)'. This is known as a 'menu bar'. To move the menu bar, use the arrow keys '↑' and '↓', as indicated by the 'Choose' help line at the bottom of the window. Try this now.

To select data you want, you simply move the menu bar to the relevant position, and then press '↵'. As an example, lets say that you want individuals who are types I,II who are either not tested (NT) for their status, or are Negative (Neg) or believe they are negative (B-). Here's how to do it:

Move the cursor bar to the 'Type(s)' line using the arrow keys and press '↵' to select.

You will find yourself in another window, that lies on top of the last one. This lists all the possible types that are in the data. To the right of each line is an arrow tag . This tag marks whether or not to select this sort of data from the data set on disk. *When it is visible, it means that it IS selected.*

You will notice that all the types have these arrows by them. This is because when the program starts, it is set up to select ALL data from the disk. To turn the tag off, just press '↵'. To turn it back on, press '↵' again. This is known as a **toggle**. You can press '↵' as often as you like, and the arrow will go on and off.

At the bottom of the window is the line 'Reset Selections'. If you move the menu bar to here and then press '↵', all the arrow tags are put back on, because the selections are *reset* to their original states.

Now we want types I and II, so we only want the arrow tags by types I and II. This means we will have to turn all the other tags off by moving the menu bar to them and pressing '↵' Do this now.

Now the types are selected, we are happy, except we now need to select statuses NT, Neg and -B. To do this we return to the data selection window and then go into the status selection window. Here's how to do it;

- Press [ESC] to move back to the previous window
- Move the menu bar to the line with 'status' on it.
- Press '↓'

You will now find yourself in a window similar to the type one, (with the tag arrows), except that now all the possible HIV status's are listed. We want to select NEG, NT and -B. To do this we use the same method as in the Type window. Just turn off all the arrow tags to the other status's, leaving just Neg, NT and -B arrow tags on. Do this now.

In fact, you can do this with any of the data selection options shown in the data selection window (except individual). Try experimenting and explore the windows. You will find context sensitive help useful. If you get lost press; **[ALT]+H**.

## The Global Keys and General Keyboard Use.

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You have already met the '↓' key for selections, the arrow keys for moving the menu bar, and the [ESC] key for returning to the previous window. These, if you have explored, are common throughout the data selection menu (except in entering individuals codes).

There are three other keys that are very useful, known as the 'Global' keys, because their functions are available at any time. These global keys are written at the bottom of the screen, on the red bar.

Key	Function	Sequence
ALT H	Displays context sensitive Help	<b>[ALT] + h</b>
ALT D	Invoke DOS shell	<b>[ALT] + d</b>
ALT X	Exit from Program	<b>[ALT] + x</b>

The help key is very useful; use it if you ever get stuck!

The Dos key leaves the program and lets you issue any DOS commands you wish (such as copying and deleting files, running other programs etc.) as long as there's enough memory left. Don't worry; if there is not enough memory, you will see a message saying '**Out of memory**' on the screen; It won't effect the computer or how SIEVE is running. It just means that you will not be able to run that program (it may be too big to fit into memory). To get out of the

DOS shell just type **exit** ↵ To leave and end the SIEVE program at any time, just press **[ALT]+x**.

## Getting Data for Analysis

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We are now going to get some data so that we can analyze it.

Scenario 1: We need to get some data to see if the assumption that men in monogamous relationships are either always active or always passive during anal-intercourse is valid or not. This means that we are only interested in types I,II and III. If we get other data in our data set, the result will be wrong because there will be a mixture of types. Here's what to do;

- Go to 'data selection' by pressing **F1** or **[ESC]** to get to the correct window.
- Move the menu bar to Type(s) using the arrow keys
- Press '↵'
- Turn off all arrow tags except those for types I,II and III.
- Press **[ESC]**
- Move the cursor to '**GO**'
- Press '↵'

You will now have a data file called **SIEVEDAT.DMP** that only contains type I,II and III individuals. Now;

- Press **[ESC]** twice
- Press **F2**
- Move the cursor to '**Specify command line arguments**'
- Type; **SIEVEDAT.DMP F > BAPN.DOC** '↵'
- Move the cursor to **BAPN**
- Press '↵'

When the program has finished, press **[ESC]** and you will be back in the SIEVE program. You may have to wait a little while BAPN runs. The results of the analysis are in a file called **BAPN.DOC** which we will look at later. This file was created by a little command line trick called **re-direction**. Now we will take a quick look at the results of the analysis.

- Press **[ALT]+d**
- And enter **type bapn.doc | more** '↵'

You will see the results of the analysis on the screen, which is actually the output from the BAPN program that would usually be sent to the screen.

To return to the program type **exit** '↵'

This example was to demonstrate how to get the data (not how to run the programs which will be covered later) and how to use the DOS shell. The important method to note is:

- Select the data you want by tagging the appropriate data.
- Move the cursor to '**GO**' in the data selection window
- Press '↓'

This will always produce a file called **SIEVEDAT.DMP**, in which your selected data resides. Next you will run the utility program that you require, either from the program manager or the DOS shell. See *Utility Programs: Usage and Definitions*.

## Selecting individuals

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Sometimes, when you select data, you may actually only want to look at certain individuals. The program is designed to select data by two forms, being (a) just specified individuals, or (b) just specified data types. To instruct the program which form you want to use, you specify a command line argument when you start the program.

- Leave the program by typing **[ALT]+x**.
- Now type **SIEVE - '↓'**

This method of invoking the program indicates that you only want to select certain specified individuals.

To illustrate the idea, we'll do an example;

- Type; **SIEVE - '↓'**.
- Wait a while.
- Press **F1**.
- Select Individual(s) from data selection, using '↑' '↓' and '↓'.
- Now select '**Add Individual**' by pressing '↓'
- Now type; **LO/1 '↓'**.
- Now type; **YO/1 '↓'**.

You now have two individuals in the list of individuals to select from the data set. To look at the list you would do the following;

Press **[ESC]**.

Now select '**Delete Individual**' (honest). You will see the two individuals in the list. Now press **[ESC]** again, then select delete individuals again. You will notice that they are still there! That is because they are only deleted if you

tag them. Press **[ALT]+h** and read what appears. This explains what we have just done and how to delete an individual. We will now delete individual **YO/0001**. See if you can do it without reading ahead.

NB: When you delete an individual, you **DO NOT** affect the data set, only the ones that are in the list of individuals you want to select from the data set. The **SIEVE** program **NEVER** directly alters the data set.

## How To Delete An Individual

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We will now delete **YO/0001** from the individual list.

- Press **[ESC]** to get out of the HELP screen
- (You should now be in the 'Delete Individual' window.)
- Move the menu bar to **YO/0001**
- Press '↵'
- Press **[ESC]**

The individual is now deleted! How do you know ? Have a look at the list of individuals again. You will notice that **YO/0001** is no longer there.

Now return to the '**Data Selection**' window, by pressing **[ESC]** a few times (possibly followed by **F1**). Move the cursor to '**GO**' and press '↵'. Now wait whilst the program gets the data about the individual. When it finishes, the program will have sifted out all **LO/0001**'s data and put it in the file **SIEVEDAT.DMP**.

To check this you might want to look at the file, here's how;

- Press **[ALT]+d**
- Type; **type sievedat.dmp | more** '↵'

When you have finished looking at the file;

Press **[ESC]**  
type; **exit** '↵'

## Tutorial II : Using the Program Manager

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We briefly covered the use of the program manager earlier on when we performed a BAPN analysis in 2.6. We will now study it in more depth.



The program manager oversees the execution of programs that are of file type EXE, COM or BAT. These may be application programs or even DOS programs that will fit into memory.

When you press **F2** after starting the program, or after pressing **[ESC]** following a data selection session, you will be in the program manager. The window that appears starts with the line;

### 'Specify Command Line Arguments'

and is followed by a list of recognized programs. You only need to specify command line arguments if the program needs them. To find this out you will have to look at their documentation in *Utility Programs: Usage and Definitions*.

To run a program, just move the menu bar cursor to the program name, and press '↓'. The program will then run. You can try this with CPSANAL. Move the menu bar to **CPSANAL** and press '↓'

The program CPSANAL is now running. You can now use it to do Co-occurrence, Precedence and Successor analysis. We are not going to use this program, it's just a demonstration of how to use the program manager. Type **[ALT]+x** to exit CPSANAL

You will see the message;

### 'Program Terminated, Press ESC'

So press **[ESC]**

You will now be back in the program manager. The use of the program manager is very simple. This is the method for using it;

- If the program needs command line arguments do the following indented instructions, otherwise skip the following three instructions.
- Move the menu bar to '**specify command line arguments**'
- Press '↓'
- Enter the command line arguments
- Now move the menu bar to the program name you want to run.
- Press '↓'

*You can find out if a utility program needs command line arguments and what they are by looking in **Utility Programs: Usage and Definitions***

## Advanced Use of The Data Sieve

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This section is advanced and is not necessary to know for general usage. You may skip this section if you wish, and carry on reading at the *synopsis*.

If you want to run other programs from the program manager or add batch file routines, you will need to get it's name into the program manager list. This list of programs is found in the file called;

### **PROGS.DAT**

This is a straight forward ASCII text file. The program manager reads this file as soon as the SIEVE program is run. In the file are a list of recognized program names (without their extensions), preceded by the '^' character ([SHIFT]+6). To add a program called, let's say FRED.EXE to the program list, you would use an ASCII editor and add the line;

### **^FRED**

to the end of the list. When you now run SIEVE, and enter the program manager, you will see FRED at the end of the recognised program list. MSDOS always supplies a text editor. See your DOS manuals for intructions on how to use. Alternatively you can use your favouite wordprocessor and write the text out in DOS or ASCII format (which are two names for the same thing).

Any line that starts with '^' is assumed to be a program or batch file name. Nothing else may appear on the line with the program name. However, you may write anything you like (such as comments) on following lines. This allows you to keep notes in the shell file. (Perhaps reminders as to how to use the program).

*Please note: all application programs MUST be in the same directory as SIEVE.EXE.*

## Writing Batch Scripts For Long Or Tedious Analyses

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Batch scripts are just DOS or ASCII text files that contain commands that you would usually type in at the command line. Sometimes you may want to do a large amount of analysis on many different files. The analysis may take a log time and so it would be nicer if you could just type in what you want done, start it off and leave the program running until it finishes.

This can be done by writing a batch script, which is a text file that ends in BAT. You run batch scripts by just typing their name at the MSDOS prompt. The complete use of batch scripts deserves a book on its own, but sufficient documentation can be found in and MSDOS manual. For diary analysis, you will probably only want a list of commands, which is the simplest form of batch file. An example will suffice.

Lets assume you have a set of DMP files that you have created from the data sieve that contain all the dump data by type, and are named TYPEI.DMP, TYPEII.DMP, TYPEIII.DMP etc. You want to get a frequency count of all acts in each of these files, along with a bapn analysis and to do marker analysis on all these types. (for a description of these utility programs see **Utility programs: Usage and Definitions**).

Lets say you create a file called WORK.BAT in a text editor. To do the above long and tedious analysis you would type all you would usually type in at the DOS command line into the file as follows:

```
@echo off
echo Beginning Work batch script
freqact typei.dmp OFF ALL > typei.frq
freqact typeii.dmp OFF ALL > typeii.frq
freqact typeiii.dmp OFF ALL > typeiii.frq
freqact typeiv.dmp OFF ALL > typeiv.frq
freqact typev.dmp OFF ALL > typev.frq
freqact typevi.dmp OFF ALL > typevi.frq
freqact typevii.dmp OFF ALL > typevii.frq
freqact typeviii.dmp OFF ALL > typeviii.frq
freqact typeix.dmp OFF ALL > typeix.frq
echo finished frequency counts
bapn typei.dmp W F S RI FG > typei.bap
bapn typeii.dmp W F S RI FG > typeii.bap
bapn typeiii.dmp W F S RI FG > typeiii.bap
bapn typeiv.dmp W F S RI FG > typeiv.bap
bapn typev.dmp W F S RI FG > typev.bap
bapn typevi.dmp W F S RI FG > typevi.bap
bapn typevii.dmp W F S RI FG > typevii.bap
bapn typeviii.dmp W F S RI FG > typeviii.bap
bapn typeix.dmp W F S RI FG > typeix.bap
echo finished bapn analysis
marker typei.dmp > typei.mar
marker typeii.dmp > typeii.mar
marker typeiii.dmp > typeiii.mar
marker typeiv.dmp > typeiv.mar
marker typev.dmp > typev.mar
marker typevi.dmp > typevi.mar
marker typevii.dmp > typevii.mar
marker typeviii.dmp > typeviii.mar
marker typeix.dmp > typeix.mar
echo finished marker analysis
echo batch file WORK completed
```

Most text editors allow you to copy portions of the text, so you can copy parts of the text and edit the new portions to save typing all then commands completely. Wordprocessors certainly will, but remember to save in DOS or ASCII format.

The advantage of this is that once you have created the file, you just type its name, and it will execute all the commands in the file one by one. This saves you having to wait in between the execution of each command, and you can just go away and leave it or do something more important. The files that contain all the results will be stored in the same directory as the batch program. (The results files are those that occur after the '>' symbol).

## Synopsis

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This tutorial covers all the main aspects of the program. You should now be ready to use the program normally. Remember, before using the program manager, refer to **Utility Programs: Usage and Definitions** to see what (if any) command line arguments are needed.

### *To Select Data*

- Press **[ESC]** until the screen appears as it was when first run (just the two horizontal bars (no need for this if you are already in the '**Data Selection**' menu)
- Press **F1**
- Select all the data constraints that you wish, or enter the individuals you want.
- Move the menu bar to '**GO**' in the Data selection window and press '↵'
- The resultant data file is called **SIEVEDAT.DMP**

### *To Select a Program from the Program Manager*

- Refer to **Utility Programs: Usage and Definitions** for command line information.
- Get to the Program manager (Press **F2** from the empty screen).
- If the program needs command line arguments do the following indented instructions, otherwise skip the following three lines.
  - Move the menu bar to 'specify command line arguments'
  - Press '↵'
  - Enter the command line arguments
- Now move the menu bar to the program name you want to run.
- Press '↵'

*NB: Do not enter program names as command line arguments.*

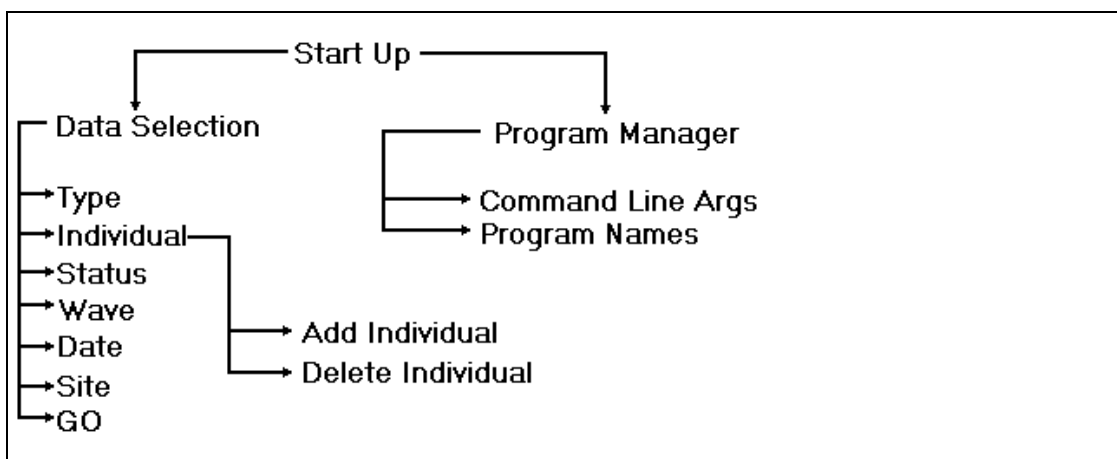
## Quick Reference Section

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This section describes the functions of SIEVE.EXE for reference once you are familiar with the system.

## The Sieve Window Hierarchy

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To move to a previous window in the hierarchy, press **[ESC]**. To move to the next window, it must be selected, either by pressing **F1** (for Data selection after start-up) or **F2** (for the Program Manager after start-up) or '↓' when selecting your choice.

## Individual Selection

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Follow the hierarchy to Individual Selection. Select the appropriate requirement, being;

- Add individual
- Delete Individual

You may **add** individuals to a maximum of the space left on the screen (17). To finish entering individuals press **[ESC]** on a blank entry

To **delete** individuals, tag the appropriate individuals using the appropriate arrow keys and '↓', then press **[ESC]**. To just see the individuals in the list, go to the delete individual window and do not tag any.

## Selection of All Other Data Types

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All other data types are selected by the common method of tagging using the arrow keys and '↵'. Remember that tagging using the '↵' key acts as a toggle.

## Data Destination

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All selected data, after selecting '**GO**' is passed to the file;

### **SIEVEDAT.DMP**

Which is in a form readable by all application programs, known as 'BASIC' format, since it is in a form very easily readable by BASIC programs. All application programs are in fact compiled 'C', but the BASIC format is chosen so that users can easily write their own application programs.

Please note that non-compiled BASIC programs are not able to be run by the program manager and should never be added to the program list. A BASIC interpreter (such as GWBASIC) can be run from the program manager, so you may then run your BASIC programs from there by adding GWBASIC to the program list in **PROGS.DAT**

## The Program Manager

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The program manager is simple to use (the arrow keys and '↵'). The most important part is ensuring that the command line arguments for the application program are entered correctly. This information can be found in **Utility Programs: Usage and Definitions.**

To add program names to the program managers window list, you have to add the name of the program (without the file extension) to the file PROGS.DAT preceded by the '^' character. This is advanced use of the program, and designed to make writing application programs easier since they no longer have to do lengthy data manipulation.

Eg: To add **CARDBOX™** to the program list you would edit PROGS.DAT using a DOS or ASCII text editor (or a word processor that can write in ASCII or DOS format) and add the line;

**^CARDBOX**

Notice the file extension (known as the file type) is NOT included.

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Project SIGMA 1993



# Utility Programs: Usage and Definitions

## Introduction to the Utility Programs

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All utility programs perform one of two functions. They will either apply some analysis method to a data set or manage the data set in terms of organisation or update. One property common to all utility programs is that they can all be run from either the command line in MSDOS (i.e. At the C:> prompt) or from the program manager in the data sieve and program manager.

Also, all utility programs require *command line arguments*. This is extra text that you type in after the program name that tells the program what to do. Command line arguments are separated by spaces. The following example outlines what they are:

**freqact \*.dmp OFF ALL**

The first word (freqact) is the name of the program. The italicized words are all command line arguments. In this example, the arguments tell freqact to work on all files that end in **.DMP** in the current directory, with coding error checking **OFF** and to do the analysis on **ALL** SIGMA types.

Each command line argument is separated by a space. The general format is then as follows:

**program\_name arg1 arg2 arg3 arg4 ... argn**

Generally, command line arguments will tell the program what files to read, (and sometimes what file to write to), along with extra information to guide the analysis. Notice that in the data sieve program manager, when you enter the command line arguments, you must do so *without the program name* (since it is not an argument).

## Utility Programs : An Overview

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The following programs are all utility programs. A description of what they do follows. Some programs use analysis methods which are not widely known, but are documented in ***Analysis methods used by the SDA Program Suite***.

The program name is followed by its expected command line arguments. In all cases, fileset may include the wildcards '\*' or '?'. (See your MSDOS manual for discussion of wildcards).

Some programs send all their output to the screen, some send it to files, and some send it to both places. If it is only sent to the screen, you may capture the output using redirection (discussed later). Programs that only send output to the screen have **'Use >'** in its description to remind the user that redirection is



required if screen output is to be captured. Redirection is discussed later in this section.

Help may always be obtained if you follow the program name by a question mark. For example,

**coocur ? ↵**

## Utility Programs: Summary Table

Program Name	Summary Description
BAPN [fileset] [behaviours]	Performs BAPN analysis on specified fileset and specified behaviours. Output to screen only. <b>Use &gt;</b>
COLLECT [fileset]	Discovers mean session length in fileset, and produces a session length distribution. Output always sent to <b>DATA.TXT</b>
CONDOM [fileset]	Prints the percentage of sessions in which a condom was used within the specified fileset on the screen. <b>Use &gt;</b>
COOCUR [directive file] [fileset] [output type]	Performs one of six possible co-occurrence analysis methods using a set of acts as specified in the directive file. Analysis is performed on the specified fileset. Output is formatted in either NORMAL, HICLUST or KYST format, and sent to the screen. <b>Use &gt;</b>
COUNTIND [fileset]	Counts the number of individuals in the specified fileset and prints the results on the screen. <b>Use &gt;</b>
CPSANAL	An interactive program for performing precedence, successor and co-occurrence analysis
DOCINDS [fileset]	This program produces a file called <b>INDDOC.TXT</b> which contains all information about all individuals in the specified fileset.
EVER [fileset] [type]	Performs EVER analysis on all files in the specified fileset, but only on individuals of the specified SIGMA type. Type may be ALL meaning ALL individuals. Output is sent to the screen. <b>Use &gt;</b>
FDATE [fileset]	Interactive program for attempting to recover date information in all files specified by fileset. It will format all dates in the files to DD/MM/YY format. <i>NB: No output produced, only update of original files, so use with care</i>
FREQACT [fileset] [errors] [type]	Counts frequency of all acts listed in ACTSDATA.A\$\$ by modality that occur in the specified fileset and have the specified SIGMA type. The type may be ALL to analyse all types. The errors argument may be either <b>ON</b> or <b>OFF</b> . If it is on, all coding errors are sent to the screen. Output is also sent to the screen. <b>Use &gt;</b>
GETDIARY [fileset] [format]	Reads all data in the specified fileset and re-arranges it so that it is collected into month diaries. These sorted files are then sent to files called WAVE1.DIA, WAVE2.DIA etc.(Data sorted by wave). Notice that the file names do not end in .DMP. If you want programs to use the resultant files, renames them as .DMP files, and keep them in a separate directory. Data that cannot be associated with a month diary is not included in the output files. The format argument is optional and may be either not present or have the value <b>NEW</b> . If it is NEW, the files are converted to the 17 field format as described in <b>The SDA File System: Organisation and File Format</b> .
GETFUUCK [fileset] [output file]	Collects all records/sessions from files specified in fileset that include at least one occurrence of anal - intercourse (in any modality). The resultant data is sent to the files specified by output file.

INDSORT [fileset]	Sorts all data specified by fileset into individual order. The sorted data is put in files separated by site, of no more than 500 records. The program creates a new directory called INDIVID underneath the current directory and puts all new files there.
KWIC [fileset] [keyword] [width] [sole toggle]	KWIC performs <b>KeyWord In Context</b> analysis. The specified fileset is read and any sessions containing the keyword are included in the output (Keywords are just acts, EG: SW, AF). Width specifies the space padding width in the output file. The sole toggle is either +S or -S and is not optional. +S means include acts that occur in a session on their own, and -S means exclude them. Output is sent to a file called <b>KWIC.ALS</b>
MAKESESS [number]	A very silly program which creates sessions randomly. The number of sessions to create is limited by the argument number.
MARKER [fileset]	Performs MARKER analysis on files specified by fileset. MARKER analysis is concerned with the frequency of acts them begin and end sessions. Output sent to the screen. <b>Use &gt;</b>
RISK [fileset]	Performs RISK analysis on all files in the specified fileset. RISK analysis looks at the relative frequency of outcome destinations for masturbation, fellatio, and anal-intercourse. Output is sent to <b>RISK.TXT</b>
SESSTYPE [fileset]	Performs session type analysis on all files specified by fileset. Session analysis is concerned with the structure of sexual sessions with respect to the frequency of role or reciprocation expression by diarists. This program produces a number of dump files that copy fileset into subset dump files containing the different session types. A file called <b>SUMMARY.DOC</b> summarises the process statistically. This program copies the original file set so it is very important to delete the produced files after using them. All sessions get sent to the screen as well which slows down the process, so it is best to redirect screen output to the NUL device as follows: SESSTYPE fileset > NUL

*Use > means use redirection to capture screen output to a file*

## Using Redirection

---

*Redirection is a very important skill that must be learnt in order to use the SDA program suite correctly. It is very simple and powerful.*

When a utility program is running it often prints information on the screen. Everything printed can be sent to a file if desired by using redirection. In order to redirect screen prints, you must specify the name of the file to which you wish the output to go. You do this by making up a file name and using the '>' symbol. For example, to count the individuals in a file and sent the results to a file called RESULT.TXT you would enter the following:

**countind \*.dmp > RESULT.TXT ↵**

The file RESULT.TXT can then be viewed using a text editor (see your DOS manuals) or by the following command:

**type RESULT.TXT | more ↵**

---

Text editors are very useful. If you don't know how to use them, now is the time to learn. Read your DOS manual, and look up 'editors' in the index.

*NB: The file to which output is sent is created when the program runs, overwriting any previous files with that name.*

## Utility Programs : A full Description

---

The above table described all utility programs in summary for quick reference. The following describes the programs in detail. Please note that a full description of the analysis methods can be found in **Analysis Methods Used by the SDA Program Suite**. In the summary table for each program, the 'Files required to run' entry informs you of what special files are required in the same directory as the program in order for it to execute.

### BAPN

---

Utility Name	BAPN ( <b>B</b> oth <b>A</b> ctive <b>P</b> assive <b>N</b> either)
Function Type	Analysis
Arguments	fileset Behaviour(s)
Output sent to	Screen only
Files required to run	None required

BAPN analysis produces a set of tables, one for each **behaviour** specified in the arguments. Each table has the following form:

```
Behaviour is behaviour
MOD      f      %
B      =      int  (prop)
A      =      int  (prop)
P      =      int  (prop)
N      =      int  (prop)
```

Each **int** value is a frequency and shows how many times the role was expressed for that behaviour in the file. Each **prop** value expresses this frequency with respect to the total number of behaviours encountered.

Output is sent to the screen, and can be captured by using redirection. Examples:

```
BAPN *.dmp W F S > BAPN.ALS
BAPN lo*.dmp F > LOFUCK.ALS
BAPN cf1.dmp FG > CF.ALS
```

## COLLECT

---

Utility Name	COLLECT
Function Type	Analysis
Arguments	fileset
Output sent to	DATA.TXT
Files required to run	none

Collect sends session length information to a file called DATA.TXT. The sessions are all read from the fileset. The output file contains the mean and standard deviation values for session lengths. The frequency of each session length from 0 to a large number is recorded in the output file from LEFT to RIGHT (ie: as read). A typical output file may look like this:

```
MEAN = 1.83592                SD = 1.62427
```

```
Read the following data horizontally
```

```
0
305  54   38   19   11   10
10   2    0    0    1    0
1    0    0    0    0    0      etc...
```

The above means that the mean session length was 1.83 acts, with a standard deviation of 1.62 acts. There are zero sessions of zero length (this is essentially a check number to ensure the analysis is working correctly). There are 305 sessions of length 1, 54 of length 2, 39 of length 3, 19 of length 4, 11 of length 5, 10 of length 6, 10 of length 7, 2 of length 8, 0 of length 0, 0 of length 10, 1 of length 11, etc.

## CONDOM

---

Utility Name	CONDOM
Function Type	Analysis
Arguments	fileset
Output sent to	Screen (and some to CONDS.SES)
Files required to run	none

Condom prints the percentage of sessions from the specified fileset that involve the use of condoms. Use redirection to capture output to a file. An example of the output is:

```
Percentage of records in which a condom was used 7.11 (14/197)
This excludes SW sessions.
```

This means that 7.11% of sessions that are not Solo wanking involved the use of a condom. The bracketed figures indicate that 14 sessions involved the use of a condom, and 197 non-solo sessions were in the fileset. The file CONDS.SES contains a list of all sessions that the program believes did NOT include the use of a condom, so that the analysis may be checked.

## COOCUR

---

Utility Name	COOCUR (Co-occurrence analysis)
Function Type	Analysis
Arguments	directive file, fileset, output type
Output sent to	Screen only
Files required to run	ACTSDATA.A\$\$ and user built directive file

This program does one of six co-occurrence types as specified by a parameter in a directive file (described later). The output type is one of NORMAL, HICLUST or KYST. If normal, a simple square matrix is sent to the screen as a result. If hiclust, output is formatted for the PC-MDS program HICLUST. If kyst, output is formatted for the PC-MDS program KYST.

The files used for analysis are specified by the fileset.

The directive file MUST be created by the user in ASCII format (ie: from a text editor). The directive file tells the program what sort of analysis to do and what sexual acts are to be used as variables. Please note that KYST can only cope with up to 12 variables. A special label must follow the last act in the directive file being **@END**. Co-occurrence analysis types may be C1, C2, C3,...,C6. The most useful one is C1 and is often preferred. See ***Analysis methods used by the SDA Program Suite***.

Here is an example of the contents of a directive file:

```
C1
SW HW AW PW AS PS AF PF@END
```

Notice that the acts occur on a separate line from the analysis type. This directive file has seven variables (SW AW PW AS PS AF PF). This will produce a square matrix with 49 entries in NORMAL format.

As an example, imagine that the above directive file was called direct.fil. Then, the command:

```
coocur direct.fil lo1.dmp KYST
```

will produce screen output as follows:

Act list is : SW HW AW PW AS PS AF PF  
 Method number : 1  
 Output file type is KYST

Processing file

```
LO1.DMP.....
8 1 1
(F5.0,6F6.0)
  18
  16   4
  10   4   22
  31  16   22   17
  11   9   22   21   47
  4    0   3    1    9    8
  8    6   3    1    8    5    2
SW
HW
AW
PW
AS
PS
AF
PF
```

Complete

If you use redirection to capture screen output, only the shaded portion gets redirected (ie: the required information by the KYST program)

*Important: The file ACTSDATA.A\$\$ MUST exist in the current directory in order for the program to ensure the acts actually exist.*

## COUNTIND

Utility Name	COUNTIND
Function Type	Analysis
Arguments	fileset
Output sent to	Screen
Files required to run	none

This utility program counts the number of individuals in the specified fileset. To capture output use redirection. An example:

**countind lo\*.dmp > count.txt ↵**

It will list all individual codes found in the fileset, then end with a summary, telling how many individuals there are, and how many records in the file set, along with some other information that is of interest only to programmers.

## CPSANAL

---

Utility Name	CPSANAL (Co-occurrence, precedence, successor)
Function Type	analysis
Arguments	none
Output sent to	DOS.ALS, FORTRAN.ALS, or BASIC.ALS
Files required to run	win.\$\$\$, help.\$\$\$, list.exe

This program is interactive. It comes with complete on-line context sensitive help. You choose what sort of file you wish to produce and what analysis method you wish to use. To use the program, use the context sensitive help (by pressing F1) if you are not sure what to do. This program only performs C1 type co-occurrence analysis.

## DOCINDS

---

Utility Name	DOCINDS (documents individuals in the fileset)
Function Type	data management
Arguments	fileset
Output sent to	INDDOC.TXT
Files required to run	none

This program produces full documentation about individuals in the specified fileset and send it to a file called INDDOC.TXT, which, like any other ASCII text file, may be viewed with a text editor.

Example: **DOCINDS \*.DMP ↵**

## EVER

---

Utility Name	EVER
Function Type	analysis
Arguments	fileset, type
Output sent to	screen
Files required to run	ACTSDATA.A\$\$

Performs ever analysis on all files in the fileset, restricted to individuals of the specified type. Type may be one of I,II,III,IV,V,VI,VII,VIII,IX or ALL (ALL means all types). Output lists the number of individuals found in the sample, and what proportions of individuals had ever expressed each possible behaviour in the data set specified.

If ever is required for a month duration, you will need to run **getdiary** on the data you wish to analyse and then delete out all diaries more than one for each individual in a text editor. This can take some time!

## FDATE

---

Utility Name	FDATE (Format dates)
Function Type	Data management
Arguments	fileset
Output sent to	no output
Files required to run	none

Formats dates in fileset to DD/MM/YY format, and asks user if it cannot understand or interpret a date. This program updates the original files so use with caution.

## FREQACT

---

Utility Name	FREQACT (frequency of acts)
Function Type	Analysis
Arguments	fileset, errors, type
Output sent to	screen
Files required to run	ACTSDATA.A\$\$

Counts frequency of all acts by modality found in ACTSDATA.A\$\$ . The data is taken from fileset. Errors may be either ON or OFF (cannot be omitted). If it is ON, it will print all coding errors on the screen, otherwise, if it is OFF, it will not. Type is one of I,II,III,IV,V,VI,VII,VIII,IX or ALL, corresponding to the SIGMA types. ALL means that it will analyse all types.

Output appears as follows:

```
FREQACT CALCULATOR...Program executing
initialised array
Analysing [files....]
Records read [number]
Data scan was over ANY types
SW          6823
SF           1
SDK          0
.
.
Total number of acts = [number]
```



Table of proportions [with and without SW]

SF 0.00%  
SDK 0.00%  
SV 0.00%

.  
.

**etc.**

Use redirection to capture screen output. Examples:

```
FREQACT *.DMP OFF ALL > count.txt  
FREQACT CF*.DMP ON ALL > errors.txt  
FREQACT LO*.DMP OFF IX > lolX.txt
```

## GETDIARY

---

Utility Name	GETDIARY
Function Type	Data management
Arguments	fileset, format
Output sent to	WAVE1.DIA, WAVE2.DIA, WAVE3.DIA etc.
Files required to run	none

This program is a data management utility. It will collect all individuals information into diaries from the files specified in fileset. The format is by default old (ie 15 fields). For new format (17 fields with diary delimiters) the format argument is NEW. See ***The SDA File System: Organisation and Format.***

Rename resultant files as .DMP if you wish to use them in analysis. Data that could not be associated with a diary is not copied into the resultant wave sorted files. No output is sent to the screen, only to files.

Please use this program with care. Ensure you do not keep resultant diaries in INDIVID.DIA or WAVES.DIA after you have renamed them. It is best to copy them out into their own directory and delete them from the directory from which you created them.

***The source files MUST be sorted into individual order.***

Examples:

```
GETDIARY *.DMP NEW  
GETDIARY CF*.DMP
```

## GETFUCK

---

Utility Name	GETFUCK (Get anal intercourse data)
Function Type	Data management
Arguments	source, destination
Output sent to	destination file
Files required to run	source files.

This utility copies all records/sessions involving anal-intercourse from the source file(s) into the destination file.

Examples:

```
GETFUCK noreg.dmp noregfk.dmp
GETFUCK *.dmp allfuck.dmp
```

## INDSORT

---

Utility Name	INDSORT (Individual sorter)
Function Type	Data management
Arguments	fileset
Output sent to	directory INDIVID in many files
Files required to run	none

This utility looks at all files in fileset and arranges ALL sessions into individual order, collecting all individuals by their code number (ascending order). The program will create a directory under the current directory called INDIVID, into which all sorted data gets copied. The files in the new directory are named by the site they contain. Each destination file contains no more than 500 records. Files are numbered when a site has more than 500 records in ascending order. Eg: LO1.DMP, LO2.DMP, LO3.DMP etc...

This program takes a very long time to execute (often between 3 and 8 hours) so it is best run overnight (this is when the whole data set needs to be ordered).

Examples:

```
INDSORT *.DMP
INDSORT LO*.DMP
```

## KWIC

---

Utility Name	KWIC
Function Type	Analysis
Arguments	fileset, keyword, width, toggle
Output sent to	KWIC.ALS
Files required to run	LIST.EXE

This utility performs Keyword in Context analysis on the fileset. The keyword is a sexual act (such as AF). The width is a number which controls space padding in the output. All output is sent to KWIC.ALS. The toggle is either +S or -S which controls printing of acts that occur on their own ('sole') on the session. +S includes them, whilst -S excludes them. Redirection is NOT required.

Example:

```
KWIC LO1.DMP AF 50 +S
```

Result:

```
KWIC ANALYSIS using files LO1.DMP, for AF  
FILE: LO1.DMP
```

```
CODE      REC HIV      KEYWORD IN CONTEXT  
  
LO/0001/1 17 Neg      AS PS AS&PS AF,HN/l  
LO/0001/1 30 Neg      HS,NH&AF,HN  
LO/0001/1 36 Neg      SS HS,NH&AF,HN/l  
LO/0001/1 71 NEG      AS PS MS AF,H/l  
LO/0001/1 79 NEG      MDK MBR/l AF&HS,HH  
LO/0001/1 84 NEG      AF,H&HS,H  
LO/0001/1 89 NEG      SS AF&HS,HH  
LO/0003/1 119 NEG     AF/c
```

## MAKESESS

---

Utility Name	MAKESESS
Function Type	Data creation
Arguments	number
Output sent to	RAND1.DMP, RAND2.DMP...etc.
Files required to run	none

Creates random sessions. Has very little use really...

Example: MAKESESS 200

Will generate 200 random sexual sessions into a set of dump files.

## MARKER

---

Utility Name	MARKER
Function Type	Analysis
Arguments	fileset
Output sent to	screen
Files required to run	ACTSDATA.A\$\$

This performs marker analysis on all files in fileset. This program counts the frequency of acts that start and end sessions and breaks it down by outcome destination.

Example:

MARKER LO1.DMP > RESULT.TXT

The resultant file appears as follows:

Total non-solo sessions : 214

START MARKERS :  
=====

```
SW   : frequency = 8
      N   I   X   C   O   H   M   (EGO ->)
N     7   0   1   0   0   0   0
I     0   0   0   0   0   0   0
X     0   0   0   0   0   0   0
C     0   0   0   0   0   0   0
O     0   0   0   0   0   0   0
H     0   0   0   0   0   0   0
M     0   0   0   0   0   0   0
```

*etc... for all other starting acts*

END MARKERS :  
=====

```
SW   : frequency = 26
      N   I   X   C   O   H   M   (EGO ->)
N     4   1  18   2   0   0   0
I     0   0   0   0   0   0   0
X     0   0   1   0   0   0   0
C     0   0   0   0   0   0   0
O     0   0   0   0   0   0   0
H     0   0   0   0   0   0   0
M     0   0   0   0   0   0   0
M     0   0   0   0   0   0   0
```

*etc... for all other ending acts.*

=====  
SUMMARY TABLES OF ACT PROPORTIONS, EXPRESSED AS A PERCENTAGE OF  
ALL NON SOLO SESSIONS (214)

---

SUMMARY TABLE 1 : START MARKERS

```

=====
      S      H      A      P      M
W   3.7    1.9    4.7    4.2   15.0
F   0.0    0.0    3.3    1.4    0.0
DK  0.0    0.0    0.0    0.0   19.2
V   0.0    0.0    1.4    0.0    0.0
VF  0.0    0.0    0.0    0.0    0.0
RI  0.0    0.0    0.9    0.0    0.0
S   0.9    0.5    6.5    5.1    5.6
CN  0.0    0.0    0.0    0.0    0.0
TF  0.0    0.0    0.5    0.9    0.0
FG  0.0    0.0    0.0    0.0    0.0
FI  0.0    0.0    0.0    0.0    0.0
BR  0.5    0.0    1.9    0.9    7.5
MA  0.0    0.0    2.3    1.9    2.3
SM  0.0    0.0    0.0    0.0    0.0
CP  0.0    0.0    1.9    0.0    0.0
TT  0.0    0.0    0.0    0.9    3.7
WS  0.0    0.0    0.0    0.0    0.5

```

same table for end markers

## RISK

Utility Name	RISK
Function Type	Analysis
Arguments	fileset
Output sent to	RISK.TXT
Files required to run	none

Performs RISK analysis on all files specified by fileset and sends the results to a file called RISK.TXT. Risk analysis records the frequency of all possible outcomes for all acts with behaviours that are either masturbation (W), fellation (S), or anal-intercourse (F). This gives an estimate of the potential risk associated with these three behaviours.

Output records how many acts are read for each behaviour, the number of individuals in the fileset and the relative outcome expressions for each of N,X,I,O,C,H,M. The results are listed in this outcome order because they represent increasing risk from N (No orgasm) to H and M (inside partner). These codes represent those found in the sexual diary code, as described in ***The Sexual Diary Code: Syntax and Semantics.***

The outcomes for each behaviour have an associated figure which represents the proportion of outcomes of the indicated type for the indicated behaviour.

Example:

## RISK LO1.DMP

Result:

Results of Risk analysis

=====

Number of acts read = 1151

A: Expressed total over all individuals involved in potential risk sessions

Outcome

=====

N 58.2334

X 35.0974

O 1.3336

I 1.6154

C 0.3855

H 1.3787

M 1.9562

Number of individuals in sample = 12

Results of analysis by acts W, F and S

=====

Number of acts read: 1151

Behaviour is : F

Number of acts in this behaviour: 15

=====

Mean

Outcome N : 41.6667

Outcome X : 8.3333

Outcome O : 16.6667

Outcome I : 0.0000

Outcome C : 19.4444

Outcome H : 13.8889

Outcome M : 0.0000

*The same for masturbation(W) and fellation(S)*

## SESSTYPE

---

Utility Name	SESSTYPE
Function Type	Analysis
Arguments	fileset
Output sent to	SUMMARY.DOC, SOLO.DMP, QUICK.DMP, ROLE.DMP, RECIP.DMP, OTHER.DMP
Files required to run	ACTSDATA.A\$\$

Performs session type analysis on the files in fileset. See ***Analysis Methods Used By the SDA Program Suite***. This type of analysis defines five types of session being:

- Solo Involving only purely solo sessions
- Quick Involving sessions with one act (non-solo)
- Role Sessions with a high role preference expression
- Reciprocated Sessions with reciprocated (mutual) acts
- Other Those that defy description

These session types are mutually exclusive. The fileset is split up into five files containing these session types (and named by them) that can be used for later analysis. A file called SUMMARY.DOC is also produced, providing a statistical summary of the result.

Example:

```
SESSTYPE LO1.DMP > NUL
```

(Use redirection to the NUL device to prevent printing of all the examined sessions)

After execution the file SUMMARY.DOC appears as follows:

```
Done file : LO1.DMP
Number of Sessions read = 500
Total for Solo = 277
Total for Quick = 50
Total for Recip = 87
Total for Role = 51
Total for Other = 31
Total for Bad = 4
```

The other files, SOLO.DMP, QUICK.DMP, ROLE.DMP, RECIP.DMP and OTHER.DMP contain the data split into the relevant session types.

*Remember to delete these dump files after use since they duplicate the source file information, which can interfere with other analysis programs when you use the fileset \*.DMP.*

## Running Utility Programs From the Program Manager

---

When running these programs from the program manager, first enter the command line arguments you need by pressing ↵ when the cursor is on the line marked

```
'Enter command line arguments'
```

Once entered, move the cursor to the name of the utility program you wish to run and press ↵. The program will now run. Remember that the program name is NOT a command line argument.



Project SIGMA 1993



# The SDA File System: Statistical Summary and Documentation

## Individuals in INDIVID.DIA directory files

---

The following details all individuals in the INDIVID.DIA directory - It gives the number of records (ie: sessions) associated with each individual, their relationship type (if it is readable), their HIV status (if it is readable) and the first and last dates found in the diary. If dates could not be read, the value '**BADDATE**' is inserted. It also lists the files that the data can be found in. The last columns list the waves in which the individual participated.

In total, there are 889 individuals in this set. This is not necessarily the number of individuals who have written diaries. It is simply the number of individuals whose data could be sorted out of the original set. Very bad data causes some individuals to be lost from the original set.

*Please note, NO directory of data has solely diary files (ie: files only containing month diaries). If diary specific data is required, you will need to run the program **getdiary** which will select out just diary data from the files and add on extra fields to mark the start and end of the diary. Full information may be found in **Utility programs: Usage and Definitions**. Do not use this program without referring to this documentation.*

<i>CODE</i>	<i>Recs</i>	<i>Type</i>	<i>HIV</i>	<i>First Date</i>	<i>Last Date</i>	<i>File 1</i>	<i>File 2</i>	<i>Waves</i>
BI/0002	125	VI	-B	07/02/87	02/03/89	BI1.DMP		1,2,
BI/0003	23	VIII	-B	03/02/87	16/02/89	BI1.DMP		1,2,
BI/0005	39	II	-K	05/02/87	30/02/89	BI1.DMP		1,2,
BI/0007	4	V	-B	05/02/87	08/02/87	BI1.DMP		1,
BI/0008	5	VI	-BK	04/02/88	07/02/88	BI1.DMP		1,
BI/0009	5	VIII	-K	26/02/88	16/02/89	BI1.DMP		1,2,
BI/0010	37	II	-K	04/02/87	02/03/89	BI1.DMP		1,2,
BI/0011	6	I	-K	24/02/88	13/02/89	BI1.DMP		1,2,
BI/0012	175	XI		05/02/88	31/02/91	BI1.DMP		1,2,
BI/0013	34	III	-K	04/02/88	02/03/89	BI1.DMP		1,2,
BI/0014	9	III	-K	23/02/88	28/02/88	BI1.DMP		1,2,
BI/0015	1	VIII	-BK	05/02/89	05/02/89	BI1.DMP		1,
BI/0016	4	II	-K	06/02/88	20/02/89	BI1.DMP		1,2,
BI/0017	10	VI	-B	05/02/88	13/02/89	BI1.DMP		1,2,
BI/0018	52	VI	+S	04/02/88	10/02/89	BI1.DMP	BI2.DMP	1,2,
BI/0019	30	V	-B	04/02/88	02/03/88	BI2.DMP		1,
BI/0020	8	II	-K	21/02/88	31/02/89	BI2.DMP		1,2,
BI/0021	26	IX	-K	05/02/88	14/02/89	BI2.DMP		1,2,
BI/0022	43	V	-K	04/02/88	31/02/89	BI2.DMP		1,2,
BI/0023	10	V	-B	22/02/88	02/03/89	BI2.DMP		1,2,
BI/0024	29	V	-B	04/02/88	29/02/89	BI2.DMP		1,2,
BI/0025	27	V	NEG	23/02/88	03/03/89	BI2.DMP		1,2,
BI/0026	24	V	NEG	04/02/88	00/03/88	BI2.DMP		1,2,
BI/0029	49	II	NEG	04/02/88	02/03/91	BI2.DMP		1,2,
BI/0030	63	II	-B	05/02/88	01/03/89	BI2.DMP		1,2,
BI/0031	11	V	-B	25/02/88	24/02/89	BI2.DMP		1,2,

BI/0032	41	IX	-B	06/02/88	30/02/89	BI2.DMP		1,2,
BI/0033	4	II	-K	29/02/88	31/02/88	BI2.DMP		1,
BI/0034	929			03/02/86	16/02/89	BI2.DMP	BI4.DMP	1,2,
BI/0035	54	VIII	-B	05/02/88	02/03/89	BI4.DMP		1,2,
BI/0036	2	IX	-K	23/02/88	26/02/88	BI4.DMP		1,
BI/0039	25	VIII	-B	12/02/88	30/02/89	BI4.DMP		1,2,
BR/0001	14	VIII	NT	07/02/88	31/02/88	BI4.DMP		1,2,
BR/0002	8	III	-B	10/02/88	15/02/89	BR1.DMP		1,
BR/0011	20	VI	NEG	06/02/88	01/03/89	BR1.DMP		1,2,
BR/0013	6	III	NEG	04/02/88	00/03/88	BR1.DMP		1,2,
BR/0016	2	V	-BK	29/02/89	01/03/89	BR1.DMP		1,2,
BR/0018	11	V	NEG	13/02/88	21/02/89	BR1.DMP		1,2,
BR/0019	5	II	NEG	25/02/88	10/02/89	BR1.DMP		1,2,
BR/0020	3	IX	+B/+SIX	20/02/88	25/02/88	BR1.DMP		1,
BR/0021	18	II	-B	BADDATE	28/02/89	BR1.DMP		1,2,
BR/0022	48	II	-B	04/02/88	02/03/91	BR1.DMP		1,2,4,
BR/0023	75	VIII	-BK	04/02/88	16/02/89	BR1.DMP		1,2,
BR/0024	5	VI	-B	04/02/88	BADDATE	BR1.DMP		1,2,
BR/0025	40	VI	-BK	06/02/88	02/03/88	BR1.DMP		1,2,
BR/0026	1	III	-B	BADDATE	BADDATE	BR1.DMP		1,
BR/0027	27	IX	-B	04/02/88	25/02/89	BR1.DMP		1,2,
BR/0028	27	VI	-B	05/02/88	01/03/89	BR1.DMP		1,2,
BR/0029	43	V	-B	09/02/88	01/03/89	BR1.DMP		1,2,
BR/0030	21	II	-B	04/02/88	12/02/89	BR1.DMP		1,2,
BR/0031	5	V	-B	22/02/88	10/02/89	BR1.DMP		1,2,
BR/0032	69	II	-B	04/02/88	01/03/91	BR1.DMP		1,2,4,
BR/0033	4	V	-B	26/02/88	31/02/88	BR1.DMP		1,
BR/0034	23	VI	-B	05/02/88	10/02/89	BR1.DMP		1,2,
BR/0035	21	VI	NEG	16/02/88	02/03/89	BR1.DMP		1,2,
BR/0036	24	VI	-B	10/02/88	02/03/89	BR1.DMP	BR2.DMP	1,2,
BR/0037	32	VI	-B	13/02/88	27/02/91	BR2.DMP		1,2,4,
BR/0038	9	II	-B	08/02/88	28/02/89	BR2.DMP		1,2,
BR/0040	5	II	+S	21/02/89	26/02/89	BR2.DMP		1,2,
BR/0051	22	II	DK	04/02/88	02/03/89	BR2.DMP		1,2,
BR/0052	7	VII	-B	05/02/88	02/03/88	BR2.DMP		1,
BR/0053	5	VIII	-K	02/03/88	02/03/89	BR2.DMP		1,2,
BR/0054	3	IX	-B	18/02/88	22/02/88	BR2.DMP		1,
BR/0056	54	II	-B	05/02/88	02/03/88	BR2.DMP		1,
BR/0057	10	V	DK	08/02/88	02/03/88	BR2.DMP		1,
BR/0058	7	III	-K	23/02/88	29/02/88	BR2.DMP		1,2,
BR/0059	16	IX	POS	26/02/88	31/02/89	BR2.DMP		1,2,
BR/0060	45	IX	-K	06/02/88	31/02/91	BR2.DMP		1,2,4,
BR/0061	21	II	-K	06/02/88	28/02/89	BR2.DMP		1,2,
BR/0062	34	VII	-K	04/02/88	02/03/89	BR2.DMP		1,2,
BR/0063	23	IX	-B	05/02/88	01/03/89	BR2.DMP		1,2,
BR/0065	21	VI	+K	09/02/88	15/02/88	BR2.DMP		1,2,
BR/0066	17	VIII	NEG	BADDATE	01/02/89	BR2.DMP		1,2,
BR/0101	53	VIII	-B	14/02/88	02/03/91	BR2.DMP		1,2,4,
BR/9001	19	II	NT	03/02/89	27/02/89	BR2.DMP		1,2,
CF/0001	54	IX	NEG	04/02/88	31/02/88	BR2.DMP		1,
CF/0002	74	VII	-K	05/02/87	31/02/91	CF1.DMP		1,3,4,
CF/0003	57	V	-K	11/02/87	31/02/90	CF1.DMP		1,3,
CF?0232	17	I	-K	01/03/87	02/03/87	CF1.DMP		1,3,
CF/0003	8	VIII	-BK	15/02/89	21/02/89	CF1.DMP		1,3,
CF/0005	16	V	-K	15/02/88	BADDATE	CF1.DMP		1,4,
CF/0008	82	V	NT	16/02/87	29/02/88	CF1.DMP		1,3,
CF/0009	25	VIII	+K	13/02/88	03/03/89	CF1.DMP		1,3,
CF/0010	117	VI	NEG	26/02/87	28/02/89	CF1.DMP		1,3,
CF/0011	10	IV	-K	04/02/87	02/03/88	CF1.DMP		1,
CF/0012	311	VI	NT	22/02/87	02/03/91	CF1.DMP	CF2.DMP	1,3,4,
CF/0013	51	V	-B	16/02/87	16/02/88	CF2.DMP		1,
CF/0014	48	II	-B	30/02/87	11/02/89	CF2.DMP		1,
CF/0015	118	VIII	NEG	23/02/87	01/03/88	CF2.DMP		1,
CF/0016	55	III	-B	24/02/87	BADDATE	CF2.DMP	CF3.DMP	1,

CF/0017	7	II	-B	25/02/87	02/03/90	CF3.DMP		1, 3,
CF/0018	14	II	-B	26/02/87	BADDATE	CF3.DMP		1,
CF/0019	38	II	-K	04/02/87	23/02/89	CF3.DMP		1, 3,
CF/0020	3	II	-B	BADDATE	01/02/88	CF3.DMP		1,
CF/0021	40	V	-K	12/02/87	12/02/88	CF3.DMP		1,
CF/0022	23	V	-B	22/02/87	BADDATE	CF3.DMP		1,
CF/0023	28	VIII	-B	26/02/87	30/02/89	CF3.DMP		1, 2, 3,
CF/0025	4	VIII	-K	BADDATE	BADDATE	CF3.DMP		1,
CF/0026	3	VI	-B	31/02/87	BADDATE	CF3.DMP		1,
CF/0028	4	V	-K	02/03/87	BADDATE	CF3.DMP		1,
CF/0029	18	V	-B	BADDATE	20/02/90	CF3.DMP		1, 3,
CF/0030	28	VIII	+S	BADDATE	14/02/90	CF3.DMP		1, 2, 3,
CF/0031	3	V	-K	BADDATE	BADDATE	CF3.DMP		1,
CF/0032	3	V	+K	17/02/88	20/02/88	CF3.DMP		1,
CF/0033	89	VIII	POS	27/02/87	14/02/90	CF3.DMP		1, 2, 3,
CF/0034	5	II	-B	13/02/87	18/02/87	CF3.DMP		1,
CF/0035	66	II	-B	04/02/88	02/03/90	CF3.DMP		1, 3,
CF/0036	69	VII	-B	05/02/88	03/03/90	CF3.DMP		1, 2, 3,
CF/0037	8	V	+K	19/02/88	25/02/88	CF3.DMP		1,
CF/0038	20	IX	-B	BADDATE	17/02/90	CF3.DMP		1, 2, 3,
CF/0039	48	V	-B	06/02/87	16/02/90	CF3.DMP	CF4.DMP	1, 2, 3,
CF/0040	70	V	-K	BADDATE	BADDATE	CF4.DMP		1, 2, 3,
CF/0041	11	VIII	-B	19/02/88	31/02/90	CF4.DMP		1, 2, 3,
CF/0042	14	V	-K	09/02/88	01/03/90	CF4.DMP		1, 3,
CF/0043	6	V	DK	19/02/87	21/02/87	CF4.DMP		1,
CF/0046	21	II	-B	04/02/88	12/02/89	CF4.DMP		1, 2,
CF/0047	21	VI	-B	BADDATE	02/03/90	CF4.DMP		1, 2, 3,
CF/0048	8	VIII	-B	05/02/88	27/02/89	CF4.DMP		1, 2, 3,
CF/0049	3	VIII	-K	07/02/88	11/02/88	CF4.DMP		1,
CF/0050	9	V	-K	12/02/88	15/02/89	CF4.DMP		1, 2,
CF/0051	3	V	-K	04/02/88	31/02/88	CF4.DMP		1,
CF/0052	7	VI	-B	23/02/88	29/02/88	CF4.DMP		1,
CF/0053	45	VIII	-B	04/02/88	12/02/92	CF4.DMP		1, 2, 3, 4,
CF/0054	8	VII	-K	04/02/88	30/02/88	CF4.DMP		1,
CF/0055	70	VI	-K	04/02/88	BADDATE	CF4.DMP		1, 2, 3,
CF/0056	12	?	-B	06/02/88	10/02/89	CF4.DMP		1, 2, 3,
CF/0058	25	V	-BK	04/02/88	18/02/90	CF4.DMP		1, 2, 3,
CF/0059	15	V	+K	04/02/88	30/02/89	CF4.DMP		1, 2, 3,
CF/0060	23	II	-B	04/02/88	21/02/90	CF4.DMP		1, 2, 3,
CF/0062	6	II	-B	08/02/88	24/02/90	CF4.DMP		1, 2, 3,
CF/0063	5	V	-BK	09/02/90	15/02/90	CF4.DMP		1, 3,
CF/0064	31	VIII	-B	05/02/88	02/03/88	CF4.DMP		1,
CF/0065	2	VIII	-B	12/02/88	16/02/88	CF4.DMP		1, 3,
CF/0067	19	V	-K	05/02/88	29/02/88	CF4.DMP		1,
CF/0070	27	VI	-K	04/02/88	31/02/88	CF4.DMP	CF5.DMP	1,
CF/0071	39	VIII	NT	04/02/88	09/02/90	CF5.DMP		1, 2, 3,
CF/0072	4	VII	-B	20/02/88	24/02/88	CF5.DMP		1,
CF/0073	6	VIII	-B	24/02/88	16/02/89	CF5.DMP		1, 2, 3,
CF/0074	21	V	-BK	06/02/88	02/03/89	CF5.DMP		1, 2, 3,
CF/0075	5	VIII	+K	21/02/88	25/02/89	CF5.DMP		1, 2, 3,
CF/0076	9	V	-BK	24/02/88	31/02/89	CF5.DMP		1, 2, 3,
CF/0080	26	VIII	NT	05/02/88	01/03/88	CF5.DMP		1, 3,
CF/0081	5	VIII	-BK	12/02/89	BADDATE	CF5.DMP		1, 2, 3,
CF/0082	4	IX	-B	15/02/88	19/02/88	CF5.DMP		1,
CF/0083	7	IX	-B	18/02/88	24/02/88	CF5.DMP		1,
CF/0084	2	II	-B	08/02/88	10/02/88	CF5.DMP		1, 3,
CF/0085	23	VIII	+S	03/02/89	10/02/90	CF5.DMP		2, 3,
CF/0086	18	IX	BK	05/02/88	31/02/91	CF5.DMP		1, 2, 3, 4,
CF/0088	8	I	-B	21/02/88	26/02/88	CF5.DMP		1, 3,
CF/0089	6	V	-BK	14/02/88	01/03/90	CF5.DMP		1, 2,
CF/0090	1	VI	-B	25/02/88	25/02/88	CF5.DMP		3,
CF/0092	28	VIII	-B	13/02/88	19/02/89	CF5.DMP		1, 2, 3,
CF/0093	21	VI	-BK	19/02/88	02/03/89	CF5.DMP		1, 2, 3,
CF/0094	8	II	-BK	21/02/88	06/02/90	CF5.DMP		1, 2,

CF/0095	1	VIII	-K	31/02/88	31/02/88	CF5.DMP	3,
CF/0096	11	VIII	-BK	27/02/88	23/02/90	CF5.DMP	1,2,3,
CF/0097	4	VIII	-B	22/02/90	24/02/90	CF5.DMP	1,3,
CF/0098	6	IX	-B	14/02/88	22/02/89	CF5.DMP	1,2,3,
CF/0099	7	VIII	-BK	26/02/89	29/02/89	CF5.DMP	1,2,3,
CF/0100	2	V	-B	15/02/88	21/02/88	CF5.DMP	1,3,
CF/0101	5	II	-B	25/02/90	30/02/90	CF5.DMP	1,3,
CF/0102	5	V	-K	16/02/88	20/02/88	CF5.DMP	1,3,
CF/0103	9	III	-BK	20/02/88	20/02/90	CF5.DMP	1,2,3,
CF/0104	22	II	-BK	20/02/88	BADDATE	CF5.DMP	1,2,3,
CF/0106	7	IV	-B	21/02/88	16/02/89	CF5.DMP	1,2,
CF/0107	5	VIII	-B	23/02/88	28/02/88	CF5.DMP	1,
CF/0108	2	V	-B	28/02/88	30/02/88	CF5.DMP	1,
CF/0109	2	VII	-B	28/02/88	31/02/88	CF5.DMP	1,
CF/0110	9	IX	-B	06/02/88	12/02/88	CF5.DMP	1,3,
CF/0112	24	II	-B	05/02/88	31/02/90	CF5.DMP	1,2,3,
CF/0113	5	IX	-BK	08/02/88	22/02/90	CF5.DMP	1,2,3,
CF/0114	13	IX		05/02/88	18/02/89	CF5.DMP	1,2,3,
CF/0115	3	IX	-BK	10/02/88	30/02/89	CF5.DMP	1,2,
CF/0116	5	VI	-B	05/02/88	10/02/89	CF5.DMP	2,3,
CF/0118	25	VIII	-BK	17/02/88	22/02/89	CF5.DMP	1,2,3,
CF/0119	9	V	-B	19/02/88	24/02/88	CF5.DMP	1,
CF/0120	9	V	-K	26/02/88	16/02/89	CF5.DMP	1,2,3,
CF/0121	5	VIII	-BK	06/02/88	16/02/90	CF5.DMP	1,3,
CF/0122	45	II	-BK	29/02/89	11/02/92	CF6.DMP	1,2,3,4,
CF/0125	8	II	-B	11/02/88	01/03/89	CF6.DMP	1,2,3,
CF/0126	6	VIII	-B	17/02/89	22/02/89	CF6.DMP	2,3,
CF/0127	15	VIII	-B	05/02/88	17/02/90	CF6.DMP	1,2,3,
CF/0128	3	II	-B	30/02/88	01/03/88	CF6.DMP	1,3,
CF/0129	8	VIII	-BK	04/02/89	02/03/89	CF6.DMP	2,3,
CF/0131	10	II	-B	14/02/88	22/02/90	CF6.DMP	1,3,
CF/0132	7	V	-B	04/02/88	00/03/88	CF6.DMP	1,
CF/0133	2	V	-B	04/02/88	05/02/88	CF6.DMP	1,3,
CF/0134	73	II	-B	05/02/88	BADDATE	CF6.DMP	1,2,3,
CF/0135	12	II	-BK	05/02/88	12/02/90	CF6.DMP	1,2,3,
CF/0136	18	II	-B	13/02/88	BADDATE	CF6.DMP	1,2,3,
CF/0137	7	V	-B	15/02/88	10/02/89	CF6.DMP	1,2,3,
CF/0138	8	IX	-BK	15/02/88	18/02/90	CF6.DMP	1,2,3,
CF/0139	6	VI	-K	22/02/88	14/02/89	CF6.DMP	1,2,
CF/0140	2	V	-B	29/02/88	31/02/88	CF6.DMP	1,
CF/0143	6	V	-B	05/02/88	02/03/88	CF6.DMP	1,
CF/0145	8	VII	-K	20/02/88	26/02/88	CF6.DMP	1,2,3,
CF/0146	13	VIII	-BK	18/02/88	30/02/90	CF6.DMP	1,2,3,
CF/0147	6	VIII	-K	28/02/88	02/03/88	CF6.DMP	1,3,
CF/0149	6	VIII	-B	21/02/88	08/02/90	CF6.DMP	1,2,3,
CF/0150	3	IX	-K	22/02/88	24/02/88	CF6.DMP	1,3,
CF/0151	15	VI	-BK	04/02/88	31/02/90	CF6.DMP	1,2,3,
CF/0153	7	V	-K	09/02/88	12/02/89	CF6.DMP	1,2,
CF/0154	6	V	-B	06/02/88	23/02/89	CF6.DMP	1,2,
CF/0155	10	II	-B	08/02/88	13/02/88	CF6.DMP	1,
CF/0157	9	VIII	-B	12/02/88	31/02/89	CF6.DMP	1,2,
CF/0158	6	VIII	-B	23/02/88	28/02/88	CF6.DMP	1,
CF/0159	6	IX	-B	18/02/88	08/02/89	CF6.DMP	1,2,3,
CF/0160	8	II	-BK	11/02/88	09/02/90	CF6.DMP	1,2,3,
CF/0161	4	VIII	-B	13/02/88	18/02/88	CF6.DMP	1,3,
CF/0162	25	VIII	-BK	15/02/88	01/03/89	CF6.DMP	1,2,3,
CF/0163	7	VIII	-BK	07/02/88	22/02/89	CF6.DMP	1,2,3,
CF/0164	12	II	-BI	09/02/88	25/02/90	CF6.DMP	1,2,3,
CF/0165	1	IX	-K	17/02/88	17/02/88	CF6.DMP	3,
CF/0166	19	IX	-BK	09/02/88	01/03/90	CF6.DMP	1,2,3,
CF/0167	9	V	-BK	00/03/88	27/02/90	CF6.DMP	1,2,3,
CF/0168	5	II	-K	28/02/88	00/03/88	CF6.DMP	1,
CF/0169	7	VII	-K	27/02/88	31/02/88	CF6.DMP	1,
CF/0170	4	II	-B	07/02/88	12/02/88	CF6.DMP	1,

CF/0171	5	II	-B	05/02/88	10/02/88	CF6.DMP		1,3,
CF/0172	20	IV	-BK	08/02/88	30/02/90	CF6.DMP		1,2,3,
CF/0173	2	II	-B	07/02/88	08/02/88	CF6.DMP		1,3,
CF/0174	10	VII	-BK	07/02/88	16/02/90	CF6.DMP	CF7.DMP	1,2,3,
CF/0176	4	VII	-K	15/02/88	29/02/89	CF7.DMP		1,2,
CF/0177	6	II	-B	15/02/88	19/02/89	CF7.DMP		1,2,
CF/0178	7	VIII	-B	18/02/88	30/02/89	CF7.DMP		1,2,3,
CF/0179	62	VI	-B	19/02/88	03/03/91	CF7.DMP		1,2,3,4,
CF/0180	28	II	-BK	20/02/88	31/02/89	CF7.DMP		1,2,3,
CF/0181	12	VIII	-B	21/02/88	18/02/89	CF7.DMP		1,2,3,
CF/0182	14	II	-B	21/02/88	22/02/89	CF7.DMP		1,2,3,
CF/0183	4	II	-K	22/02/88	28/02/88	CF7.DMP		1,3,
CF/0184	18	VIII	-B	17/02/89	02/03/91	CF7.DMP		1,2,3,4,
CF/0185	23	II	-B	25/02/88	31/02/89	CF7.DMP		1,2,
CF/0186	9	II	-B	25/02/88	31/02/88	CF7.DMP		1,3,
CF/0187	23	VIII	-B	25/02/88	31/02/90	CF7.DMP		1,2,3,
CF/0188	6	VIII	-BK	30/02/88	25/02/89	CF7.DMP		1,2,3,
CF/0189	4	II	-K	27/02/88	27/02/89	CF7.DMP		1,2,3,
CF/0190	13	VIII	-BK	27/02/88	21/02/90	CF7.DMP		1,2,3,
CF/0191	7	II	-BK	29/02/88	23/02/90	CF7.DMP		1,2,3,
CF/0192	11	VIII	-B	29/02/88	26/02/89	CF7.DMP		1,2,3,
CF/0197	6	VI	-BK	04/02/90	26/02/90	CF7.DMP		1,3,
CF/0201	10	II	-K	05/02/88	30/02/89	CF7.DMP		1,2,
CF/0202	1	IX	-B	05/02/88	05/02/88	CF7.DMP		1,
CF/0203	6	VIII	-B	06/02/88	10/02/88	CF7.DMP		1,
CF/0204	3	II	-B	09/02/88	13/02/89	CF7.DMP		1,2,
CF/0205	8	II	-B	07/02/88	20/02/89	CF7.DMP		1,2,
CF/0206	5	II	-B	08/02/88	14/02/88	CF7.DMP		1,
CF/0207	1	VIII	-K	10/02/88	10/02/88	CF7.DMP		1,
CF/0208	3	II	-B	13/02/88	16/02/88	CF7.DMP		1,
CF/0209	3	I	-B	10/02/88	13/02/88	CF7.DMP		1,3,
CF/0210	10	II	-B	10/02/88	29/02/90	CF7.DMP		1,3,
CF/0211	8	VIII	-B	16/02/88	02/03/89	CF7.DMP		1,2,
CF/0212	5	VIII	-B	21/02/88	23/02/89	CF7.DMP		1,2,3,
CF/0213	9	V	-B	19/02/88	26/02/90	CF7.DMP		1,2,3,
CF/0214	5	II	-B	22/02/88	09/02/89	CF7.DMP		1,2,3,
CF/0215	10	II	-BK	21/02/88	14/02/90	CF7.DMP		1,2,3,
CF/0216	15	V	-BK	20/02/88	09/02/90	CF7.DMP		1,2,3,
CF/0217	4	II	-B	25/02/88	05/02/89	CF7.DMP		1,2,
CF/0218	1	VIII	-B	28/02/88	28/02/88	CF7.DMP		1,
CF/0219	2	II	-B	26/02/88	29/02/88	CF7.DMP		1,
CF/0220	2	II	-B	30/02/88	00/03/88	CF7.DMP		1,
CF/0221	9	II	-K	30/02/88	02/03/88	CF7.DMP		1,3,
CF/0223	15	V	-BK	15/02/88	31/02/90	CF7.DMP		1,2,3,
CF/0224	12	III	-K	17/02/88	23/02/88	CF7.DMP		1,
CF/0225	28	II	-K	18/02/88	31/02/91	CF7.DMP		1,2,4,
CF/0226	6	V	DK	19/02/88	24/02/88	CF7.DMP		1,
CF/0228	6	VIII	-B	28/02/88	00/03/88	CF7.DMP		1,
CF/0229	1	VII	-B	31/02/88	31/02/88	CF7.DMP		3,
CF/0232	14	II	-B	15/02/88	31/02/90	CF7.DMP		1,2,3,
CF/0233	3	VIII	DK	18/02/88	23/02/88	CF7.DMP		1,
CF/0235	2	VIII	DK	20/02/88	22/02/88	CF7.DMP		1,3,
CF/0236	7	IX	-BK	BADDATE	24/02/89	CF7.DMP		1,2,3,
CF/0237	9	IX	-B	04/02/88	02/03/89	CF7.DMP		1,2,3,
CF/0238	5	II	-B	05/02/88	11/02/88	CF7.DMP		1,
CF/0239	3	II	-B	07/02/88	10/02/88	CF7.DMP		1,
CF/0240	15	V	-9	09/02/88	02/03/89	CF7.DMP	CF8.DMP	1,2,
CF/0241	1	VIII	-B	14/02/88	14/02/88	CF8.DMP		1,
CF/0242	4	V	-B	13/02/88	18/02/88	CF8.DMP		1,
CF/0243	4	III	-B	14/02/88	19/02/88	CF8.DMP		1,3,
CF/0258	20	VIII	-B	14/02/88	13/02/90	CF8.DMP		1,2,3,
CF/0259	7	IX	-B	04/02/88	14/02/89	CF8.DMP		1,2,
CF/0260	3	IX	-B	05/02/88	02/03/88	CF8.DMP		1,3,
CF/0261	33	VIII	-BK	19/02/80	23/02/91	CF8.DMP		2,3,4,

CF/0262	2	VIII	-B	08/02/89	11/02/89	CF8.DMP	2,3,
CF/0264	9	III	-BK	15/02/89	20/02/90	CF8.DMP	2,3,
CF/0267	8	VIII	-B	17/02/89	27/02/90	CF8.DMP	2,3,
CF/0269	9	II	-BK	04/02/90	02/03/90	CF8.DMP	2,3,
CF/0271	12	VIII	-B	25/02/89	11/02/90	CF8.DMP	2,3,
CF/0272	1	II	-B	25/02/90	25/02/90	CF8.DMP	2,
CF/0273	3	IX	-B	16/02/89	20/02/89	CF8.DMP	2,3,
CF/0280	18	V	-BK	19/02/89	10/02/90	CF8.DMP	2,3,
CF/0281	6	III	-BK	14/02/89	30/02/90	CF8.DMP	2,3,
CF/0286	5	II	-BK	12/02/89	17/02/89	CF8.DMP	2,3,
CF/0287	10	VIII	-B	07/02/89	25/02/90	CF8.DMP	2,3,
CF/0288	6	IX	-B	05/02/89	10/02/90	CF8.DMP	2,3,
CF/0291	4	VIII	-BK	17/02/89	16/02/90	CF8.DMP	2,3,
CF/0294	5	IV	-B	24/02/89	28/02/89	CF8.DMP	2,3,
CF/0301	3	II	-B	07/02/90	11/02/90	CF8.DMP	2,3,
CF/0302	3	V	-B	23/02/89	27/02/89	CF8.DMP	2,3,
CF/0304	15	II	-B	15/02/89	31/02/91	CF8.DMP	2,3,4,
CF/0306	5	IV	+K	19/02/89	23/02/90	CF8.DMP	2,3,
CF/0307	3	VIII	-BK	25/02/89	28/02/89	CF8.DMP	2,
CF/0309	1	VII	-BK	26/02/89	26/02/89	CF8.DMP	3,
CF/0311	2	VIII	-B	25/02/90	27/02/90	CF8.DMP	2,3,
CF/0313	3	V	-BK	13/02/89	17/02/89	CF8.DMP	2,4,
CF/0316	13	II	NT	05/02/91	02/03/91	CF8.DMP	3,4,
CF/0320	2	III	-BK	17/02/89	23/02/90	CF8.DMP	2,3,
CF/0321	2	II	-BK	02/03/90	03/03/90	CF8.DMP	3,
CF/0322	7	I	-BK	04/02/89	27/02/90	CF8.DMP	2,3,
CF/0324	24	II	-B	19/02/89	01/03/91	CF8.DMP	2,3,4,
CF/0326	13	II	-BK	21/02/89	29/02/90	CF8.DMP	2,3,
CF/0328	7	VIII	NT	03/02/89	24/02/89	CF8.DMP	3,
CF/0330	8	II	-BK	10/02/89	30/02/90	CF8.DMP	2,3,
CF/0331	2	VII	-B	16/02/90	22/02/90	CF8.DMP	3,
CF/0333	2	VII	-B	18/02/90	19/02/90	CF8.DMP	3,
CF/0335	2	VII	-B	08/02/90	10/02/90	CF8.DMP	3,
CF/0337	7	VI	-BK	18/02/90	24/02/90	CF8.DMP	3,
CF/0397	37	V	-BK	03/02/90	02/03/90	CF8.DMP	3,4,
LC/0001	28	V	NT	03/02/91	02/03/91	CF8.DMP	1,4,
LC/0003	15	II	NT	10/02/87	20/02/89	LC1.DMP	1,2,3,
LC/0006	26	1	NEG	10/02/87	18/02/88	LC1.DMP	1,2,
LC/0013	38	VII	NT	10/02/87	31/02/88	LC1.DMP	1,2,
LC/0014	68	III	NT	10/02/87	02/02/90	LC1.DMP	1,2,3,
LC/0017	29	II	NT	10/02/87	BADDATE	LC1.DMP	1,2,3,
LC/0020	4	III	-B	07/02/88	18/02/88	LC1.DMP	1,2,
LC/0023	21	IX	NT	10/02/87	BADDATE	LC1.DMP	1,2,
LC/0024	9	V	-B	14/02/88	26/02/89	LC1.DMP	1,2,
LC/0026	12	II	-B	10/02/88	31/02/89	LC1.DMP	1,2,
LC/0035	9	V	+K	07/02/88	BADDATE	LC1.DMP	1,2,
LC/0036	15	II	-B	BADDATE	01/03/89	LC1.DMP	1,2,3,
LC/0039	5	V	-B	BADDATE	30/02/88	LC1.DMP	1,2,
LC/0040	12	V	-BK	BADDATE	30/02/88	LC1.DMP	1,2,
LC/0041	5	IV	-BK	BADDATE	05/02/88	LC1.DMP	1,
LC/0042	31	2	NT	10/02/87	01/03/89	LC1.DMP	1,2,3,
LC/0043	10	2	+FK	10/02/87	BADDATE	LC1.DMP	1,2,
LC/0044	16	VIII	+S	27/02/88	19/02/89	LC1.DMP	1,2,
LC/0046	60	VII	POS	10/02/87	28/02/88	LC1.DMP	1,2,
LC/0047	6	II	-B	26/02/88	31/02/88	LC1.DMP	1,2,
LC/0049	12	II	+S	26/02/88	01/03/88	LC1.DMP	1,2,
LC/0050	6	V	+S	06/02/88	25/02/88	LC1.DMP	1,2,
LC/0051	3	VIII	-BK	17/02/88	BADDATE	LC1.DMP	1,2,
LC/0052	18	IX	-B	04/02/88	31/02/91	LC1.DMP	1,2,4,
LC/0057	37	VIII	+S	05/02/88	19/02/88	LC1.DMP	1,2,
LC/0062	16	V	-BK	12/02/88	24/02/89	LC1.DMP	1,2,3,
LC/0070	10	II	-BK	09/02/88	02/03/89	LC1.DMP	1,2,
LC/0072	12	VII	NT	10/02/87	10/02/87	LC2.DMP	1,
LC/0073	7	VI	-BK	09/02/88	30/02/89	LC2.DMP	1,2,

LC/0074	24	3	NEG	10/02/87	BADDATE	LC2.DMP	1,2,	
LC/0075	74			02/02/88	BADDATE	LC2.DMP	1,2,3,	
LC/0077	41	VIII	-BK	04/02/88	12/02/89	LC2.DMP	1,2,	
LC/0081	7	V	-B	07/02/88	31/02/88	LC2.DMP	1,	
LC/0082	13	3	NT	10/02/87	28/02/89	LC2.DMP	1,2,	
LC/0083	2	VIII	-B	06/02/88	29/02/88	LC2.DMP	1,	
LC/0086	26	1	NT	10/02/87	18/02/89	LC2.DMP	1,2,	
LC/0087	23	II	-B	04/02/88	31/02/91	LC2.DMP	1,2,4,	
LC/0106	5	II	-B	17/02/88	22/02/88	LC2.DMP	1,	
LC/0107	20	V	NT	10/02/87	00/03/88	LC2.DMP	1,	
LC/0108	26	V	NT	10/02/87	30/02/89	LC2.DMP	1,2,	
LC/0111	6	VIII	-B	11/02/88	BADDATE	LC2.DMP	1,2,	
LC/0115	26	V	NT	10/02/87	08/02/89	LC2.DMP	1,2,	
LC/0117	37	IX	NT	10/02/87	01/03/91	LC2.DMP	1,2,4,	
LC/0118	33	3	NEG	10/02/87	01/03/91	LC2.DMP	1,2,4,	
LC/0119	14	II	POS	10/02/87	28/02/89	LC2.DMP	1,2,	
LC/0123	4	II	-B	09/02/88	15/02/89	LC2.DMP	1,2,	
LC/0124	6	V	-B	11/02/88	23/02/88	LC2.DMP	1,2,	
LC/0131	6	V	-BK	05/02/88	10/02/88	LC2.DMP	1,	
LC/0132	30	VII	NT	10/02/87	27/02/90	LC2.DMP	1,2,3,	
LC/0138	10	V	-BK	25/02/88	31/02/89	LC2.DMP	1,2,	
LC/0140	33	V	-B	08/02/88	25/02/88	LC2.DMP	1,2,	
LC/0141	58	VII	NEG	10/02/87	02/03/89	LC2.DMP	LC3.DMP	1,2,
LC/0142	7	II	-BK	08/02/88	07/02/89	LC3.DMP	1,2,	
LC/0143	15		-BK	03/02/89	01/03/89	LC3.DMP	1,2,	
LC/0144	8	II	-BK	04/02/88	23/02/89	LC3.DMP	1,2,	
LC/0152	15	IX	-BK	26/02/88	02/03/89	LC3.DMP	1,2,	
LC/0157	88	IX	NT	10/02/87	29/02/91	LC3.DMP	1,2,3,4,	
LC/0158	11	VII	NT	10/02/87	10/02/87	LC3.DMP	1,	
LC/0162	16	VIII	-B	26/02/88	02/03/89	LC3.DMP	1,2,	
LC/0163	23	VII	-B	26/02/88	09/02/89	LC3.DMP	1,2,	
LC/0164	18	XII	NT	10/02/87	31/02/91	LC3.DMP	1,2,4,	
LC/0166	1		-B	23/02/89	23/02/89	LC3.DMP	2,	
LC/0167	3		-BK	06/02/89	02/03/89	LC3.DMP	1,2,	
LC/0168	8	III	-BK	08/02/88	14/02/89	LC3.DMP	1,2,	
LI/0002	6	V	+B	12/02/88	21/02/89	LC3.DMP	1,2,	
LI/0003	13	IX	NEG	10/02/87	10/02/87	LI1.DMP	1,	
LI/0005	17	VI	NEG	30/02/87	30/02/87	LI1.DMP	1,2,	
LI/0007	16	VIII	NT	10/02/87	14/02/89	LI1.DMP	1,2,	
LI/0009	17	VI	NT	10/02/87	10/02/87	LI1.DMP	1,	
LI/0011	26	V	NT	10/02/87	10/02/87	LI1.DMP	1,	
LI/0021	25	V	NT	10/02/87	10/02/87	LI1.DMP	1,2,	
LI/0022	40	V	NEG	10/02/87	02/03/89	LI1.DMP	1,2,	
LI/0023	8	VI	NT	10/02/87	10/02/87	LI1.DMP	1,	
LI/0026	20	II	NT	03/03/87	03/03/87	LI1.DMP	1,	
LI/0028	6	VII	NT	10/02/87	10/02/87	LI1.DMP	1,	
LI/0030	28	V	NT	10/02/87	10/02/87	LI1.DMP	1,	
LI/0035	6	VII	NT	10/02/87	10/02/87	LI1.DMP	1,	
LI/0036	14	V	NEG	10/02/87	10/02/87	LI1.DMP	1,	
LI/0037	17	II	NEG	10/02/87	10/02/87	LI1.DMP	1,	
LI/0038	12	VI	NEG	10/02/87	10/02/87	LI1.DMP	1,	
LI/0039	34	VII	NT	05/02/88	01/03/88	LI1.DMP	1,	
LI/0044	26	VII	NEG	10/02/87	10/02/87	LI1.DMP	1,	
LI/0045	19	V	NT	10/02/87	10/02/87	LI1.DMP	1,	
LI/0054	122	VI	NEG	10/02/87	03/03/88	LI1.DMP	1,	
LI/0057	14	III	NEG	05/02/88	00/03/88	LI1.DMP	1,	
LI/0059	10	IV	NT	08/02/88	01/03/88	LI1.DMP	1,2,	
LI/0063	59	V	NEG	29/02/87	03/03/89	LI1.DMP	LI2.DMP	1,2,
LI/0065	107	V	NT	10/02/87	02/03/88	LI2.DMP	1,2,	
LI/0066	29	VII	NT	10/02/87	10/02/87	LI2.DMP	1,	
LI/0078	58	I	NT	10/02/87	10/02/87	LI2.DMP	1,	
LI/0228	28	VII	NT	29/02/87	30/02/87	LI2.DMP	1,4,	
LO/0001	19	V	NEG	04/02/91	31/02/91	LI2.DMP	1,4,	
LO/0003	89	II	-BK	05/02/87	02/03/88	LO1.DMP	1,2,	



LO/0005	4		+B	11/02/89	14/02/89	LO1.DMP		1,2,
LO/0006	14	I	-B	30/02/87	22/02/88	LO1.DMP		1,2,
LO/0007	4		+S	13/02/88	15/02/88	LO1.DMP		1,2,
LO/0009	7	VIII	-B	04/02/87	02/03/87	LO1.DMP		1,
LO/0011	88	V	-B	04/02/87	02/03/91	LO1.DMP		1,2,3,4,
LO/0012	128		-BK	30/02/87	31/02/90	LO1.DMP		1,2,3,
LO/0013	15	V	+S	10/02/87	26/02/89	LO1.DMP		1,2,
LO/0014	15	V	-B	17/02/87	26/02/88	LO1.DMP		1,2,
LO/0015	8	V	-B	12/02/87	23/02/88	LO1.DMP		1,2,
LO/0016	32	IX	-B	15/02/87	01/03/88	LO1.DMP		1,2,
LO/0017	15	V	-B	08/02/87	01/03/89	LO1.DMP		1,3,
LO/0018	42	VIII	-BK	10/02/87	20/02/91	LO1.DMP	LO2.DMP	1,2,3,4,
LO/0019	17	VII	NT	10/02/87	10/02/87	LO2.DMP		1,
LO/0020	15	V	-BK	07/02/87	26/02/88	LO2.DMP		1,2,
LO/0021	50	V	-BK	10/02/87	BADDATE	LO2.DMP		1,2,
LO/0022	3	II	-BK	BADDATE	BADDATE	LO2.DMP		1,
LO/0024	21	III	-BK	10/02/87	21/02/88	LO2.DMP		1,2,
LO/0026	8	II	-B	BADDATE	02/03/88	LO2.DMP		1,2,
LO/0027	18			06/02/88	01/03/88	LO2.DMP		1,2,
LO/0028	1	VIII	HIV+	BADDATE	BADDATE	LO2.DMP		2,
LO/0029	13	VIII	NEG	05/02/88	02/03/88	LO2.DMP		1,2,
LO/0031	7	VIII	-BK	15/02/87	21/02/87	LO2.DMP		1,
LO/0033	8	VIII	-BK	16/02/87	18/02/89	LO2.DMP		1,2,
LO/0035	4		-B	05/02/89	12/02/89	LO2.DMP		1,2,
LO/0036	5	VIII	-B	17/02/87	06/02/88	LO2.DMP		1,2,
LO/0038	1	IX	+K	09/02/87	09/02/87	LO2.DMP		1,
LO/0040	47	IX	-B	13/02/87	31/02/87	LO2.DMP		1,
LO/0042	23	VI	-B	04/02/88	03/03/88	LO2.DMP		1,2,
LO/0045	21		-B	06/02/88	23/02/91	LO2.DMP		2,3,4,
LO/0046	61		-B	21/02/87	31/02/91	LO2.DMP		1,2,3,4,
LO/0047	8	VIII	-B	BADDATE	08/02/89	LO2.DMP		1,2,
LO/0050	3	VII	-B	31/02/87	BADDATE	LO2.DMP		1,2,
LO/0053	2	III	NT	10/02/87	27/02/91	LO2.DMP		1,
LO/0054	9	IX	-B	04/02/88	10/02/88	LO2.DMP		1,
LO/0055	2	II	-BK	17/02/88	20/02/88	LO2.DMP		1,
LO/0056	1	IX	-BK	BADDATE	BADDATE	LO2.DMP		2,
LO/0057	1		-B	21/02/88	21/02/88	LO2.DMP		1,
LO/0059	5	V	-BK	BADDATE	01/02/88	LO2.DMP		1,
LO/0060	5	II	+S	04/02/87	31/02/87	LO2.DMP		1,
LO/0061	4	VI	-B	01/03/87	19/02/88	LO2.DMP		1,2,
LO/0062	39	VIII	-B	10/02/87	01/03/89	LO2.DMP		1,2,
LO/0063	107	VIII	+B	20/02/87	02/03/89	LO2.DMP	LO3.DMP	1,2,3,
LO/0065	31	VIII	-B	06/02/88	02/03/88	LO3.DMP		1,
LO/0067	35	VIII	-B	30/02/87	BADDATE	LO3.DMP		1,2,
LO/0068	3	III	-B	BADDATE	BADDATE	LO3.DMP		1,2,
LO/0070	22	V	+S	30/02/87	29/02/89	LO3.DMP		1,2,3,
LO/0072	40	V	-B	12/02/87	00/03/88	LO3.DMP		1,2,
LO/0073	45	VIII	-B	10/02/87	08/02/88	LO3.DMP		1,2,
LO/0074	19	IX	-B	16/02/88	16/02/89	LO3.DMP		1,2,
LO/0075	18	IX	-BK	29/02/87	BADDATE	LO3.DMP		1,2,3,
LO/0078	7	II	+K	02/03/87	00/03/88	LO3.DMP		1,2,
LO/0079	8	V	-B	27/02/87	BADDATE	LO3.DMP		1,2,
LO/0080	1	II	+K	02/03/87	02/03/87	LO3.DMP		1,
LO/0081	6	VIII	+B	BADDATE	01/03/88	LO3.DMP		1,2,
LO/0103	7	VIII	-BK	23/02/87	13/02/88	LO3.DMP		1,2,
LO/0105	33	VIII	-B	12/02/88	BADDATE	LO3.DMP		1,2,
LO/0106	18	VIII	-B	18/02/88	22/02/89	LO3.DMP		1,2,3,
LO/0107	64			10/02/87	BADDATE	LO3.DMP		1,2,3,
LO/0109	33	V	+B	10/02/87	BADDATE	LO3.DMP		1,2,
LO/0110	121		-B	04/02/88	03/03/91	LO3.DMP	LO4.DMP	1,2,3,4,
LO/0111	60	II	-BK	04/02/88	01/03/91	LO4.DMP		1,2,4,
LO/0113	11		-B	18/02/88	31/02/90	LO4.DMP		2,3,
LO/0114	20		-B	05/02/88	BADDATE	LO4.DMP		1,2,3,
LO/0115	7	I	-BK	05/02/88	17/02/88	LO4.DMP		1,2,

LO/0118	44	V	-B	04/02/88	30/02/91	LO4.DMP		1,2,4,
LO/0119	44	VIII	-B	05/02/88	02/03/89	LO4.DMP		1,2,
LO/0120	75	VI	+S	04/02/88	30/02/91	LO4.DMP		1,2,3,4,
LO/0121	69	II	-B	04/02/88	30/02/91	LO4.DMP		1,2,3,4,
LO/0122	47	II	-B	05/02/88	BADDATE	LO4.DMP		1,2,
LO/0124	43	VIII	-B	04/02/88	01/03/89	LO4.DMP		1,2,3,
LO/0126	3	II	-BK	08/02/88	10/02/88	LO5.DMP		1,
LO/0127	58	VIII	-B	31/02/87	02/03/89	LO5.DMP		1,2,3,
LO/0128	6	IX	+B	05/02/88	07/02/88	LO5.DMP		1,
LO/0130	37	II	-BK	10/02/87	31/02/88	LO5.DMP		1,
LO/0132	42	V	+K	04/02/88	00/03/88	LO5.DMP		1,2,
LO/0133	2	VI	-B	18/02/88	15/02/89	LO5.DMP		1,2,
LO/0135	19	V	-B	11/02/88	00/03/88	LO5.DMP		1,2,
LO/0140	12	V	-B	12/02/88	20/02/88	LO5.DMP		1,2,
LO/0141	6	V	-BK	24/02/88	11/02/89	LO5.DMP		1,2,
LO/0142	10	III	-B	06/02/88	01/03/89	LO5.DMP		1,2,
LO/0143	22	VIII	-B	04/02/88	29/02/89	LO5.DMP		1,2,
LO/0144	2	VIII	-B	27/02/88	29/02/88	LO5.DMP		1,
LO/0145	7	VIII	-B	29/02/88	31/02/88	LO5.DMP		1,2,
LO/0146	9		+K	17/02/89	23/02/89	LO5.DMP		1,2,
LO/0148	6	VII	-B	04/02/88	30/02/88	LO5.DMP		1,
LO/0149	2	VIII	-B	04/02/88	06/02/88	LO5.DMP		1,
LO/0150	11	II	-B	22/02/88	01/03/89	LO5.DMP		1,2,
LO/0151	32	II	-B	10/02/87	31/02/88	LO5.DMP		1,
LO/0152	109	V	-BK	10/02/87	02/03/89	LO5.DMP	LO6.DMP	1,2,3,
LO/0153	15	VIII	-BK	04/02/88	00/03/88	LO6.DMP		1,2,
LO/0154	26	V	-BK	05/02/88	00/03/88	LO6.DMP		1,
LO/0155	4	VII	-B	05/02/88	08/02/89	LO6.DMP		1,2,
LO/0156	8	I	-B	07/02/88	12/02/88	LO6.DMP		1,
LO/0157	42	II	+S	10/02/87	01/03/90	LO6.DMP		1,2,3,
LO/0158	7	V	-BK	04/02/88	26/02/88	LO6.DMP		1,2,
LO/0160	18	VII	-BK	10/02/87	13/02/88	LO6.DMP		1,
LO/0161	6	VII		07/02/88	10/02/88	LO6.DMP		1,
LO/0163	7	I	-BK	06/02/88	31/02/89	LO6.DMP		1,2,
LO/0166	18	V	-B	07/02/88	BADDATE	LO6.DMP		1,2,
LO/0167	12	VIII	-B	04/02/88	02/03/88	LO6.DMP		1,2,
LO/0168	7	VII	-B	18/02/88	24/02/88	LO6.DMP		1,2,
LO/0169	1		-B	BADDATE	BADDATE	LO6.DMP		1,
LO/0170	9	VI	-B	21/02/88	27/02/89	LO6.DMP		1,2,
LO/0172	6		+SK	04/02/89	02/03/89	LO6.DMP		1,2,
LO/0173	28	II	-B	05/02/88	31/02/88	LO6.DMP		1,
LO/0174	8	II	-B	13/02/88	11/02/89	LO6.DMP		1,2,
LO/0175	110	I	-B	10/02/87	02/03/89	LO6.DMP		1,2,
LO/0176	1	VIII	-B	24/02/88	24/02/88	LO6.DMP		1,
LO/0177	8	IX	-BK	21/02/88	BADDATE	LO6.DMP		1,2,
LO/0178	13	VIII	-BK	20/02/88	26/02/88	LO6.DMP		1,
LO/0179	48	IX	-B	05/02/88	BADDATE	LO6.DMP		1,2,3,
LO/0181	14	II	-B	04/02/88	BADDATE	LO6.DMP		1,2,
LO/0182	29	VIII	-B	10/02/88	02/03/89	LO6.DMP		1,2,
LO/0183	9	V	+S	21/02/88	03/02/89	LO6.DMP		1,2,
LO/0184	105	II	-B	10/02/87	BADDATE	LO6.DMP	LO7.DMP	1,2,3,
LO/0186	14	VI	-BK	12/02/88	29/02/89	LO7.DMP		1,2,3,
LO/0187	6	V	-B	05/02/88	26/02/89	LO7.DMP		1,2,
LO/0188	8	VII	-B	08/02/88	BADDATE	LO7.DMP		1,2,
LO/0189	5	VIII	-B	09/02/88	BADDATE	LO7.DMP		1,2,
LO/0190	17	IX	-BK	10/02/87	01/03/89	LO7.DMP		1,2,3,
LO/0191	12	V	-B	15/02/88	25/02/89	LO7.DMP		1,2,
LO/0192	3	IX	-B	16/02/88	22/02/88	LO7.DMP		1,2,
LO/0196	5		-B	09/02/88	17/02/89	LO7.DMP		1,2,
LO/0197	18		+K	06/02/88	31/02/89	LO7.DMP		1,2,
LO/0198	6		-B	12/02/88	09/02/89	LO7.DMP		1,2,
LO/0199	10		-B	26/02/88	02/03/89	LO7.DMP		1,2,
LO/0200	7		-B	10/02/89	15/02/89	LO7.DMP		1,2,
LO/0201	24		-BK	10/02/87	BADDATE	LO7.DMP		1,2,

LO/0202	13		-B	20/02/88	17/02/89	LO7.DMP		1,2,
LO/0203	4		-BK	BADDATE	BADDATE	LO7.DMP		2,
LO/0204	57		-B	10/02/87	02/03/91	LO7.DMP		1,2,3,4,
LO/0205	15		-B	10/02/87	22/02/89	LO7.DMP		1,2,
LO/0206	16	IX	-B	10/02/87	29/02/88	LO7.DMP		1,
LO/0208	15	VIII	-B	10/02/87	02/03/88	LO7.DMP		1,2,
LO/0209	9		-B	20/02/88	BADDATE	LO7.DMP		1,2,
LO/0210	3		-B	11/02/88	BADDATE	LO7.DMP		1,
LO/0211	3	VII	-B	22/02/88	26/02/88	LO7.DMP		1,
LO/0212	6	V	-BK	26/02/88	00/03/88	LO7.DMP		1,2,
LO/0213	8		-BK	17/02/88	02/03/89	LO7.DMP		1,2,
LO/0214	76		+K	10/02/87	31/02/89	LO7.DMP		1,2,
LO/0216	27		+SK	10/02/87	31/02/89	LO7.DMP		1,2,
LO/0218	113		+S	10/02/87	02/03/91	LO7.DMP	LO8.DMP	1,2,3,4,
LO/0220	45		-BK	05/02/88	31/02/91	LO8.DMP		1,2,4,
LO/0221	9	V	-BK	08/02/88	29/02/89	LO8.DMP		1,2,
LO/0222	10	II	-B	12/02/88	30/02/89	LO8.DMP		1,2,
LO/0224	35	VI	-B	10/02/87	23/02/91	LO8.DMP		1,3,4,
LO/0226	43	VIII	-BK	10/02/87	31/02/90	LO8.DMP		1,2,3,
LO/0228	3	VIII	-BK	05/02/88	29/02/89	LO8.DMP		1,2,
LO/0229	53	VIII	-BK	10/02/87	01/03/89	LO8.DMP		1,2,3,
LO/0230	13	VI	+S	12/02/88	24/02/89	LO8.DMP		1,2,
LO/0231	112	VI	-B	10/02/87	19/02/89	LO8.DMP		1,2,
LO/0232	16	VII	-B	10/02/87	23/02/89	LO8.DMP		1,2,
LO/0242	16		-BK	04/02/89	31/02/89	LO8.DMP		1,2,
LO/0243	4	VIII	-B	06/02/88	01/03/88	LO8.DMP		1,
LO/0244	3	VII	-B	20/02/88	25/02/88	LO8.DMP		1,
LO/0246	3	VIII	-BK	31/02/88	01/03/89	LO8.DMP		1,2,
LO/0247	31	VII	-B	10/02/87	14/02/89	LO8.DMP		1,2,
LO/0251	13	VIII	-B	10/02/87	29/02/89	LO8.DMP		1,2,
LO/0255	27	II	DK	15/02/88	02/03/89	LO8.DMP	LO9.DMP	1,2,
LO/0256	3	VI	-BK	13/02/88	18/02/88	LO9.DMP		1,
LO/0258	5	VIII	-BK	02/03/88	23/02/89	LO9.DMP		1,2,
LO/0259	2	IX	-BK	27/02/88	02/03/89	LO9.DMP		1,2,
LO/0261	7	VIII	-BK	21/02/88	08/02/89	LO9.DMP		1,2,
LO/0262	7	III	NEG	10/02/87	10/02/87	LO9.DMP		1,
LO/0264	15	VIII	-BK	09/02/88	29/02/89	LO9.DMP		1,2,
LO/0265	9	VI	-B	12/02/88	15/02/89	LO9.DMP		1,2,
LO/0269	44	IX	-BK	06/02/88	02/03/91	LO9.DMP		1,2,3,4,
LO/0272	42		+S	08/02/88	31/02/91	LO9.DMP		1,2,4,
LO/0273	77	VIII	-BK	10/02/87	02/03/91	LO9.DMP		1,2,3,4,
LO/0276	7	VIII	-BK	18/02/88	24/02/88	LO9.DMP		1,
LO/0279	1	I	+S	09/02/88	09/02/88	LO9.DMP		1,
LO/0280	2	VI	-BK	02/03/88	11/02/89	LO9.DMP		1,2,
LO/0281	2	IX	+K	05/02/88	00/03/88	LO9.DMP		1,
LO/0282	13	III	-BK	09/02/88	10/02/89	LO9.DMP		1,2,
LO/0284	10	IX	-BK	06/02/88	30/02/89	LO9.DMP		1,2,
LO/0285	39	VI	-BK	06/02/88	BADDATE	LO9.DMP		1,2,3,
LO/0287	17	III	-B	10/02/87	29/02/89	LO9.DMP		1,2,
LO/0290	7		-BK	28/02/89	01/03/89	LO9.DMP		1,2,
LO/0296	53	VIII	-BK	10/02/87	25/02/89	LO9.DMP		1,2,
LO/0297	68	VIII	-BK	05/02/88	09/02/89	LO9.DMP		1,2,
LO/0298	26	VIII	-BK	10/02/87	27/02/89	LO9.DMP		1,2,
LT/0018	21	II	NEG	04/02/91	02/03/91	LT1.DMP		3,4,
LT/0020	18	V	NT	06/02/90	01/03/90	LT1.DMP		3,
LT/0043	24	V	NEG	04/02/89	31/02/91	LT1.DMP		3,4,
LT/0060	32	V	NEG	04/02/91	02/03/91	LT1.DMP		4,
LX/0168	20	V	NT	06/02/91	02/03/91	LT1.DMP		3,4,
NE/0001	18	V	NT	BADDATE	05/02/90	LX1.DMP		1,3,
NE/0002	51	V	NT	10/02/87	02/03/88	NE1.DMP		1,2,
NE/0003	67	VII	NT	27/02/87	31/02/89	NE1.DMP		1,2,
NE/0004	7	VIII	NT	BADDATE	22/02/88	NE1.DMP		1,2,
NE/0005	3	VII	NT	BADDATE	BADDATE	NE1.DMP		1,
NE/0006	5	I	NT	BADDATE	22/02/89	NE1.DMP		1,2,

NE/0007	3	VIII	NT+	BADDATE	BADDATE	NE1.DMP		1,
NE/0011	15	I	NEG	23/02/88	17/02/89	NE1.DMP		1,2,
NE/0012	4	VII	NEG	12/02/88	25/02/89	NE1.DMP		1,2,
NE/0013	37	VII	NT	10/02/87	13/02/89	NE1.DMP		1,2,
NE/0014	17	IX	NEG	10/02/87	28/02/88	NE1.DMP		1,
NE/0016	125	II	NEG	10/02/87	01/03/88	NE1.DMP		1,2,
NE/0017	3	II	NT	24/02/88	25/02/89	NE1.DMP		1,2,
NE/0018	24	II	NT	04/02/88	23/02/89	NE1.DMP		1,2,
NE/0019	1	I	NEG	27/02/88	27/02/88	NE1.DMP		1,
NE/0020	5	IX	NEG	22/02/88	31/02/89	NE1.DMP		1,2,
NE/0021	25	II	NEG	10/02/87	31/02/89	NE1.DMP		1,2,
NE/0022	71	VII	NT	10/02/87	01/03/91	NE1.DMP		1,2,4,
NE/0024	56	II	NT	10/02/87	02/03/91	NE1.DMP	NE2.DMP	1,2,4,
NE/0025	6	II	NEG	26/02/88	30/02/88	NE2.DMP		1,2,
NE/0026	5	II	NT	06/02/88	30/02/88	NE2.DMP		1,2,
NE/0027	16		-B	06/02/88	31/02/89	NE2.DMP		1,2,
NE/0028	6	VIII	NEG	27/02/88	28/02/88	NE2.DMP		1,2,
NE/0029	14	VII	NT	10/02/87	03/02/89	NE2.DMP		1,2,
NE/0031	2	VII	NT	04/02/88	28/02/88	NE2.DMP		1,
NE/0032	16	V	NT	04/02/88	10/02/88	NE2.DMP		1,
NE/0033	3	VII	NT	16/02/88	20/02/88	NE2.DMP		1,2,
NE/0034	3		-B	24/02/89	28/02/89	NE2.DMP		1,2,
NE/0035	4	IV	NT	31/02/88	00/03/88	NE2.DMP		1,2,
NE/0036	16	VIII	NEG	06/02/88	25/02/89	NE2.DMP		1,2,
NE/0037	6	III	NT	27/02/88	08/02/89	NE2.DMP		1,2,
NE/0039	3	I	NT	15/02/88	30/02/89	NE2.DMP		1,2,
NE/0042	12	IV	NT	07/02/88	28/02/89	NE2.DMP		1,2,
NE/0043	4	I	NT	25/02/88	29/02/88	NE2.DMP		1,
NE/0044	4	II	NEG	18/02/88	23/02/88	NE2.DMP		1,2,
NE/0045	17			18/02/88	31/02/91	NE2.DMP		1,2,4,
NE/0046	7	V	NT	15/02/88	20/02/88	NE2.DMP		1,
NE/0047	52	V	NEG	10/02/87	01/03/88	NE2.DMP		1,
NE/0048	5	VIII	NEG	05/02/88	24/02/89	NE2.DMP		1,2,
NE/0050	5	VII	POS	10/02/87	10/02/87	NE2.DMP		1,
NE/0051	3	III	NT	18/02/88	23/02/88	NE2.DMP		1,
NE/0052	3	V	NEG	20/02/88	25/02/88	NE2.DMP		1,
NE/0053	11	II	NEG	20/02/88	11/02/89	NE2.DMP		1,2,
NE/0056	4	VI	NEG	07/02/88	09/02/88	NE2.DMP		1,
NE/0057	4	II	NT	20/02/88	24/02/88	NE2.DMP		1,
NE/0058	16	VIII	NT	26/02/88	14/02/89	NE2.DMP		1,2,
NE/0060	2	IX	NEG	30/02/88	30/02/88	NE2.DMP		1,2,
NE/0062	53	III	NEG	10/02/87	01/03/91	NE2.DMP		1,2,4,
NE/0063	7	VIII	NT	07/02/88	13/02/88	NE2.DMP		1,
NE/0064	34	V	NEG	10/02/87	02/03/89	NE2.DMP		1,2,
NE/0065	14	V	NEG	14/02/88	27/02/89	NE2.DMP		1,2,
NE/0066	6	I	NEG	10/02/88	12/02/88	NE2.DMP		1,
NE/0069	24	VII	NEG	10/02/87	12/02/89	NE2.DMP		1,2,
NE/0070	5	VI	NT	07/02/88	11/02/88	NE2.DMP		1,2,
NE/0071	3	II	NEG	11/02/88	20/02/89	NE2.DMP		1,2,
NE/0074	55	VII	NT	10/02/87	01/03/89	NE2.DMP		1,2,
NE/0075	18	II	NT	04/02/88	16/02/89	NE2.DMP		1,2,
NE/0076	4	V	NEG	08/02/88	13/02/88	NE2.DMP		1,
NE/0077	5	V	NT	20/02/88	31/02/89	NE2.DMP		1,2,
NE/0080	29	II	NT	23/02/88	24/02/89	NE2.DMP	NE3.DMP	1,2,
NE/0081	6	V	NT	04/02/88	09/02/88	NE3.DMP		1,2,
NE/0083	12		-B	16/02/89	21/02/89	NE3.DMP		1,2,
NE/0084	8	VIII	NT	15/02/88	21/02/88	NE3.DMP		1,
NE/0085	7	V	NEG	04/02/88	01/03/89	NE3.DMP		1,2,
NE/0091	24	V	NT	06/02/88	22/02/89	NE3.DMP		1,2,
NE/0092	10	VII	NT	10/02/87	30/02/88	NE3.DMP		1,
NE/0093	2	V	NT	19/02/88	23/02/88	NE3.DMP		1,
NE/0094	4	VIII	NEG	02/02/88	22/02/88	NE3.DMP		1,2,
NE/0095	20	VIII	NEG	20/02/88	22/02/89	NE3.DMP		1,2,
NE/0096	5	V	NT	06/02/88	14/02/89	NE3.DMP		1,2,

NE/0097	8	VIII	NEG	08/02/88	11/02/89	NE3.DMP	1,2,
NE/0098	4	II	POS	16/02/88	21/02/88	NE3.DMP	1,
NE/0099	56	V	NT	10/02/87	10/02/89	NE3.DMP	1,2,
NE/0100	6	V	NT	20/02/88	16/02/89	NE3.DMP	1,2,
NE/0101	9	I	NEG	25/02/88	11/02/89	NE3.DMP	1,2,
NE/0102	3	I	NT	25/02/88	28/02/88	NE3.DMP	1,
NE/0104	12	V	NEG	06/02/88	21/02/89	NE3.DMP	1,2,
NE/0106	7	II	NT	12/02/88	18/02/88	NE3.DMP	1,2,
NE/0107	21	V	NT	07/02/88	02/03/88	NE3.DMP	1,2,
NE/0112	10	IX	NT	17/02/88	08/02/89	NE3.DMP	1,2,
NE/0113	31	V	NT	13/02/88	28/02/89	NE3.DMP	1,2,
NE/0114	17	VIII	NT	18/02/88	11/02/89	NE3.DMP	1,2,
NE/0115	19	VII	NT	10/02/87	31/02/89	NE3.DMP	1,2,
NE/0116	41	VII	NEG	10/02/87	30/02/89	NE3.DMP	1,2,
NE/0117	1	II	NT	10/02/88	10/02/88	NE3.DMP	1,
NE/0119	3	V	NEG	15/02/88	20/02/88	NE3.DMP	1,
NE/0120	8	VI	NT	18/02/88	16/02/89	NE3.DMP	1,2,
NE/0121	19	VI	NEG	10/02/87	22/02/88	NE3.DMP	1,
NE/0124	9	V	NT	26/02/88	00/03/88	NE3.DMP	1,2,
NE/0127	34	V	NT	10/02/87	26/02/88	NE3.DMP	1,
NE/0129	7	II	NT	18/02/88	24/02/88	NE3.DMP	1,2,
NO/0001	21	I	NEG	10/02/87	19/02/89	NE3.DMP	1,2,
NO/0002	4		-B	07/02/89	13/02/89	NO1.DMP	2,
NO/0003	24		DK	BADDATE	00/03/88	NO1.DMP	1,2,
NO/0004	7		-B	07/02/88	02/03/88	NO1.DMP	2,
NO/0005	4		-B	26/02/87	21/02/88	NO1.DMP	1,2,
NO/0006	4		-B	23/02/88	24/02/88	NO1.DMP	2,
NO/0007	40	I	NT	01/03/87	28/02/91	NO1.DMP	1,2,4,
NO/0008	6		-B	17/02/88	23/02/88	NO1.DMP	2,
NO/0009	2		-B	20/02/88	22/02/88	NO1.DMP	2,
NO/0010	2		-B	05/02/88	07/02/88	NO1.DMP	2,
NO/0017	25	II	NEG	30/02/88	01/03/89	NO1.DMP	1,2,
NO/0018	14	VIII	NEG	12/02/87	BADDATE	NO1.DMP	1,2,
NO/0019	7		-B	05/02/88	02/03/88	NO1.DMP	2,
NO/0020	2		-B	22/02/88	24/02/88	NO1.DMP	2,4,
NO/0021	41	VIII	NT	17/02/88	02/03/91	NO1.DMP	2,4,
NO/0022	15		-B	05/02/88	02/03/88	NO1.DMP	1,2,
NO/0023	56	VIII	NT	17/02/88	BADDATE	NO1.DMP	1,2,
NO/0024	17	VIII	NT	05/02/88	28/02/89	NO1.DMP	1,2,
NO/0025	6		-B	05/02/88	02/03/88	NO1.DMP	2,
NO/0026	2		-B	22/02/89	23/02/89	NO1.DMP	2,
NO/0028	2		-B	24/02/88	27/02/88	NO1.DMP	2,4,
NO/0033	35	II	NEG	05/02/88	01/03/91	NO1.DMP	1,2,4,
NO/0035	83	VI	POS	04/02/88	02/03/88	NO1.DMP	1,2,
NO/0039	2		-B	18/02/88	22/02/88	NO1.DMP	2,
NO/0040	4		-B	03/02/89	08/02/89	NO1.DMP	2,
NO/0044	2		-BK	18/02/89	21/02/89	NO1.DMP	1,2,
NO/0047	28	V	NT	05/02/88	02/03/88	NO1.DMP	1,2,
NO/0048	4		-B	13/02/89	19/02/89	NO1.DMP	2,
NO/0050	1		DK	25/02/89	25/02/89	NO1.DMP	2,
NO/0051	3		-B	04/02/89	07/02/89	NO1.DMP	2,
NO/0054	2		-B	19/02/89	24/02/89	NO1.DMP	2,
NO/0055	11		+K	05/02/88	31/02/88	NO1.DMP	1,2,
NO/0058	2		-B	17/02/88	21/02/88	NO1.DMP	2,
NO/0059	325			30/02/88	30/02/91	NO1.DMP	2,3,4,
NO/0061	1		-B	24/02/88	24/02/88	NO2.DMP	2,
NO/0062	1		-BK	25/02/88	25/02/88	NO2.DMP	2,
OT/0010	7		-BK	19/02/88	24/02/88	NO2.DMP	2,4,
OT/0014	1	V	POS	06/02/91	06/02/91	OT1.DMP	4,
OT/0019	12	VI	NT	05/02/91	02/03/91	OT1.DMP	4,
OT/0027	28	V	POS	04/02/91	02/03/91	OT1.DMP	4,
OT/0030	31	V	NT	BADDATE	10/02/92	OT1.DMP	4,
PC/0001	19	V	NEG	BADDATE	05/02/92	OT1.DMP	1,4,
PC/0002	4	VI	-B	05/02/88	11/02/88	PC1.DMP	1,

PO/0001	2	VIII	-BK	06/02/88	09/02/88	PC1.DMP	1,2,
PO/0002	22	V	NEG	16/02/88	18/02/89	PO1.DMP	1,2,
PO/0003	7	VIII	-B	08/02/88	00/03/88	PO1.DMP	1,2,
PO/0004	7	VIII	-BK	11/02/88	07/02/89	PO1.DMP	1,2,
PO/0005	43	VIII	NT	04/02/88	29/02/89	PO1.DMP	1,2,
PO/0007	2	II	-BK	12/02/88	14/02/88	PO1.DMP	1,
PO/0010	3	VIII	-BK	08/02/88	12/02/88	PO1.DMP	1,
PO/0012	2	V	-B	24/02/88	26/02/88	PO1.DMP	1,
PO/0013	5	VI	-B	11/02/88	16/02/88	PO1.DMP	1,
PO/0014	8	V	-B	11/02/88	BADDATE	PO1.DMP	1,2,
PO/0016	1	VII	-B	15/02/88	15/02/88	PO1.DMP	1,
PO/0017	5	I	-BK	24/02/88	30/02/88	PO1.DMP	1,2,
PO/0021	29	VIII	NT	07/02/88	02/03/91	PO1.DMP	1,2,4,
PO/0022	21	V	NEG	25/02/88	22/02/89	PO1.DMP	1,2,
PO/0024	3	VIII	-BK	11/02/88	14/02/88	PO1.DMP	1,
PO/0026	14	VII	-BK	16/02/88	BADDATE	PO1.DMP	1,2,
PO/0030	8	VIII	-BK	23/02/88	BADDATE	PO1.DMP	1,2,
PO/0032	5	VIII	-BK	10/02/88	14/02/88	PO1.DMP	1,
PO/0033	2	III	-B	27/02/88	31/02/88	PO1.DMP	1,
PO/0034	10	I	-B	28/02/88	02/03/88	PO1.DMP	1,
PO/0036	1	V	-BK	01/03/88	01/03/88	PO1.DMP	1,
PO/0038	6	VIII	-BK	12/02/88	17/02/88	PO1.DMP	1,
PO/0042	20	V	-BK	08/02/88	21/02/89	PO1.DMP	1,2,
PO/0044	13	I	-B	18/02/88	23/02/88	PO1.DMP	1,
PO/0045	5	VII	-B	07/02/88	20/02/89	PO1.DMP	1,2,
PO/0048	11	II	-BK	12/02/88	21/02/89	PO1.DMP	1,2,
PO/0049	33	V	NEG	10/02/87	31/02/89	PO1.DMP	1,2,
PO/0050	9	V	-BK	14/02/88	20/02/89	PO1.DMP	1,2,
PO/0052	1	VI	-BK	07/02/88	07/02/88	PO1.DMP	1,
PO/0053	12	V	-B	10/02/88	20/02/88	PO1.DMP	1,2,
PO/0054	4	II	-BK	01/03/88	02/03/88	PO1.DMP	1,
PO/0055	14	V	-BK	28/02/88	03/02/89	PO1.DMP	1,2,
PO/0057	6	VIII	-BK	26/02/88	22/02/89	PO1.DMP	1,2,
PO/0058	3	VIII		27/02/89	29/02/89	PO1.DMP	1,2,
PO/0059	2	VI	-BK	06/02/88	12/02/88	PO1.DMP	1,
PO/0060	6	IX	-B	16/02/88	21/02/89	PO1.DMP	1,2,
PO/0061	11	VI	-B	05/02/88	21/02/89	PO1.DMP	1,2,
PO/0064	14	IX	NT	09/02/88	02/03/89	PO1.DMP	1,2,
PO/0066	9	VIII	NEG	04/02/89	30/02/89	PO1.DMP	2,
SO/9002	37	VIII	NT	BADDATE	31/02/89	PO1.DMP	1,2,
TS/0001	22	XI	NT	05/02/88	31/02/88	SO1.DMP	1,
TS/0004	5	II	-B	17/02/88	22/02/88	TS1.DMP	1,
TS/0005	5	I	-BK	04/02/88	30/02/88	TS1.DMP	1,
TS/0007	6	VIII	-BK	29/02/88	02/03/88	TS1.DMP	1,
TS/0008	5	II	-B	21/02/88	26/02/88	TS1.DMP	1,
TS/0010	2	II	-BK	04/02/88	09/02/88	TS1.DMP	1,
TS/0011	46	V	-BK	05/02/88	02/03/88	TS1.DMP	1,
TS/0012	9	VI	-BK	22/02/88	28/02/88	TS1.DMP	1,
TS/0013	7	II	-B	18/02/88	29/02/89	TS1.DMP	1,2,
TS/0015	40			07/02/88	31/02/89	TS1.DMP	1,2,
TS/0016	4	VI	-BK	09/02/88	14/02/89	TS1.DMP	1,2,
TS/0018	24	VIII	-B	07/02/88	09/02/89	TS1.DMP	1,2,
TS/0019	8	VIII	-B	19/02/88	25/02/88	TS1.DMP	1,
TS/0020	28	VII	NT	06/02/88	01/03/88	TS1.DMP	1,2,
TS/0021	10	I	-B	24/02/88	30/02/88	TS1.DMP	1,2,
TS/0022	70		-B	05/02/88	14/02/89	TS1.DMP	1,2,
TS/0023	21	I	-B	05/02/88	02/03/88	TS1.DMP	1,
TS/0025	7	VIII	-B	07/02/88	13/02/88	TS1.DMP	1,
TS/0026	15	IX	-B	04/02/88	13/02/89	TS1.DMP	1,2,
TS/0030	27	VIII	-BK	04/02/88	20/02/89	TS1.DMP	1,2,
TS/0032	3	I	-BK	10/02/88	13/02/88	TS1.DMP	1,
TS/0034	7	IX	-BK	05/02/88	02/03/88	TS1.DMP	1,
TS/0035	5	I	-BK	06/02/88	19/02/89	TS1.DMP	1,2,
TS/0036	2	II	-B	06/02/88	08/02/88	TS1.DMP	1,

TS/0037	5	II	-B	18/02/88	24/02/88	TS1.DMP	1,2,
TS/0038	38	IX	NT	11/02/88	26/02/91	TS1.DMP	1,2,4,
TS/0040	4	II	-BK	05/02/88	03/03/89	TS1.DMP	1,2,
TS/0042	14	VI	-B	20/02/88	11/02/89	TS1.DMP	1,2,
TS/0043	10	V	-B	27/02/88	13/02/89	TS1.DMP	1,2,
TS/0045	4	VI	-B	26/02/88	15/02/89	TS1.DMP	1,2,
TS/0047	8		-BK	15/02/89	21/02/89	TS1.DMP	1,2,
TS/0048	1	V	-BK	00/03/88	00/03/88	TS1.DMP	1,
TS/0049	3	V	-B	05/02/88	00/03/88	TS1.DMP	1,
TS/0054	4	VIII	-BK	06/02/88	08/02/89	TS1.DMP	1,2,
TS/0055	12	VII	-B	07/02/88	13/02/88	TS1.DMP	1,2,
YC/0001	5	II	-B	09/02/88	13/02/88	TS1.DMP	1,
YC/0002	5	V	NEG	11/02/88	17/02/88	YC1.DMP	1,
YC/0003	8	VIII	NEG	12/02/88	18/02/88	YC1.DMP	1,
YC/0004	7	II	NEG	18/02/88	23/02/88	YC1.DMP	1,
YC/0005	2	VIII	NEG	05/02/88	29/02/88	YC1.DMP	1,
YO/0002	121	VIII	NEG	04/02/88	26/02/89	YO1.DMP	1,2,
YO/0003	6		-BK	11/02/89	16/02/89	YO1.DMP	2,
YO/0004	27			04/02/89	31/02/89	YO1.DMP	2,
YO/0006	20	V	NT	05/02/88	31/02/89	YO1.DMP	1,2,
YO/0008	11	VIII	NEG	07/02/88	17/02/88	YO1.DMP	1,2,
YO/0009	19			05/02/89	02/03/89	YO1.DMP	2,
YO/0010	2		-B	27/02/89	31/02/89	YO1.DMP	2,
YO/0044	30	VIII	POS	13/02/88	29/02/89	YO1.DMP	1,2,
YO/0047	57	VIII	NEG	05/02/88	02/03/89	YO1.DMP	1,2,
YO/0048	36	VIII	NT	05/02/88	02/03/88	YO1.DMP	1,2,
YO/0052	13	VIII	NT	06/02/88	25/02/89	YO1.DMP	1,2,
YO/0053	11	VIII	NEG	07/02/88	27/02/89	YO1.DMP	1,2,
YO/0054	6	VII	NEG	21/02/88	22/02/88	YO1.DMP	1,2,
YO/0055	1		-B	14/02/89	14/02/89	YO1.DMP	1,
YO/0056	7	IV	NEG	14/02/88	20/02/88	YO1.DMP	1,
YO/0057	55	VIII	NEG	04/02/89	31/02/89	YO1.DMP	2,
YO/0058	15	VIII	NEG	11/02/88	23/02/89	YO1.DMP	1,2,
YO/0059	18	V	NEG	10/02/88	17/02/89	YO1.DMP	1,2,
YO/0061	6	VI	NEG	07/02/88	21/02/89	YO1.DMP	1,2,
YO/0065	23	V	POS	23/02/88	02/03/89	YO1.DMP	1,2,
YO/0069	7	V	NT	27/02/88	01/03/88	YO1.DMP	1,
YO/0070	8	II	NT	09/02/88	15/02/88	YO1.DMP	1,
YO/0071	8	V		26/02/88	00/03/88	YO2.DMP	1,
YO/0072	3	VIII	NT	21/02/88	20/02/89	YO2.DMP	1,2,
YO/0073	15	VIII	NT	26/02/88	21/02/89	YO2.DMP	1,2,
YO/0074	37	VIII	NEG	28/02/88	01/03/89	YO2.DMP	1,2,
YO/0076	4	V	NEG	21/02/88	18/02/89	YO2.DMP	1,2,
YO/0077	30	V	NT	13/02/88	30/02/89	YO2.DMP	1,2,
YO/0078	2	VI	NT	11/02/88	14/02/88	YO2.DMP	1,
YO/0080	9	II	NEG	15/02/88	20/02/89	YO2.DMP	1,2,
YO/0082	24	VIII	NEG	05/02/88	02/03/88	YO2.DMP	1,2,
YO/0090	4	VIII	NEG	14/02/88	14/02/88	YO2.DMP	2,
YO/0091	2		-B	03/02/89	02/03/89	YO2.DMP	2,
YO/0092	31	IX	NT	04/02/88	02/03/89	YO2.DMP	1,2,
YO/0094	2	VIII	NEG	04/02/88	31/02/89	YO2.DMP	1,2,
YO/0095	8	VIII	NEG	28/02/88	02/03/88	YO2.DMP	1,
YO/9001	9	II	NEG	15/02/88	19/02/88	YO2.DMP	1,2,

**Total Individuals = 887**

## Statistical Summary Tables for INDIVID.DIA

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The following tables summarize statistical information on data in the directory INDIVID.DIA. This represents all the information available for analysis.

<b>Total Individuals</b>	<b>885</b>
<b>Total Sessions (records)</b>	<b>17,599</b>
<b>Total Sexual Acts</b>	<b>34,696</b>
<b>Mean acts per individual</b>	<b>39.2</b>
<b>Mean Acts per session</b>	<b>1.97</b>
<b>Mean sessions per individual</b>	<b>19.8</b>

<b>Act Type</b>	<b>Percentage occurrence relative to all acts</b>
Sx	34.4
AW	7.85
AF	3.34
AS	7.96
PW	6.42
PF	2.64
PS	6.02
MW	7.17
MF	0.0
MS	2.88
Other	21.32
<b>Total</b>	<b>100 %</b>

*Sx = All solo activity (ie: no partner present)*

<b>Acts</b>	<b>Percent of Individuals ever engaging in the act (denominator is number of individuals)</b>
Sx	97
AW	50
AF	29
AS	48
PW	52
PF	27
PS	46
MW	49
MF	0
MS	31

The figures in the bottom table give figures for the individual ever engaging in the activity during the course of writing all their diaries. These figures reflect ever in the last 50 days (which is the mean number of days stored per individual)



## Statistical Summary Tables for WAVES.DIA

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The summary tables for the directory INDIVID.DIA directory also apply to this directory since WAVES.DIA is the same data, except stored in four wave files. Statistical information is therefore presented including potential risk behaviour concerning the acts AF,HN (Active Anal intercourse, ejaculate in partner) and PF,NM (Passive anal-intercourse, ejaculate in diarist)

File	Acts	Diarists	AF,HN	PF,NM	F Total w.r.t acts
wave 1	23833	535	<b>F total</b> 16.8%	<b>627</b> 9.45 %	2.6 %
wave 2	7340	364	<b>F total</b> 20 %	<b>225</b> 13.9%	3.1 %
wave 3	3874	112	<b>F Total</b> 23.6 %	<b>124</b> 12.3 %	3.2 %
wave 4	2658	54	<b>F Total</b> 8 %	<b>84</b> 21.7 %	3.1 %

This table should be read as follows: For wave 1 there are 23,833 recorded acts, and 535 diarists (individuals). The last column (F Total w.r.t acts) gives the percentage occurrence of anal-intercourse occurrences relative to the number of acts for that wave. The actual frequency of anal-intercourse acts for each wave is shown in bold for each wave and is lightly shaded. The percentage figures underneath AF,HN and PF,NM show the *percentage of acts of that type relative to the F total for that wave*. So in wave 1, 16.8% of all anal-intercourse acts (ie : 16.8% of 627) were AF,HN. We note that AF,HN represents only 2.6% of all acts o that wave. If we ignore the last wave (because it is a very small sample) we see that the F total rose with respect to population size over waves 1,2 and 3. Not only that, but the potentially risky acts AF,HN and PF,NM also increased their relative frequency within possible outcomes for anal-intercourse. This information was discovered using the analysis utility RISK, described in ***Utility Programs: Usage and Definitions***.

Project SIGMA 1993



# The SDA File System: Organisation and file Formats

## Organisation of the SDA file system

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As it currently stands, the SDA file system has the following set of directories

SIG1993\C	C source code for programs
SIG1993\CARDBOX.DIA	Cardbox files of all diaries
SIG1993\DOCUMENT	Full Documentation
SIG1993\EXECUTE	Executable programs (and data files)
SIG1993\GPRESS.DIA	Gay Press (validity) data (dump files)
SIG1993\INDIVID.DIA	Individual sorted diaries (dump files)
SIG1993\INTERVIE	Some interview data
SIG1993\MAINDMP.DIA	Unsorted data (dump files)
SIG1993\WAVES.DIA	Individual and wave sorted data (dump files)

**C** contains all the C source code for the programs. This is only of interest to programmers wishing to update the current programs, or to add new programs to the SDA program suite. Application programs need not be written in C, though the program manager can only run compiled programs or batch file programs.

**CARDBOX.DIA** contains all original cardbox database files. These files are the ones that data input staff create when entering the diaries into the computer. This file format is not in a useful form that can be read by programs, and so a special data file format called 'dump' is used. Cardbox is able to write files of this type.

**DOCUMENT** contains this documentation in Word for Windows 2.0 format, ASCII file format and WordPerfect format. It must be noted that WordPerfect does not have exactly similar formatting commands as Word for windows, so much text formatting is lost between conversion of the formats. A special set of files, each with a .LSR suffix can be sent directly to a digital print server via UNIX which will produce this documentation. Please see the Appendix on printing this documentation for full details of how to do this via Essex University printers.

**EXECUTE** contains all the programs in the SDA suite along with the data files these programs need. This includes the data sieve and program manager and all utility programs (also referred to as application programs). You will need to copy these files into the directory containing the data you wish to analyse. This can be done simply by typing **startup** ↵ when in the directory **SIG1993**. This causes all program files to be copied into **INDIVID.DIA** and **WAVES.DIA**, which contain all data available for analysis.

**GPRESS.DIA** contains the dump files for analysis programs in the NEW format (ie: with 17 fields). This data is a special set obtained purely to determine the validity of diary recording methods. Each respondent, after writing his diary was immediately asked to fill in a form describing all he did in

retrospect. Like all other dump files, these programs can be analysed using any of the SDA program suite programs.

**INDIVID.DIA** contains all data, except it has been sorted into individual order. This directory, along with WAVES.DIA, are the two directories in which you would run the analysis programs since the data has been specially sorted. None of the files in this directory or in WAVES.DIA should be directly tampered with (for example with a text editor or a wordprocessor). Statistical summary information on these directories appears later in The **SDA File System: Statistical Summary and Documentation**.

**INTERVIE** contains a few files from wave one and two interview data. This data can NOT be read by any application programs. The full collection of interview data is kept at the London SIGMA site.

**MAINDMP.DIA** contains all dump files there ever were, are, or ever will be! Essentially, this is the 'master directory' in that all data is in it. However, this directory is unsorted, and it contains bad data as well (ie: data that cannot be read because it was very badly input or has been damaged in time). The data sorting utility programs that select data from this set essentially ignore or attempt to recover bad data. If it cannot be done, it does not appear in the new set as produced by the program. This is why INDIVID.DIA and WAVES.DIA are smaller than this set, and also why you shouldn't use the SDA utility programs on this set; the results are not guaranteed to be reliable.

**WAVES.DIA** contains exactly the same data as INDIVID.DIA, except that it all appears in just four files: one file for each wave.

## Updating the Data Organisation

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The organisation of the data on the disk is currently set up so that INDIVID.DIA and WAVES.DIA are available for use by the SDA programs. The directory MAINDMP.DIA contains all data yet collected (except of course the Gay press data which is a separate set altogether). As long as the data set doesn't grow, there is nothing required to maintain it. However, over time new data will need to be added to the set.

Please note that the procedure is not very simple, and takes a long time (because the sorting program takes a very long time to run). If you know nothing about how to create, delete and copy files and directories, you will not be able to do this. If you are not confident, then read your MSDOS manuals about file organisation.

The method required method to update the set follows:

*NB: The program that sorts the data will take a few hours to run, so it is best left on overnight*

- Make a temporary directory under MAINDMP.DIA by doing the following
- Go into the directory MAINDMP.DMP by typing
- **cd \SIG1993\MAINDMP.DIA ↵**
- type **mkdir pending ↵**
- Collect all new data into this directory until it is required for analysis. Ensure that all new data files end with the file extension **.DMP**
- **Once you need to do the analysis, after collecting the new data, you will first need to delete all files from INDIVID.DIA, by going into that directory and typing del \*.dmp ↵.**
- Now ensure that there are no file name clashes between files in PENDING and MAINDMP.DIA. This is very important otherwise you will loose data.
- Now copy all files from PENDING into MAINDMP.DIA. This can be done by first making sure you are in the PENDING directory, then copying all files from pending into MAINDMP.DIA.
- type **cd \SIG1993\MAINDMP.DIA\PENDING ↵**
- Then type **copy \*.\* .. ↵**
- Now type **cd .. ↵**
- Now run the INDSORT program by typing **indsort \*.dmp ↵**

*This program will take a few hours to complete its job, so it is best run overnight.*

Once this program has finished, it will have created a directory called **INDIVID** underneath **MAINDMP.DIA**. You will probably want to move all these files into INDIVID.DIA directory which contains all the SDA programs. You can do this by typing:

```
copy *.dmp ..\..\INDIVID.DIA ↵
```

when you are in the directory INDIVID underneath MAINDMP.DIA. It is then safe to delete everything from the INDIVID directory, since you now have a copy in INDIVID.DIA.

It is expected that you will never wish to delete files permanently from the set. The most important data resides in MAINDMP.DIA and GPRESS.DIA. The whole file organisation may be recreated from these files.

The directory WAVES.DIA was created by running the data sieve in the INDIVID.DIA directory and selecting data by wave and copying the resultant files into the WAVES.DIA directory. Notice that a directory containing type sorted data may be created just as easily.

## Organising Data For Particular Analysis Data Sets

---

When you are interested in special data sub-sets all you need do is run the SIEVE program and select the data you want. Resultant data then goes into the file SIEVEADAT.DMP. The use of this program is discussed in **Data Sieve And Program Manager: Users Guide**. As an example, say you wished to find out the percentage use of condoms (by session) in type VII, VIII and IX individuals (ie: No regular partner), but only in sessions that anal-intercourse occurred. The first step is to run the Data Sieve program, selecting just type VII, VIII, and IX individuals. The file SIEVEDAT.DMP will then contain these individuals only. The next step is to select out all sessions from this file that contain an anal-intercourse code. A program, aptly named GETFUCK will do this for you. To get these sessions you would first type ALT-D (to go to the DOS shell) then type:

```
getfuck sievedat.dmp result.dmp ↵
```

Which selects all data from the source file (sievedat.dmp) and puts it into the destination file (result.dmp). Then, when you type:

```
condom result.dmp ↵
```

You will get a message on the screen telling you the percentage of sessions in which a condom was used. Notice that you could just as easily run condom from the Program manager by putting **result.dmp** as a command line argument and then selecting condom from the program manager. For a full discussion of the use of command line arguments and the utility programs, see **Utility Programs, Usage And Definitions**.

As a final note, make sure you delete temporary dump files that you create once you have finished with them, otherwise the program manager will think that they are real data files when you next run the program. For example, after doing the above, you would type `del result.dmp ↵` and `del sievedat.dmp ↵` when you've finished with them. The reason for this is simple: If you leave temporary dump files around, when you run utility programs and ask for a data set using '\*.DMP', then results will not be correct because you have duplicated some data from the set in your temporary files. **BEWARE!!**

## File Formats

---

In the SDA file system and programs suite, there are some special file types and formats. The file system contains data files and program files. All program files may be found in **SIG1993/EXECUTE**. These files include the data sieve and program manager, and all the utility programs. How to use the programs is described in two sections. The data sieve and program manager documentation for users can be found in ***Data Sieve and Program Manager: User Guide***. The use of utility programs is described in ***Utility Programs: Usage and Definitions***.

The format of data files used by these programs and where the data comes from is however important. The introduction explained where to find all file types. Please refer to ***Introduction to the SDA Program suite*** for information on the whereabouts of certain file types.

There are essentially two forms of data files. One form contains the original information as input into the **CARDBOX™** database. These files are all found in **SIG1993\CARDBOX.DIA** and are named either by site and wave, or by the name of the person who input the files.

The other main form of data file type is the ***dump*** file type, identifiable by their file name, which always ends in **.DMP**. They are called dump files because they have been 'dumped' out of the original cardbox files. The file names of dump files do *NOT* correspond to their original counterparts in cardbox when found in the directories **INDIVID.DIA** and **WAVES.DIA**. The directory **MAINDMP.DIA** mainly contains the original dump files created from the original cardbox files, under the same name, but with a **.DMP** extension. Those that begin with an underscore '\_' character are re-input diaries from the original waves that were either (a) not entered originally or (b) lost at some point in time. All original diaries from waves 1 to 4 have now been entered, and exist in the data set.

The original Cardbox file format was changed after wave four (from the validity study onwards) to include extra fields for identifying where diaries start and end. This is also reflected in the new dump files: Three extra fields were added to mark what diaries each session belongs to. *This new file format is completely compatible with all SDA programs and does not affect their behaviour.*

## Cardbox™ Diary Formats Old And New

---

**Cardbox™** files can be identified by their **.FIL** file extensions. Each database file has an associated format file (**.FRM**) that defines the layout of the

information within the database. Please refer to **Cardbox™** documentation for full discussion of how to set up and changed these definitions. All original cardbox data can be found in the directory **SIG1993/CARDBOX.DIA**. The two formats discussed above appear as follows:

### The Old Pre-Validity Study Format : 15 fields

---

```

=====
NO:          | TYPE:      | STATUS:    | DAY:       | DATE:
-----
TIME:       | PLACE:
-----
PERSON:
=====
ACT:

=====
POPPERS:    | CONDOMS:   | LUBS:
-----
OTHER:

-----
DRUGS:
-----
OTHER CODES:
=====

```

### The New Cardbox™ File Format : 17 fields

---

```

=====
NO:          | TYPE:      | STATUS:    | DAY:       | DATE:
-----
TIME:       | PLACE:
-----
PERSON:
=====
ACT:

=====
POPPERS:    | CONDOMS:   | LUBS:
-----
OTHER:

-----
DRUGS:
-----
DIARY START: | DIARY END: | RECORD CODE:
=====

```



## Dump File Formats Old and New

---

All dump files have a format called '**BASIC**' by the Cardbox database, and are output in 8-bit ASCII. Naturally, there are two formats to reflect the change in the Cardbox file format definition. All dump files on the disk are in the old format, except those found in **SIG1993/GPRESS.DIA**, which contains all the validity data. Files can be converted from the old format using the program GETDIARY. Please refer to its documentation before using this program, which can be found in *Utility programs: Usage and Definitions*.

The formats appears as follows:

```
<record> ::= <field> <record> |
          <last field>

<field> ::= "<text>",
<last field> ::= "<text>" <CR FF>
<text> ::= <ASCII character> <text> |
          <ASCII character>

<ASCII character> ::= Any printable character from the 8-bit ASCII
                    character set.
<CR FF> ::= Carriage return , form feed pair
            (ASCII 10 and 12 respectively)
```

*Emboldened characters are literals*

In the old format there are 15 fields, whereas in the new format there are 17 fields. The above grammar allows infinite number of fields, though the format type is defined solely on the number of fields that may appear. The fields contain the same values as are found in the Cardbox format definitions, and preserve the ordering of these formats.

Examples of the two BASIC formats:

### *New Format*

```
"GP/0120","VIII","NT","TUE","29/12/92","15:00","HIS PLACE","C2","PS&PFG AS&PFG
MW,XX","N","N","N","","","28/12/92","24/01/93","1"
```

### *Old Format*

```
"LO/0001/1","II","-BK","Wed","28/10/88","10:00","home","P1","ADK & PDK ABR & PBR
AW,NX&PW,XN","n","n","n","",""
```

*In the files, each would appear on just one line*