

WIS-CS-186-73

COMPUTER SCIENCES DEPARTMENT
The University of Wisconsin
1210 West Dayton Street
Madison, Wisconsin 53706

Received: July 3, 1973

Rerun: December 1973

AUTOMATIC NOVEL WRITING:
A Status Report

by

Sheldon Klein, John F. Aeschlimann,
David F. Balsiger, Steven L. Converse,
Claudine Court, Mark Foster, Robin Lao,
John D. Oakley and Joel Smith

Technical Report #186

July 1973

ABSTRACT: presented at the International Conference on Computers in the Humanities,
July 19-22, 1973, Minneapolis.

AUTOMATIC NOVEL WRITING: A Status Report

Sheldon Klein, J. F. Aeschlimann, D. F. Balsiger, S. L. Converse, C. Court
M. Foster, R. Lao, J. D. Oakley, J. Smith

Computer Sciences Department & Linguistics Department
University of Wisconsin, Madison

Programmed in FORTRAN V on a Univac 1108, the system generates 2100 word murder mystery stories, complete with semantic deep structure, in less than 19 seconds.

The techniques draw upon the state of the art in linguistics, compiler theory, and micro-simulation. The plot and detailed development of events in the narrative are generated by a micro-simulation model written in a specially created, compiler-driven simulation language. The rules of a simulation model are stochastic (with controllable degrees of randomness) and govern the behavior of individual characters and events in the modelled universe of the story. This universe is represented in the form of a semantic deep structure encoded in the form of a network--a directed graph with labelled edges, where the nodes are semantic objects, and where the labelled edges are relations uniting those objects. The simulation model rules implement changing events in the story by altering the semantic network. Compiler or translator-like production rules are used to generate English narrative discourse from the semantic deep structure network (the output might be in any language). The flow of the narrative is derived from reports on the changing state of the modelled universe as affected by the simulation rules.

Nodes of the semantic network may be atoms, classes, or complex predicates that represent entire subportions of the network. Atom nodes and relations are linked to expression lists that may contain lexical stems or roots that are available for insertion into trees during the generation process. (Low level transformations convert the roots into appropriately inflected or derived forms. High level transformations mark the tree for application of the low level ones.) These expression lists may also contain semantic network expressions consisting of objects and relations which may themselves be linked to expression lists, thereby providing the generator with recursive expository power. An atom node may also function as a complex predicate node with status that may vary during a simulation.

Class nodes may refer to lists of object nodes, and the complex-predicate nodes can be linked to pointers to sub-portions of the network that includes themselves, allowing them to be recursively self-referential. (This would permit generation of sentences such as "I know that I know that - (sentence)").

We are also testing a natural-language meta-compiling capability--the use of the semantic network to generate productions in the simulation language itself that may themselves be compiled as new rules during the flow of the simulation. Such a feature will permit one character to transmit new rules of behavior to another character through conversation, or permit a character to develop new behavior patterns as a function of his experiences during the course of a simulation. This feature, combined with the complex-predicate nodes helps to give the system the logical power of at least the 2nd order predicate calculus.

Theoretical motivations include an interest in modelling generative-semantic linguistic theories, including case grammar and presuppositional formulations. The dynamic time dimension added to the semantic deep structure by the simulation makes it possible to formulate more powerful versions of such theories than now exist.

Table of Contents

1.0 Introduction	1
2.0 Historical Background and Related Research	4
3.0 Semantic Network & Discourse Generation System	4
4.0 Highlights of the Simulation Language	15
5.0 Novel Writer Features and Futures	27
5.1 Style Control	27
5.2 Private Semantic Universes for Individual Characters	29
5.3 Simulation of Simulations: Look-Ahead, Planning, Time Travel and Dreams	29
5.4 Semantic Parsing	30
5.5 Linguistic and Behavioral Learning: Self-Modifying Behavior and Natural Language Meta-Compiling	30
6.0 Significance for Linguistics, Sociolinguistics and the Behavioral Sciences in General	31
7.0 References	32
8.0 Appendix	34
8.1 Surface Structure//Semantic Network Production Rules	34
8.2 Transformations	36
8.3 Dictionary	37
8.4 Nodes, Relations and Classes	44
8.5 Network and Simulation Rule Plot Specification	49
8.6 Sample Murder Mystery Texts	73
8.6.1 A 2100 Word Murder Mystery Story	73
8.6.2 Murder and Solution from Story 2	108
8.6.3 Murder Scene from Story 3	109
8.6.4 Murder Scene from Story 4	109

AUTOMATIC NOVEL WRITING: A Status Report*

Sheldon Klein, John F. Aeschlimann, David F. Balsiger
Steven L. Converse, Claudine Court, Mark Foster
Robin Lao, John D. Oakley & Joel Smith

Computer Sciences Department & Linguistics Department
University of Wisconsin
Madison, Wisconsin 53706
U.S.A.

1.0 Introduction

The novel writer described herein is part of an automated linguistic tool so powerful and of such methodological significance that we are compelled to claim a major breakthrough in linguistic and computational linguistic research. What is emerging is a system for modelling human linguistic and social behavior through time, including the transmission of language and complex patterns of social behavior across generations, through the mediation of language, and according to the dictates of any generative semantic linguistic theory currently in existence, including the case grammar of Fillmore, the presuppositional model of Lakoff, and the 1972 semantic theory of Katz, as well as theories of far greater power than any heretofor suggested.

The key components are a compiler driven simulation language system that manipulates events in the form of a semantic deep structure network notation, and which has the power of at least the 2nd order predicate calculus, and a linguistic generative system that can map the semantic deep structure notation into any natural language using grammars within the framework of a variety of linguistic theories, and which can also generate productions in the language of the simulation system itself, providing a natural language meta-compiler capability.

* Portions of this research were sponsored by National Science Foundation Grant No. GS-2595, and by the Wisconsin Alumni Research Foundation

The novel writer described here is a particular application and testing of the more general system in progress. While the computer generated stories contained in the appendix are in English, they might as easily have been produced in any natural language without alteration of the simulation rules or the semantic deep structure. The simulation system that generated the plot can be used to generate any kind of human behavior, within any time scale, with any level of detail, and all within the framework of any theoretical model of behavior that a researcher may care to formulate.

For the novel writer, the simulation language was used to describe the potential behavior of a set of characters in a partially random set of situations. The deterministic aspects guarantee a murder story within the context of a weekend houseparty, arising from possible motives of greed, anger, jealousy or fear. The particular murderer and victim may vary with the random number source and with the particular specification of character traits prior to the generation. The motives for murder arise as a function of events during the course of the generation of the story.

The rules of the simulation model are stochastic, with controllable degrees of randomness, and govern the behavior of individual characters in the modelled universe of the story. This universe is represented in the form of a semantic deep structure that is encoded in the form of a network, a directed graph with labelled edges, where the nodes are semantic objects and where the labelled edges are relations uniting those objects.

The simulation rules alter events in the universe as a function of the passage of time. As the simulation progresses, the newly created events serve as the semantic deep structure input to a generative device that uses compiler or translator like rules to generate discourse in the selected natural language. The flow of the narrative is derived from successive reports on the changing state of the modelled universe.

3.

Much of the semantic, behavioral and presuppositional information can be incorporated in the behavioral simulation rules as well as in the semantic deep structure network. The rules and the deep structure are intimately related in a number of ways. As indicated, the rules can alter the universe, and yet the rules themselves can be represented in the semantic deep structure; and the rules can be used to generate sentences in the simulation language itself, thus permitting the modification of old behavior patterns or the creation of new ones. The ability to partition the semantic deep structure into static and dynamic components, coupled with the higher order predicate calculus power permits the formulation of behavioral linguistic theories and models more powerful than any currently in existence.

In the balance of this paper we shall briefly cite relevant literature and then proceed to a discussion of the system in its novel writing aspect. The appendix includes a complete listing of the simulation language program that generated our several 'novels', and a sample story, length 2100 words, produced by the program complete with semantic deep structure and English text. We also include interesting passages from three other versions of the murder mystery derived from the same basic simulation program.

We note here that the novel writing system, which is operational on a Univac 1108 computer, uses approximately 75,000 words of storage space, of which 35,000 is required for the control mechanisms of the simulation system, 20,000 for the simulation language compiler and 20,000 for the discourse generation component. Approximately 50% of this space is used for data structures. The program generates 2100 word stories, complete with semantic deep structure descriptions as well as text, in less than 19 seconds. The system is programmed in FORTRAN V.

2.0 Historical Background and Related Research

The direct antecedents of this research arise from a three-fold base: our work on dependency approximation to semantic networks in discourse generation and inference making, Klein & Simmons, 1963, Klein 1965a & b, Klein et al, 1966; our work on automatic grammatical inference, Klein, 1967, Klein et al, 1967, 1968, Klein & Kuppin, 1970, Klein & Dennison, 1971, Klein, 1973; and our research on computer simulation of group language behavior integrating all the above topics, Klein, 1965c, 1966, Klein et al, 1969, and Klein, 1972. The first publication on our simulation language in conjunction with a story producing discourse generator is described in Klein et al, 1971.

Other work involving automated semantic networks includes that of Quillian, 1966, Schank 1969, 1972, Schank & Rieger, 1973, Mel'chuk, 1970, 1972 (the list is non-exhaustive).

Work involving variants of the 1st order predicate calculus as part of the semantic base component in natural language generative models includes, McCawley, 1968, Bach & Harms, 1968, Lakoff, 1969, Green & Raphael, 1968, Coles, 1968, & Petöfi, 1973 (the list is not exhaustive).

Work involving natural language compiling into semantic representations, inference languages or simulation languages includes (in addition to our own) Kellogg, 1968, Heidorn, 1972, Simmons (in preparation), as well as Green & Raphael, ibid and Coles, ibid (again the list is not exhaustive).

3.0 Semantic Network & Discourse Generation System

The following explication is quoted from Klein, 1973, pp.3-11:

Semantic Network

The semantic network consists of objects and relations linking those objects. The object nodes and relations have no names in themselves, only numbers. But they are linked to lexical expression lists that contain lexical variants as well as other expression forms. In examples of semantic network representations of deep structures bracketed lexical items selected from the associated lexical lists are provided with the objects and relations for convenience in reading.

As an example consider the discourse:

"The man in the park broke the window with a hammer."

"John knows that."

The deep structure network representation might resemble:

```
O(man) -R(break;-1)-O(window)
|           |
R(in)      R(with)
|
O(park)   O(hammer)
```

(where the -1 represents a time earlier than present)

But the actual representation of the semantic deep structure is more subtle and has properties not obvious in this example illustration. The network is actually composed of semantic triples. A semantic triple can consist of any sequence of 2 or 3 objects and relations. Every object in the system has a unique number or address. Every triple in the system also has a unique number and is also associated with its time of creation. The network is actually stored in the form of a hash table, wherein the actual semantic network is implied and computable rather than overtly listed. The time of creation of each triple makes the application of tense transformations easy: the simulation system maintains a clock representing 'now'. Accordingly the relative time sequence among deep structure triples is readily computable, and serves as data for generation of surface structure expression of tense, etc. The actual representation of this sentence is closer to:

1. 0(man)- R(break,-time) - 0(window)

R(break,-time)- R(with)- 0(hammer)

2. 0(man) -R(in) -0(park)

where the second triple in 1. is not actually listed separately; multi-place predicates are indexable through the primary triple.

It is worth repeating that the objects and relations are actually numbered locations with links to other objects and relations. They contain no associated content expression form other than what appears on their lexical expression lists that are also linked to them. However, a lexical expression list may contain other data than just pointers to lexical stems in a dictionary. These items include semantic triples that are not in the network (for expression of idiomatic type structures) and pointers to triples that are in the network.

The objects and relations in these triples have their own links to their own lexical expression lists. The lexical expression list of an object or a relation may contain pointers to triples in the network that include triples of which it is a member.

Consider now the second sentence of the sample discourse:

"John knows that!"

encoded in the semantic network as,

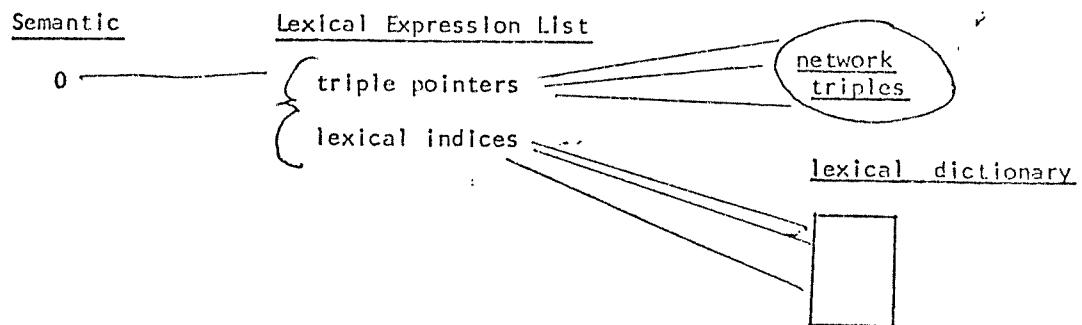
3. O(John)- R(know)- O(that)

The O(that) is a complex predicate object. Its lexical expression list contains pointers to semantic triples 1 and 2. The representation could be self-referential; if the lexical expression list of O(that) contained a pointer to triple 3, the network would represent a message approximating:

"John knows that he knows that the man in the park broke the window with a hammer."

This feature helps to give the system the logical power of the 2nd order predicate calculus (at least). Complex logical predication are represented with such predicate nodes linked by logical connective relations. Thus the statement , If A then B, where A and B are complex bodies of semantic discourse representing large portions of the semantic network, is represented simply as, O(A)- R(implication)- O(B), where O(A) and O(B) each point to lists of semantic triples that may also be of the same type--predications linking predicate objects that have pointers to triples on their lists. (Always these lists may contain self-referential pointers--serving to justify the claim that the system has the power of at least the 2nd order predicate calculus.) (Other logical devices involving classes of objects and quantifiers are associated with the simulation language manipulates and modifies the semantic network.)

A final schematic of the relevant data structures:



Generative Rules: surface structure // semantic network

The phrase structure rules in the system are part of more complex rules that compile the semantic deep structure network from surface structure-- and which also serve the function of generating surface structure from the network. The general form of such a rule is:

phrase structure rule // canonical form of semantic triple

where the phrase structure rules are of the usual sort, where linked mappings between nodes in the right half of the phrase structure rules and elements in the network specification are indicated. Strictly speaking the network specification need not be limited just to a semantic triple, as will be seen in the section on inference of rules. Some examples of rules:

$$\begin{array}{l} S \rightarrow NP \quad VP // 0 - R \\ \quad \quad \quad \boxed{VP} \\ VP \rightarrow V \quad NP // R - 0 \end{array}$$

$$NPP \rightarrow adj \quad NPP // 0 - R(\text{attribute}) - 0$$

Note that items may occur on either side of the // marks that are not linked to items on the opposite side.

Full comprehension of these rules can best be obtained through an example of generation of surface structure from deep structure. Generalized mechanisms

for context sensitive rules and transformations are part of the model.

But they are of a type more basic and primitive than in most existing linguistic generative models. They can represent more complex types of transformations when properly combined.

A Generation Example

Assume a grammar containing the following surface//semantic rules:

- | | |
|--|---|
| 1. $S \rightarrow NP \underset{\substack{V \\ \boxed{P}}} {VP} // O - R$ | 7. $VPP \rightarrow V \underset{\substack{NP \\ \boxed{PP}}} {NP} // R - O$ |
| 2. $NP \rightarrow NP \underset{\substack{PP \\ \boxed{V}}} {PP} // O - R$ | 8. $VPP \rightarrow \text{terminal}$ |
| 3. $NP \rightarrow \text{Det} \underset{\substack{NPP \\ \boxed{V}}} {NPP} // O$ | 9. $V \rightarrow \text{terminal}$ |
| 4. $NPP \rightarrow adj \underset{\substack{NPP \\ \boxed{V}}} {NPP} // O - R - O$ | 10. $PP \rightarrow prep \underset{\substack{NP \\ \boxed{V}}} {NP} // R - O$ |
| 5. $NPP \rightarrow \text{terminal}$ | 11. $prep \rightarrow \text{terminal}$ |
| 6. $VP \rightarrow VPP \underset{\substack{PP \\ \boxed{V}}} {PP} // R - R$ | |

Assume that the semantic deep structure triple set to be used in the generation

is:
 $O(\text{man}) - R(\text{ride}) - O(\text{bicycle})$
 $R(\text{ride}) - R(\text{in}) - O(\text{park})$
 $O(\text{man}) - R(\text{is}) - O(\text{tall})$

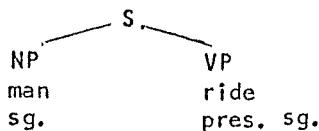
The overlap of various objects and relations in more than one triple is known to the generator by various link markings. The time associated with each triple is also part of the data. A starting symbol S is selected. A prior selective mechanism has placed the triple representing the main predication of the sentence at the top of the triple list. The generative component inspects all S rules whose right hand network description is of the same canonical form as that of the first semantic triple. Here the condition is not satisfied by the only S rule, 1. The triple is then broken into two overlapping parts, $O(\text{man}) - R(\text{ride})$ and $R(\text{ride}) - O(\text{bicycle})$. The S rules are then inspected for matches with the fractioned canonical forms. The first matches rule 1.

At this point lexical stems are selected from the lexical expression lists associated with the objects and relations in the matched triple fraction. A selected lexical item is tentatively assigned to the node indicated by the link in the syntactic//semantic rule. Grammatical information associated with the lexical item in the dictionary indicates whether or not it can serve as the head of a construction dominated by the node under which it was selected. In this case:

		<u>Lexical Dictionary</u>			
		NP	VP	PP	ADJ
NP	man	1	1	0	1
VP	ride	1	1	0	0
Sg.					

A bit vector in the dictionary indicates the applicability of a particular node. Note that both man and ride could serve as nouns or verbs. The grammar also marks the forms when appropriate for application of low level transformations at a later stage. If man were selected as a stem to fill a slot defined by an adjective node, ADJ, it would at this time be marked for later application of a transformation that would add -ly to it. If the lexical dictionary should prevent the selection of a form, an alternate from the lexical expression list is tried. If none on the list are acceptable, another surface//semantic rule is selected to express the semantic triple. Number for objects is indicated directly in the lexical expression list associated with the particular object (some objects may be inherently plural, as in the case of objects that represent classes). As soon as the lexical items are selected and accepted (the stage in the preceding diagram), a test for applicability of a high level transformation is made. This transformation uses as its index information that never becomes more complex than the subtree indicated

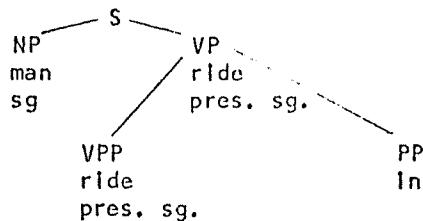
in the above diagram--"a nuclear family tree"-- a parent node and its immediate descendants. Often, as in this case, the lexical items are not relevant to the transformation, that here marks the VP with the same number as the NP.



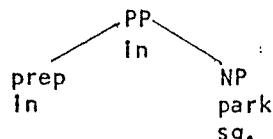
Low level transformations that operate only on terminals and their immediate parent nodes will actually convert the stems to the appropriate words at the end of the generation process. The transformation markings supplied by the high level transformations are carried with the lexical items and may serve as part of the data for defining the applicability of other high level transformations. This breaking up of the transformational component into two types of limited environment primitive operations permits extremely rapid transformational generation and parsing algorithms. The complex labor of searching for applicable environments common to most other automated transformational systems is avoided.

Tense information is obtained from the time marking of the triple. The simulation system maintains a clock, and the relative time order of the triples in the deep structure generation list can be computed, so that the proper items may be marked for application of transformations handling tense.

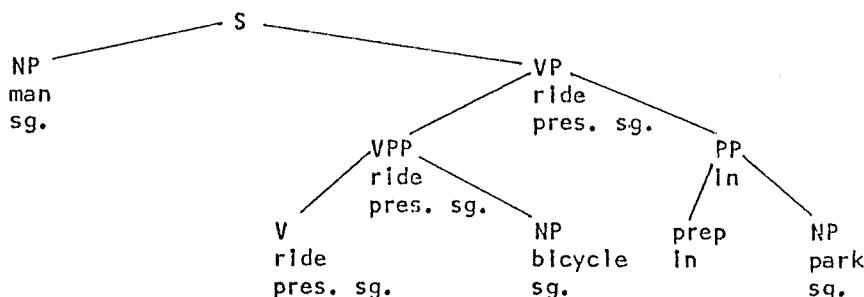
Continuing the generation process, the system saves the remainder of the first triple and skips to the second because of a special link between their relations indicating simultaneity. No VP rule matches the second triple, and it is split into the fractions R(ride) - R(in) and R(in) - R(park). The first fraction matches rule 6. After lexical item in is selected, the tree appears as:



The second triple fraction matches rule 10, yielding after lexical selection:

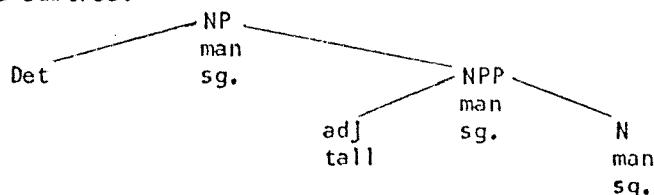


At this point, the second fraction of the first triple is matched against rule 7, and, after lexical selection, the entire tree appears as:



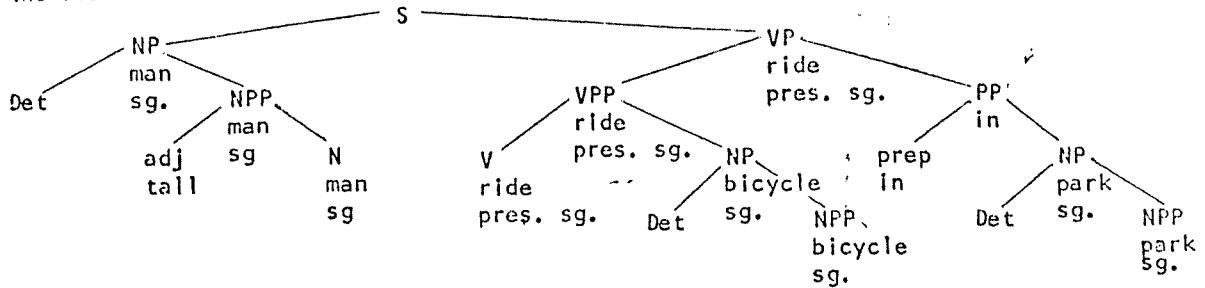
No rule matches the remaining triple O(man) - R(is) - O(tall). Rule 2 matches the first fraction, but the lexical list for the relation R(is) contains no item acceptable as a PP node descendant. Accordingly, rule 3 is selected. At this point a high level transformation marks the Det for conversion to an appropriate form at the final stage. (If the lexical item had been a proper noun, the Det node would have been marked for deletion.)

At this point rule 4 applies to the entire, unfractionalized, remaining triple, yielding the subtree:



At this point rule 3 is applied to the NP nodes dominating bicycle and park.

The resultant tree is:



The final, low level transformations are applied, yielding the sentence:

"The tall man rides the bicycle in the park"

Note that the semantic triple set might have generated more than one sentence to express the content--either by deliberate stylistic design, or because the rules might not have permitted a grammatically correct construction incorporating the entire semantic structure.

In addition to the features described in the preceding quoted excerpt, we note that the current system makes use of production rules that refer to subclasses of relations. While such subclassification is not logically necessary for the mapping of semantic triples into surface structure, it does increase the speed of generation through the elimination of wasted effort in matching semantic triples with inappropriate rules. In the novel writer data base, for example, there are categorizations of relations into prepositional and non-prepositional types (among others) and a coding logic that permits a retreat to a more general categorization upon failure to find a match in the grammar for a particular subcategory.

There are also relations having a numeric logical typing. Such a relation may be used to select a lexical expression item as a function of its current numeric value. For example a numeric relation signifying "affection" may vary on a scale of plus or minus 3, where plus 3 might be linked to the lexical item "adore" and minus 3 to the item "loathe". In between values link to less extreme terms. The value of such a relation can change dynamically in a simulation as a function of events--accordingly, the appropriate lexical expression of the changing relation follows automatically.

Other features include the listing on generation or change stack of deleted triples and the possibility of marking the lexical expression list pointers with plural transformation markers. This last feature is for semantic nodes whose logical status is always plural, such as nodes that represent classes and whose lexical expression lists only contain pointers to terms descriptive of the entire class. (The dictionary only contains singular stems--hence the pointers to the dictionary connected to such nodes must receive prior plural marking.)

4.0 Highlights of the Simulation Language

A detailed description of an early version of the simulation language is contained in Klein, Oakley, Suurballe & Ziesemer, 1971. The basic function of the simulation component is to modify the semantic deep structure network as a function of stochastic behavioral rules that are evaluated in reference to an internal timekeeping mechanism.

A rule consists of two parts, a series of actions and a series of conditions for the implementation of those actions. The conditions are in the form of logical queries about the current state of the modelled universe as represented in the semantic network. Satisfaction or non-satisfaction of the various conditions contribute, either negatively or positively, to a cumulative probability of implementing the action list. A random number source is consulted after the conditions have been evaluated. If the preferred random number is less than or equal to the computed cumulative probability, the action list is implemented. The process can be made deterministic or random with any desired degree of control through manipulation of the probability parameters. Deterministic control is obtained by assigning very high values, such as plus or minus 10, to certain conditions because the range of the random number source is 0 to 1 (a value of 1 or greater indicates certainty and a value 0 or less is absolute rejection).

An internal clock mechanism determines the time of evaluation of groups of rules. Each group has a frequency of evaluation associated with it, and this frequency may be altered by action of some other rule. It may be increased or decreased or, in fact, temporarily or permanently turned off or disabled. A disabled rule may be reactivated.

There is also a directed sequence of evaluation through groups of rules in addition to the frequency factor. This sequence may be altered dynamically as a function of the actions of various rules.

The language also permits the use of classes of nodes in its actions and tests, and can also allow variables over those classes, as well as dynamic modification of class membership. There are both subscripted and unsubscripted classes and the subscripted class notation permits a class intersection logic in rules with class variables. For example, a subscripted class FRIENDS(X), where X is a node name or another class name, can function as part of a logical construct in rule condition evaluation expression or action lists.

We present next a grammar of the rules in BNF phrase structure notation, a description of the action types, and a series of examples and notes. The material should help the reader follow the murder mystery simulation program in the appendix, Section 8.6 .

GRAMMAR OF THE RULES

```

<single-valued field> ::= <node name> | <loop-variable name>
<multiple-valued field> ::= <subrule-variable name> | <general class reference>
                           | PICK ( <multiple-valued field> )
<specific class reference> ::= <unsubscripted-class name>
                               | <subscripted-class name> ( <single-valued field> )
<general class reference> ::= <specific class reference>
                               | <subscripted-class name> ( <multiple-valued field> )
<general node field> ::= <single-valued field> | <multiple-valued field>

<unary op> ::= NOT | FLOAT | ABS | ENTIER | - | +
<binary op> ::= ** | * | / | MOD | + | - | EQ | NE | LT | LE | GT | GE
                | AND | OR
<LENGTH function> ::= LENGTH ( <multiple-valued field> )
<CLOCK function> ::= CLOCK
<relation DUR function> ::= DUR ( <relation name> )
<subrule DUR function> ::= DUR ( <general node field> <relation name>
                                    <general node field> )
<constant> ::= <number> | <duration>

<relation field operand> ::= <relation name> | <LENGTH function>
                            | <CLOCK function> | <relation DUR function>
                            | <constant>
<relation field subfactor> ::= <relation field operand>
                                | ( <relation field expression> )
<relation field factor> ::= <relation field subfactor>
                            | <unary op> <relation field factor>
<relation field expression> ::= <relation field factor>
                                | <relation field expression> <binary op> <relation field expression>

```

```

<subrule-variable definition> ::= <subrule-variable name> <multiple-valued field>
<sentence node field> ::= <general node field> | <subrule-variable definition>
<sentence> ::= ( <sentence node field> <relation field expression>
                  <sentence node field> )

<subrule operand> ::= <sentence> | <LENGTH function> | <CLOCK function>
                     | <subrule DUR function> | <constant>
<subrule subfactor> ::= <subrule operand> | ( <subrule expression> )
<subrule factor> ::= <subrule subfactor> | <unary op> <subrule factor>
<subrule expression> ::= <subrule factor>
                     | <subrule expression> <binary op> <subrule expression>

<option field> ::= <empty> | , <option characters>
<option characters> ::= {zero or more option characters}

<true-false number field> ::= <empty> | <number> , <number>
<subrule action field> ::= <empty> | : <action list>
<subrule> ::= <true-false number field> <option field> :
              <subrule expression> <subrule action field>
<subrule list> ::= <empty> | <subrule list> <subrule>

```

DESCRIPTION OF ACTIONS

I. ACTIONS affecting the network

I-1. Set triples in the network

where triple: OBJECT(O) RELATIONSHIP(R) OBJECT(O)

Forms: A. O R O

B. O R = X O

C. O R

D. O R = X

FORM OF TRIPLE DEPENDS ON RELATIONSHIP TYPE:

A. is transitive or intransitive relation, B. is numeric or quantitative intransitive, C. is attribute relation, D. is quantitative attribute relation or numeric attribute relation

I-2. To delete triples in the network

Form: O 'NOT' R (O)

I-3. To modify numeric relationships in the network

Form: O R ± X (O)

I-4. To set secondary triples in the network

*INSERT (TRIPLE) (SECONDARY TRIPLE)

Secondary triples are modifiers of primary triples and are transparent to the network, being accessable only through the primary triple which it modifies. The form of a secondary triple is arbitrary with the restriction that the second argument is a relationship and the number of arguments ≤ 3.

I-5. To delete secondary triples from the network

*DELETE (TRIPLE) (SECONDARY TRIPLE)

NOTE: replace all references to <NODE> by <GENERAL NODE FIELD>

II. ACTIONS affecting classes

II-1. To add nodes to a class

*ADD <NODE>'TO'<CLASS> : adds all members of <GENERAL NODE FIELD> to <CLASS>

*MOVE <NODE>'TO'<CLASS> : the contents of <CLASS>
is replaced by <GENERAL NODE FIELD>

II-2. To remove nodes from a class

*REMOVE <NODE>' FROM' <CLASS>

II-3. To remove all entries from a class

*ERASE <class>

III. ACTIONS affecting lexical items

III-1. To add lexical triples at run-time where the lexical triples are arbitrary combinations of 0's and R's ≤ 3 entries.

*LEXTRP (arbitrary triple)....'TO'<NODE>|<RELATION>

III-2. To move lexical triples from one node or relation to another at run time

*LEXADD <NODE>|<RELATION>... 'TO' <NODE>|<RELATION>

IV. ACTIONS affecting predicate nodes

IV-1. To insert pointers to network triples to the predicate list of a node.

*DISCADD (triple)....'TO' <NODE>

this action will also create triples which do not already exist in the network

IV-2. To clear the list of pointers to network triples of a node

*DISCLEAR <NODE>

V. Actions to control the scheduling of groups of rules

V-1. To activate a group

*ENABLE <GROUP NAME> IN <DURATION>

V-2. To de-activate a group

*DISABLE <GROUP NAME>

VI. Miscellaneous Actions

VI-1. To print a list of all triples with a specified node as the subject

*DUMP <NODE>

VI-2. To control the printing of trace messages in the

A. *TEST ABCDE = 1000

ABCD and E are optional trace types, the number to the right of = is a maximum line count for the number of traces to be printed.

B. *TSTOP ABC

Turns off the traces specified.

C. *TSTART AB

Turns specified traces on or back on.

VI-3. To print a message

*PRINT <PRINT ARGUMENT>

VI-4. To terminate simulation

*END

EXAMPLES AND NOTES

Assume in the following examples that the names below have these associations:

Node names:	JOHN MARY GEORGE SUE BEDROOM
Relation names:	(A): HAPPY SAD
	(I): LIKES LOVES IN HATES DISLIKES
	(NI): AFFECTION
Class names:	unsubscripted: PEOPLE ROOMS
	subscripted: FRIENDS()
	ENEMIES()
	ADJACENT()
Loop-variable names:	PERSON ROOM X Y
Subrule-variable names:	P Q R

General notes:

- (a) Input cards are read between columns 1 and 72; 73-80 are ignored.
- (b) Free format. Blanks can be used freely except in the following cases. Blanks must not appear (1) within numbers, durations, or reserved words; (2) anywhere in an option field; (3) between trace characters.
- (c) Names must start with a letter, followed by letters or digits to any length. However, only the first 8 characters are saved. Thus, LOOPNAME1 and LOOPNAME2 would be taken as the same variable by the system.
- (d) Relations can be of the following types:
 - A: attribute (normal)
 - I: normal intransitive
 - T: transitive
 - NA: numeric attribute (with synonym list)
 - NI: numeric intransitive (")
 - QA: quantitative attribute (no synonym list)
 - QI: quantitative intransitive (")

- (1) <multiple-valued field> : P
 FRIENDS(GEORGE)
 ADJACENT(ROOMS)
 PICK(PEOPLE)
 ENEMIES(PICK(FRIENDS(Q)))
 PEOPLE
- The PICK function returns a single node, chosen randomly, from its argument. Multivalued subscripts implies concatenation of the specified subscripted classes.
- (2) <specific class reference> : PEOPLE
 FRIENDS(PERSON)
 ADJACENT(BEDROOM)
- (3) <general node field> : JOHN MARY PERSON
 P PEOPLE ENEMIES(PICK(Q))
 PICK(PEOPLE)
 ADJACENT(ROOMS)
- (4) <unary op> : The FLOAT operator operates on arguments of type logical, giving 1.0 for TRUE and 0.0 for FALSE. The ENTIER operator truncates the fractional part of a number (eg, ENTIER(14.23)=14.0).
- (5) <binary op> : The symbols =, ≠, <, ≤, >, ≥ can be used as synonyms for the relational operators EQ, NE, LT, LE, GT, and GE.
- (6) <LENGTH function> : LENGTH(PEOPLE)
 LENGTH(ADJACENT(ROOMS))
- Returns a number equal to the number of nodes in its argument.
- (7) <CLOCK function> : Returns a number which corresponds to the time of day, ie from 0H00 to 23H59M.
- (8) <relation DUR function> : DUR(LIKES)
 DUR(IN)
 DUR(HAPPY)
- This function occurs inside a sentence.
 (S DUR(R) O) returns a number equal to the length of time this triple has been in the network. The relation name must be of a non-numeric relation. If the triple does not exist, a run-time error is printed and 0.0 is returned.
- (9) <subrule DUR function> : DUR(JOHN LIKES MARY)
 DUR(PERSON IN R)
- Returns a number equal to the length of time a triple has been in the network. The relation name must be non-numeric. While multiple-valued fields are allowed in the syntax, they must contain only a single value at execution time of a DUR function, or else a run-time error will result. Note that no subrule-variable updating ever occurs in a subrule DUR function. If the specified triple is not in the network, an error is printed out, and 0.0 is returned.

(10) <relation field expression>:

```

LIKES
LIKES AND NOT (HATES OR DISLIKES)
DUR(LIKES) GT 1H OR DUR(LOVES) GT 30M
LENGTH(P) GT 0 AND DUR(LIKES)/1H*.001 LE DUR(LOVES)
ABS(AFFECTION*.003) + FLOAT(LIKES)/10.

```

Relation field expression can be either of type logical or type numeric. A relation name that is numeric or quantitative (ie, NA, NI, QA, or QI) is taken as a numeric operand. Other types (A, I, or T) all are assumed to be logical operands (except within a DUR function). The type of the relation expression determines what type of result the enclosing sentence will return, either a logical value or a numeric value. The operators have specified precedences not explicitly implied in the grammar, and checks are made for correct operand types.

(11) <sentence>:

```

(PERSON LIKES OR LOVES P.PEOPLE)
(JOHN AFFECTION MARY)
(X DUR(LIKES) Y)
(GEORGE DUR(LOVES)LT 1W SUE)
(FRIENDS(X) AFFECTION LT 0 Y)
(X HAPPY OR NOT SAD)
(MARY HAPPY AND LIKES JOHN)

```

All these sentences return a logical result except the second and third ones. If the relation expression in a sentence yields a numeric value, the subject and object fields of the sentence must be single-valued, or else an error will result.

(12) <option field>: An optional field which specifies the options to be in effect. Currently used options are:

- S Synchronous group flag. Used in the option field of a \$GROUP statement to flag a group as synchronous. Eg., \$GROUP,S NEWS: 1H/ON; defines a group which will be executed at hour intervals, on the hour.
- O Optimization flag. (Sentences with side effects are not necessarily executed in the subrules, depending on the results of previous logical results).
- C Current cycle flag. Allows sentences to test for triples which have been set true during the current time cycle. (Otherwise these are not available till a later time cycle, ie, they act as if they weren't there during the same time cycle).

An option field specified on a \$GROUP, \$LOOP, \$RULE, or \$SWITCH statement is in effect for all subrules within its scope, unless explicitly overridden by an option field at a lower level.

(13) <subrule> :

```

.2,O:  (PERSON LIKES OR LOVES P.PEOPLE) AND (P IN ROOM);
-10,O,C: (X NOT IN HOUSE) OR (Y NOT IN HOUSE);
-.1,+.2: (P.PEOPLE LIKES X) AND (Y LIKES P):
           *MOVE P TO TEMPCLS,
           *ADD X TO TEMPCLS;
,OC:      (X AFFECTION MARY)*0.1 + .2;
:      CLOCK/24H + FLOAT(CLOCK LT 5H);

```

Execution of a subrule returns a number (ie, probability) and optionally specifies an action list to be unconditionally executed. Options in effect for this subrule are either explicitly stated, or are gotten from the last option field in effect (eg, the enclosing \$RULE). A "probability" of +10 or -10 means "abort the subrule list" and return either a TRUE or FALSE for the rule.

(14) <action list> : A list of one or more actions, separated by commas. Actions can either add or delete triples from the network, or perform a control action such as manipulating classes, enabling or disabling groups, or specifying trace or print parameters.

(15) <branch field> :

```

RULE1
$NEXT PERSON
$NEXT X
$ENDGROUP

```

A statement label gives the statement to branch to. A rule can branch anywhere within a group, including out of a loop into an outside loop, but not within a non-enclosing loop. The \$NEXT format says to get the next value for a loop variable (equivalent to flowing into an \$ENDLOOP statement for that loop). A branch to \$ENDGROUP terminates the execution of the group, though it does not disable the group (a *DISABLE action is the only thing which can do this).

(16) <\$RULE statement> : Basic unit of the language. The cumulative total of the subrule probabilities is tested against a random number which is generated. If the random number (between 0 and 1) is less than or equal to the cumulative total, the rule evaluates TRUE, and the action list of the rule is executed. If not, then it evaluates to FALSE and no actions in the rule's action list are executed. If a branch part is specified, the TRUE or FALSE result also tells where to branch to. Eg,

```

$RULE,C ABC: T($NEXT X) X LIKES Y, *ADD Y TO FRIENDS(X);
-.2,O: (X HATES OR DISLIKES Y);
.4,O: (P.FRIENDS(X) LIKES Y) AND (X LOVES P);

```

(17) < \$SWITCH statement > : This is exactly the same as a \$RULE statement except that an action list cannot be specified in the main part of the statement (ie, subrule action lists are still allowed). This statement is used only for branching purposes.

(18) < \$LOOP statement > : The specified loop variable will take on all values in the associated multiple-valued field, one at a time. One pass through the loop is made for each different value the loop variable takes on. Note that the values in this multiple-valued field are saved on loop entry, and even if the values of this field change during the execution of the loop, this will have no effect on the order or number of loop passes made. Eg,

```
$LOOP,OC : X.FRIENDS(Y);
```

(19) <statement list> : This is defined such that any \$LOOP statement must have a matching \$ENDLOOP statement. Such loops can be nested (currently to a maximum level of 10 only), and can contain other types of statements.

(20) < \$GROUP line > : Identifies the start of a group, gives its time increment, and specifies whether the group is enabled initially or not. The time increment of a group says how often that group will be executed if it is enabled. The "synchronous flag" on a group requires execution of the group only at even multiples of the specified increment. A group can disable or enable any other group, including itself. A group cannot be executed if it is disabled.

(21) Subrule-variables: These are local variables that can take on a list of values and get updated within a rule. Any subrule variable defined inside a given rule is unknown outside that rule and therefore cannot be referenced. However, the contents of a particular subrule can be saved in a class by a control action in a subrule action list.

The initial definition of a subrule variable creates a copy of the values (ie, nodes) in the specified multiple-valued field. As the subrule-variable is referenced, values in the variable may be deleted. In fact, the only values that are allowed to remain in a subrule-variable are those which make the sentence return TRUE as a result. (If the sentence returns a numeric result (instead of logical), subrule variables within it are not updated, and an error occurs if a subrule variable contains more than one value.)

Eg. (P.PEOPLE LIKES OR LOVES X)

After evaluation, P will contain all those nodes in the class PEOPLE that either LIKES or LOVES X. If no one likes or loves X, P will be set to empty and FALSE returned. If at least one value in P makes the sentence TRUE, then the sentence will return TRUE.

5.0 Novel Writer Features and Futures

The data base for the murder mystery simulation is rather simple and skeletal. A very small grammar was used with only a few transformations. The lexical expression lists contain only a limited selection of variants for the semantic nodes and relations. Some errors in the grammar codes of some dictionary items remain.

Our goal was to test the entire system. It is capable of operating with a vastly more sophisticated data structure. Also, not all features of the simulation language were exploited in the murder mystery program. The predicate node device was not used. Text involving productions such as, "George knows that John loves Mary", were derived from exploitation of the same secondary triple device that handled expressions of the type, "John broke the window with a hammer." The reason: while the simulation language can dynamically add semantic triple list pointers to nodes and relations, the code for adding the indicated triples to the change stack is not fully implemented. The final implementation of this code will permit easy generation of direct discourse, e.g. constructions such as "John said, '(sentence₁, sentence₂...sentence_n)'"

5.1 Style Control

While some effort was made to control a few facets of style in the current simulation, most possibilities remain to be exploited. We have found that the simulation language itself can be exploited as a style control device. Various constructs in the rules indicate which triples may be combined into a single sentence according to a sequencing logic. Also, the repetition of the same action by several characters at the same time is usually expressed by a pronoun such as "They..." or "Everyone..." even though each individual action is separately tabulated in the semantic network. To achieve this a special

"They" node was created in combination with a "They" class. Several individuals performing the same action in the same time period are assigned temporarily to the "They" class, and output makes use of a triple signifying the action with the "They" node functioning as the subject. Special commands such as UNLST and LST alternately block and unblock the generation of uninteresting or repetitious semantic triples. This blocking is occasionally introduced as a random device to vary the output.

A crude and not always successful device is used to control the use of definite and indefinite articles. For the first occurrence of some nodes on the change stack "a" is selected--in successive productions "the" is used. (This tabulation holds for all succeeding time frames.) The device collapses where the simulation program data structure has apportioned only a single class type node for several objects (out of laziness or for economy).

Weighted probabilistic selection of syntactic rules is a device that, although not used in the current system, was actually successfully tested in an automatic essay paraphrasing and style control system described in Klein, 1965a & b.

Narration from the point of view of particular characters is another possibility, and is perhaps most interestingly implemented with the addition of private semantic universes (see section 5.2).

Addition of a complex network searching component will permit the system to add rich contextual detail to events. For example, where now a change stack may contain just some bare facts about recent changes, a network searching device could seek paths between nodes in apparently unrelated triples, and, if paths exist, add them to the change stack as linking background information.

It should also be possible to have different characters produce discourse in varying styles and dialects as a function of sociolinguistic context.

The techniques are implicit in the following discussion of private universes.

5.2 Private Semantic Universes for Individual Characters

The ability to provide individual characters in a simulation with private semantic networks, personalized grammars, and even personalized behavioral simulation rules can be achieved with only mildly clever systems programming techniques. The operating system on the Univac 1108, and operating systems of perhaps all 3rd and 4th generation computers have system commands to facilitate a restart capability--that is, the ability to store on disc the current state of a program at specified intervals during execution so that in the event of system failure, the program may be restarted at the point of the last execution of a "store on disc command", without the necessity of starting the program from the beginning.

To implement private universes for individual characters, it is only necessary to add an executive program that will treat each private universe as the total universe when it is resident in core storage, and to save it on disc with a unique name when it is ready to process another character's private universe. The existence of core-resident buffers for communication between private universes is assumed.

5.3 Simulation of Simulations: Look-Ahead, Planning, Time Travel and Dreams

Implementation of the private universe capability permits some fascinating possibilities: An individual character could be made to resort to his own look-ahead simulation of events in order to evaluate decision making criteria about the implication of current actions on future events. This would require a private simulation using the data and rules of a private universe. The outcome or outcomes could serve as data to compute probabilities of courses of action for the private individual's actual, simulated real world behavior. Of course

introspective, look-ahead simulation need not give accurate results, only hypothetical predictions based on the private rules of a private universe. Naturally, such a universe might contain models of other characters and their private universes. The device also lends itself to the modelling of dream behavior.

For those readers with an interest in science fiction fantasy, we note that this device can be used to model time travel stories, with all conceivable paradoxes. Essentially, it is necessary that the rules permit a private character to treat his introspective look-ahead (or look-back) as serious reality rather than speculation. In the case of travel into the past, all the other characters must take the look-back seriously also.

5.4 Semantic Parsing

The private universe concept makes it interesting to allow communication between modelled characters directly via conversational interaction. Of course sophisticated semantic parsing techniques are required. A great deal of work in this area has been attempted by numerous researchers. Although we have not implemented such programs in this system, preliminary study suggests that it will permit semantic parsing 1 gic many times more powerful than any in programs currently in existence. The reason: we own the universe of discourse, a universe where all the subtlties of behavior, motivation and context over complex time intervals are all available as data for resolution of the ambiguity that always plagues development of sophisticated semantic parsers.

5.5 Linguistic and Behavioral Learning: Self-Modifying Behavior and Natural Language Meta-Compiling

The use of this system for modelling speech communities, language learning and language transmission in conjunction with sociolinguistic models has been explored in detail in Klein, 1965c, 1966, 1972 and Klein et al 1969.

The transmission and learning of complex, non-verbal behavioral patterns is also possible using the same mechanisms of the system. Simulation rules may also have a representation in the semantic deep structure network of private individuals. Also, the semantic deep structure may be used to generate sentences and texts (rules and rule groups) in the simulation language itself. The system already has the ability to compile dynamically and add to the simulation new rules that might be generated during the flow of a simulation. It thus becomes possible for characters to modify their own behavior rules in response to private introspection and look-ahead, or in response to verbal and non-verbal behavior of others.

The simulation rules governing rule generating behavior may themselves be modified and generated by the same mechanisms, providing the system with a natural language, meta-compiler capability.

6.0 Significance for Linguistics, Sociolinguistics and the Behavioral Sciences in General

We dare to say that Linguistic Theory has no future that is not linked to a computer based experimental methodology. Contemporary linguistic theoretical science has many brilliant theorists in the position analogous to that of a great mathematician attempting to formulate the methodology of long division using roman numerals.

The system described here, with its potential development, provides a means of expressing and testing a vast range of theoretical linguistic models in conjunction with a vast range of sociological and psychological behavioral models, all within the framework of a common, efficient, dynamic time-oriented notation. The implication is that, for the first time, it will be possible to test heretofore untestable theories of language and language related behavior in psychological, sociological and historical contexts.

7.0 References

- Bach, E. & Harms, R.T. 1968. Nouns and noun phrases. In Universals in Linguistic Theory. Chicago: Holt, Rinehart and Winston, Inc.
- Coles, S. L. 1968. An on-line question-answering system with natural language and pictorial input. In Proc. ACM 23rd Nat. Conf. Princeton: Brandon Systems Press
- Fillmore, C. J. 1968. The case for case. In Universals in Linguistic Theory. Chicago: Holt, Rinehart and Winston, Inc.
- Green, C. C. & Raphael, B. 1968. Research on intelligent question-answering systems. In Proc. ACM 23rd Nat. Conf., Princeton: Brandon Systems Press.
- Heidorn, G. E., 1972. Natural language inputs to a simulation programming system. Report NPS-55 HD72101A, Naval Postgraduate School, Monterey California
- Katz, J. 1972. Semantic Theory. New York: Harper & Row.
- Kellogg, C. H. 1968. A natural language compiler for on-line data management. In Proc. AFIPS 1968 FJCC, Vol. 33, Montvale: AFIPS Press.
- Klein, S. 1965a. Automatic paraphrasing in essay format. Mechanical Translation, Vol. 8, Nos. 2 & 3 combined.
- Klein, S. 1965b. Control of style with a generative grammar. Language, Vol. 41, No. 4.
- Klein, S. 1965c. Some components of a program for dynamic modelling of historical change in language. Preprints of Invited Papers for 1965 International Conference on Computational Linguistics, New York.
- Klein, S. 1973. Automatic inference of semantic deep structure rules in generative semantic grammars. UWCS Tech Report 180, May. Also in press, Preprints of Papers Presented at 1973 International Conference on Computational Linguistics, Pisa, August 27-September 1.
- Klein, S. 1967. Current research in the computer simulation of historical change in language. Actes du X^e Congrès International des Linguistes, Bucharest 1967. Vol. IV. (actually published 1970). Academy of the Socialist Republic of Roumania.
- Klein, S. 1972. Computer simulation of language contact models. UWCS Tech Report 167. Also in press, Proceedings SECOL 8 Conference, Oct. 26-29, 1972, Georgetown Univ.
- Klein, S., Davis, B., Fabens, W., Herriot, R., Katke, W., Kuppin, M.A., & Towster, A. 1967a. AUTOLING: an automated linguistic fieldworker. Second International Conference on Computational Linguistics, August 1967, Grenoble.
- Klein, S., Fabens, W., Herriot, R., Katke, W., Kuppin, M.A., & Towster, A. 1968. The AUTOLING system. UWCS Tech Report 43, Univ. of Wisconsin Computer Sci. Dept.
- Klein, S. & Dennison, T.A. 1971. An interactive program for learning the morphology of natural languages. UWCS Tech Report 144. Also in press, Proceedings of the 1971 International Conf. on Computational Linguistics, Debrecen, Hungary, September 1971. Mouton & Hungarian Academy of Sciences.
- Klein, S. & Kuppin, M.A. 1970. An interactive, heuristic program for learning transformational grammars. UWCS Tech Report 97. Also in Computer Studies in the Humanities & Verbal Behavior, Vol. 3, No. 3, October 1970.

- Klein, S., Kuppin, M.A., & Meives, K. 1969. Monte carlo simulation of language change in Tikopia and Maori. Preprints of Papers Presented at the 1969 International Conference on Computational Linguistics, Stockholm: KVAL.
- Klein, S., Lieman, S.L. & Lindstrom, G.D. 1966. DISEMINER: a distributional-semantic inference maker. Tech Report of Carnegie Inst. of Tech., and, Computer Studies in the Humanities & Verbal Behavior, Vol. 1, No. 1, Jan. 1968.
- Klein, S., Oakley, J.D., Suurballe, D.A., & Ziesemer, R.A. 1971. A program for generating reports on the status & history of stochastically modifiable semantic models of arbitrary universes. UWCS Tech Report 142. Also in Statistical Methods in Linguistics 3, 1972. Also in press, Proc. of 1971 Int. Conf. on Computational Linguistics, Debrecen, Hungary, September 1971, Mouton & Hungarian Academy of Sciences.
- Lakoff, G. 1969. Generative semantics. In Semantics--An Interdisciplinary Reader in Philosophy, Linguistics, Anthropology and Psychology. London: Cambridge Univ. Press.
- McCawley, J.D. 1968. The role of semantics in a grammar. In Universals in Linguistic Theory, Bach & Harms, editors, Chicago: Holt, Rinehart and Winston Inc.
- Mel'čuk, I.A. 1972. *Графико-представление лексикобиблейской и одызейской эпической монологов «Ламбак» <→ Маха»*. Продолжение. Кандидатская диссертация, Библиотека 30, Ученых Работах РГУ СССР. Москва.
- Mel'čuk, I.A. & Žolkovskij, A.K. 1970. Toward a functioning 'meaning-text' model of language. Linguistics 57, May 1970.
- Petőfi, J.S. 1973. Towards an empirically motivated grammatical theorie of verbal texts. Bielefelder Papiere zur Linguistik und Literaturwissenschaft. Also in press, in Studies in Text Grammar, Petőfi & Rieser, editors, Dordrecht: Reidel.
- Quillian, R. 1966. Semantic memory. Ph.D. Thesis, Carnegie-Mellon University, Pittsburgh. Also, Cambridge, Mass.: Bolt, Beranek & Newman, 1966.
- Schank, R.C. 1969. A conceptual dependency representation for a computer-oriented semantics. AI Memo-83, Computer Science Department, Stanford University.
- Schank, R.C. 1972. Conceptual dependency: a theory of natural language understanding. Cognitive Psychology, Vol. 3, No. 4.
- Schank, R.C. & Rieger, C.J. 1973. Inference and the computer understanding of natural language. Stanford Univ. Artificial Intelligence Memo AIM-197, May.
- Simmons, R.F. 1970. Some relations between predicate calculus and semantic net representations of discourse. Computer Science Dept. Preprint, U. of Texas, Austin.
- Simmons, R.F. 1972. Generating English discourse from semantic networks. Communications of the ACM, Vol. 15, No. 10.
- Simmons, R.F. (in preparation). Compiling semantic networks from English sentences.

8.0 Appendix

The semantic deep structure model, as reflected in the choice of nodes, relations and mappings has been more or less arbitrary and experimental, even deliberately inconsistent. The function of the system is independent of the choice of semantic units. One may substitute any scheme according to the dictates of any theory. However, preliminary results suggest that any number of semantic deep structure components will all work nicely, and that the usual arguments for economy or elegance that are to be found in linguistic literature are not necessarily valid in this system. We sense the possibility of proof that such arguments are really functions of the particular notational devices used. A basic principle in computational work is that there is an economy trade between static storage space versus computation time. The non-computational models of linguistic theorists ignore this fact in their proposals and arguments for models of human language behavior.

8.1 Surface Structure//Semantic Network Production Rules

Logically, the system need not be limited to semantic 3-tuples and binary phrase structure rules, although such a convention has been used in this version.

0 = object, sub 1 = that	RV = verb, sub 1 = start, stop
R = any relation	RP = prep
RA = attribute (adj)	RS = possessive,
	RADV = adverb, sub 1 = adv before verb

PMAP positionally defines mappings between PTYPE triple fragments and the phrase structure rule portions. E.g. in rule 1, the 0 is linked to the NP and the RV is linked to the VP; in rule 4, the first 0 is linked to NPP, the RS is linked to nothing and the second 0 is linked to PNP. PSUB positionally lists relation type subscripts in parallel fashion. PTRANS indicates high level transformation mapping information associated with each rule:

- | | |
|---|--|
| 1. = carry down bit vector (null trans.) | 2. = OR (logical) bit vectors of new nodes |
| 3. = set infinitive bits for both words | 4. = set participle bit for second word |
| 5. = set objective case bit for second word | |

GRAMMAR		PTYPE		PMAP		PSUB	
1	S	NP	VP	0	RV	1	2
2	S	NP	AP	0	R	1	2
3	NP	ART	NPP	0		2	0
4	NP	PNP	NPP	0		2	0
5	NP	N		0	RS	0	0
6	NPP	ADJ	NPP	0	RA	1	2
7	NPP	NPP	MOD	0	RP	1	2
8	NPP	NPP	MOD	0	RV	1	2
9	VP	V		RV		1	0
10	VP	VP	VP	RV	RV	1	0
11	VP	VP	VP2	RV	RV	1	0
12	VP	VP	THAT2	RV	0	1	2
13	VP	VP	NP	RV	0	1	2
14	VP	VP	MOD	RV	RA	1	2
15	VP	VP	MOD	RV	RP	1	2
16	VP	ADV	VP	RV	RADV	2	1
17	VP	VP	ADV	RV	RADV	1	2
18	MOD	PART		RV		1	0
19	MOD	ADJ		RA		1	0
20	MOD	PREP		RP		1	0
21	MOD	PREP	NP	RP	0	0	0
22	MOD	PART		RV	0	1	2
23	MOD	ADJ	THAT2	RA	0	1	2
24	MOD	ADV	AJJ	RA	RADV	2	1
25	MOD	ADJ	VP2	RA	RV	1	2
26	MOD	ADJ	VP2	RA	RP	1	2
27	AP	IS	HCD	R		2	0
28	VP2	T0	VP	RV		2	0
29	VP2	PREP	NP	RP	0	1	2
30	VP2	PREP	MOU	RP	RV	1	2
31	THAT2	THAT	S	0		1	0
32	PNP	NP	POS	0		1	0

8.2 Transformations

As indicated earlier, the system obtains its ability to model a variety of linguistic models, and at the same time a great speed of execution, by decomposing transformational operations into primitive components at several stages. Indications for applications of the transformational fragments are marked and tabulated throughout the generation process. Some of the transformation types themselves give directions for computing and assigning the transformational markings to the growing generation tree (as in section 8.1).

Ultimately, every terminal element is associated with a bit vector indicating applicable low level transformations as assigned during the various stages of generation. The method avoids complex tree search after phrase structure generation, and in comparison with other automated transformational generation systems obtains thereby what may be a 100 to 1 speed advantage.

High Level Transformation Codes (non pronoun)

- | | |
|-----------------------|--------------------------|
| 1. noun sing. | 6. participial form |
| 2. noun plural | 7. verb (present sing.) |
| 3. adjectival form | 8. verb (present plural) |
| 4. prepositional form | 9. verb (past sing.) |
| 5. adverbial form | 10. verb (past plural) |

(pronoun)

- | | |
|--------------------|-------------------|
| 1. subjective case | 2. objective case |
|--------------------|-------------------|

Low Level Transformation Codes

- | | |
|-------------------------------------|-----------------------------------|
| 1. NULL | 9. add "ed" |
| 2. add "will" | 10. delete 1 character, add "ing" |
| 3. add "s" | 11. delete 2 characters, add "en" |
| 4. add "ing" | 12. add "es" |
| 5. add "d" | 13. add "er" |
| 6. add "ly" | 14. add "ings" |
| 7. add "y" | 15. add "ers" |
| 8. delete 1 character and add "ies" | |

There are other kinds of high level discourse type transformations not listed here. Of special interest is the one in the form of a special triple of the form MX QQ:(n): combine the next (n) head triples with the one preceding. It can be found in the simulation commands and on change stacks.

8.3 Dictionary

Lines 3-8 are patterns for setting grammar symbol bits in the dictionary.

The word TYPE delimits classes of words.

The line following TYPE sets bits in the dictionary bit vector (article/no article, pronoun, etc.) For example: line 179-- bit 2 is set for all words in that class for 'no article'; in line 266, bits 2 and 9 are set for all words in that class for 'no article', 'pronoun'.

The lines with pattern types (N, V, PREP, ADJ, ADV, PART) indicate which patterns of grammar bits to set. For example: line 12, line 14-- for word "BE" all bits of pattern PART (line 8) and all bits of pattern V (line 4) will be set. Thus, "BE" is an allowable choice for V, VP, MOD, AP, VP2, or PART when matching in grammar rules.

The lines following pattern types indicate transformations to be associated with all words in the class. For example: in line 25, noun sing. transformation is TRANS # 1 on word 0; noun pl transformation is TRANS# 3 on word 0.

Stem alternates are listed with their associated transformations. Word 0 = main entry Word 1 = 1st stem, Word 2 = 2nd stem, etc. For example: in lines 15-16, V present sing. is TRANS # 1 on stem 1 (null trans on "is"); V past sing is TRANS #1 on stem 2 (null trans on "are").

00001	N	N	NPP	THAT2	THAT	PNP	WORD	7BEDROOM
00002	V	VP	MOD	AP	VP2		WORD	9BOOK
00004	PREP	AP	MOD	VP2			WORD	SPAEBACK
00005	ADJ	AP	MOD				WORD	6BOTTLE
00006	ADV	ACV					WORD	CEUTER
00007	ADV	ACV					WORD	9BREAKFAST
00008	PART	PART					WORD	6BUITION
00009	GEOR						WORD	1CANCLE HOLDER
00010	TYPE	C					WORD	1SCARC GAME
00011							WORD	12CONVERSATION
00012	PART	O					WORD	4TALK
00013							WORD	4COCK
00014	V	1	1	2	1		WORD	ECORSE
00015		3	1	4	1		WORD	5DIVAN
00016			2BC				WORD	6DAVENTPORT
00017	WORD		2TS				WORD	7CRIME
00018	STLN						WORD	12CRUEL GAME
00019	STEM	ZARE					WORD	4DAWN
00020	STEM	SWAS					WORD	7SUNRISE
00021	STEM	4WERE					WORD	3DAY
00022	TYPE						WORD	1ICINING ROOM
00023							WORD	4CRIM
00024	N	O	1	0	2		WORD	5CRIM
00025	WORD			13BILLIARD ROOM			WORD	6CRIMIN HOUSE
00026	WORD			9FOOTPRINT			WORD	7GREEN ROOM
00027	WORD			ENSPHEN			WORD	8GUN
00028	WORD			4GAME			WORD	9HOLD
00029	WORD			12HANDBERCHIEF			WORD	10ILK
00030	WORD			14SECRET PASSAGE			WORD	11JUNK
00031	WORD			5STAIN			WORD	4HAIR
00032	WORD			ESTRANG			WORD	7JEWELRY
00033	WORD			ESTRAED			WORD	8JEWELS
00034	WORD			12THREADS COURT			WORD	46CRE
00035	WORD			3PJS			WORD	9WILK
00036	WORD			EAFFAIR			WORD	10WOLY
00037	WORD			3EAR			WORD	11WOMAN
00038	WORD			EBLATE			WORD	12WOMAN
00039	WORD			4CAR3			WORD	13WOTHER
00040	WORD			ECHANCE			WORD	14WOTHER
00041	WORD			4CLUB			WORD	15WOMAN
00042	WORD			ECOYANION			WORD	16WOMAN
00043	WORD			ECOXIC			WORD	17WOMAN
00044	WORD			ECRNER			WORD	18WOMAN
00045	WORD			EDATATL			WORD	19WOMAN
00046	WORD			SHOTEL			WORD	20WOMAN
00047	WORD			12INMISSION			WORD	3MAN
00048	WORD			16INVITATION			WORD	4POLICEMAN
00049	WORD			THRINTING			WORD	5WOMAN
00050	WORD						WORD	TYPE
00051	WORD						WORD	
00052	WORD						WORD	
00053	WORD						WORD	
00054	WORD						WORD	
00055	WORD						WORD	
00109	WORD						WORD	
00110	WORD						WORD	
00111	WORD						WORD	
00112	WORD						WORD	
00113	WORD						WORD	
00114	WORD						WORD	
00115	WORD						WORD	
00116	WORD						WORD	
00117	WORD						WORD	
00118	WORD						WORD	
00119	WORD						WORD	
00120	WORD						WORD	
00121	WORD						WORD	
00122	WORD						WORD	

00167	0	1	0	12	00217	THEATHER	TYPE	
00154	WORD		3ASH		00219	EMAGGIE		
00155	WORD		rCOUCH		00213	WORD	SAILLIARDS	
00156	WORD		TYPE		00220	WORD	STENNIS	
00167	N	0	1	0	8	00221	WORD	SAFFECTION
00153	WORD		3SKY		00222	WORD	TPASSION	
00152	WORD		BACTIVITY		00224	WORD	EMONDAY	
00170	WORD		4BOCY		00225	WORD	7TUESDAY	
00171	WORD		11FUNNY STORY		00226	WORD	8WEDNEDDAY	
00172	WORD		7LIBRARY		00227	WORD	SSOMETHING	
00173	WORD		SPARTY		00228	WORD	BAUDLTERY	
00174	WORD		SELLLY		00229	WORD	3FUN	
00175	WORD		5STUDY		00230	WORD	100000 NIGHT	
00176	WORD		TYPE		00231	WORD	5CLIVE	
00177	WORD		2		00232	WORD	SCATHY	
00178	WORD		5CLUE		00233	WORD	SCATHERINE	
00179	WORD		4HINT		00234	WORD	14LADY CATHERINE	
00130	N	0	1	0	3	00235	WORD	5CHESS
00181	WORD		7FASHION		00236	WORD	7CROQUET	
00131	WORD		4FEAR		00237	WORD	8CR.	
00132	WORD		CSUPPER		00238	WORD	HUME	
00133	WORD		EDINNEr		00239	WORD	20CR.	
00134	WORD		TYPE		00240	WORD	21CR.	
00135	WORD		2		00241	WORD	4JOHN	
00136	WORD		5LUNCH		00242	WORD	11JOHN BUXLEY	
00137	WORD		6DINNER		00243	WORD	11LACY BUXLEY	
00138	WORD		TYPE		00244	WORD	9LADY JANE	
00139	WORD		2		00245	WORD	4JANE	
00140	WORD		5LUNCH		00246	WORD	21LADY BUXLEY'S BEDROOM	
00137	N	0	1	0	12	00247	WORD	11LORD EDWARD
00134	WORD		6DINNER		00248	WORD	GEORARD	
00135	WORD		TYPE		00249	WORD	EMARIION	
00146	WORD		2		00250	WORD	8FLORENCE	
00131	WORD		5LUNCH		00251	WORD	9RONALD	
00137	WORD		TYPE		00252	WORD	FFRIDAY	
00203	N	0	1	0	12	00253	WORD	8SUNDAY
00200	WORD		3POLITICS		00254	WORD	PCATURDAY	
00201	WORD		5TEA		00255	WORD	8TEA TIME	
00202	WORD		TYPE		00256	WORD	8NO DOGY	
00207	WORD		2		00257	WORD	4WHAT	
00208	WORD		5WODA		00258	WORD	5WHO	
00209	WORD		6INFORMATION		00259	WORD	BEVERYONE	
00205	WORD		4FOR		00260	WORD	40YCE	
00206	WORD		5TEA		00261	WORD	ENO GNE	
00207	WORD		TYPE		00262	WORD	7SONNONE	
00203	WORD		2		00263	WORD	2IT	
00204	WORD		5WODA		00264	WORD	4THAT	
00205	WORD		6INFORMATION		00265	WORD	TYPE	
00206	WORD		4FOR		00266	WORD	2?	
00210	WORD		5JEALOUSY		00267	WORD	N	
00211	WORD		5SHERRY		00268	WORD	0	
00212	WORD		6COFFEE		00269	WORD	1	
00213	WORD		7WHISKEY		00270	WORD	1	
00214	WORD		4HUME		00271	WORD	4THYM	
00215	WORD		TYPE		00272	WORD	5HUMBLE	
00216	WORD		5HUMBLE		00273	WORD	6VALUABLE	
00217	WORD		5HUMBLE		00274	WORD	7SUPSET	
00218	WORD		1UNFAITHFUL					

00547	WORD	4HATE	WORD	4BEAT	WORD	4TELL
00548	WORD	7DISLIKE	WORD	4READ	STEM	4TOLD
00549	TYPE		TYPE		WORD	5THREW
00540	ADJ		00544	PART	00525	4WEAR
00541	O 0	3	00545	O 4	00526	4MORE
00542	PART		00547	V	00527	2SAY
00543			00543	O 5	00528	4SAID
00544	V	0 12	0 1	0 5	0 0	4MEET
00545	WORD		00550	WORD	00504	5MILT
00546	WORD	9EMBASSY	00551	WORD	00505	4KNOW
00547	O 9	5	00552	WORD	00506	4KNEW
00548	WORD	5WATCH	00553	WORD	00507	4DRAW
00549	WORD		00554	TYPE	00508	4DREW
00550	WORD	5DISCUSS	00555	PART	00509	4KEEP
00551	WORD	5EXPRESS	00556	1	00510	4KEPT
00552	WORD	5EMBASSY	00557	V	00511	5THINK
00553	WORD	4HEAR	00558	O 3	00512	7THOUGHT
00554	WORD		00559	O 1	00513	
00555	WORD	5TOUCH	00560	WORD	00514	
00556	WORD	5SMASH	00561	STEM	00515	
00557	WORD	5SLASH	00562	WORD	00516	
00558	WORD	5SEARCH	00563	STEM	00517	
00559	WORD	5SCRATCH	00564	TYPE	00518	
00560	WORD	4PUSH	00565	PART	00519	
00561	WORD	4KISS	00566	1	00520	
00562	WORD	6CASSS	00567	O 4	00521	
00563	WORD		00568	V	00522	
00564	WORD	7CONFESS	00569	O 3	00523	
00565	TYPE		00570	O 1	00524	
00566	PART		00571	WORD	00525	
00567	O 1	4	00572	STEM	00526	
00568	V		00573	WORD	00527	
00569	O 3	0 1	00574	STEM	00528	
00570	1	2	00575	WORD	00529	
00571	WORD	4STOP	00576	STEM	00530	
00572	STEM	5STOPP	00577	WORD	00531	
00573	WORD	4STOP	00577	WORD	00532	
00574	STEM	5GRAB	00578	STEM	00533	
00575	WORD	4STAB	00579	WORD	00534	
00576	STEM	5STAB	00580	STEM	00535	
00577	WORD	4TRIP	00581	WORD	00536	
00578	STEM	5TRIPP	00582	STEM	00537	
00579	WORD	4TRIP	00583	WORD	00538	
00580	STEM	4TRIPP	00584	STEM	00539	
00581	WORD	5SPANIC	00585	WORD	00540	
00582	STEM	5STAB	00586	STEM	00541	
00583	WORD	6PANICK	00587	WORD	00542	
00584	TYPE		00588	STEM	00543	
00585	PART		00589	WORD	00544	
00586	O 0	4	00590	STEM	00545	
00587	V		00591	WORD	00546	
00588	U	3	0 1	STEM	00547	
00589	O 1	0	0 1	WORD	00548	
00590	WORD	4HURT	00591	WORD	00549	

00649	ADJ	1	5	00703	0	5	0	5	00757	1	1	1	1
00650	PART	0	4	00704	WORD	3DIE	00758	ADJ	00759	2	1		
00651				00705	STEM	2DY	00759		00760	WORD	260		
00652	V	1	3	0	1		00707	TYPE	00760	STEM	4WENT		
00653		2	5	1	5		00708	N	00761	STEM	4GONE		
00654	WORD			00709	N	0	1	0	00762	STEM			
00655	STEM			00710	PART				00763	TYPE			
00656	FMARRIE			00711	PART				00764	PART			
00657	WORD			00712	1	4			00765	PART			
00658	STEM			00713	V	0	3	0	00766	V	0	10	
00659	WORD			00714	V	0	3	0	00767	V	0	3	
00660	STEM			00715	1	3	1	3	00768	1	1	1	1
00661	ACRIE			00715	WORD	4PLAN			00769	ADJ			
00662	WORD			00715	WORD	5PLAN			00770	ADJ			
00663	SCARRY			00716	00771	STEM			00771	2	1		
00664	SQUARE			00717	STEM				00772	WORD	4HIDE		
00665	4DENY			00718	TYPE				00772	STEM	THID		
00666	EDENIE			00719	N	0	1	0	00773	STEM	6HIDDEN		
00667	TYPE			00720	N	0	1	0	00774	STEM			
00668	PART			00721	PART				00775	TYPE			
00669	2	4		00722	0	4			00776	N			
00670	V	0	3	0	1		00724	V	00777	N	1	13	1
00671		1	1	1	1		00725	0	3	0	15		
00672	WORD			00726	1	1	1		00778	PART			
00673	WORD			00727	WORD	4FALL			00779	0	1		
00674	3WIN			00728	STEM	4FALL			00780	1	4		
00675	4WINN			00729	TYPE				00781	V	1		
00676	WORD			00730	00732	WORD			00782	0	3	0	1
00677	STEM			00731	N	0	1	0	00783	0	5	0	5
00678	ZCOT			00732	PART				00784	WORD	4LOVE		
00679	STEM			00733	3RUN				00785	STEM	3LOV		
00680	4GETT			00734	WORD				00786	TYPE			
00681	WORD			00735	3RUN				00787	N			
00682	STEM			00736	V	0	4		00788	N	0	13	0
00683	4RUNN			00737	00791	ADJ			00789	0	13	0	15
00684	5SIT			00738	0	3	0		00790	0	9		
00685	WORD			00739	WORD	4WALK			00791	0	9		
00686	3SAT			00740	00792	PART			00792	PART			
00687	4SITT			00741	4HEAD				00793	0	4		
00688	TYPE			00742	TYPE				00794	V	0		
00689	PART			00743	N	0	2		00795	0	3	0	1
00690	0 10			00743	N	0	0		00796	WORD	6MORDER		
00691	V	1	0	1	00744	0	1	0	00797	WORD	4KILL		
00692		2	1	2	00745	PART			00798	WORD	4PLAY		
00693	4HAVE			00746	0	4			00799	0	4PLAY		
00694	3HAS			00747	V	0	3	0	00800	TYPE			
00695	WORD			00748	00801				00801	0			
00696	ZHAO			00749	0	9	0	9	00802	N			
00697	TYPE			00750	WORD	5POSITION			00803	0	1	0	3
00698	ADJ			00751	PART				00804	WORD	8+1MURDER		
00699	2	1		00752	00752				00805	0			
00700	PART			00753	PART				00806	0	1	2	3
00701	V	0	3	0	1				00807	WORD			
00702				00754	00754				00808	0	12	0	1
				00755	V	0	12	0	00809	PART			
				00756					00810	0	1		

V	0	3	0	1	TYPE	00865	0	1	0	3
00812	0	5	0	5	00865	00920	ADJ	0	1	3
00812	0	5	0	5	00867	00921	ADJ	2	1	2
00814	WORD	3LIE	00867	00921	WORD	00922	FORINK			
00815	STEM	2LY	00868	00922	WORD	00923	SCRANK			
00815	STEM	4Liar	00870	00923	WORD	00924	STEM			
00817	TYPE		00871	00924	WORD	00925	SDRUNK			
00818	N	0	1	0	3	00925	STEM			
00820	WORD	ADJ	00926	00925	TYPE	00926	TYPE			
00822	WORD	0	7	00927	ADJ	00927	ADJ	0	1	4
00822	WORD	SMELL	00927	00927	ADV	00928	WORD	9*SMOTHER		
00827	WORD	SCLOUD	00928	00928	ADV	00929	WORD			
00828	WORD	TYPE	00929	00929	WORD	00929	WORD			
00829	WORD	TYPE	00930	00930	WORD	00930	WORD			
00829	WORD	TYPE	00931	00931	WORD	00931	WORD			
00832	WORD	0	1	0	1	00932	WORD			
00832	WORD	ACJ	00932	00932	WORD	00932	WORD			
00834	WORD	0	7	00933	WORD	00933	WORD			
00834	WORD	4RAIN	00934	00934	WORD	00934	WORD			
00834	WORD	4LUST	00935	00935	WORD	00935	WORD			
00835	WORD	4WIND	00936	00936	WORD	00936	WORD			
00835	WORD	4WAK	00937	00937	WORD	00937	WORD			
00836	WORD	TYPE	00938	00938	TYPE	00938	TYPE			
00837	N	0	1	0	1	00939	WORD			
00837	ADJ	0	7	00939	ADJ	00939	ADJ	0	1	4
00838	WORD	7	00940	00940	WORD	00940	WORD			
00838	WORD	5CREED	00941	00941	WORD	00941	WORD			
00839	WORD	TYPE	00942	00942	WORD	00942	WORD			
00840	WORD	TYPE	00943	00943	WORD	00943	WORD			
00841	WORD	TYPE	00944	00944	WORD	00944	WORD			
00842	WORD	TYPE	00945	00945	WORD	00945	WORD			
00843	WORD	TYPE	00946	00946	WORD	00946	WORD			
00844	WORD	12	00947	00947	WORD	00947	WORD			
00845	WORD	7	00948	00948	WORD	00948	WORD			
00846	WORD	3SEX	00949	00949	WORD	00949	WORD			
00847	WORD	6GROUP	00950	00950	WORD	00950	WORD			
00848	WORD	TYPE	00951	00951	WORD	00951	WORD			
00849	WORD	TYPE	00952	00952	WORD	00952	WORD			
00850	N	0	1	0	3	00953	WORD			
00851	ADJ	0	6	00953	ADJ	00953	ADJ	0	1	3
00852	WORD	EFRIEND	00954	00954	WORD	00954	WORD			
00853	WORD	SCOWARD	00955	00955	WORD	00955	WORD			
00854	WORD	TYPE	00956	00956	WORD	00956	WORD			
00855	WORD	TYPE	00957	00957	WORD	00957	WORD			
00856	N	0	1	0	1	00958	WORD			
00857	ADJ	1	7	00958	ADJ	00958	ADJ	1	7	3SUN
00858	WORD	FANGER	00959	00959	WORD	00959	WORD			4SUNN
00859	WORD	4ANG	00960	00960	WORD	00960	WORD			
00860	WORD	TYPE	00961	00961	WORD	00961	WORD			
00861	WORD	TYPE	00962	00962	WORD	00962	WORD			
00862	WORD	1	7	00963	WORD	00963	WORD	1	1	1
00863	WORD	4ANG	00964	00964	WORD	00964	WORD			
00864	WORD	TYPE	00965	00965	WORD	00965	WORD			

8.4 Nodes, Relations and Classes

The input data for the nodes contains a listing of node names followed by a lexical expression list. Numbers separated by spaces indicate the following:

0 = singular	2 = singular, but definite article even on 1st occurrence
1 = plural	3 = plural, and always associated with a definite article

Note that this information is eventually passed on to both high level and low level transformation components; other devices may also determine number at later stages.

Three pieces of information are associated with the relation input in addition to the specification of the lexical expression list. The letter codes indicate logical type:

A = attribute (normal)
T = transitive
NI = numeric intransitive : with lexical expression list
QA = quantitative attribute (no lexical expression list)
I = normal intransitive
NA = numerical attribute (with lexical expression list)

'Transitive' and 'intransitive' here refer to logical transitivity as opposed to syntactic transitivity. E.g. "if A R B and B R C, then A R C." implies that R is transitive.

The first number following the letter code represents the relation type:

3 = general class	4 = prepositional class	5 = possessive
2 = attribute class	6 = adverbial type	

These are not grammar codes, but rather devices for speeding up selecting of rules for generation. The designations as preposition, adverb, etc. are arbitrary; they actually represent a higher order semantic classification. The third number represents an additional subclass marking for partition of the class specified by the 1st digit.

The class listing contains the class names followed by a listing of elements; the listing may be empty or include both nodes and other class names.

57 EVERYONE O = *EVERYONE* ;
 58 FALL O = *FALL* ;
 59 FACHION O = *FACHION* ;
 60 FEAR O = *FEAR* ;
 61 FLOWERS 3 = *FLOWER* ;
 62 FOOD 2 = *FOOD* ;
 63 FOOTPRINT D = *FOOTPRINT* ;
 64 FPRINTS 3 = *FINGERPRINT* ;
 65 FRIDAY O = *FRIDAY* ;
 66 GAME O = *GAME* ;
 67 GARDEN U = *GARDEN* ;
 68 GOODNIGHT O = *GOOD NIGHT* ;
 69 GOODTIME J = *FUN* ;
 70 CRED O = *CRED* ;
 71 CROWN S O = *GREEN HOUSE* ;
 72 GUN O = *GUN* ;
 73 PISTOL, ;
 74 HAIR O = *HAIR* ;
 75 HALL 2 = *HALL* ;
 76 HANDS 1 = *HAND* ;
 77 HEAD 2 = *HEAD* ;
 78 HOUSE O = *HOUSE* ;
 79 INFORMATION D = *INFORMATION* ;
 80 INSPECTOR O = *INSPECTOR* ;
 81 JAIL 2 = *JAIL* ;
 82 JAMES J = *JAMES* ;
 83 JAW 2 = *JAW* ;
 84 JEALOUSY O = *JEALOUSY* ;
 85 JEWELS 1 = *JEWEL* ;
 86 JOHNBUX N = *JOHN* ;
 87 JOKE O = *JOKE* ;
 88 KITCHEN 2 = *KITCHEN* ;
 89 KNIFE O = *KNIFE* ;
 90 LADYBUX O = *LADY BUXT* ;
 91 LADYJANE O = *JANE* ;
 92 LIBERCOM C = *LACY LUXLEY-S DECROOM* ;
 93 LIE 1 = *LIE* ;
 94 LIBRARY O = *LIBRARY* ;
 95 LORDO O = *LORD EDWARD* ;
 96 LOVER O = *LOVE* ;
 97 MAID O = *MAID* ;
 98 MARION O = *MARION* ;
 99 MAN 3 = *MAN* ;
 100 MILK O = *MILK* ;
 101 MISTAKE O = *MISTAKE* ;
 102 MONEY C = *MONEY* ;
 103 MOTIVE 2 = *MOTIVE* ;
 104 MURDER C = *MURGER* ;
 105 MURDER 2 = *MURDER* ;
 106 MUSIC N = *MUSIC* ;
 107 NECK 2 = *NECK* ;
 108 NETHERW O = *NETHREW* ;
 109 NIGHTCOWN O = *NIGHTCOWN* ;
 110 NOONE H = *NO ONE* ;
 111 NOSE 2 = *NOSE* ;
 112 NOTE D = *NOTE* ;
 113 NOVEL N = *NOVEL* ;
 114 NURSE O = *NURSE* ;
 115 OTHER J = *OTHER* ;
 116 PAPER D = *PAPERWEIGHT* ;
 117 PARLOR U = *PARLOR* ;
 118 PARTNER 2 = *PARTNER* ;
 119 PARTY O = *PARTY* ;
 120 PIANO 2 = *PIANO* ;
 121 PILLOW N = *PILLOW* ;
 122 PLACE G = *PLACE* ;
 123 PLAN 2 = *PLAN* ;
 124 PLAYED N = *PLAY* ;
 125 POLICE 2 = *POLICE* ;
 126 POLITIC 2 = *POLITIC* ;
 127 PORT U = *PORT* ;
 128 QUEST 1 = *QUEST* ;
 129 REVENGE 2 = *REVENGE* ;
 130 RONALD U = *RONALD* ;
 131 ROOM 2 = *ROOM* ;
 132 SATU DAY O = *SATU DAY* ;
 133 SECRETARY U = *SECRETARY* ;
 134 SEPARATE 2 = *SEPARATE* ;
 135 SHERRY U = *SHERRY* ;
 136 SHIRT 2 = *SHIRT* ;
 137 SHOE U = *SCHOOL* ;
 138 SKY 2 = *SKY* ;
 139 SMOOTHERING O = *SMOTHERING* ;
 140 SOMEONE O = *SOMEONE* ;
 141 STAIN O = *STAIN* ;
 142 STAIRS 1 = *STAIRS* ;
 143 STOMACH 2 = *STOMACH* ;
 144 STRANG 2 = *STRANG* ;
 145 STRANGEFATHER U = *STRANGEFATHER* ;
 146 STUDY 2 = *STUDY* ;
 147 SUN 2 = *SUN* ;
 148 SUNDAY 1 = *SUNDAY* ;
 149 SUPPER O = *SUPPER* ;
 150 TEA 2 = *TEA* ;
 151 TEATIME 6 = *TEATIME* ;
 152 TENNIS O = *TENNIS* ;
 153 TERRIBLE 2 = *TERRIBLE* ;
 154 THEM 2 = *THEM* ;
 155 THREAS O = *THREAS* ;
 156 TIME 2 = *TIME* ;
 157 TRACH O = *TRACH* ;
 158 TRUTH 2 = *TRUTH* ;
 159 VASE O = *VASE* ;
 160 VOLKA O = *VOLKA* ;
 161 WALKS 2 = *WALKS* ;
 162 WEATHR 2 = *WEATHR* ;
 163 WEEKEND G = *WEEKEND* ;
 164 WHAT Q = *WHAT* ;
 165 WHICKY J = *WHICKY* ;
 166 WHO O = *WHO* ;
 167 WHOOCA O = *WHOOCA* ;
 168 WHOOCA O = *WHOOCA* ;
 169 WHOOCA O = *WHOOCA* ;
 170 WHOOCA O = *WHOOCA* ;

BLEED	A 3 0 = "BLEED"	CREATE	A 7 0 = "CREATE"
BREAK	A 3 0 = "BREAK"	CREDIT	A 7 0 = "CREDIT"
CALL	I 3 0 = "CALL"	GROAN	A 7 0 = "GROAN"
CALM	I 3 0 = "CALM"	HAVE	I 7 0 = "HAVE"
CAresses	I 3 0 = "CARES"	HEAD	A 7 0 = "HEAD"
CARRY	I 3 0 = "CARRY"	HEAFor	I 3 0 = "HEAFor"
CATCH	I 3 0 = "CATCH"	HEAR	I 7 0 = "HEAR"
CHEAT	A 3 0 = "CHEAT"	HECE	I 7 0 = "HECE"
CHOKE	I 3 0 = "CHOKE"	HICHC	A 7 0 = "HICHC"
COLLAPSE	A 7 0 = "COLLAPSE"	HIT	I 7 0 = "HIT"
COMMIT	I 3 0 = "COMMIT"	IGNOR	I 7 0 = "IGNOR"
COMPLIMENT	I 3 0 = "COMPLIMENT"	INFLATE	I 7 0 = "INFLATE"
CONFESS	A 3 0 = "CONFESS"	INTUL	I 7 0 = "INTUL"
CONGRATU	I 3 0 = "CONGRATULATE"	ISPE	I 7 0 = "ISPE"
CONVICT	I 3 0 = "CONVINCE"	JOIN	I 7 0 = "JOIN"
COUNT	GAB 2 0 =	KICK	I 7 0 = "KICK"
COVER	A T 0 = "COVER"	KILL	I 7 0 = "KILL"
COVERITH	I 2 0 =	KILLBY	I 7 0 = "KILLBY"
CRY	A 3 0 = "CRY"	KILLE	I 7 0 = "KILLE"
CURSE	I 3 0 = "CURSE"	KISS	I 7 0 = "KISS"
DECIDE	A 3 0 = "DECIDE"	KNOWN	I 7 0 = "KNOWN"
DECIEVE	I 3 0 = "DECIEVE"	LAUGH	A 7 0 = "LAUGH"
DENY	I 3 0 = "DENY"	LEAVE	I 7 0 = "LEAVE"
DESPISE	I 3 0 = "DESPISE"	LOOK	A 7 0 = "LOOK"
DIE	A 3 0 = "DIE"	LOCKDA	I 7 0 = "LOCKDA"
DISCUSS	I 3 0 = "DISCUSS"	LOOKTIR	I 7 0 = "LOOKTIR"
DRAW	I 3 0 = "DRAW"	LOCKULL	A 7 0 = "LOCKULL"
DRINK	I 3 0 = "DRINK"	MAKET	I 7 0 = "MAKET"
EAT	I 3 0 = "EAT"	MISTON	I 7 0 = "MISTON"
ENJOY	I 3 0 = "ENJOY"	NEET	I 7 0 = "NEET"
ENTER	I 7 0 = "ENTER"	MOVE	I 7 0 = "MOVE"
EXAMINING	I 3 0 = "EXAMINE"	OPEN	I 7 0 = "OPEN"
Faint	A 3 0 = "FAINT"	OVERHAUL	I 7 0 = "OVERHAUL"
FALL	A 3 0 = "FALL"	OWNE	I 7 0 = "OWNE"
FALLOOM	I 7 0 =	PANTS	A 7 0 = "PANTS"
FEEL	I 3 0 = "FEEL"	PAY	I 7 0 = "PAY"
FEELNO	A 2 0 = "FEELNO"	PLAYNG	A 7 0 = "PLAYNG"
FEELWLL	A 2 0 =	PLAYT	A 7 0 = "PLAYT"
FIND	I 3 0 = "FIND"	PLAYT	I 7 0 = "PLAYT"
FIRE	A 3 0 = "FIRE"	POINT	I 7 0 = "POINT"
FLATTER	I 3 0 = "FLATTER"	POSSOVS	I 7 0 = "POSSOVS"
FLIRT	A 3 0 = "FLIRT"	POCT	I 5 = "POCT"
FLIRTINH	I 3 0 =	PREPARE	I 7 0 = "PREPARE"
FOLLOW	I 2 0 = "FOLLOW"	PRETCNO	A 3 0 = "PRETCNO"
FORGIVE	I 3 0 = "FORGIVE"	FUSH	I 7 0 = "FUSH"

342 SAY I 3 0 = *SAY* ;	399 WISPER A 3 0 = *WHISPER* ;
343 SAYTO I 3 0 = * ;	400 WISPERTO I 3 0 = * ;
344 SCOFF A 3 0 = *SCOFF* ;	401 WRITE I 3 0 = *WRITE* ;
345 SCRATCH I 3 0 = *SCRATCH* ;	402 YELL A 3 0 = *YELL* ;
346 SCREAM A 3 0 = *SCREAM* ;	403 YELLAT I 3 0 = *YAWN* ;
347 SEARCH I 3 0 = *SEARCH* ;	404 BRING I 3 0 = *BRING* ;
348 SCOURGE I 3 0 = *SCOURGE* ;	405 COME I 3 0 = *COME* ;
349 SEE I 3 0 = *SEE* ;	406 COEXISTWITH I 3 0 = * ;
350 SCREW I 3 0 = *SCREW* ;	407 FORECAST DA(17) 2 0 = * ;
351 SHOOT I 3 0 = *SHOOT* ;	408 GOZIPP I 3 0 = * ;
352 SHOOTAT I 3 0 = * ;	409 HAPPENE A 3 0 = *HAPPEN* ;
353 SINK A 3 0 = *SINK* ;	410 INTRODUCE I 3 0 = *INTRODUCE* ;
354 SIT I 3 0 = *SIT* ;	411 INVITE I 3 0 = *INVITE* ;
355 SLASH I 3 0 = *SLASH* ;	412 LIKE I 3 0 = *LIKE* ;
356 SMASH I 3 0 = *SMASH* ;	413 NOTICE I 3 0 = *NOTICE* ;
357 SMILEAT I 3 0 = *SMILE* ;	414 NUMBER QAG(6) 2 0 = * ;
358 SMOKER I 3 0 = *SMOKER* ;	415 OFFER I 3 0 = *OFFER* ;
359 SNACKER I 3 0 = *SNACKER* ;	416 PHONE I 3 0 = *PHONE* ;
360 SNARAK A 3 0 = *SNAK* ;	417 RECALL I 3 0 = *RECALL* ;
361 SHORE I 3 0 = *SHORE* ;	418 RECEIVE I 3 0 = *RECEIVE* ;
362 SOLVE I 3 0 = *SOLVE* ;	419 REMEMBER I 3 0 = *REMEMBER* ;
363 STAB I 3 0 = *STAB* ;	420 RUMINTO I 3 0 = * ;
364 STACIER A 3 0 = *STACIER* ;	421 SHUFFLE I 3 0 = *SHUFFLE* ;
365 START I 3 0 = *START* ;	422 SIGNAL I 3 0 = *SIGNAL* ;
366 STARING A 3 0 = *STARING* ;	423 SING I 3 0 = *SING* ;
367 STEAL I 3 0 = *STEAL* ;	424 SITDOWN A 3 0 = * ;
368 STOP I 3 0 = *STOP* ;	425 WATCH I 3 0 = *WATCH* ;
369 STOPND A 3 0 = *STOP* ;	426 WIN I 3 0 = *WIN* ;
370 STRUGGLE A 3 0 = *STRUGGLE* ;	427 *
371 STRUGGLWITH I 3 0 = * ;	428 *
372 SUGGEST I 3 0 = *SUGGEST* ;	429 *
373 SUPERSC I 3 0 = *SUPERSC* ;	430 ADJ *
374 SUSPECT I 3 0 = *SUSPECT* ;	431 AFRAID A 2 0 = *AFRAID* ;
375 TAKE I 3 0 = *TAKE* ;	432 ANGRY A 2 0 = *ANGER* ;
376 THROW I 3 0 = *THROW* ;	433 AROUSED A 2 0 = *AROUSE* ;
377 TALKABOUT I 3 0 = *TALK* ;	434 ASLEEP A 2 0 = *ASLEEP* ;
378 TALKWITH I 3 0 = *TALK* ;	435 ATTRACTIVE C NAG(3) 2 0 = *UGLY*/-0.5/*PRETTY*/1.5/*BEAUTIFUL* ;
379 TELL I 3 0 = *TELL* ;	436 BEAUTIFUL A 2 0 = *BEAUTIFUL* ;
380 THINK I 3 0 = *THINK* ;	437 BIG A 2 0 = *BIG* ;
381 THREATEN A 3 0 = *THREATEN* ;	438 BLOODTHIRSTY A 2 0 = *BLOOD THIRSTY* ;
382 THROW I 3 0 = *THROW* ;	439 BRIGHT A 2 0 = *RIGHT* ;
383 THRODAY I 3 0 = *THRO* ;	440 CLEVER A 2 0 = *CLEVER* ;
384 TOUCH I 3 0 = *TOUCH* ;	441 CLOUDY A 2 0 = *CLOUD* ;
385 TRIP I 3 0 = *TRIP* ;	442 COOL A 2 0 = *COOL* ;
386 TRY A 3 0 = *TRY* ;	443 COOL A 2 0 = *COOL* ;
387 UNARMED A 3 0 = *UNARMED* ;	444 COURAGE NA(3) 2 0 = *COURAGE* /0.5/*BRAVE* ;
388 WAITT A 3 0 = *WAIT* ;	445 DARK A 2 0 = *DARK* ;
389 WAITFOR I 3 0 = * ;	446 DEAD A 2 0 = *LIE* ;
390 WALKIN I 3 0 = *WALK* ;	447 DEEP A 2 0 = *DEEP* ;
391 WANT I 3 0 = * ;	448 DEPRESSED A 2 0 = *DEPRESSED* ;
392 WANTT I 3 0 = *WANT* ;	449 DRESDS A 2 0 = *DRESDS* ;
393 WANTNG A 3 0 = *WANT* ;	450 DRUNK A 2 0 = *DRUNK* ;
394 WASH A 3 0 = *WASH* ;	451 DUMB A 2 0 = *DUMB* ;
395 WAVE I 3 0 = *WAVE* ;	452 EARLY A 2 0 = *EARLY* ;
396 WALKING I 3 0 = *WALK* ;	453 ENGRAVED A 2 0 = *EMBRAVES* ;
397 WALKIN GET I 3 0 = *WALK* ;	454 ENRAGED A 2 0 = *ENRAGED* ;
398 WALKIN GETT I 3 0 = *WALK* ;	455 EVIL A 2 0 = *EVIL* ;

WEALTH NATE) 2 0 = *IMPOVERISHED*/-2.5/*POOR*/0.5/*WELL TO DO*/2.5/

FAT A 2 0 = *FAT* ;
457 FRAGILE A 2 0 = *FRAGRANT* ;
453 FRIENDLY A 2 0 = *FRIEND* ;
459 GOOD NATE) 2 0 = *EVIL*/-3/*UNPLEASANT*/-1/*NICE*/0/*GOOD*/1/
461 *KIND*/2/*WONDERFUL* ;
462 COOCE A 2 0 = *COOD* ;
462 COW A 2 0 = *COW* ;
462 GREEDY A 2 0 = *GREED* ;
465 GROUCHY A 2 0 = *CROUCH* ;
455 HAPPY A 2 0 = *HAPPY* ;
457 HANSCOME NATE) 2 0 = *UGLY*/0.5/*HANDSOME* ;
453 HEAVEN A 2 0 = *HEAVY* ;
466 HIDDEN A 2 0 = *HIDE* ;
470 HURT A 2 0 = *HURT* ;
471 INTERESTED A 2 0 = *INTERESTED* ;
472 INVADING A 2 0 = *INVADING* ;
473 INVITED A 2 0 = *INVITED*/75/*STUPID*/ *CURE*/99/*SMART*/127/

JEALOUS NATE) 2 0 = *JEALOUS*/0.5/*JEALOUS* ;
475 KILLED A 2 0 = *KILL* ;
477 LONG A 2 0 = *LONG* ;
473 LOUD A 2 0 = *LOUD* ;
476 MAD A 2 0 = *MAD* ;
480 MARRIED A 2 0 = *MARRY* ;
481 MASTURBED A 2 0 = *MARRY* ;
482 MISLEADING A 2 0 = *MISLEADING* ;
482 MISTY A 2 0 = *MISTY* ;
482 NICE A 2 0 = *NICE* ;
484 PLEASANT A 2 0 = *PLEASANT* ;
485 POOR A 2 0 = *POOR* ;
486 PORNOGRAPHIC A 2 0 = *PORNOGRAPHIC* ;
487 PRETTY A 2 0 = *PRETTY* ;
488 RAINY A 2 0 = *RAIN* ;
489 RELATED A 2 0 = *RELATE* ;
491 RICH A 2 0 = *RICH* ;
492 RUINING A 2 0 = *RUIN* ;
492 SEXUAL NATE) 2 0 = *FRIGID*/-4/*IMPOTENT*/0.5/*LUST*/1.8/
493 *OVEREXPOSED* ;
495 SEXY A 2 0 = *SEXY* ;
495 SINGLE A 2 0 = *ANGLE* ;
497 SHOCKED A 2 0 = *SHOCK* ;
492 SMALL A 2 0 = *SMALL* ;
499 SNEEZY A 2 0 = *SNEEZY* ;
500 SCRAPPY A 2 0 = *SORRY* ;
501 STRONG A 2 0 = *STRONG* ;
502 STUPID A 2 0 = *STUPID* ;
507 SUNNY A 2 0 = *SUN* ;
524 SURPRISED A 2 0 = *SURPRISE* ;
505 TERRIFIED A 2 0 = *TIRE* ;
507 UNAWARE A 2 0 = *UNAWARE* ;
507 UNFAITHFUL A 2 0 = *UNFAITHFUL* ;
504 UPSET A 2 0 = *UPSET* ;
509 VALUABLE A 2 0 = *VALUABLE* ;
510 VIOLENT NATE) 2 0 = *EASY JOINT*/0.5/*IRRITABLE*/1.5/*VIOLENT* ;
513 WEAK A 2 0 = *LARGE* ;
512 WEAK A 2 0 = *WEAK* ;

WEALTH NATE) 2 0 = *ABOUT* ;
513 WINTRY A 2 0 = *WIND* ;
514 XX A 2 0 = *WELL* ;
515 % ***** PREP *****
517 % *****
518 % *****
519 % *****
520 ABOUT I 4 0 = *ABOUT* ;
521 AGAINST I 4 0 = *AGAINST* ;
522 AT I 4 0 = *AT* ;
523 BY I 4 0 = *BY* ;
524 DOWN I 4 0 = *DOWN* ;
525 CURING I 4 0 = *CURING* ;
526 FOR I 4 0 = *FOR* ;
527 FROM I 4 0 = *FROM* ;
528 IN I 4 0 = *IN* ;
529 NEAR I 4 0 = *NEAR* ;
530 OF I 4 0 = *OF* ;
531 OFF I 4 0 = *OFF* ;
532 ON I 4 0 = *ON* ;
533 THRU I 4 0 = *THRU* ;
534 TO I 4 0 = *TO* ;
535 UP A 4 0 = *UP* ;
536 WITH I 4 0 = *WITH* ;
537 INTO I 4 0 = *INTO* ;
538 % ***** ADV *****
539 % *****
540 AGAIN A 5 0 = *AGAIN* ;
541 ALSO A 6 1 = *ALSO* ;
542 CASUALLY A 6 1 = *ALWAYS* ;
543 AWAY I 6 0 = *AWAY* ;
544 BACK A 5 0 = *BACK* ;
545 CAREFULLY A 6 0 = *CAREFUL* ;
546 CASUALLY A 6 1 = *CASUAL* ;
547 CLOSELY A 6 0 = *CLOSE* ;
548 DOWNNO A 6 0 = *DOWN* ;
549 GENTLY A 6 1 = *GENTLE* ;
550 OVER A 2 0 = *OVER* ;
551 QUIETLY A 6 0 = *QUIET* ;
552 SOFTLY A 6 0 = *SOFT* ;
553 USUALLY A 6 0 = *USUAL* ;
555 VERY A 6 1 = *VERY* ;
556 WEAKLY A 6 0 = *WEAK* ;
557 WILDLY A 6 0 = *WILD* ;
558 WILDLY A 6 0 = *WILD* ;
559 % ***** CLASSES *****
560 % *****
561 CLASSES ;
562 CLASSES ;
563 BRIDGE ;
564 CHAERILLIARUS) = BILLRUM ;
565 CHASERCHESSES = STUDY ;
566 CHASERITTENNETS) = TENNIS COURT ;
567 CHECKERS ;
568 CONCLUDING ;
569 CRACKER ;

8.5 Network and Simulation Rule Plot Specification

The specification of the network includes the assignment of all initial conditions: numerical attributes, lexical triples, semantic triples, and a listing of relations which are logically mutually exclusive for automatic maintenance of logical consistency.

This initialization of starting conditions is part of the first time frame of the simulation. Comments on the significance of groups of rules appear indented between them.

```

***** NETWORK *****

2 DETECT = DRHUME;
2 DRINK = COFFEE SHERRY WHISKY PORT VODKA;
2 ENEMY(1) =;
2 EVIDENCE =;
2 FEMALE = LADYJUX NURSE MAID COOK CATHY LADYJANE MARION;
2 FIGHTER =;
2 FINDES =;
2 FINDES = CHESS TENNIS BILLIARDS;
2 QUESTS = LADYJUX NUZZI;
2 HEAVYOBJ = PAPERWT CANCHOLE;
2 INTEREST =;
2 INVITEE = JOHNJUY DRHUME JAMES MARION RONALD CATHY LORCED LADYJANE;
2 KILLER =;
2 KILLER = STRANGEFCHAIR FGCTPRINT THREAD HANKERCHIEF STAIN ASHES
2 KUES = SECRETPASSAGE;
2 LOC = HALL PARLOR DRAWINGRM GREENHS LIBRARY DININGRM STAIRS LBROOM
2 LOC = GARDEN BATHROOM TENNISOURT DILLCRM YARD;
2 LOSER =;
2 MALE = BUTLER URHUME RONALD JOHNREUX JAMES LORDED;
2 MALE =;
2 MALE =;
2 PROJECT = BOOK VATE SHOE HEAVYOBJ;
2 SUBJECT = RONALD;
2 PARTNER(JAMES) = RONALD;
2 PARTNER(RONALD) = JAMES;
2 PLEASE PARK MOVIE HOTEL GARDEN TENNISOURT;
2 PLAYED =;
2 SKILLER =;
2 SKILLER =;
2 SKILLER =;
2 SKILLER =;
2 SCAPER =;
2 RELATIVE(ROBREUX) = LADYJUX;
2 RELATIVE(LADYJANE) = JOHNREUX;
2 RELATIVE(BUTLER) = JAMES;
2 RELATIVE(JAMES) = BUTLER;
2 PRINCIPCUS =;
2 GENH =;
2 RETIRED =;
2 RETIRED =;
2 SCRANT FLOOR BUTLER MAID;
2 SPUSU(CATHY) = RONALD;
2 SPUSU(JAMES) = MARION;
2 SPUSU(LADYJANE) = LORCED;
2 SPUSU(LADYJANE) = LADYJANE;
2 SPUSU(MARION) = JAMES;
2 SPUSU(RONALD) = CATHY;
2 TOPIC = FASHION POLITICS TENNIS BUSINESS THEATRE MUSIC FLOWERS BOOKS
2 CHOSE =;
2 VICTIM =;
2 WEATOR =;
2 TALKING = SUGEST;
2 LIFE =;
2 MAKE = SUGEST INVITATION;
2 WANTED =;
2 WANTED =;
2 WANTED =;
2 PEOPLE = MAKE SLAVANT;
2 WALKIN =;

***** INITIALIZE PERSONALITY CHARACTERISTICS NOT TO BE DESCRIBED IN OUTPUT. *****

***** NETWORK *****

2 LADYJUX COURAGE = 2;
2 LADYJUX VIOLENCE = 1;
2 JOHNREUX IQ = 100;
2 DRHUME WEALTH = -1;
2 DRHUME VIOLENCE = -2;
2 DRHUME AFFECTION = -1 LORGEO;
2 DRHUME AFFECTION = -1 RONALD;
2 DRHUME AFFECTION = 1 LACYBUX;
2 LORGEO IQ = 100;
2 LORGEO COURAGE = 1;
2 LORGEO MARRIED =;
2 LORGEO AFFECTION = 1 DRHUME;
2 LADYJANE HEALTH = 3;
2 LADYJANE IQ = 100;
2 LADYJANE VIOLENCE = -1;
2 LADYJANE MARRILED;
2 RONALD IQ = 100;
2 RONALD VIOLENCE = -1;
2 RONALD JEALOUS = 1;
2 RONALD MARRIED;
2 CATHY IQ = 100;
2 CATHY HEALTH = 2;
2 CATHY MARRILED;
2 JAMES MARRILED;
2 JAMES COURAGE = 2;
2 MARION COURAGE = 2;
2 MARION MARRIED;
2 BUTLER VIOLENCE = -1;
2 NURSE IQ = 100;
2 MAID COURAGE = -2;
2 COOK IQ = 100;
2 COOK COURAGE = 2;
2 SUN FORCAST = 15;

***** DEFINE COMPOUND RELATIONS IN TERMS OF INDIVIDUAL RELATIONS. *****

2 *LEXTRP (30 FOR) TO GOFOR;
2 *LEXTRP (MAD AT) TO MADAT;
2 *LEXTRP (GET UP) TO SETUP;
2 *LEXTRP (GAME OF CROGANE) TO CROGANE;
2 *LEXTRP (YELL AT) TO YELLAT;
2 *LEXTRP (FEEL WELL) TO FEELWELL;
2 *LEXTRP (FLIRT WITH) TO FLIRTWITH;
2 *LEXTRP (COVER WITH) TO COVERWITH;
2 *LEXTRP (GRAS FOR) TO GRASFOP;
2 *LEXTRP (ASK FOR) TO ACKFOR;
2 *LEXTRP (FALL DOWN) TO FALLDOWN;
2 *LEXTRP (WALK IN) TO WALKINT;
2 *LEXTRP (WALK IN) TO WALKIN;
```


MX GG = 1.
 PCHAR WEALTH = 2.
 *INSERT (RONALD MARRIED) (MARRIED TO CATHY).
 MX GG = 1.
 RONALD SCORRIE = 1,
 RONALD AFFECTION = 3 CATHY,
 MY GG = 1.
 RONALD HANDSOME = 1.
 RONALD AFFECTION = 1 DRHUME,
 RONALD AFFECTION = -1 JAMES,
 CATHY GOOD = 2.
 MX GG = 2,
 CATHY VIOLENT = -2,
 CATHY SEXSIVE = 1,
 CATHY AFFECTION = 3 RONALD,
 MY GG = 2,
 CATHY ATTRACTIVE = 2,
 CATHY JEALOUS = 1,
 *INSERT (JAMES IS PARTNER2) (PARTNER2 POS RONALD).
 JAMES AFFECTION = -3 RONALD,
 JAMES IQ = 90,
 MY GG = 2,
 JAMES GOOD = -3,
 JAMES VIOLENT = 2,
 *INSERT (JAMES MARRIED) (MARRIED TO MARION).
 MX GG = 2,
 JAMES SEXSIVE = -3,
 JAMES HANDSOME = -3,
 JAMES AFFECTION = -1 MARION,
 MX GG = 2,
 JAMES HEALTH = 2,
 JAMES JEALOUS = 2,
 JAMES AFFECTION = -1 DRHUME,
 MARION IQ = 110,
 MX GG = 2,
 MARION GCCC = -2,
 MARION VIOLENT = 2,
 MARION WEALTH = -2,
 MY GG = 1,
 MARION ATTRACTIVE = ?*,
 MARION AFFECTION = -3 JAMES,
 MX GG = 2,
 MARION JEALOUS = 2,
 MARION SEXSIVE = 3,
 MARION AFFECTION = -1 NURSC;

SRULE: WEATHER WINDY;
 SUN FORECAST + 5;
 * 8-10:(SUN FORECAST) EA 5;
 \$RULE LX: *ENABLE CANTEEN;
 * 3.0.C: (DAY IS MUNDAY);
 * 4.0.C: (WEATHER WINDY);
 \$RULE: TSENDGROUP;
 * 10.0.C: (DAY IS MCNARY);
 * 9.0.C: (DAY IS MCNARY);
 * 3.0.C: (WEATHER SUNNY);
 \$RULE: TSENDGROUP;
 *ENABLE THEATRES IN 2H;
 *VAL((C.FEMALE INVITE H.FEMALE)(INVITE GOTO THEATRE));
 -10.0.C: VAL((C.FEMALE INVITE H.FEMALE)(INVITE GOTO THEATRE));
 : 4;
 * 5.0.C: DAY IS TUESDAY);
 \$RULE: TSENDGROUP;
 *ENABLE BRIDGE IN 2H;
 -10.0.C: VAL((C.MALE INVITE J.FEMALE)(INVITE PLAY BRIDGE));
 * 9.0.C: (DAY IS WEDNESDAY);
 * 3.0.C: (WEATHER RAINY);
 SENDGROUP;

 SCENE IN A PUB. MEN DRINK AND TALK. THEY MAY
 GET DRUNK. THEY MAY SING. IF ONE OF THE
 CHARACTERS HAS BEEN CHEATED BY HIS WIFE, HE
 WILL BE INCLUDED IN THIS GROUP.

 2 GROUP CANTEENG: 1H/CFF;
 \$RULE: *DISABLE CANTEEN;
 *INSERT(CANTEEN ON CORNER)(CANTEEN SMALL);
 SLOOP: X.PICK(MALE);
 \$RULE: X IN CANTEEN;
 -5..3:(X WEALTH) GT 0;
 13..5:(X MARRIED);
 .6..10 .IX NOT IN CANTEEN;
 \$RULE: *INSERT(X ASKFOR WHISKY ON ROCKS);
 *INSERT(X CET DRINK1) (GET FROM BARMAN);
 -10..10.C: (P.MALE SET DRINK1);
 SLOOP ET: Y.PICK(MALE);
 SWATCH: T(ET);
 10..10.C: Y;
 \$RULE: *INSERT (X TALKWITH Y) (TALKWITH NEAR BAR);
 *INSERT(PICK(MALE) SING SCNG) (SONG POS EATLES),
 X CUNK;
 : 3;
 SENDLOOP;
 SLOOP2: X.LOSSER;
 \$RULE: *INSERT(X SAY THAT) (SFHOUSE(X) COMMIT ADULTERY);
 10..10:(X MARRIED);
 \$RULE: *INSERT(PICK(MALE) THINK THAT) (X DRUNK);
 *EXPRESSIVE;
 X LEAVE CANTINE;
 SFHOUSE;

 TWO PERSONS HAVE AN AFFAIR. DEPENDING ON WHO
 SEES THEM. IT CAN GIVE RISE TO BLACKMAIL,
 GOSIP, OR JEALOUSY.

 SGROUP MOVING: 10M/OFF;
 \$RULE: *DISABLE MOVIG;
 SLOOP: X.TICK(FRENCH);
 \$RULE: *REMOVE X FROM RENOM;
 Y.PICK(FRENCH);
 SLOOP:
 \$RULE: *ADD X TO RENOM;
 \$RULE: *INSERT(X WITH Y) IN PICK(PLACE);
 X NEAR Y;
 *INSERT(Y CARESS X) (CARESS WITH PASSION);
 *INSERT(Y IS LOVER) (LOVER POS Y);

 \$LOOP L1:
 Z.PICK(MEAL);
 \$SWITCH: T(L1);
 10.0: {Z EQL X} OR {Z EQL Y};
 \$RULE: *INSERT(Z SEE AFFAIR){Z FOLLOW THEY};
 ULST XY;
 Z FOLLOW X;
 Z FOLLOW Y;
 LST XY;
 Z BLACKMAIL Y;
 X WEALTH +1;
 X WEALTH -1;
 *WEALTH +1;
 *WEALTH -1;
 -10.0:{Z EQL DUTCTY} OR {Z EGL SPOUSE(X)} OR {Z EGL SPOUSE(Y)};
 *9..10:(X MARRIED);
 -10.0.C:{Z EGL RENOM} OR {Z BLACKMAIL X};
 *5..-2:{Z WEALTH} LT 1;
 \$RULE: *INSERT(Z SEE AFFAIR){Z FOLLOW THEY};
 ULST XY;
 Z FOLLOW X;
 Z FOLLOW Y;
 LST XY;
 -10.10.C:{Z -LE AFFAIR};
 \$RULE: Z BLACKMAIL Y;
 Y WEALTH +1;
 Y WEALTH -1;
 Z WEALTH +1;
 Z WEALTH -1;
 -10.0:{Z EGL DETECT} OR {Z EGL SPOUSE(X)} OR {Z EGL SPOUSE(Y)};
 *9..10: (Y MARRIED);
 -10.0.C: {Z EGL RENOM} OR {Z BLACKMAIL Y};
 *5..0:{Z WEALTH} LT 1;
 \$RULE: Z SEE AFFAIR;
 *INSERT(Z SEE AFFAIR);
 10..-10:{Z EGL SPOUSE(X)} OR {Z EGL SPOUSE(Y)};
 \$RULE: Z SEE AFFAIR;
 *INSERT(Z COZZIP SPOUSE(X)) (COZZIP BY TELEPHONE)
 (COZZIP WITH DETAILS);
 (Z EGL PENDW) OR

 0..10:(X MARRIED);
 -10..8.C:{Z BLACKMAIL Y} OR
 (Z SEE AFFAIR);
 \$CINLOOP;
 \$ENLOOP;

INSERT(X SUSPECT THAT) (THEY CHEAT)
 1026
 1027 SRULE: *ERASE RENDM;
 1028 S-NGROUP:
 1029 * *****
 1030 * *****
 1031 * DISABLE PRE-PARTY ACTIVITIES AND ADD LADY
 1032 * BUXLEY'S SERVANTS TO THEIR PROPER SEX CLASSES. SRULE:
 1033 * *****
 1034 GROUP RESTORE: 1M/OFF;
 1035 *DISABLE FUNINTG;
 1036 *ADD NURSE TO FEMALE;
 1037 *ADD MAID TO FEMALE;
 1038 *ADD COCK TO FEMALE;
 1039 *ADD BUTLER TO MALE;
 1040 S-NGROUP:
 1041 * *****
 1042 * *****
 1043 * *****
 1044 * *****
 1045 * *****
 1046 * *****
 1047 * *****
 1048 SCROUP BRIDGECC: 10H/OFF;
 1049 SRULE: *DISABLE BRIDGE;
 1050 *MOVE FEMALE TO PLAYER;
 1051 SLOOP: PICK(PLAYER);
 1052 SRULE: *REPOE W FROM PLAYER;
 1053 SLOOP: PICK(PLAYER);
 1054 SRULE: *REPOE X FROM PLAYER;
 1055 SLOOP: Y PICK(PLAYER);
 1056 SRULE: *REPOE Y FROM PLAYER;
 1057 SLOOP: Z PICK(PLAYER);
 1058 SRULE: *INSERT(X INVITE X TO TELL PLAY BRIDGE);
 1059 *INSERT(Y TELL Y TO TELL COMWITH Z),
 1060 *INSERT(X ASK THEY)(ASK SITDOWN),
 1061 ULST XX,
 1062 *INSERT(X ASK W) (ASK SITDOWN) *
 1063 *INSERT(X ASK Y) (ASK SITDOWN) *
 1064 *INSERT(X ASK Z) (ASK SITDOWN) *
 1065 LST XX,
 1066 X BEING CARDS,
 1067 X OFFER DRINKS,
 1068 *INSERT(Z ASKFOR WHISKY) (WHISKY ON ROCKS);
 1069 *INSERT(Y ASKFOR WHISKY) (WHISKY WITH SODA);
 1070 *INSERT(GOTHERS HAVE COFFEE) (COFFEE WITH COOKIES);
 1071 ULST XX,
 1072 *INSERT(X HAVE COFFEE) (COFFEE WITH COOKIES);
 1073 *INSERT(Y HAVE COFFEE) (COFFEE WITH COOKIES);
 1074 LST XX,
 1075 X SHUFFLE CARDS;
 1076 X START GAME;
 1077 *INSERT(X SIGNAL CASUALLY),
 1078 X NOTICE ZT.
 1079 *INSERT(X NOTICE THAT) (Y SIGNAL Z).
 1080 LST XX,
 1081 *INSERT(X NOTICE ZT);
 1082 LST XX,
 1083 *SENDLOOP;

INSERT(X SUSPECT THAT) (THEY CHEAT)
 ULST XX,
 Y CHEAT,
 Z CHEAT,
 LST XX;
 8-5*(X IQ) LT 80;
 2-3*(Z IQ) LT 30 AND (Y IQ) LT 60;
 *INSERT(X WATCH THEM) (WATCH CLOSELY),
 ULST XX,
 *INSERT(X WATCH Y) (WATCH CLOSELY),
 *INSERT(X WATCH Z) (WATCH CLOSELY),
 LST XX;
 10*-10*C(X NOTICE IT);
 SRULE: *INCERTITY WIN GAME) (WIN WITH Z);
 3-5*(Y IQ) GT 30 OR (T IQ) GT 30;
 2-5*C(Y SIGNAL Z);
 SRULE: *INSERT(X UPSET) (UPSET WITH W);
 X AFFECTION -1 Y;
 SENDLOOP;
 SENDLOOP;
 SENDLOOP;
 SENDGROUP;
 * *****
 ONE OF THE CHARACTERS PHONES OTHER TO GO TO
 THE THEATRE.
 * *****
 SGROUP THEATREG: 10H/OFF;
 SRULE: *DISABLE THEATREG;
 *MOVE FEMALE TO TEMP;
 SLOOP T1 : X PICK(TEMP);
 SRULE: *REMOVE X FROM TEMP;
 *SWITCH: T(T1);
 -10|10|(X MARRIED);
 \$L00P: 3.SPOUSE(Y);
 SLOOP T2: Y PICK(TEMP);
 SRULE: *REMOVE Y FROM TEMP;
 *SWITCH: F(T2);
 10*-10|(Y MARRIED);
 \$L00P: P. SPOUSE(Y);
 SRULE: *INSERT(X PHONE Y) (PHONE IN MORNING);
 *INSERT(X INVITE Y(INVITE GOT THEATRE);
 Y ACREE,
 *INSERT(Y GETDRESS) (GETDRESS FOR EVENING);
 *INSERT(THEY MEET THEY) (MEET IN THEATRE);
 ULST XX,
 *INSERT Y MEET IN THEATRE);
 *INSERT X MEET IN THEATRE);
 *INSERT(X MEET IN THEATRE);
 *INSERT(Y MEET IN THEATRE);
 *INSERT(P MEET Q) (MEET IN THEATRE);
 *INSERT(Q MEET P) (MEET IN THEATRE);
 LST XX;
 SRULE: *INSERT(Y INTRODUCE P) (INTRODUCE DURING INMISSION);
 -10*10*C: VAL(Y INTRODUCE P) (INTRODUCE TO X);
 SENDLOOP;


```

%>25 $RULE: T(SENDCROUP) *ENABLE CALLIN IN 1H30M;
    SUTLER GOTO KITCHEN.
    *INSERT BUTLER FUCK COOK)(FUCK IN KITCHEN);
    (BUTLER FUCK COOK);
    (BUTLER EXECRIVE/S;
    (COOK S.Y.DRIVE/Y/S;
    *ENABLE CALLIN IN 1H;
    SENDGROUP;
    %>25 $RULE: 1H/OFF! *DISABLE WAKEUP;
    GROUP WAKUP;
    $RULE: *ENABLE CONVERSE IN 1H10M;
    *ENABLE ARTIC IN 1H.
    *ENABLE ENDPK IN 2H;
    *ENABLE CONTINUE IN 2H10M;
    DAY IS SATURDAY.
    SUN RISE.
    UST XX.
    SERVANT SETUP.
    SERVANT NOT GOTO BED.
    LST XX.
    SERVANTS GL UP.
    SERVANTS NOT GOTO BED.
    COOK GOTO KITCHEN *COOK PREPARE BREAKFAST;
    COOK DREPARE BREAKFAST;
    BUTLER FOLLOW COOK *COOK PREPARE BREAKFAST;
    *INSERT BUTLER FUCK COOK)(FUCK IN KITCHEN);
    (BUTLER EXECRIVE/E;
    (COOK SCYDRIVE)/3;
    .4;

    %>25 THE BUTLER ANNOUNCES THE MEAL AN HOUR AFTER
    %>25 THE COOK STARTS TO PREPARE IT. EVERYONE
    %>25 STOPS THEIR CURRENT ACTIVITIES.

    %>25 $GROUP CALLDIN: 1H/OFF;
    BUTLER ANNOUNCE MEAL,
    *DISABLE CALLIN.
    *DISABLE STARTACT.
    *ENABLE STARTDIN IN 15M.
    *ADD ACTIVITIES TO INTERRUPT;
    SENDGROUP;
    %>25 THE GUESTS GO TO THE DININGROOM AND THE MEAL
    %>25 SECINS.
    %>25 1H/OFF;
    UST XX.
    GUESTS GOTO DININGRM.
    *INSERT GUESTS SIT(SIT DOWNNO).
    LST XX.
    EVERYONE GOTO DININGRM.
    *INSERT EVERYONE SIT(SIT DOWNNO).
    BUTLER SERVE FOOD.
    MEAL STARTING.
    *ADD EVERYONE TO CONVERSING,
    *MOVE GUESTS TO TALKING.
    *DISABLE STARTDIN,
    *ENABLE ENGINEER IN 75M;
    SENDGROUP;
    %>25 AFTER DINNER THE MEN AND WOMEN SEPARATE FOR
    %>25 45 MINUTES OF TALK.

    %>25 $GROUP ENGINER: 1H/OFF;
    SLOOP: COPICK(CRUNK);
    $RULE: UST XX,
    EVERYONE NOT GOTO DININGRM.
    *DELETE EVERYONE SIT(SIT DOWNNO);
    S.WALE;
    S GOTO FARLOR.
    S SMOKC CIGARS,
    S DRINK CO;
    IS EDL SERVANT);
    LST XX.
    *DISABLE ENGINEER,
    *DISABLE SCOTTINGE IN 45M.

    %>25 $GROUP PREPON: 1H/OFF;
    SLOOP: COOK GOTO KITCHEN.
    *DISABLE PRECIN,
    COOK PREPARE MEAL;
    SENDGROUP;
    %>25 DINER IS PREPARED AT NOON AND SUPPER AT 7 PM.
    $RULE: *ENABLE ARRISE,
    LST XX,
    DAY BEAUTIFUL.
    THEY SETUP.
    *INSERT (THEY GO(GO TO BREAKFAST)(GO DOWNNO),
    *ADD EVERYONE TO CONVERSING,
    *MOVE GUESTS TO TALKING.
    UST XX,
    GUESTS SETUP,
    GUESTS NOT GOTO BED,
    GUESTS GETDOWN.
    *INSERT GUESTS COOK TO BREAKFAST)(CO DOWNNO),
    GUESTS GOTO DININGRM,
    LST XX;

    %>25 $GROUP ENDPK: 1H/OFF;
    $RULE: *DISABLE ENDPK;
    BREAKFAST OVER;
    SENDGROUP;
    %>25 $GROUP PREPON: 1H/OFF;
    $RULE: *ENABLE ARRISE,
    LST XX,
    DAY BEAUTIFUL.
    THEY SETUP.
    *INSERT (THEY GO(GO TO BREAKFAST)(GO DOWNNO),
    *ADD EVERYONE TO CONVERSING,
    *MOVE GUESTS TO TALKING.
    UST XX,
    GUESTS SETUP,
    GUESTS NOT GOTO BED,
    GUESTS GETDOWN.
    *INSERT GUESTS COOK TO BREAKFAST)(CO DOWNNO),
    GUESTS GOTO DININGRM,
    LST XX;

```


P FLIRTWITH W;
 (P FLIRTWITH W);
 VAL((W IS LOVER)(LOVER POS P1));
 VAL((P IS LOVER)(LOVER POS W));
 ((W ATTRACTIVE)/6 + .5);
 *INSERT (P SAY THAT)(W ATTRACTIVE = 3);
 *35;
 *INSERT (P WANTING)(WANTNO FUCK P);
 *35;
 \$RULE:
 1329 -10,-0;
 1325 10,0;
 1325 10,0;
 1327 10,0;
 1322 ;
 \$RULE:
 1329 ;
 1330 ;
 1331 ;
 1332 ;
 1333 ;
 1333 10,0;
 1335 10,0;
 1335 ;
 1337 ;
 1337 ;
 1339 ;
 1340 ;
 1341 ;
 1342 ;
 1342 ;
 1343 ;
 1345 ;
 1347 ;
 1343 ;
 1345 ;
 1350 ;
 1351 ;
 1352 ;
 1352 ;
 1353 ;
 1353 ;
 1354 ;
 1354 ;
 1355 ;
 1355 ;
 1356 ;
 1356 ;
 1357 ;
 1357 ;
 1358 ;
 1358 ;
 1359 ;
 1360 ;
 1361 ;
 1362 ;
 1363 ;
 1364 ;
 1365 ;
 1366 ;
 1367 ;
 1368 ;
 1369 ;
 1370 ;
 1371 ;
 1372 ;
 1373 ;
 1374 ;
 1375 ;
 1375 ;
 1377 ;
 1377 ;
 1378 ;
 1379 ;
 1379 ;

*INSERT (P THINK THAT)(W SEXY);
 *25;
 *INSERT (P WANTNO)(WANTNO SEDUCE W);
 *35;
 *INSERT (W WANTNO)(WANTNO FUCK P);
 *35;
 F(L6);
 (W MARRIED);
 (\$POUSE(W) EQL TALKING);
 *INSERT (\$POUSE(W) SEE THAT)(W TALKWITH P);
 (W SMILEAT P)(P FLATTER W);
 F(L6);
 *ADD P TO RENDEVOUS;
 *MOVE W TO WANTED(P);
 *MOVE SPouse(W) TO CHASER(P);
 *MOVE SPouse(W) TO CHASER(P);
 (P MARRIED);
 (\$POUSE(W) JEALOUS)/4 + .3;
 (\$POUSE(W) MADAT W);
 *75;
 ULET XX;
 6;
 \$POUSE(W) MADAT P;
 HX 03 = 1;
 \$POUSE(W) OVLREAR F;
 *6;
 LSI XX;
 ULET XX;
 F;
 \$POUSE(W) ANGRY;
 MX 0C = 1.
 \$POUSE(W) OVEOHEAR W;
 *6;
 LST YY;
 *INSERT (W SEE THAT)(SPOUSE(W) UPSET);
 W TALKWITH SPOUSE(W);
 *25;
 *INSERT (W TRY)(TRY CALM \$POUSE(W));
 *25;
 (CHIT);
 W SMILEAT SPUSE(W);
 *75;
 F(L7);
 (P MARRIED);
 (\$POUSE(P) EQL TALKING);
 F(L7);
 *ADD P TO RENDEVOUS;
 *MOVE W TO WANTED(P);
 *MOVE SPousE(P) TO CHASER(P);
 *INSERT (\$POUSE(P) SEE THAT)(P HISPERTO W);
 (W SMILEAT P);
 (\$POUSE(P) JEALOUS)/4 + .3;
 (\$POUSE(P) MADAT F);
 *75;
 SPouse(P) AFFECTION = -2 W;
 *35;
 *INSERT (\$POUSE(P) THINK THAT)(P UNFAITHFUL);
 (P AFFECTION = 3 W);

\$RULE: * INSERT (K REMOVE FPRINTS)(FPRINTS ON H);
 735 * INSERT (K HIT V)(HIT IN STOMACH);
 736 * INSERT (V STAGGER)(STAGGER BACK);
 737 :
 738 :
 739 :
 \$ENDGROUP;
 K RETURNTO BEDROOM;
 740 :
 741 :
 1 POISONING A RELATIVE FOR THE INHERITANCE.
 2
 2 \$RULE KR:
 3 *MOVE POISON TO WEAPON.
 4 *MOVE BOTTLE TO EVIDENCE.
 5 *MOVE GREED TO MOTIVE.
 6 *MOVE BATHROOM TO MROOM.
 7 *MOVE STAIRS TO MROOM.
 8 *INSERT (V RICH)(RICH VERY).
 9 K WEALTH E -3.
 10 K WANT MONEY.
 11 K RELATED TO V.
 12 *INSERT (K DECIDE)(DECIDE POISONS V).
 13 *INSERT (K THINK THAT)(K INHERIT MONEY).
 14 *INSERT (K KNOW THAT)(V DRINK MILK).
 15 K POISONS MILK.
 16 V DRINK MILK.
 17 V GOTO BED.
 18 V SIE.
 19 *INSERT (OTHERS THINK THAT)(V ASLEEP).
 20 ULST XX;
 21 S.PEOPLE:
 22 *INSERT (S THINK THAT)(V ASLEEP);
 23 (S EQL K);
 24
 25 SLOOP:
 26 \$RULE:
 27 27.5
 28 27.6
 29 27.7
 30 27.8
 31 27.9
 32 27.10
 33 27.11
 34 27.12
 35 27.13
 36 27.14
 37 27.15
 38 27.16
 39 27.17
 40 27.18
 41 27.19
 42 27.20
 43 27.21
 44 27.22
 45 27.23
 46 27.24
 47 27.25
 48 27.26
 49 27.27
 50 27.28
 51 27.29
 52 27.30
 53 27.31
 54 27.32
 55 27.33
 56 27.34
 57 27.35
 58 27.36
 59 27.37
 60 27.38
 61 27.39
 62 27.40
 63 27.41
 64 27.42
 65 27.43
 66 27.44
 67 27.45
 68 27.46
 69 27.47
 70 27.48
 71 27.49
 72 27.50
 73 27.51
 74 27.52
 75 27.53
 76 27.54
 77 27.55
 78 27.56
 79 27.57
 80 27.58
 81 27.59
 82 27.60
 83 27.61
 84 27.62
 85 27.63
 86 27.64
 87 27.65
 88 27.66
 89 27.67
 90 27.68
 91 27.69
 92 27.70
 93 27.71
 94 27.72
 95 27.73
 96 27.74
 97 27.75
 98 27.76
 99 27.77
 100 27.78
 101 27.79
 102 27.80
 103 27.81
 104 27.82
 105 27.83
 106 27.84
 107 27.85
 108 27.86
 109 27.87
 110 27.88
 111 27.89
 112 27.90
 113 27.91
 114 27.92
 115 27.93
 116 27.94
 117 27.95
 118 27.96
 119 27.97
 120 27.98
 121 27.99
 122 27.100
 123 27.101
 124 27.102
 125 27.103
 126 27.104
 127 27.105
 128 27.106
 129 27.107
 130 27.108
 131 27.109
 132 27.110
 133 27.111
 134 27.112
 135 27.113
 136 27.114
 137 27.115
 138 27.116
 139 27.117
 140 27.118
 141 27.119
 142 27.120
 143 27.121
 144 27.122
 145 27.123
 146 27.124
 147 27.125
 148 27.126
 149 27.127
 150 27.128
 151 27.129
 152 27.130
 153 27.131
 154 27.132
 155 27.133
 156 27.134
 157 27.135
 158 27.136
 159 27.137
 160 27.138
 161 27.139
 162 27.140
 163 27.141
 164 27.142
 165 27.143
 166 27.144
 167 27.145
 168 27.146
 169 27.147
 170 27.148
 171 27.149
 172 27.150
 173 27.151
 174 27.152
 175 27.153
 176 27.154
 177 27.155
 178 27.156
 179 27.157
 180 27.158
 181 27.159
 182 27.160
 183 27.161
 184 27.162
 185 27.163
 186 27.164
 187 27.165
 188 27.166
 189 27.167
 190 27.168
 191 27.169
 192 27.170
 193 27.171
 194 27.172
 195 27.173
 196 27.174
 197 27.175
 198 27.176
 199 27.177
 200 27.178
 201 27.179
 202 27.180
 203 27.181
 204 27.182
 205 27.183
 206 27.184
 207 27.185
 208 27.186
 209 27.187
 210 27.188
 211 27.189
 212 27.190
 213 27.191
 214 27.192
 215 27.193
 216 27.194
 217 27.195
 218 27.196
 219 27.197
 220 27.198
 221 27.199
 222 27.200
 223 27.201
 224 27.202
 225 27.203
 226 27.204
 227 27.205
 228 27.206
 229 27.207
 230 27.208
 231 27.209
 232 27.210
 233 27.211
 234 27.212
 235 27.213
 236 27.214
 237 27.215
 238 27.216
 239 27.217
 240 27.218
 241 27.219
 242 27.220
 243 27.221
 244 27.222
 245 27.223
 246 27.224
 247 27.225
 248 27.226
 249 27.227
 250 27.228
 251 27.229
 252 27.230
 253 27.231
 254 27.232
 255 27.233
 256 27.234
 257 27.235
 258 27.236
 259 27.237
 260 27.238
 261 27.239
 262 27.240
 263 27.241
 264 27.242
 265 27.243
 266 27.244
 267 27.245
 268 27.246
 269 27.247
 270 27.248
 271 27.249
 272 27.250
 273 27.251
 274 27.252
 275 27.253
 276 27.254
 277 27.255
 278 27.256
 279 27.257
 280 27.258
 281 27.259
 282 27.260
 283 27.261
 284 27.262
 285 27.263
 286 27.264
 287 27.265
 288 27.266
 289 27.267
 290 27.268
 291 27.269
 292 27.270
 293 27.271
 294 27.272
 295 27.273
 296 27.274
 297 27.275
 298 27.276
 299 27.277
 300 27.278
 301 27.279
 302 27.280
 303 27.281
 304 27.282
 305 27.283
 306 27.284
 307 27.285
 308 27.286
 309 27.287
 310 27.288
 311 27.289
 312 27.290
 313 27.291
 314 27.292
 315 27.293
 316 27.294
 317 27.295
 318 27.296
 319 27.297
 320 27.298
 321 27.299
 322 27.300
 323 27.301
 324 27.302
 325 27.303
 326 27.304
 327 27.305
 328 27.306
 329 27.307
 330 27.308
 331 27.309
 332 27.310
 333 27.311
 334 27.312
 335 27.313
 336 27.314
 337 27.315
 338 27.316
 339 27.317
 340 27.318
 341 27.319
 342 27.320
 343 27.321
 344 27.322
 345 27.323
 346 27.324
 347 27.325
 348 27.326
 349 27.327
 350 27.328
 351 27.329
 352 27.330
 353 27.331
 354 27.332
 355 27.333
 356 27.334
 357 27.335
 358 27.336
 359 27.337
 360 27.338
 361 27.339
 362 27.340
 363 27.341
 364 27.342
 365 27.343
 366 27.344
 367 27.345
 368 27.346
 369 27.347
 370 27.348
 371 27.349
 372 27.350
 373 27.351
 374 27.352
 375 27.353
 376 27.354
 377 27.355
 378 27.356
 379 27.357
 380 27.358
 381 27.359
 382 27.360
 383 27.361
 384 27.362
 385 27.363
 386 27.364
 387 27.365
 388 27.366
 389 27.367
 390 27.368
 391 27.369
 392 27.370
 393 27.371
 394 27.372
 395 27.373
 396 27.374
 397 27.375
 398 27.376
 399 27.377
 400 27.378
 401 27.379
 402 27.380
 403 27.381
 404 27.382
 405 27.383
 406 27.384
 407 27.385
 408 27.386
 409 27.387
 410 27.388
 411 27.389
 412 27.390
 413 27.391
 414 27.392
 415 27.393
 416 27.394
 417 27.395
 418 27.396
 419 27.397
 420 27.398
 421 27.399
 422 27.400
 423 27.401
 424 27.402
 425 27.403
 426 27.404
 427 27.405
 428 27.406
 429 27.407
 430 27.408
 431 27.409
 432 27.410
 433 27.411
 434 27.412
 435 27.413
 436 27.414
 437 27.415
 438 27.416
 439 27.417
 440 27.418
 441 27.419
 442 27.420
 443 27.421
 444 27.422
 445 27.423
 446 27.424
 447 27.425
 448 27.426
 449 27.427
 450 27.428
 451 27.429
 452 27.430
 453 27.431
 454 27.432
 455 27.433
 456 27.434
 457 27.435
 458 27.436
 459 27.437
 460 27.438
 461 27.439
 462 27.440
 463 27.441
 464 27.442
 465 27.443
 466 27.444
 467 27.445
 468 27.446
 469 27.447
 470 27.448
 471 27.449
 472 27.450
 473 27.451
 474 27.452
 475 27.453
 476 27.454
 477 27.455
 478 27.456
 479 27.457
 480 27.458
 481 27.459
 482 27.460
 483 27.461
 484 27.462
 485 27.463
 486 27.464
 487 27.465
 488 27.466
 489 27.467
 490 27.468
 491 27.469
 492 27.470
 493 27.471
 494 27.472
 495 27.473
 496 27.474
 497 27.475
 498 27.476
 499 27.477
 500 27.478
 501 27.479
 502 27.480
 503 27.481
 504 27.482
 505 27.483
 506 27.484
 507 27.485
 508 27.486
 509 27.487
 510 27.488
 511 27.489
 512 27.490
 513 27.491
 514 27.492
 515 27.493
 516 27.494
 517 27.495
 518 27.496
 519 27.497
 520 27.498
 521 27.499
 522 27.500
 523 27.501
 524 27.502
 525 27.503
 526 27.504
 527 27.505
 528 27.506
 529 27.507
 530 27.508
 531 27.509
 532 27.510
 533 27.511
 534 27.512
 535 27.513
 536 27.514
 537 27.515
 538 27.516
 539 27.517
 540 27.518
 541 27.519
 542 27.520
 543 27.521
 544 27.522
 545 27.523
 546 27.524
 547 27.525
 548 27.526
 549 27.527
 550 27.528
 551 27.529
 552 27.530
 553 27.531
 554 27.532
 555 27.533
 556 27.534
 557 27.535
 558 27.536
 559 27.537
 560 27.538
 561 27.539
 562 27.540
 563 27.541
 564 27.542
 565 27.543
 566 27.544
 567 27.545
 568 27.546
 569 27.547
 570 27.548
 571 27.549
 572 27.550
 573 27.551
 574 27.552
 575 27.553
 576 27.554
 577 27.555
 578 27.556
 579 27.557
 580 27.558
 581 27.559
 582 27.560
 583 27.561
 584 27.562
 585 27.563
 586 27.564
 587 27.565
 588 27.566
 589 27.567
 590 27.568
 591 27.569
 592 27.570
 593 27.571
 594 27.572
 595 27.573
 596 27.574
 597 27.575
 598 27.576
 599 27.577
 600 27.578
 601 27.579
 602 27.580
 603 27.581
 604 27.582
 605 27.583
 606 27.584
 607 27.585
 608 27.586
 609 27.587
 610 27.588
 611 27.589
 612 27.590
 613 27.591
 614 27.592
 615 27.593
 616 27.594
 617 27.595
 618 27.596
 619 27.597
 620 27.598
 621 27.599
 622 27.600
 623 27.601
 624 27.602
 625 27.603
 626 27.604
 627 27.605
 628 27.606
 629 27.607
 630 27.608
 631 27.609
 632 27.610
 633 27.611
 634 27.612
 635 27.613
 636 27.614
 637 27.615
 638 27.616
 639 27.617
 640 27.618
 641 27.619
 642 27.620
 643 27.621
 644 27.622
 645 27.623
 646 27.624
 647 27.625
 648 27.626
 649 27.627
 650 27.628
 651 27.629
 652 27.630
 653 27.631
 654 27.632
 655 27.633
 656 27.634
 657 27.635
 658 27.636
 659 27.637
 660 27.638
 661 27.639
 662 27.640
 663 27.641
 664 27.642
 665 27.643
 666 27.644
 667 27.645
 668 27.646
 669 27.647
 670 27.648
 671 27.649
 672 27.650
 673 27.651
 674 27.652
 675 27.653
 676 27.654
 677 27.655
 678 27.656
 679 27.657
 680 27.658
 681 27.659
 682 27.660
 683 27.661
 684 27.662
 685 27.663
 686 27.664
 687 27.665
 688 27.666
 689 27.667
 690 27.668
 691 27.669
 692 27.670
 693 27.671
 694 27.672
 695 27.673
 696 27.674
 697 27.675
 698 27.676
 699 27.677
 700 27.678
 701 27.679
 702 27.680
 703 27.681
 704 27.682
 705 27.683
 706 27.684
 707 27.685
 708 27.686
 709 27.687
 710 27.688
 711 27.689
 712 27.690
 713 27.691
 714 27.692
 715 27.693
 716 27.694
 717 27.695
 718 27.696
 719 27.697
 720 27.698
 721 27.699
 722 27.700
 723 27.701
 724 27.702
 725 27.703
 726 27.704
 727 27.705
 728 27.706
 729 27.707
 730 27.708
 731 27.709
 732 27.710
 733 27.711
 734 27.712
 735 27.713
 736 27.714
 737 27.715
 738 27.716
 739 27.717
 740 27.718
 741 27.719
 742 27.720
 743 27.721
 744 27.722
 745 27.723
 746 27.724
 747 27.725
 748 27.726
 749 27.727
 750 27.728
 751 27.729
 752 27.730
 753 27.731
 754 27.732
 755 27.733
 756 27.734
 757 27.735
 758 27.736
 759 27.737
 760 27.738
 761 27.739
 762 27.740
 763 27.741
 764 27.742
 765 27.743
 766 27.744
 767 27.745
 768 27.746
 769 27.747
 770 27.748
 771 27.749
 772 27.750
 773 27.751
 774 27.752
 775 27.753
 776 27.754
 777 27.755
 778 27.756
 779 27.757
 780 27.758
 781 27.759
 782 27.760
 783 27.761
 784 27.762
 785 27.763
 786 27.764
 787 27.765
 788 27.766
 789 27.767
 790 27.768
 791 27.769
 792 27.770
 793 27.771
 794 27.772
 795 27.773
 796 27.774
 797 27.775
 798 27.776
 799 27.777
 800 27.778
 801 27.779
 802 27.780
 803 27.781
 804 27.782
 805 27.783
 806 27.784
 807 27.785
 808 27.786
 809 27.787
 810 27.788
 811 27.789
 812 27.790
 813 27.791
 814 27.792
 815 27.793
 816 27.794
 817 27.795
 818 27.796
 819 27.797
 820 27.798
 821 27.799
 822 27.800
 823 27.801
 824 27.802
 825 27.803
 826 27.804
 827 27.805
 828 27.806
 829 27.807
 830 27.808
 831 27.809
 832 27.810
 833 27.811
 834 27.812
 835 27.813
 836 27.814
 837 27.815
 838 27.816
 839 27.817
 840 27.818
 841 27.819
 842 27.820
 843 27.821
 844 27.822
 845 27.823
 846 27.824
 847 27.825
 848 27.826
 849 27.827
 850 27.828
 851 27.829
 852 27.830
 853 27.831
 854 27.832
 855 27.833
 856 27.834
 857 27.835
 858 27.836
 859 27.837
 860 27.838
 861 27.839
 862 27.840
 863 27.841
 864 27.842
 865 27.843
 866 27.844
 867 27.845
 868 27.846
 869 27.847
 870 27.848
 871 27.849
 872 27.850
 873 27.851
 874 27.852
 875 27.853
 876 27.854
 877 27.855
 878 27.856
 879 27.857
 880 27.858
 881 27.859
 882 27.860
 883 27.861
 884 27.862
 885 27.863
 886 27.864
 887 27.8

8.6 Sample Murder Mystery Texts

We offer a 2100 word story, complete with semantic deep structure, generated in under 19 seconds. We also offer selected murder scenes from other runs that used different random number sequences and/or different character trait specification for Dr. Hume. (In some runs he was made very lustful and evil.)

The change stack listing does show all triple linkages that are tabulated by the system.

8.6.1 A 2100 Word Murder Mystery Story

CHANGE STACK FOR LINE LSEGUEA

NSE		STACK FOR TIME	19W3D10H
1:	(LADYBUX W-ALTH) = 3.0000		
2:	(NX 00) = 2.0000		
3:	(LADYBUX GOOD) = 3.0000		
4:	(LADYBUX TOI) = 125.0000		
5:	(LADYBUX SINGLE) SET AT 19W3D10H		
6:	(NX 00) = 2.0000		
7:	(LADYBUX ATTRACT) = -2.0000		
8:	(LADYBUX SEXTRIVE) = 4.0000		
9:	(JOHNBUX NEPHEW) SET AT 19W3D10H		
10:	(NEPHEW PCS LADYBUX) SET AT 19W3D10H		
11:	(JOHNBUX GOOD) = -3.0000		

CHANGE STACK FOR TIME 13W3D1DH1K

(JAMES WEALTH) = 2.0000
 (JAMES JEALOUS) = 2.0000
 (JAMES AFFECTION DRHME) = -1.0000
 37: (MARION IQ) = 110.0000
 29: (MX QQ) = 2.0000
 40: (MARION COOC) = -2.0000
 41: (MARION VIOLENCE) = 2.0000
 42: (MARION WEALTH) = -2.0000
 43: (MX QQ) = 1.0000
 44: (MARION ATTRACTI) = 2.0000
 45: (MARION AFFECTION JAMES) = -3.0000
 46: (MX QQ) = 2.0000
 47: (MARION JEALOUS) = 2.0000
 48: (MARION SECRETE) = 3.0000
 (MARION AFFECTION NURSC) = -1.0000
 49: (MARION OVERSEXED MARION) = 1.0000

13: (BUTLER GOOD) = -2.0000
 14: (BUTLER SINGLE) SET AT 19W3C10H2M
 (MX QQ) = 2.0000
 15: (BUTLER COURAGE) = -1.0000
 16: (BUTLER COURAGE) = 2.0000
 (MAID GOOD) = 1.0000
 (MX QQ) = 1.0000
 17: (MAID IO) = 60.0000
 (MAID SINGLE) SET AT 19W3C10H2M
 (MX QQ) = 2.0000
 18: (MAID ATTRACTI) = 1.0000
 (MAID WEALTH) = -1.0000
 (COOK SINGLE) SET AT 19W3C10H2M
 (MX QQ) = 2.0000
 19: (COOK ATTRACTI) = -1.0000
 (COOK VIOLENCE) = 3.0000
 (MX QQ) = 1.0000
 (COOK WEALTH) = -1.0000

WELL TO DO RONALD WAS KING.
 LUSTY RONALD WAS MARRIED TO CATHY.
 HANSOME RONALD LOVED CATHERINE.
 RONALD LIKED HUME.
 RONALD DISLIKED JAMES.
 EASY GOING LUSTY CATHY WAS KING.
 BEAUTIFUL JEALOUS CATHERINE LOVED RONALD.
 JAMES WAS RONALD'S PARTNER.
 JAMES HATED RONALD.
 EVIL VIOLENT JAMES WAS DUMB.
 EVIL VIOLENT JAMES WAS MARRIED TO MARION.
 WELL TO DO JEALOUS JAMES DISLIKED MARION.
 JAMES CICLICKED DR. BARTOLOMEW HUME.
 UNPLEASANT VIOLENT MARION WAS SMART.
 BEAUTIFUL MARION WAS IMPOVERTISHED.
 JEALOUS OVERSEXED MARION HATED JAMES.
 MARION DISLIKED FLORENCE.

CHANGE STACK FOR TIME 13W3C10H2M
 1: (NURSE IS COMPANION) SET AT 19W3C10H2M
 2: (COMPANION POS LADYBUX) SET AT 19W3C10H2M
 (NURSE VIOLENCE) = -3.0000
 3: (MX QQ) = 1.0000
 (NURSE COOC) = 2.0000
 (NURSE SINGLE) SET AT 19W3C10H2M
 4: (MX QQ) = 2.0000
 (NURSE ATTRACTI) = 3.0000
 (NURSE SEXCRIVE) = 2.0000
 (NURSE SEXDRIVE) = 1.0000
 5: (MX QQ) = 2.0000
 (NURSE IO) = 1.0000

6: (JAMES IN HOTEL) SET AT 19W3C10H2M
 (LADYBUX NEAR JAMES) SET AT 19W3C10H2M
 7: (WEATHER PLEASANT) SET AT 19W3C10H2M
 (LADYBUX IN PARK) SET AT 19W2D10H2M
 (JAMES RUNINTO LACYBUX) SET AT 19H3C10H2M
 (JAMES TALKWITH LACYBUX) SET AT 19W3C10H2M
 8: (LADYBUX FLIRTIWIT JAMES) SET AT 19W2D10H2M
 (JAMES INVITE LACYBUX) SET AT 19W3C10H2M
 (JAMES AFFECTION LACYBUX) SET AT 19W2D10H2M
 9: (LADYBUX AFFECTION JAMES) = 1.0000
 10: (LADYBUX WITH JAMES) SET AT 19W3C10H2M
 (JAMES IN HOTEL) SET AT 19W3C10H2M
 11: (LADYBUX WITH JAMES) SET AT 19W3C10H2M
 (LADYBUX NEAR JAMES) SET AT 19W3C10H2M
 12: (JAMES CARES LACYBUX) SET AT 19W3C10H2M
 (CARES WITH PASSION) SET AT 19W3C10H2M
 13: (JAMES IS LOVER) SET AT 19W3C10H2M
 (LOVER POS LACYBUX) SET AT 19W3C10H2M

CHANGE STACK FOR TIME 19W3D10H2M

1: (DAY IS MONDAY) SET AT 19W3C10H2M
 (WEATHER SUNNY) SET AT 19W3D10H2M
 (WEATHER PLEASANT) SET AT 19W3C10H2M
 2: (LADYBUX IN PARK) SET AT 19W2D10H2M
 (JAMES RUNINTO LACYBUX) SET AT 19H3C10H2M
 (JAMES TALKWITH LACYBUX) SET AT 19W3C10H2M
 3: (LADYBUX FLIRTIWIT JAMES) SET AT 19W2D10H2M
 (JAMES INVITE LACYBUX) SET AT 19W3C10H2M
 (JAMES AFFECTION LACYBUX) SET AT 19W2D10H2M
 4: (LADYBUX AFFECTION JAMES) = 1.0000
 5: (LADYBUX WITH JAMES) SET AT 19W3C10H2M
 (JAMES IN HOTEL) SET AT 19W3C10H2M
 6: (LADYBUX NEAR JAMES) SET AT 19W3C10H2M
 7: (JAMES CARES LACYBUX) SET AT 19W3C10H2M
 (CARES WITH PASSION) SET AT 19W3C10H2M
 8: (JAMES IS LOVER) SET AT 19W3C10H2M
 9: (LOVER POS LACYBUX) SET AT 19W3C10H2M

19: (MARION SEE AFFAIR) SET AT 19W3C10H10M
 (MARION FOLLOW THEY) SET AT 19W3C12H10M
 20: (ULST XX) SET AT 19W3D10H10M
 21: (MARION FOLLOW LADYBUX) SET AT 19W3D10H10M
 22: (MARION FOLLOW JAMES) SET AT 19W3D10H10M
 23: (ULST XX) SET AT 19W3D10H10M
 24: (MARION SEE AFFAIR) SET AT 19W3C10H10M
 25: (MARION JEALOUS) = 3.0000

THE DAY WAS MONDAY.
 THE PLEASANT WEATHER WAS SUNNY.
 LADY BUXLEY WAS IN A PARK.
 JAMES PAN INTO LADY BUXLEY.
 JAMES TALKED WITH LACY SUXLEY.
 LACY BUXLEY FLIRTED WITH JAMES.
 JAMES INVITED LADY BUXLEY.
 JAMES LIKED LADY BUXLEY.
 LADY BUXLEY LIKED JAMES.
 LADY BUXLEY WAS WITH JAMES IN A HOTEL.
 LADY BUXLEY WAS NEAR JAMES.
 JAMES CARSED LADY BUXLEY WITH PASSION.
 JAMES WAS LACY SUXLEY'S LOVER.
 MARION FOLLOWING THEM SAW THE AFFAIR.
 MARION SAW THE AFFAIR.
 MARION WAS JEALOUS.

21: (CATHY PLAY TENNIS) SET AT 19W3C12H10M
 (PLAY AGAINST RONALD) SET AT 19W3C12H10M
 22: (PLAY WITH DRHUME) SET AT 19W3D12H10M
 23: (PLAY WELL) SET AT 19W3D12H10M
 24: (DRHUME TALKWITH CATHY) SET AT 19W3D12H10M
 25: (THEY LAUGH) SET AT 19W3C12H10M
 26: (ULST XX) SET AT 19W3C12H10M
 27: (DRHUME LAUGH) SET AT 19W3D12H10M
 28: (CATHY LAUGH) SET AT 19W3D12H10M
 29: (LST XX) SET AT 19W3D12H10M
 30: (RONALD JEALOUS) = 2.0000
 31: (RONALD KACAT DRHUME) SET AT 19W3D12H10M
 32: (RONALD KACAT DRHUME) SET AT 19W3D12H10M

1: THE DAY WAS MONDAY.
 THE PLEASANT WEATHER WAS SUNNY.
 LADY BUXLEY WAS IN A PARK.
 JAMES PAN INTO LADY BUXLEY.
 JAMES TALKED WITH LACY SUXLEY.
 LACY BUXLEY FLIRTED WITH JAMES.
 JAMES INVITED LADY BUXLEY.
 JAMES LIKED LADY BUXLEY.
 LADY BUXLEY LIKED JAMES.
 LADY BUXLEY WAS WITH JAMES IN A HOTEL.
 LADY BUXLEY WAS NEAR JAMES.
 JAMES CARSED LADY BUXLEY WITH PASSION.
 JAMES WAS LACY SUXLEY'S LOVER.
 MARION FOLLOWING THEM SAW THE AFFAIR.
 MARION SAW THE AFFAIR.
 MARION WAS JEALOUS.

CHANGE STACK FOR TIME 19W3D12H10M

1: (RONALD MEET DRHUME) SET AT 19W3C12H10M
 (MEET BY CHANCE) SET AT 19W3D12H10M
 2: (RONALD GREET DRHUME) SET AT 19W3D12H10M
 (GREET WITH AFFEKTION) SET AT 19W3D12H10M
 3: (DRHUME INVITE RONALD) SET AT 19W3D12H10M
 4: (INVITE PLAY TENNIS) SET AT 19W3D12H10M
 5: (DRHUME ASK RONALD) SET AT 19W3D12H10M
 6: (ASK BRING CATHY) SET AT 19W3D12H10M
 7: (THEY MEET DRHUME) SET AT 19W3D12H10M
 8: (MEET AT CLUB) SET AT 19W3D12H10M
 9: (ULST XX) SET AT 19W3D12H10M
 10: (RONALD MEET DRHUME) SET AT 19W3D12H10M
 11: (MEET AT CLUB) SET AT 19W3D12H10M
 12: (CATHY MEET DRHUME) SET AT 19W3D12H10M
 13: (MEET AT CLUB) SET AT 19W3D12H10M
 14: (CATHY MEET DRHUME) SET AT 19W3D12H10M
 15: (MEET AT CLUB) SET AT 19W3D12H10M
 16: (ULST XX) SET AT 19W3D12H10M
 17: (DRHUME LIKE CATHY) SET AT 19W3D12H10M
 18: (LIKES WELL) SET AT 19W3D12H10M
 19: (CATHY FIND THAT) SET AT 19W3C12H10M
 20: (CATHY HANDSOME) = 3.0000

CHANGE STACK FOR TIME 19W4D10H10M

1: NOT (DAY IS MONDAY) SET AT 19W3D10H10M
 2: (DAY IS TUESDAY) SET AT 19W4C10H10M
 3: NOT (WEATHER SUNNY) SET AT 19W3C10H10M
 (WEATHER RAINY) SET AT 19W4D10H10M
 4: (MARION IN PARK) SET AT 19W4D10H10M
 5: (DRHUME RUNINTO MARION) SET AT 19W4D10H10M
 6: (DRHUME TALKWITH MARION) SET AT 19W4D10H10M
 7: (MARION FLIRTTIT DRHUME) SET AT 19W4D10H10M
 8: (DRHUME INVITE MARION) SET AT 19W4D10H10M
 9: (DRHUME AFFEKTIO MARION) = 1.0000
 10: (MARION AFFEKTIO DRHUME) = 1.0000
 11: (MARION WITH DRHUME) SET AT 19W4D10H10M
 12: (DRHUME IN HOTEL) SET AT 19W4D10H10M
 13: (MARION NEAR DRHUME) SET AT 19W4D10H10M
 14: (DRHUME CARESS MARION) SET AT 19W4C10H10M
 15: (CARESS WITH PASSION) SET AT 19W4C10H10M
 16: (DRHUME IS LOVER) SET AT 19W4D10H10M
 17: (LOVER POS MARION) SET AT 19W4C10H10M
 18: (LADY JANE SEE AFFAIR) SET AT 19W4C10H10M
 19: (LADY JANE FOLLOW THEY) SET AT 19W4C10H10M
 20: (LADY JANE FOLLOW THEY) SET AT 19W4D10H10M

21: (LUST XX) SET AT 19W4D10H10M
22: (LADYJANE FOLLOW MARION) SET AT 19W4C10H10M
(LADYJANE FOLLOW DRAME) SET AT 19W4C10H10M
23: (LUST XX) SET AT 19W4D10H10M
24: (LADYJANE SLACKMAI MARION) SET AT 19W4D10H10M
25: (MARION WEALTH) = -2.0000
26: (LADYJANE HEALTH) = 3.0000

21: (INTRODUC TO MARION) SET AT 19W4D12H10M
(INTRODUC DURING INTERMISSION) SET AT 19W4D12H10M

22: (LADYJANE FOLLOW MARION) SET AT 19W4C10H10M
23: (LADYJANE FOLLOW DRAME) SET AT 19W4C10H10M
24: (LUST XX) SET AT 19W4D10H10M
25: (LADYJANE SLACKMAI MARION) SET AT 19W4D10H10M
26: (MARION WEALTH) = -2.0000
27: (LADYJANE HEALTH) = 3.0000

THE DAY WAS TUESDAY.
THE WEATHER WAS RAINY.
MARION WAS IN THE PARK.
DR. HUME LIKED MARION.
MARION WAS WITH DR. BARTHOLOMEW HUME IN THE HOTEL.
MARION WAS NEAR HUME.
DR. HUME CARESSED MARION WITH PASSION.
HUME WAS MARION'S LOVER.
LADY JANE FOLLOWING THEM SAW THE AFFAIR.
JANE BLACKMAILED MARION.
MARION WAS IMPOVERISHED.
JANE WAS RICH.

DR. HUME LIKED MARION.
MARION WAS WITH DR. BARTHOLOMEW HUME.
MARION WAS NEAR HUME.
DR. HUME CARESSED MARION WITH PASSION.
HUME WAS MARION'S LOVER.
LADY JANE FOLLOWING THEM SAW THE AFFAIR.
JANE BLACKMAILED MARION.
MARION WAS IMPOVERISHED.
JANE WAS RICH.

MARION PHONED JANE IN THE MORNING.

MARION INVITED JANE TO GO TO A THEATER.

JANE AGREED.

JANE GOT DRESSED FOR THE EVENING.

THEY MET THEM IN THE THEATER.

JANE INTRODUCED LORD EDWARD DURING AN INTERMISSION TO MARION.

CHANGE STACK FOR TIME 19W4D10H10M

1: NOT (DAY IS TUESDAY) SET AT 19W4C10H10M
2: (DAY IS WEDNESDAY) SET AT 19W5C10H10M
3: NOT (WEATHER RAINY) SET AT 19W4C10H10M
(WEATHER WINCY) SET AT 19W5D10H10M
4: (LADYJANE IN TENNISCO) SET AT 19W5C10H10M
(JOHNBUX RUNNIN O LADYJANE) SET AT 19W5D10H10M
5: (JOHNBUX TALKWITH LADYJANE) SET AT 19W5C10H10M
(LADYJANE FLIRITW JOHNBUX) SET AT 19W5D10H10M
6: (JOHNBUX INVITE LADYJANE) SET AT 19W5D10H10M
(JOHNBUX AFFECTION LADYJANE) = 1.0000
7: (JOHNBUX WITH LADYJANE) SET AT 19W5C10H10M
8: (LADYJANE IN KOVIE) SET AT 19W5C10H10M
9: (JOHNBUX NEAR LADYJANE) SET AT 19W5C10H10M
(LADYJANE CARESS JOHNBUX) SET AT 19W5C10H10M
10: (LADYJANE WITH PASSION) SET AT 19W5D10H10M
11: (LADYJANE IS LOVER) SET AT 19W5C10H10M
12: (LOVER POS JOHNBUX) SET AT 19W5C10H10M
(CATHY SEE AFFAIR) SET AT 19W5D10H10M
13: (CATHY FOLLOW THEY) SET AT 19W5C10H10M
(ULST XX) SET AT 19W5D10H10M
14: (CATHY FOLLOW JOHNBUX) SET AT 19W5C10H10M
(CATHY FOLLOW LADYJANE) SET AT 19W5C10H10M
(CATHY SEE AFFAIR) SET AT 19W5D10H10M
15: (CATHY FOLLOW THEY) SET AT 19W5C10H10M
(CATHY FOLLOW JOHNBUX) SET AT 19W5C10H10M
(CATHY FOLLOW LADYJANE) SET AT 19W5C10H10M
(CATHY SEE AFFAIR) SET AT 19W5D10H10M
16: (CATHY FOLLOW THEY) SET AT 19W5C10H10M
(CATHY FOLLOW JOHNBUX) SET AT 19W5C10H10M
(CATHY FOLLOW LADYJANE) SET AT 19W5C10H10M
(CATHY SEE AFFAIR) SET AT 19W5D10H10M
17: (CATHY FOLLOW JOHNBUX) SET AT 19W5C10H10M
(CATHY FOLLOW LADYJANE) SET AT 19W5C10H10M
(CATHY SEE AFFAIR) SET AT 19W5D10H10M
18: (CATHY FOLLOW JOHNBUX) SET AT 19W5C10H10M
(CATHY FOLLOW LADYJANE) SET AT 19W5C10H10M
(CATHY SEE AFFAIR) SET AT 19W5D10H10M
19: (CATHY FOLLOW JOHNBUX) SET AT 19W5C10H10M
(CATHY FOLLOW LADYJANE) SET AT 19W5C10H10M
(CATHY SEE AFFAIR) SET AT 19W5D10H10M
20: (CATHY FOLLOW JOHNBUX) SET AT 19W5C10H10M
(CATHY FOLLOW LADYJANE) SET AT 19W5C10H10M
(CATHY SEE AFFAIR) SET AT 19W5D10H10M
21: (CATHY FOLLOW JOHNBUX) SET AT 19W5C10H10M
(CATHY FOLLOW LADYJANE) SET AT 19W5C10H10M
(CATHY SEE AFFAIR) SET AT 19W5D10H10M
22: (CATHY FOLLOW JOHNBUX) SET AT 19W5C10H10M
(CATHY FOLLOW LADYJANE) SET AT 19W5C10H10M
(CATHY SEE AFFAIR) SET AT 19W5D10H10M
23: (CATHY FOLLOW JOHNBUX) SET AT 19W5C10H10M
(CATHY FOLLOW LADYJANE) SET AT 19W5C10H10M
(CATHY SEE AFFAIR) SET AT 19W5D10H10M
24: (CATHY FOLLOW JOHNBUX) SET AT 19W5C10H10M
(CATHY FOLLOW LADYJANE) SET AT 19W5C10H10M
(CATHY SEE AFFAIR) SET AT 19W5D10H10M
25: (CATHY BLACKMAIL LADYJANE) SET AT 19W5C10H10M
(CATHY BLACKMAIL LADYJANE) SET AT 19W5C10H10M
26: (CATHY WEALTH) = 2.0000
27: (CATHY WEALTH) = 3.0000

CHANGE STACK FOR TIME 19W4D12H10M

1: (MARION PHONE LACYJANE) SET AT 19W4D12H10M
2: (PHONE IN MORNING) SET AT 19W4D12H10M
(MARION INVITE LADYJANE) SET AT 19W4D12H10M
3: (INVITE GOTO THEATRE) SET AT 19W4D12H10M
(LADYJANE AGREED) SET AT 19W4D12H10M
4: (LADYJANE AGREE) SET AT 19W4D12H10M
5: (LADYJANE GIDRESS) SET AT 19W4C12H10M
6: (GETGRESS FOR EVENING) SET AT 19W4C12H10M
7: (GETGRESS FOR EVENING) SET AT 19W4C12H10M
8: (THEY MEET THEATRE) SET AT 12W4D12H10M
9: (MEET IN THEATRE) SET AT 12W4D12H10M
10: (COLST XX) SET AT 12W4D12H10M
11: (MARION MEET LADYJANE) SET AT 12W4D12H10M
12: (MEET IN THEATRE) SET AT 12W4D12H10M
(MARION MEET JAMES) SET AT 12W4D12H10M
13: (MEET IN THEATRE) SET AT 12W4D12H10M
(LOPDED MEET LADYJANE) SET AT 12W4D12H10M
14: (MEET IN THEATRE) SET AT 12W4D12H10M
(LOPDED MEET JAMES) SET AT 12W4D12H10M
15: (MEET IN THEATRE) SET AT 12W4D12H10M
(LOPDED MEET JAMES) SET AT 12W4D12H10M
16: (MEET IN THEATRE) SET AT 12W4D12H10M
(LOPDED MEET JAMES) SET AT 12W4D12H10M
17: (MEET IN THEATRE) SET AT 12W4D12H10M
(LOPDED MEET JAMES) SET AT 12W4D12H10M
18: (MEET IN THEATRE) SET AT 12W4D12H10M
(LOPDED MEET JAMES) SET AT 12W4D12H10M
19: (LUST XX) SET AT 19W4C12H10M
20: (LADYJANE INTRODUC LORGEC) SET AT 19W4C12H10M

THE DAY WAS WEDNESDAY.

THE WEATHER WAS WINCY.

LADY JANE WAS IN THE TENNIS COURT.

JOHN RAN INTO LADY JANE.
 JOHN TALKED WITH JANE.
 LADY JANE FLIRTED WITH JOHN BUXTON.
 JOHN SUXLEY INVITED LADY JANE.
 JOHN LIKED LADY JANE.
 LADY JANE LIKED JOHN.
 JOHN SUXLEY WAS WITH JANE IN A MOVIE.
 JOHN WAS NEAR LADY JANE.
 JOHN CARRESSED JOHN BUXTON WITH PASSION.
 LADY JANE WAS JOHN'S LOVER.
 CATHY FOLLOWING THEM SAW THE AFFAIR.
 CATHY BLACKMAILED LADY JANE.
 JANE WAS WELL TO DO.
 LADY CATHERINE WAS RICH.

37: (MARION SIGNAL LADYBUX) SET AT 19W5C12H10M
 (LST XX) SET AT 19W5D12H10M
 38: (LADYJANE SUSPECT THAT) SET AT 19W5C12H10M
 39: (THEY CHEAT) SET AT 19W5D12H10M
 40: (LUST XX) SET AT 19W5D12H10M
 41: (MARION CHEAT) SET AT 19W5D12H10M
 42: (LADYBUX CHEAT) SET AT 19W5D12H10M
 43: (LST XX) SET AT 19W5D12H10M
 44: (LADYJANE WATCH THEM) SET AT 19W5D12H10M
 45: (WATCH CLOSELY) SET AT 19W5C12H10M
 46: (WATCH CLOSELY) SET AT 19W5C12H10M
 47: (LUST XX) SET AT 19W5D12H10M
 48: (LADYJANE WATCH MARION) SET AT 19W5D12H10M
 (WATCH CLOSELY) SET AT 19W5D12H10M
 49: (LADYJANE WATCH LADYBUX) SET AT 19W5D12H10M
 50: (WATCH CLOSELY) SET AT 19W5C12H10M
 51: (LST XX) SET AT 19W5D12H10M
 52: (LADYJANE WIN GAME) SET AT 19W5C12H10M
 53: (WIN WITH LADYBUX) SET AT 19W5C12H10M
 54: (LADYJANE UPSET) SET AT 19W5D12H10M
 55: (UPSET WITH CATHY) SET AT 19W5C12H10M
 56: (LADYJANE AFFECTION MARION) = -1.0000
 57: (LADYJANE AFFECTION MARION) = -1.0000

CHANGE STACK FOR TIME 19W5D12H10M

1: (CATHY INVITE LADYJANE) SET AT 19W5D12H10M
 2: (INVITE PLAY BRIDGE) SET AT 19W5D12H10M
 3: (CATHERINE TELL MARION) SET AT 19W5D12H10M
 4: (TELL COWBOY WITH LADYBUX) SET AT 19W5C12H10M
 5: (LADYJANE ASK THEM) SET AT 19W5D12H10M
 6: (ASK SITDOWN) SET AT 19W5D12H10M
 7: (LUST XX) SET AT 19W5D12H10M
 (LADYJANE ASK CATHY) SET AT 19W5D12H10M
 8: (ASK SITDOWN) SET AT 19W5D12H10M
 9: (LADYJANE ASK MARION) SET AT 19W5D12H10M
 10: (ASK SITDOWN) SET AT 19W5C12H10M
 11: (LADYJANE ASK LADYBUX) SET AT 19W5C12H10M
 12: (ASK SITDOWN) SET AT 19W5D12H10M
 13: (LUST XX) SET AT 19W5D12H10M
 (LADYJANE BING CARDS) SET AT 19W5D12H10M
 14: (LADYJANE OFFER DRINKS) SET AT 19W5C12H10M
 15: (LADYJANE ASKFOR WHISKY) SET AT 19W5C12H10M
 16: (WHISKY ON ROCKS) SET AT 19W5D12H10M
 (MARION ASKFOR WHISKY) SET AT 19W5D12H10M
 17: (WHISKY WITH SOOAL) SET AT 19W5D12H10M
 (OTHERS HAVE COFFEE) SET AT 19W5D12H10M
 (COFFEE WITH COOKIES) SET AT 19W5C12H10M
 18: (LUST XX) SET AT 19W5D12H10M
 (LADYJANE HAVE COFFEE) SET AT 19W5C12H10M
 (COFFEE WITH COOKIES) SET AT 19W5C12H10M
 (CATHY HAVE COFFEE) SET AT 19W5D12H10M
 19: (COFFEE WITH COOKIES) SET AT 19W5C12H10M
 20: (LADYJANE SHUFFLE CARDS) SET AT 19W5C12H10M
 21: (LADYJANE START GAME) SET AT 19W5C12H10M
 (MARION SIGNAL LADYBUX) SET AT 19W5C12H10M
 22: (SIGNAL WITH HANDS) SET AT 19W5D12H10M
 (SIGNAL CASUALLY) SET AT 19W5D12H10M
 23: (LADYJANE NOTICE IT) SET AT 19W5C12H10M
 (LUST XX) SET AT 19W5D12H10M
 24: (JOHNBUX NOTICE THAT) SET AT 19W5D12H10M
 25: (CANTINE SMALL) SET AT 19W5D12H10M
 26: (CANTINE IN CANTEEN) SET AT 19W5D12H10M
 27: (CANTINE ON CORNER) SET AT 19W5C12H10M
 28: (NOT (DAY IS WEDNESDAY)) SET AT 19W5D10H10M
 29: (DAY IS THURSDAY) SET AT 19W5D10H10M
 30: (WEATHER WINDY) SET AT 19W5D10H10M
 31: (WEATHER FAYNY) SET AT 19W5D10H10M
 32: (CANTINE ON CORNER) SET AT 19W5C12H10M
 33: (CANTINE ON CORNER) SET AT 19W5D10H10M
 34: (JOHNBUX IN CANTINE) SET AT 19W5D10H10M
 35: (JOHNBUX IN CANTINE) SET AT 19W5D10H10M
 36: (JOHNBUX IN CANTINE) SET AT 19W5D10H10M

CHANGE STACK FOR TIME 19W5D10H10M

1: NOT (DAY IS WEDNESDAY) SET AT 19W5D10H10M
 2: NOT (DAY IS THURSDAY) SET AT 19W5D10H10M
 3: NOT (WEATHER WINDY) SET AT 19W5D10H10M
 4: (WEATHER FAYNY) SET AT 19W5D10H10M
 5: (CANTINE ON CORNER) SET AT 19W5C12H10M
 6: (CANTINE SMALL) SET AT 19W5D10H10M
 7: (JOHNBUX IN CANTINE) SET AT 19W5D10H10M

8: (JOHNBUX ASKFOR WHISKY) SET AT 19W6C10H10M
 9: (WHISKY ON ROCKS) SET AT 19W6D10H10M
 10: (JOHNBUX SET DRINK1) SET AT 19W6D10H10M
 11: (GET FROM BARMAN) SET AT 19W6D10H10M
 12: (JOHNBUX TALKWITH DRUMMER) SET AT 19W5C10H10M
 13: (TALKWITH NEAR BAR) SET AT 19W6C10H10M
 14: (CRHUME S-NIC SONG) SET AT 19W4C10H10M
 15: (SONG PCS BEATLES) SET AT 19W6D10H10M
 16: (JOHNBUX SPUNK1) SET AT 19W5C10H10M
 (JAMES SAY THAT) SET AT 19W5C10H10M
 17: (MARION COMMET ADULT DAY) SET AT 19W6D10H10M
 18: (JAMES THINK THAT) SET AT 19W6D10H10M
 19: (JAMES DRUNK) SET AT 19W6D10H10M
 20: (JAMES DEPRESSE) SET AT 19W6D10H10M
 21: (JAMES LEAVE CANTEEN) SET AT 19W6D10H10M
 22: (LORDED SAY THAT) SET AT 19W6D10H10M
 23: (LADY JANE COMMET ADULTRY) SET AT 19W6C10H10M
 24: (JOHNEUX THINK THAT) SET AT 19W6C10H10M
 25: (LORDED DRUNK) SET AT 19W6C10H10M
 26: (LORDED DEPRESSE) SET AT 19W6D10H10M
 27: (LORDED LEAVE CANTEEN) SET AT 19W6D10H10M
 23: (LORDED DRUNK) SET AT 19W6D10H10M

CHANGE STACK FOR TIME 20W17H10M

CHANGE STACK FOR TIME 20W20H

1: (CLADYBUX HAVE HOUSE) SET AT 20W20H
 2: (HOUSE BIG) SET AT 20W2CH
 (HOUSE HAVE GARDEN) SET AT 20W20H
 (HOUSE POS LADYBUX) SET AT 20W2CH
 (GARDEN PRETTY) SET AT 20W2CH
 (GARDEN FRAGRENT) SET AT 20W20H
 (GREENHS IN GARDEN) SET AT 20W20H
 (GARDEN NEAR TENNISCO) SET AT 20W20H
 3: (HOUSE HAVE DININGRM) SET AT 20W20H
 10: (CININCRM BIG) SET AT 20W20H
 11: (DININCRM BRIGHT) SET AT 20W20H
 (HOUSE HAVE PARLOR) SET AT 20W20H
 12: (HAVE ALSO) SET AT 20W20H
 (PARLOR PLEASANT) SET AT 20W20H
 13: (LIBRARY NEAR PARLOR) SET AT 20W20H
 14: (LIBRARY COOL) SET AT 20W20H
 (LIBRARY DARK) SET AT 20W20H
 (LIBRARY MUSIY) SET AT 20W20H
 (BILLDRM NEAR PARLOR) SET AT 20W20H
 15: (NEAR ALSO) SET AT 20W20H
 (TIME IS EVENING) SET AT 20W20H
 21: (CLADYBUX GIVE PARTY) SET AT 20W20H
 (PARTY LASTIE) SET AT 20W20H
 22: (LAST FOR WEEKEND) SET AT 20W20H
 23: (LAST FOR WEEKEND) SET AT 20W20H
 24: (LAST FOR WEEKEND) SET AT 20W20H

THE DAY WAS THURSDAY.
 THE WEATHER WAS RAINY.
 A SMALL PUB WAS ON A CORNER.
 JOHN BUXTLEY ASKED FOR WHISKY ON THE ROCKS.
 JOHN GOT A DRINK FROM THE BARMAN.
 JOHN TALKED WITH HUME NEAR THE BAR.
 HUME SANG THE BEATLES'S SONG.
 JOHN BUXTLEY WAS DRUNK.
 JAMES SAID THAT MARION COMMITTED ADULTERY.
 JAMES THOUGHT THAT JAMES WAS DRUNK.
 JAMES WAS DEPRESSED.
 EDWARD LEFT THE PUB.

EDWARD SAID THAT LADY JANE COMMITTED ADULTERY.
 JOHN BUXTLEY THOUGHT THAT LORD EDWARD WAS DRUNK.
 LORD EDWARD WAS DEPRESSED.
 EDWARD LEFT THE PUB.

CHANGE STACK FOR TIME 20W10H10M

1: NCT (DAY IS THURSDAY) SET AT 19S6D10H10M
 2: (DAY IS FRIDAY) SET AT 20W10H10M

LADY BUXTLEY HAD A BIG HOUSE.
 LADY BUXTLEY'S HOUSE HAD A PRETTY FRAGRANT GARDEN.
 A GREEN HOUSE WAS IN THE GARDEN.
 THE GARDEN WAS NEAR THE TENNIS COURT.
 THE HOUSE HAD A BIG DRAUGHT DINING ROOM.
 THE HOUSE ALSO HAS A PLEASANT PARLOR.
 A COOL DARK MUSTY LIBRARY WAS NEAR THE PARLOR.
 THE TIME WAS THE EVENING.
 LADY BUXTLEY GAVE A PARTY.
 THE PARTY LASTED FOR A WEEKEND.

CHANGE STACK FOR TIME 20W20H10M

CHANGE STACK FOR TIME 20W20H20M
1: (LADYBUX TALKWITH NURSE) SET AT 20W20H20M

LADY BUXLEY TALKED WITH FLORENCE.

CHANGE STACK FOR TIME 20W21H10M

CHANGE STACK FOR TIME 20W21H10M
1: (LORDED ARRIVE) SET AT 20W21H10M
2: (ARRIVE WITH LADYJANE) SET AT 20W21H10M

MARION ARRIVED WITH JAMES.

CHANGE STACK FOR TIME 20W20H30M

1: (MARION ARRIVE) SET AT 20W20H30M
2: (ARRIVE WITH JAMES) SET AT 20W20H30M

CHANGE STACK FOR TIME 20W21H20M

1: (DRHUME ARRIVE) SET AT 20W21H20M
2: (DRHUME JOIN CONVERSATION) SET AT 20W21H20M
3: (LIST XX) SET AT 20W21H20M

80

EDWARD ARRIVED WITH JANE.

CHANGE STACK FOR TIME 20W21H30M

1: (DRHUME ARRIVE) SET AT 20W21H30M
2: (DRHUME JOIN CONVERSATION) SET AT 20W21H30M
3: (LIST XX) SET AT 20W21H30M

MARION ARRIVED WITH JAMES.

CHANGE STACK FOR TIME 20W20H40M

1: (CATHY ARRIVE) SET AT 20W20H40M
2: (ARRIVE WITH RONALD) SET AT 20W20H40M

CHANGE STACK FOR TIME 20W21H30M
1: (CATHY TALKWITH DRHUME) SET AT 20W21H30M
2: (DRHUME FLIRTWITH CATHY) SET AT 20W21H30M
3: (DRHUME SAY THAT) SET AT 20W21H30M
4: (CATHY ATTRACT) = 3.0000
5: (DRHUME WANTING) SET AT 20W21H30M
6: (WANTING FUCK CATHY) SET AT 20W21H30M
7: (DRHUME TELL JOKE) SET AT 20W21H30M
8: (CATHY LAUGH) SET AT 20W21H30M

DR. HUME ARRIVED.
DR. BARTHOLOMEW HUME JOINED A CONVERSATION.

CHANGE STACK FOR TIME 20W20H30M

CATHERINE TALKED WITH DR. BARTHOLOMEW HUME.
DR. BARTHOLOMEW HUME FLIRTED WITH LADY CATHERINE.
DR. BARTHOLOMEW HUME SAID THAT LADY CATHERINE WAS BEAUTIFUL.
DR. HUME WANTED TO SEDUCE CATHERINE.
HUME TOLD A JOKE.
CATHERINE LAUGHED.

CHANGE STACK FOR TIME 20W21H40M

CHANGE STACK FOR TIME 20W21H40M

CHANGE STACK FOR TIME 20W21H50M
1: (LADYBUX TALKWITH RONALD) SET AT 20W21H50M
2: (NURSE TALKWITH DRHUME) SET AT 20W21H50M
3: (DRHUME FLIRTWITH NURSE) SET AT 20W21H50M
4: (DRHUME FLATTER NURSE) SET AT 20W21H50M
5: (NURSE AROUSED) SET AT 20W21H50M
6: (AROUSED VERRY) SET AT 20W21H50M
7: (DRHUME AFFECTION NURSE) = 2.0000
8: (NURSE AFFECTION DRHUME) = 2.0000

LADY BUXLEY TALKED WITH RONALD.
FLORENCE TALKED WITH DR. BARTHOLOMEW HUME.
DR. HUME FLIRTED WITH FLORENCE.
DR. BARTHOLOMEW HUME FLATTERED FLORENCE.
FLORENCE WAS VERY ARoused.
DR. BARTHOLOMEW HUME LIKED FLORENCE.
FLORENCE LIKED HUME.

CHANGE STACK FOR TIME 20W22H0M

CHANGE STACK FOR TIME 20W22H0M
1: (LUST XX) SET AT 20W22H
2: (RONALD TIRED) SET AT 20W22H
3: (CATHY TIRED) SET AT 20W22H
4: (LUST XX) SET AT 20W22H
5: (LUST XX) SET AT 20W22H
6: (BUTLER GOT BED) SET AT 20W22H
7: (CLOCK GOT 3ED) SET AT 20W22H
8: (MAID GOT BED) SET AT 20W22H
9: (LUST XX) SET AT 20W22H
10: (SERVANTS GOT BED) SET AT 20W22H

CHANGE STACK FOR TIME 20W22H10M

CHANGE STACK FOR TIME 20W22H10M
1: ((JOHNBUX ARRIVE) SET AT 20W22H10M
2: ((LADYSUX GREET JOHNBUX) SET AT 20W22H10M
3: ((JOHNEUX JOIN CONVERSATION) SET AT 20W22H10M
4: ((LUST XX) SET AT 20W22H10M
5: ((LUST XX) SET AT 20W22H10M
6: ((DRHUME TIRED) SET AT 20W22H10M
7: ((LUST XX) SET AT 20W22H10M
8: ((LUST XX) SET AT 20W22H10M

CHANGE STACK FOR TIME 20W22H20M

CHANGE STACK FOR TIME 20W22H20M
1: ((JOHNBUX TALKWITH LADYJANE) SET AT 20W22H20M
2: ((JOHNBUX MENTION POLITICS) SET AT 20W22H20M
3: ((MENTION CASUALLY) SET AT 20W22H20M
4: ((LADYJANE DISCUSS POLITICS) SET AT 20W22H20M
5: ((DISCUSS WITH JOHNBUX) SET AT 20W22H20M
6: ((LADYJANE SAY THAT) SET AT 20W22H20M
7: ((WEATHER NICE) SET AT 20W22H20M
8: ((LUST XX) SET AT 20W22H20M
9: ((LADYSUX TIRED) SET AT 20W22H20M
10: ((LUST XX) SET AT 20W22H20M
11: ((LUST XX) SET AT 20W22H20M
12: NOT ((RONALD TIRED) SET AT 20W22H20M
13: ((RONALD GOT BED) SET AT 20W22H20M
14: ((LUST XX) SET AT 20W22H20M

JOHN BUXLEY TALKED WITH JANE.
JOHN BUXLEY CASUALLY MENTIONED POLITICS.
LADY JANE DISCUSSED POLITICS WITH JOHN BUXLEY.
LADY JANE SAID THAT THE WEATHER WAS NICE.

CHANGE STACK FOR TIME 20W22H40M

1: (ULST XX) SET AT 20W22H40M
(JOHNBUX TIRED) SET AT 20W22H40M
2: (LST XX) SET AT 20W22H40M
(ULST XX) SET AT 20W22H40M
3: NOT (JOHNBUX TIRED) SET AT 20W22H40M
4: (CRHUME GOT BED) SET AT 20W22H30M
5: (LST XX) SET AT 20W22H30M

CHANGE STACK FOR TIME 20W22H40M

1: (ULST XX) SET AT 20W22H40M
(JOHNBUX TIRED) SET AT 20W22H40M
2: (LST XX) SET AT 20W22H40M
(ULST XX) SET AT 20W22H40M
3: NOT (LADYBUX TIRED) SET AT 20W22H40M
4: (LADYBUX GOT BED) SET AT 20W22H40M
5: (LST XX) SET AT 20W22H40M

6: (LORDED SMILEAT NURSE) SET AT 20W22H50M
(NURSE SMILEAT LORDED) SET AT 20W22H50M
7: (LADYJANE SEE THAT) SET AT 20W22H50M
(LORDED WHISPERD NURSE) SET AT 20W22H50M
8: (LORDED SMILEAT LORDED) SET AT 20W22H50M
9: (LADYJANE ANGRY) SET AT 20W22H50M
10: (LORDED SEE THAT) SET AT 20W22H50M
11: (LADYJANE ANGRY) SET AT 20W22H50M
12: (LORDED SEE THAT) SET AT 20W22H50M
13: (LADYJANE ANGRY) SET AT 20W22H50M
14: (ULST XX) SET AT 20W22H50M
15: (LST XX) SET AT 20W22H50M
16: (LST XX) SET AT 20W22H50M

LORD EDWARD TALKED WITH LADY JANE.
FLORENCE TALKED WITH EDWARD.
EDWARD FLIRTED WITH FLORENCE.
LORD EDWARD WANTED TO SEDUCE FLORENCE.
LORD EDWARD SMILED AT FLORENCE.
FLORENCE SMILED AT LORD EDWARD.
JANE SAW THAT EDWARD WHISPERED TO FLORENCE.
LADY JANE WAS ANGRY.
LORD EDWARD SAW THAT LADY JANE WAS ANGRY.

CHANGE STACK FOR TIME 20W23H

1: (ULST XX) SET AT 20W23H
(LST XX) SET AT 20W23H
2: (ULST XX) SET AT 20W23H
(LST XX) SET AT 20W23H
3: NOT (JOHNBUX TIRED) SET AT 20W23H
4: (JOHNBUX GOT BED) SET AT 20W23H
5: (LST XX) SET AT 20W23H

CHANGE STACK FOR TIME 20W23H10M

1: (MARION TALKWITH LORDED) SET AT 20W23H10M
(LORDED FLIRTHIT MARION) SET AT 20W23H10M
2: (LORDED SAY THAT) SET AT 20W23H10M
3: (MARION ATTACTI) = 7.0000
4: (LORDED SMILEAT MARION) SET AT 20W23H10M
5: (LORDED FUCK NURSE) SET AT 20W22H50M

CHANGE STACK FOR TIME 20W22H50M

1: (LORDED TALKWITH LADYJANE) SET AT 20W22H50M
(NURSE TALKWITH LORDED) SET AT 20W22H50M
2: (LORDED FLIRTHIT NURSE) SET AT 20W22H50M
3: (LORDED WANTING) SET AT 20W22H50M
4: (LORDED FUCK NURSE) SET AT 20W22H50M
5: (LORDED SMILEAT MARION) SET AT 20W22H50M

6: (LORDED TOUCH MARION) SET AT 20W23H10M
 (TOUCH GENTLY) SET AT 20W23H10M
 (LORDED WISPER TO MARION) SET AT 20W23H10M
 (LORDED AFFECTION MARION) = 2.0000
 (MARION AFFECTIC LORDED) = 2.0000
 9: (JAMES SEE THAT) SET AT 20W23H10M
 10: (MARION TALKWITH LORDED) SET AT 20W23H10M
 11: (MARION SMILEAT LORDED) SET AT 20W23H10M
 12: (LORDED FLATTER MARION) SET AT 20W23H10M
 13: (LORDED FLATTER MARION) SET AT 20W23H10M
 14: (LADYJANE SEE THAT) SET AT 20W23H10M
 15: (LORDED WISPERTO MARION) SET AT 20W23H10M
 16: (MARION SMILEAT LORDED) SET AT 20W23H10M
 17: (LADYJANE ANGRY) SET AT 20W23H10M
 18: (LADYJANE SEE THAT) SET AT 20W23H10M
 19: (LORDED SMILEAT MARION) SET AT 20W23H10M
 20: (LORDED FLIRTIT MARION) SET AT 20W23H10M
 21: (ULST XX) SET AT 20W23H10M
 22: (NURSE TIRED) SET AT 20W23H10M
 23: (LST XX) SET AT 20W23H10M
 24: (LST XX) SET AT 20W23H10M
 25: (LST XX) SET AT 20W23H10M

CHANGE STACK FOR TIME 20W23H30M

1: (ULST XX) SET AT 20W23H30M
 2: (LST XX) SET AT 20W23H30M
 3: (ULST XX) SET AT 20W23H30M
 4: NOT (NURSE TIRED) SET AT 20W23H10M
 5: (NURSE GOTO BCD) SET AT 20W23H30M
 6: (LST XX) SET AT 20W23H30M

CHANGE STACK FOR TIME 20W23H40M

1: (ULST XX) SET AT 20W23H40M
 2: (JAMES TIRED) SET AT 20W23H40M
 3: (MARION TIRED) SET AT 20W23H40M
 4: (LST XX) SET AT 20W23H40M
 5: (LST XX) SET AT 20W23H40M

CHANGE STACK FOR TIME 20W23H50M

1: (ULST XX) SET AT 20W23H50M
 2: (LST XX) SET AT 20W23H50M
 3: (LST XX) SET AT 20W23H50M

CHANGE STACK FOR TIME 20W23H20M

1: (ULST XX) SET AT 20W23H20M
 2: (LST XX) SET AT 20W23H20M
 3: (LST XX) SET AT 20W23H20M

CHANGE STACK FOR TIME 20W23H0M

1: (ULST XX) SET AT 20W23H0M
 2: (LST XX) SET AT 20W23H0M
 3: (LST XX) SET AT 20W23H0M

1: (ULST XX) SET AT 20W1D
 2: (LORD JANE TIRED) SET AT 20W1D
 3: (LST XX) SET AT 20W1D
 4: (ULST XX) SET AT 20W1D
 5: NOT (JAMES TIRED) SET AT 20W23H40M
 6: (JAMES GOT GED) SET AT 20W1D
 7: (LST XX) SET AT 20W1D
 8: (LST XX) SET AT 20W1D4H

CHANGE STACK FOR TIME 20W1D10M
 1: (LST XX) SET AT 20W1D10M
 2: (LST XX) SET AT 20W1D10M
 3: (LST XX) SET AT 20W1D10M
 4: (LST XX) SET AT 20W1D10M
 5: (LST XX) SET AT 20W1D10M
 6: (LST XX) SET AT 20W1D10M
 7: (LST XX) SET AT 20W1D10M
 8: (LST XX) SET AT 20W1D10M

CHANGE STACK FOR TIME 20W1D20M
 1: (LST XX) SET AT 20W1D20M
 2: NOT (LORD SAY COCONISH) SET AT 20W1D20M
 3: (LORD SAY COCONISH) SET AT 20W1D20M
 4: (FORCED GOT BED) SET AT 20W1D20M
 5: (LST XX) SET AT 20W1D20M
 6: (EVERYONE GOT BED) SET AT 20W1D20M

CHANGE STACK FOR TIME 20W1D6H
 1: (LST XX) SET AT 20W1D6H

CHANGE STACK FOR TIME 20W1C5H
 1: (LST XX) SET AT 20W1C5H
 2: (LST XX) SET AT 20W1C5H
 3: (SUN RISE) SET AT 20W1C5H
 4: (DUTLER GETUP) SET AT 20W1C5H
 5: (COOK GETUP) SET AT 20W1C5H
 6: (MAID GETUP) SET AT 20W1C5H
 7: NOT (BUTLER GOTO BED) SET AT 20W22H
 8: NOT (COOK GOTO BED) SET AT 20W22H
 9: NOT (MAID GOTO BED) SET AT 20W22H
 10: (LST XX) SET AT 20W1D7H
 11: (SERVANTS SETUP) SET AT 20W1D7H
 12: NOT (SERVANTS GOTO BED) SET AT 20W1D7H
 13: (COOK GOTO KITCHEN) SET AT 20W1D7H
 14: (COOK PREPARE BREAKFAST) SET AT 20W1D7H
 15: (BUTLER FOLLOW COOK) SET AT 20W1D7H
 16: (BUTLER FUCK COOK) SET AT 20W1D7H
 17: (FUCK IN KITCHEN) SET AT 20W1D7H
 18: (FUCK IN KITCHEN) SET AT 20W1D7H

EVERYONE WENT TO BED.

CHANGE STACK FOR TIME 20W1D1H

THE DAY WAS SATURDAY.
 THE SUN ROSE.
 THE SERVANTS GOT UP.
 THE COOK WENT TO THE KITCHEN.
 THE COOK PREPARED A BREAKFAST.
 CLIVE FOLLOWED THE COOK.

CLIVE SEDUCED MAGGIE IN THE KITCHEN.

CHANGE STACK FOR TIME 20W1D8H

1: (LST XX) SET AT 20W1D8H
 2: (DAY BEAUTIFUL) SET AT 20W1D8H
 3: (THEY GETUP) SET AT 20W1D8H
 4: (THEY GETCRESS) SET AT 20W1D8H
 5: (THEY GO) SET AT 20W1D8H
 6: (GO TO BREAKFAST) SET AT 20W1D8H
 7: (GO DOWNNO) SET AT 20W1D8H
 8: (CULST XX) SET AT 20W1D8H
 9: (CATHY GETUP) SET AT 20W1D8H
 10: (DRHUME GETUP) SET AT 20W1D8H
 11: (JAMES GETUP) SET AT 20W1D8H
 12: (JOHNBUX GETUP) SET AT 20W1D8H
 13: (LADYBUX GETUP) SET AT 20W1D8H
 14: (LADY JANE GETUP) SET AT 20W1D8H
 15: (LORDEC GETUP) SET AT 20W1D8H
 16: (MARION GETUP) SET AT 20W1D8H
 17: (NURSE GETUP) SET AT 20W1D8H
 18: (RONALD GETUP) SET AT 20W1D8H
 19: NOT (DRHUME GOTO BED) SET AT 20W2D8H30M
 20: NOT (JAMES GOTO BED) SET AT 20W1D8H
 21: NOT (JOHNBUX GOTO BED) SET AT 20W2D8H
 22: NOT (LADYBUX GOTO BED) SET AT 20W2D8H40M
 23: NOT (LORDEC GOTO BED) SET AT 20W1D2H
 24: NOT (NURSE GOTO BED) SET AT 20W2D8H30M
 25: NOT (RONALD GOTO BED) SET AT 20W2D8H20M
 26: (CATHY GETDRESS) SET AT 20W1D8H
 27: (DRHUME GETCRESS) SET AT 20W1D8H
 28: (JAMES GETDRESS) SET AT 20W1D8H
 29: (JOHNBUX GETDRESS) SET AT 20W1D8H
 30: (LADYBUX GETDRESS) SET AT 20W1D8H
 31: (LADY JANE GETCRESS) SET AT 20W1D8H
 32: (LORDEC GETCRESS) SET AT 20W1D8H
 33: (MARION GETCRESS) SET AT 20W1D8H
 34: (NURSE GETCRESS) SET AT 20W1D8H
 35: (RONALD GETCRESS) SET AT 20W1D8H
 36: (CATHY GO) SET AT 20W1D8H
 37: (GO TO BREAKFAST) SET AT 20W1D8H
 38: (GO DOWNNO) SET AT 20W1D8H
 39: (DRHUME GO) SET AT 20W1D8H
 40: (GO TO BREAKFAST) SET AT 20W1D8H
 41: (GO DOWNNO) SET AT 20W1D8H
 42: (JAMES GO) SET AT 20W1D8H
 43: (GO TO BREAKFAST) SET AT 20W1D8H
 44: (GO DOWNNO) SET AT 20W1D8H
 45: (JOHNBUX GO) SET AT 20W1D8H
 46: (GO TO BREAKFAST) SET AT 20W1D8H
 47: (GO DOWNNO) SET AT 20W1D8H
 48: (LADYBUX GO) SET AT 20W1D8H
 49: (GO TO BREAKFAST) SET AT 20W1D8H

85

50: (GO DOWNNO) SET AT 20W1D8H
 51: (LADY JANE GO) SET AT 20W1D8H
 52: (GO TO BREAKFAST) SET AT 20W1D8H
 53: (GO DOWNNO) SET AT 20W1D8H
 54: (LORDED GO) SET AT 20W1D8H
 55: (GO TO BREAKFAST) SET AT 20W1D8H
 56: (GO DOWNNO) SET AT 20W1D8H
 57: (MARION GO) SET AT 20W1D8H
 58: (GO TO BREAKFAST) SET AT 20W1D8H
 59: (GO DOWNNO) SET AT 20W1D8H
 60: (NURSE GO) SET AT 20W1D8H
 61: (GO TO BREAKFAST) SET AT 20W1D8H
 62: (GO DOWNNO) SET AT 20W1D8H
 63: (RONALD GO) SET AT 20W1D8H
 64: (GO TO BREAKFAST) SET AT 20W1D8H
 65: (GO DOWNNO) SET AT 20W1D8H
 66: (CATHY GOTO DININGRM) SET AT 20W1D8H
 67: (DRHUME GOTO DININGRM) SET AT 20W1D8H
 68: (JAMES GOTO DININGRM) SET AT 20W1D8H
 69: (JOHNBUX GOTO DININGRM) SET AT 20W1D8H
 70: (LADYBUX GOTO DININGRM) SET AT 20W1D8H
 71: (LADY JANE GOTO DININGRM) SET AT 20W1D8H
 72: (LORDEC GOTO DININGRM) SET AT 20W1D8H
 73: (MARION GOTO DININGRM) SET AT 20W1D8H
 74: (NURSE GOTO DININGRM) SET AT 20W1D8H
 75: (RONALD GOTO DININGRM) SET AT 20W1D8H
 76: (LST XX) SET AT 20W1D8H

THE DAY WAS BEAUTIFUL.
 THEY GOT UP.
 THEY GOT DRESSED.
 THEY WENT DOWN TO THE BREAKFAST.

CHANGE STACK FOR TIME 20W1D8H10M

CHANGE STACK FOR TIME 20W1D8H20M

CHANGE STACK FOR TIME 20W1D8H30M

CHANGE STACK FOR TIME 20W1D8H40M

4: NOT (DRHUME GOTO DININGRM) SET AT 20W1D9H
5: (DRHUME GOTO PARLOR) SET AT 20W1D9H
6: NOT (JAMES GOTO DININGRM) SET AT 20W1D9H
7: (JAMES GOTO PARLOR) SET AT 20W1D9H
8: NOT (JOHNBUX GOTO DININGRM) SET AT 20W1D9H
9: (JOHNBUX GOTO PARLOR) SET AT 20W1D9H
10: NOT (LADYBUX GOTO DININGRM) SET AT 20W1D9H
11: (LADYBUX GOTO PARLOR) SET AT 20W1D9H
12: NOT (LADYJANE GOTO DININGRM) SET AT 20W1D9H
13: (LADYJANE GOTO PARLOR) SET AT 20W1D9H
14: NOT (LORDED GOTO DININGRM) SET AT 20W1D9H
15: (LORDED GOTO PARLOR) SET AT 20W1D9H
16: NOT (MARION GOTO DININGRM) SET AT 20W1D9H
17: (MARION GOTO PARLOR) SET AT 20W1D9H
18: NOT (NURSE GOTO DININGRM) SET AT 20W1D9H
19: (NURSE GOTO PARLOR) SET AT 20W1D9H
20: NOT (RONALD GOTO DININGRM) SET AT 20W1D9H
21: (RONALD GOTO PARLOR) SET AT 20W1D9H
22: (LST XX) SET AT 20W1D9H
23: (EVERYONE GOTO PARLOR) SET AT 20W1D9H

EVERYONE WENT TO THE PARLOR.

FLORENCE TALKED WITH RONALD.
RONALD SAID THAT FLORENCE LOOKED WELL.
FLORENCE CASUALLY MENTIONED BUSINESS.
RONALD HATED CONVERSATIONS ABOUT BUSINESS.

CHANGE STACK FOR TIME 20W1D9H

1: (BREAKFAST OVER) SET AT 20W1D9H
2: (JAMES TALKWITH LADYBUX) SET AT 20W1D9H
3: (JAMES MENTION MUSIC) SET AT 20W1D9H
4: (MENTION CASUALLY) SET AT 20W1D9H
5: (LADYBUX DISCUSS MUSIC) SET AT 20W1D9H
6: (DISCUSS WITH JAMES) SET AT 20W1D9H

THE BREAKFAST WAS OVER.
JAMES CASUALLY MENTIONED A MUSIC.
LADY BUXLEY DISCUSSED THE MUSIC WITH JAMES.

CHANGE STACK FOR TIME 20W1D9H40M

1: (JAMES TALKWITH DRHUME) SET AT 20W1D9H50M
2: (DRHUME ARGUEITH JAMES) SET AT 20W1D9H50M
3: (JAMES SAY THAT) SET AT 20W1D9H50M
4: (DRHUME IG) = 25.0000
5: (DRHUME THREATEN) SET AT 20W1D9H50M
6: (THREATEN HIT JAMES) SET AT 20W1D9H50M
7: (DRHUME CURSE JAMES) SET AT 20W1D9H50M
8: (JAMES HIT DRHUME) SET AT 20W1D9H50M

CHANGE STACK FOR TIME 20W1D9H50M

1: (LST XX) SET AT 20W1D9H50M
2: NOT (CATHY GOTO DININGRM) SET AT 20W1D9H50M
3: (CATHY GOTO PARLOR) SET AT 20W1D9H50M

EVERYONE WENT TO THE PARLOR.

CHANGE STACK FOR TIME 20W1D9H50M

1: (JAMES TALKWITH DRHUME) SET AT 20W1D9H50M
2: (DRHUME ARGUEITH JAMES) SET AT 20W1D9H50M
3: (JAMES SAY THAT) SET AT 20W1D9H50M
4: (DRHUME IG) = 25.0000
5: (DRHUME THREATEN) SET AT 20W1D9H50M
6: (THREATEN HIT JAMES) SET AT 20W1D9H50M
7: (DRHUME CURSE JAMES) SET AT 20W1D9H50M
8: (JAMES HIT DRHUME) SET AT 20W1D9H50M

EVERYONE WENT TO THE PARLOR.

CHANGE STACK FOR TIME 20W1D9H50M

1: (JAMES TALKWITH DRHUME) SET AT 20W1D9H50M
2: (DRHUME ARGUEITH JAMES) SET AT 20W1D9H50M
3: (JAMES SAY THAT) SET AT 20W1D9H50M
4: (DRHUME IG) = 25.0000
5: (DRHUME THREATEN) SET AT 20W1D9H50M
6: (THREATEN HIT JAMES) SET AT 20W1D9H50M
7: (DRHUME CURSE JAMES) SET AT 20W1D9H50M
8: (JAMES HIT DRHUME) SET AT 20W1D9H50M

EVERYONE WENT TO THE PARLOR.

9: (HIT IN NOSE) SET AT 20W1D9H50M
10: (DRHUME TRY) SET AT 20X1D9H50M
11: (TRY GRAB JAMES) SET AT 20W1D9H50M
12: (JAMES PUSH DRHUME) SET AT 20W1D9H50M
13: (DRHUME THREATEN) SET AT 20W1D9H50M
14: (THREATEN KILL JAMES) SET AT 20W1D9H50M
15: (DRHUME HIT JAMES) SET AT 20W1D9H50M
16: (JAMES AFFECTION DRHUME) = -3.0000

DR. HUME ASKED LORD EDWARD TO PLAY CHESS.
EDWARD AGREED.
LORD EDWARD WENT TO THE STUDY WITH DR. HUME.
THEY PLAYED CHESS.
HUME WAS A GOOD PLAYER.
LORD EDWARD PLAYED CHESS WELL.

JAMES TALKED WITH DR. HUME.
HUME ARGUED WITH JAMES.
JAMES SAID THAT HUME WAS IDIOTIC.
HUME THREATENED TO HIT JAMES.
DR. BARTHOLMEW HUME CURSED JAMES.
JAMES HIT DR. BARTHOLMEW HUME IN THE NOSE.
DR. BARTHOLMEW HUME TRIED TO GRAB JAMES.
HUME THREATENED TO KILL JAMES.
DR. BARTHOLMEW HUME HIT JAMES.
JAMES HATED DR. HUME.

CHANGE STACK FOR TIME 20W1D10H20M

1: (DRHUME ASK LORDED) SET AT 20W1D10H20M
2: (ASK PLAY CHESS) SET AT 20W1D10H20M
3: (LORDED ACREE) SET AT 20W1D10H20M
4: (LORDED GOTO STUDY) SET AT 20W1D10H20M
5: (GOTO WITH DRHUME) SET AT 20W1D10H20M
6: (LST XX) SET AT 20W1D10H20M
7: (DRHUME PLAY CHESS) SET AT 20W1D10H20M
8: (LORDED PLAY CHESS) SET AT 20W1D10H20M
9: (LST XX) SET AT 20W1D10H20M
10: (THEY PLAY CHESS) SET AT 20W1D10H20M

11: (DRHUME IS PLAYER2) SET AT 20W1D10H20M
12: (PLAYER2 GOOD2) SET AT 20W1D10H20M
13: (LORDED PLAY CHESS) SET AT 20W1D10H20M
14: (PLAY WELL) SET AT 20W1D10H20M

CHANGE STACK FOR TIME 20W1D10H30M

1: (NURSE TALKWITH JOHNBUX) SET AT 20W1D10H30M
2: (JOHNBUX FLIRTWITH NURSE) SET AT 20W1D10H30M
3: (JOHNEUX WANTNO) SET AT 20W1D10H30M
4: (WANTNG FUCK NURSE) SET AT 20W1D10H30M
5: (NURSE SMILEAT JOHNBUX) SET AT 20W1D10H30M

CHANGE STACK FOR TIME 20W1D10H40M

1: (NURSE TALKWITH JOHNBUX) SET AT 20W1D10H40M
2: (JOHNBUX FLIRTWITH NURSE) SET AT 20W1D10H40M
3: (JOHNEUX WANTNO) SET AT 20W1D10H40M
4: (WANTNG FUCK NURSE) SET AT 20W1D10H40M
5: (NURSE SMILEAT JOHNBUX) SET AT 20W1D10H40M

CHANGE STACK FOR TIME 20W1D10H50M

1: (NURSE TALKWITH JOHNBUX) SET AT 20W1D10H50M
2: (JOHNBUX FLIRTWITH NURSE) SET AT 20W1D10H50M
3: (JOHNEUX WANTNO) SET AT 20W1D10H50M
4: (WANTNG FUCK NURSE) SET AT 20W1D10H50M
5: (NURSE SMILEAT JOHNBUX) SET AT 20W1D10H50M

CHANGE STACK FOR TIME 20W1D11H

1: (NURSE TALKWITH JOHNBUX) SET AT 20W1D11H
2: (JOHNBUX FLIRTWITH NURSE) SET AT 20W1D11H
3: (JOHNEUX WANTNO) SET AT 20W1D11H
4: (WANTNG FUCK NURSE) SET AT 20W1D11H
5: (NURSE SMILEAT JOHNBUX) SET AT 20W1D11H

CHANGE STACK FOR TIME 20W1D11H10M

1: (JAMES TALKWITH JOHNBUX) SET AT 20W1D11H10M
2: (JOHNBUX LAUGH) SET AT 20W1D11H10M

3: (JOHNBUX SAY THAT) SET AT 20W1D11H10M
4: (JAMES LOCKWELL) SET AT 20W1D11H0M

RONALD HIT JAMES IN THE NOSE.
JAMES TRIED TO GRAB RONALD.
RONALD PUSHED JAMES.
RONALD STRUGGLED WITH JAMES.
JAMES THREATENED TO KILL RONALD.
JAMES HIT RONALD.
RONALD HATED JAMES.

JAMES TALKED WITH JOHN.
JOHN LAUGHED.
JOHN BUXTON SAID THAT JAMES LOOKED WELL.

CHANGE STACK FOR TIME 20W1D11H20M

1: (RONALD TALKWITH JAMES) SET AT 20W1D11H30M
2: (JAMES ARGUWITH RONALD) SET AT 20W1D11H30M
3: (RONALD SAY THAT) SET AT 20W1D11H30M
(JAMES ICI) = 25.00GO
4: (JAMES THREATEN) SET AT 20W1D11H30M
5: (THREATEN HIT RONALD) SET AT 20W1D11H30M
6: (RONALD HIT JAMES) SET AT 20W1D11H30M
7: (JAMES KICK RONALD) SET AT 20W1D11H30M
8: (KICK IN STOMACH) SET AT 20W1D11H30M
9: (RONALD GROAN) SET AT 20W1D11H30M
(GROAN SOFTLY) SET AT 20W1D11H30M
10: (RONALD HIT JAMES) SET AT 20W1D11H30M
(HIT IN NOSE) SET AT 20W1D11H30M
11: (JAMES TRY) SET AT 20W1D11H30M
12: (TRY GRAB RONALD) SET AT 20W1D11H30M
13: (RONALD PUSH JAMES) SET AT 20W1D11H30M
14: (RONALD STRUGGL JAMES) SET AT 20W1D11H30M
15: (JAMES THREATEN) SET AT 20W1D11H30M
16: (THREATEN KILL RONALD) SET AT 20W1D11H30M
17: (JAMES HIT RONALD) SET AT 20W1D11H30M
18: (RONALD AFFECTIO JAMES) SET AT 20W1D11H30M
19: (RONALD HET JAMES) = -3.00GO
20: (RONALD KICKED RONALD IN THE BELLY.)
21: (RONALD GROAN)

RONALD TALKED WITH JAMES.
JAMES ARGUED WITH RONALD.
RONALD SAID THAT JAMES WAS IDIOTIC.
JAMES THREATENED TO HIT RONALD.
RONALD HET JAMES.
JAMES KICKED RONALD SOFTLY.
RONALD GROANED.

CHANGE STACK FOR TIME 20W1D11H40M

CHANGE STACK FOR TIME 20W1D11H50M
1: (LADYBUX TALKWITH NURSE) SET AT 20W1D11H50M

CHANGE STACK FOR TIME 20W1D12H0M
1: (COOK 30TO KITCHEN) SET AT 20W1D12H
2: (COOK PREPARE DINER) SET AT 20W1D12H
THE COOK WENT TO THE KITCHEN.
MAGGIE PREPARED LUNCH.

CHANGE STACK FOR TIME 20W1D12H10M

CHANGE STACK FOR TIME 20W1D12H20M
1: (RONALD TALKWITH LADYBUX) SET AT 20W1D12H20M

1: (LST XX) SET AT 20W1D13H15M
 2: NOT (CATHY GOTO DININGRM) SET AT 20W1D13H15M
 3: (CATHY GOTO PARLOR) SET AT 20W1D13H15M
 4: NOT (DRHUME GOTO PARLOR) SET AT 20W1D13H15M
 5: (DRHUME GOTO DININGRM) SET AT 20W1D13H15M
 RONALD TALKED WITH LADY BUXLEY.
 6: NOT (JAMES GOTO PARLOR) SET AT 20W1D13H15M
 7: (JAMES GOTO DININGRM) SET AT 20W1D13H15M
 8: NOT (JOHNBUX GOTO PARLOR) SET AT 20W1D13H15M
 9: (JOHNBUX GOTO DININGRM) SET AT 20W1D13H15M
 CHANGE STACK FOR TIME 20W1D12H30M
 10: NOT (GLADYJUX GOTO PARLOR) SET AT 20W1D13H15M
 11: (GLADYJUX GOTO DININGRM) SET AT 20W1D13H15M
 12: NOT (GLADYJANE GOTO PARLOR) SET AT 20W1D13H15M
 13: (GLADYJANE GOTO DININGRM) SET AT 20W1D13H15M
 14: NOT (FLORED GOTO PARLOR) SET AT 20W1D13H15M
 15: (FLORED GOTO DININGRM) SET AT 20W1D13H15M
 16: NOT (MARION GOTO PARLOR) SET AT 20W1D13H15M
 17: (MARION GOTO DININGRM) SET AT 20W1D13H15M
 18: NOT (NURSE GOTO PARLOR) SET AT 20W1D13H15M
 19: (NURSE GOTO DININGRM) SET AT 20W1D13H15M
 CHANGE STACK FOR TIME 20W1D12H40M
 20: NOT (RONALD GOTO PARLOR) SET AT 20W1D13H15M
 21: (RONALD GOTO DININGRM) SET AT 20W1D13H15M
 22: (CATHY SIT) SET AT 20W1D13H15M
 23: (SIT DOWNNO) SET AT 20W1D13H15M
 CHANGE STACK FOR TIME 20W1D13H
 24: (DRHUME SIT) SET AT 20W1D13H15M
 25: (SIT DOWNNO) SET AT 20W1D13H15M
 26: (JAMES SIT) SET AT 20W1D13H15M
 27: (SIT DOWNNO) SET AT 20W1D13H15M
 28: (JOHNBUX SIT) SET AT 20W1D13H15M
 29: (SIT DOWNNO) SET AT 20W1D13H15M
 30: (LADYJUX SIT) SET AT 20W1D13H15M
 CHANGE STACK FOR TIME 20W1D13H
 31: (SIT DOWNNO) SET AT 20W1D13H15M
 32: (LADYJANE SIT) SET AT 20W1D13H15M
 33: (SIT DOWNNO) SET AT 20W1D13H15M
 34: (FLORED SIT) SET AT 20W1D13H15M
 35: (SIT DOWNNO) SET AT 20W1D13H15M
 36: (MARION SIT) SET AT 20W1D13H15M
 37: (SIT DOWNNO) SET AT 20W1D13H15M
 38: (NURSE SIT) SET AT 20W1D13H15M
 39: (SIT JOHNNO) SET AT 20W1D13H15M
 40: (RONALD SIT) SET AT 20W1D13H15M
 41: (SIT DOWNNO) SET AT 20W1D13H15M
 42: (LST XX) SET AT 20W1D13H15M
 43: NOT (EVERYONE GOTO PARLOR) SET AT 20W1D13H15M
 44: (EVERYONE GOTO DININGRM) SET AT 20W1D13H15M
 CLIVE ANNOUNCED LUNCH.
 EDWARD STOPPED PLAYING CHESS.
 DR. BARTHOLMEY HOME STOPPED PLAYING CHESS.
 CHANGE STACK FOR TIME 20W1D13H10M
 45: (EVERYONE SIT) SET AT 20W1D13H15M
 46: (SIT DOWNNO) SET AT 20W1D13H15M
 47: (BUTLER SERVE FOOD) SET AT 20W1D13H15M
 48: (DINER STARTING) SET AT 20W1D13H15M

EVERYONE WENT TO THE DINING ROOM.
 EVERYONE SAT DOWN.

CHANGE STACK FOR TIME 20W1D13H15M

CLOVE SERVED THE FOOD.
LUNCH STARTED.

CHANGE STACK FOR TIME 20W1D14H30M
1: (LUST XX) SET AT 20W1D14H30M
2: NOT (EVERYONE GOTO DININGRM) SET AT 20W1D13H15M
3: NOT (EVERYONE SIT) SET AT OM
4: NOT (SIT DOWNN) SET AT OM
5: NOT (CRRHUME GOTO DININGRM) SET AT 20W1D13H15M
6: (CRRHUME GOTO PARLOR) SET AT 20W1D14H30M
7: (CRRHUME SMOKE CIGARE) SET AT 20W1D14H30M
8: (CRRHUME DRINK SHERRY) SET AT 20W1D14H30M
9: NOT (JAMES GOTO DININGRM) SET AT 20W1D13H15M
10: (JAMES GOTO PARLOR) SET AT 20W1D14H30M
11: (JAMES SMOKE CIGARS) SET AT 20W1D14H30M
12: (JAMES DRINK SHERRY) SET AT 20W1D14H30M
13: NOT (JOHNEUX GOTO DININGRM) SET AT 20W1D13H15M
14: (JOHNEUX GOTO PARLOR) SET AT 20W1D14H30M
15: (JOHNEUX SMOKE CIGARS) SET AT 20W1D14H30M
16: (JOHN3X DRINK SHERRY) SET AT 20W1D14H30M
17: NOT (FLORDES GOTO DININGRM) SET AT 20W1D13H15M
18: (FLORDES GOTO PARLOR) SET AT 20W1D14H30M
19: (FLORDES SMOKE CIGARS) SET AT 20W1D14H30M
20: (FLORDES DRINK SHERRY) SET AT 20W1D14H30M
21: NOT (RONALD GOTO DININGRM) SET AT 20W1D13H15M
22: (RONALD GOTO PARLOR) SET AT 20W1D14H30M
23: (RONALD SMOKE CIGARS) SET AT 20W1D14H30M
24: (RONALD DRINK SHERRY) SET AT 20W1D14H30M
25: (LUST XX) SET AT 20W1D14H30M
26: (DINNER OVER) SET AT 20W1D14H30M
27: (MCN GOTO PARLOR) SET AT 20W1D14H30M
28: (MCN SMOKE CIGARS) SET AT 20W1D14H30M
29: (MX GG) = 2-0000
30: (LUST XX) SET AT 20W1D14H30M
31: (CIGARS FATE) SET AT 20W1D14H30M
32: (LUST XX) SET AT 20W1D14H30M
33: (CIGARS SMELLY) SET AT 20W1D14H30M
34: (LUST XX) SET AT 20W1D14H30M
35: (LUST XX) SET AT 20W1D14H30M
36: (LUST XX) SET AT 20W1D14H30M
37: (LUST XX) SET AT 20W1D14H30M
38: (CATHY GOTO DININGRM) SET AT 20W1D13H15M
39: (CATHY GOTO DRAWINGR) SET AT 20W1D14H30M
40: (CATHY DRINK WHISKY) SET AT 20W1D14H30M
41: (CATHY GOSSEIP) SET AT 20W1D14H30M
42: NOT (CLADYJUX GOTO DININGRM) SET AT 20W1D13H15M
43: (CLADYJUX GOTO DRAWINGR) SET AT 20W1D14H30M
44: (LADYBUX DRINK WHISKY) SET AT 20W1D14H30M
45: (LADYBUX COSSIP) SET AT 20W1D14H30M
46: NOT (LADYJANE GOTO DININGRM) SET AT 20W1D13H15M
47: (LADYJANE GOTO DRAWINGR) SET AT 20W1D14H30M
48: (LADYJANE DRINK WHISKY) SET AT 20W1D14H30M
49: (LADYJANE GOSSEIP) SET AT 20W1D14H30M
50: NOT (MARION GOTO DININGRM) SET AT 20W1D13H15M
51: (MARION GOTO DRAWINGR) SET AT 20W1D14H30M
52: (MARION DRINK WHISKY) SET AT 20W1D14H30M
53: (MARION GOSSEIP) SET AT 20W1D14H30M
54: NOT (NURSE GOTO DININGRM) SET AT 20W1D13H15M
55: (NURSE GOTO DRAWINGR) SET AT 20W1D14H30M

CHANGE STACK FOR TIME 20W1D13H40M
CHANGE STACK FOR TIME 20W1D14H10M
CHANGE STACK FOR TIME 20W1D14H20M

FLORENCE TALKED WITH HUME.
FLORENCE CASUALLY MENTIONED FASHION.
DR. BARTHOLEMEW HUME HATED THE CONVERSATIONS ABOUT FASHION.

CHANGE STACK FOR TIME 20W1D13H40M

CHANGE STACK FOR TIME 20W1D14H10M

CHANGE STACK FOR TIME 20W1D14H20M

56: (NURSE DRINK WHISKY) SET AT 20W1D14H30M
57: (NURSE GOSSIP) SET AT 20W1D14H30M
58: (LUST XX) SET AT 20W1D14H30M
59: (WOMEN GOTO DRAWINGR) SET AT 20W1D14H30M
60: (WOMEN DRINK WHISKY) SET AT 20W1D14H30M
61: (EX 33) = 2.00000
62: (LUST XX) SET AT 20W1D14H30M
63: (LUST XX) SET AT 20W1D14H30M
64: (WOMEN GOSSEF) SET AT 20W1D14H30M
65: (LUST XX) SET AT 20W1D14H30M

LUNCH WAS OVER.
THE MEN WENT TO THE PARLOR.
THE MEN SMOKED CIGARS.
THE WOMEN WENT TO THE DRAWING ROOM.
THE WOMEN DRANK WHISKEY.

CHANGE STACK FOR TIME 20W1D14H40M

CHANGE STACK FOR TIME 20W1D14H50M
CHANGE STACK FOR TIME 20W1D15H00M
CHANGE STACK FOR TIME 20W1D15H

10: (LADYJANE GOTO PARLOR) SET AT 20W1D15H15M
11: (FLORDED GOTO PARLOR) SET AT 20W1D15H15M
12: NOT (MARION GOTO DRAWINGR) SET AT 20W1D14H20M
13: (MARION GOTO PARLOR) SET AT 20W1D14H15M
14: NOT (NURSE GOTO DRAWINGR) SET AT 20W1D14H30M
15: (NURSE GOTO PARLOR) SET AT 20W1D14H30M
16: (RONALD GOTO PARLOR) SET AT 20W1D15H15M
17: (LUST XX) SET AT 20W1D15H15M
18: (EVERYONE GOTO PARLOR) SET AT 20W1D15H15M
19: (MARION DECIDE) SET AT 20W1D15H15M
20: (DECIDE SCFOR WALK) SET AT 20W1D15H15M
21: (MARION SMILCAT LORDED) SET AT 20W1D15H15M
22: (FLORDED SEE THAT) SET AT 20W1D15H15M
23: (MARION GOTO GARDEN) SET AT 20W1D15H15M
24: (FLORDED FOLLOW MARION) SET AT 20W1D15H15M
25: (LADYJANE SEE THAT) SET AT 20W1D15H15M
26: (FLORDED FOLLOW MARION) SET AT 20W1D15H15M
27: (LADYJANE THINK THAT) SET AT 20W1D15H15M
28: (FLORDED AFFECTION MARION) = 2.00000
29: (MARION WALKIN GARDEN) SET AT 20W1D15H15M
30: (LADYJANE FOLLOW LORDED) SET AT 20W1D15H15M
31: (FLORDED MEET MARION) SET AT 20W1D15H15M

EVERYONE WENT TO THE PARLOR.
MARION DECIDED TO GO FOR A WALK.
MARION SMILED AT EDWARD.
EDWARD SAW THAT MARION WENT TO THE GARDEN.
EDWARD FOLLOWED MARION.
JANE SAID THAT EDWARD FOLLOWED MARION.
JANE THOUGHT THAT LORD EDWARD LOVED MARION.
JANE FOLLOWED LORD EDWARD.
LORD EDWARD MET MARION.

CHANGE STACK FOR TIME 20W1D15H15M

1: (LORDED KISS MARION) SET AT 20W1D15H20M
2: (MARION CARESS LORDED) SET AT 20W1D15H20M
3: (LUST XX) SET AT 20W1D15H20M
4: NOT (FLORDED GOTO PARLOR) SET AT 20W1D15H15M
5: (FLORDED GOTO GREENHS) SET AT 20W1D15H20M
6: NOT (MARION COTC PARLOR) SET AT 20W1D15H15M
7: (MARION GOTC GREENHS) SET AT 20W1D15H20M
8: (LADYJANE FOLLOW LORDED) SET AT 20W1D15H20M
9: (LADYJANE FOLLOW MARION) SET AT 20W1D15H20M
10: (LUST XX) SET AT 20W1D15H20M
11: (THEY GOTO GREENHS) SET AT 20W1D15H20M
12: (LADYJANE FOLLOW THEY) SET AT 20W1D15H20M
13: (MARION UNCESS) SET AT 20W1D15H20M

CHANGE STACK FOR TIME 20W1D15H40M

14: (LORDED FUCK MARION) SET AT 20W1D15H20M
 15: (LORDED COMMIT ADULTERY) SET AT 20W1D15H20M
 15: (MARION COMMIT ADULTERY) SET AT 20W1D15H20M
 15: (LADYJANE ENRAGED) SET AT 20W1D15H20M
 17: (LADYJANE ENTER GREENHOUSE) SET AT 20W1D15H20M
 18: (LADYJANE YELLAT LORDED) SET AT 20W1D15H20M
 19: (LADYJANE CRY) SET AT 20W1D15H20M
 20: (LADYJANE THREATEN) SET AT 20W1D15H20M
 21: (THREATEN KILL LORDED) SET AT 20W1D15H20M
 22: (MARION EMBARRASO) SET AT 20W1D15H20M
 23: (LORDED ASK LADYJANE) SET AT 20W1D15H20M
 24: (LADYJANE GOTO HOUSE) SET AT 20W1D15H20M
 25: (LADYJANE GOTO HOUSE) SET AT 20W1D15H20M
 26: (EVERYONE GOTO HOUSE) SET AT 20W1D15H20M
 27: (LUST XX) SET AT 20W1D15H20M
 28: (LADYJANE GOTO HOUSE) SET AT 20W1D15H20M
 29: (LORDED GOTO HOUSE) SET AT 20W1D15H20M
 30: (MARION GOTO HOUSE) SET AT 20W1D15H20M
 31: (LUST XX) SET AT 20W1D15H20M

CHANGE STACK FOR TIME 20W1D15H25M
 1: (MARION TALKWITH JOHNSUX) SET AT 20W1D15H20M
 2: (JOHNBUX FLIRTTWIT MARION) SET AT 20W1D15H20M
 3: (JOHNBUX TOUCH MARION) SET AT 20W1D15H20M
 4: (TOUCH GENTLY) SET AT 20W1D15H20M
 5: (MARION SMILAT JOHNSUX) SET AT 20W1D15H20M

CHANGE STACK FOR TIME 20W1D15H45M
 1: (JOHNBUX WANTNO) SET AT 20W1D15H30M
 2: (WANTNO SEDUCE MARION) SET AT 20W1D15H30M
 3: (MARION WANTNO) SET AT 20W1D15H30M
 4: (WANTNO FUCK JOHNBUX) SET AT 20W1D15H30M
 5: (JAMES SEE THAT) SET AT 20W1D15H30M
 10: (MARION TALKWITH JOHNBUX) SET AT 20W1D15H30M
 11: (MARION SMILEAT JOHNBUX) SET AT 20W1D15H30M
 12: (JOHNBUX FLATTER MARION) SET AT 20W1D15H30M
 13: (JAMES MADAT MARION) SET AT 20W1D15H30M
 14: (JAMES MADAT JOHNBUX) SET AT 20W1D15H30M
 15: (LUST XX) SET AT 20W1D15H30M
 16: (JAMES ANGRY) SET AT 20W1D15H30M
 17: (MX QG) = 1.0000
 18: (JAMES OVERHEAR MARION) SET AT 20W1D15H30M
 19: (LUST XX) SET AT 20W1D15H30M
 20: (MARION SEE THAT) SET AT 20W1D15H30M
 21: (JAMES UPSET) SET AT 20W1D15H30M
 22: (MARION TALKWITH JAMES) SET AT 20W1D15H30M
 23: (LUST XX) SET AT 20W1D15H30M

CHANGE STACK FOR TIME 20W1D15H40M
 CHANGE STACK FOR TIME 20W1D15H45M
 CHANGE STACK FOR TIME 20W1D15H50M

92
 MARTIN TALKED WITH JOHN BUXLEY.
 JOHN BUXLEY FLIRTED WITH MARION.
 JOHN BUXLEY GENTLY TOUCHED MARION.
 MARTIN SMILED AT JOHN.
 JOHN BUXLEY WANTED TO SEDUCE MARION.
 MARTIN WANTED TO SEDUCE JOHN BUXLEY.
 MARTIN SEE THAT MARION TALKED WITH JOHN.
 JAMES SAW THAT MARION WAS MAD AT MARION.
 JAMES WAS MAD AT JOHN.
 JAMES WAS OVERHEARING MARION WAS ANGRY.
 MARTIN SAW THAT JAMES WAS UPSET.
 MARTIN TALKED WITH JAMES.

CHANGE STACK FOR TIME 20W1D15H25M
 1: (MARION TALKWITH JOHNSUX) SET AT 20W1D15H20M
 2: (JOHNBUX FLIRTTWIT MARION) SET AT 20W1D15H20M
 3: (JOHNBUX TOUCH MARION) SET AT 20W1D15H20M
 4: (TOUCH GENTLY) SET AT 20W1D15H20M
 5: (MARION SMILAT JOHNSUX) SET AT 20W1D15H20M

CHANGE STACK FOR TIME 20W1D15H45M
 CHANGE STACK FOR TIME 20W1D15H50M
 CHANGE STACK FOR TIME 20W1D15H55M

- 83
-
- CHANGE STACK FOR TIME 20W1D15H55M
- 1: (BUTLER ANNOUNCE TEA) SET AT 20W1D16H16H
-
- CHANGE STACK FOR TIME 20W1D16H16H
- 1: (BUTLER ANNOUNCE TEA) SET AT 20W1D16H16H
-
- EVERYONE WENT TO THE GARDEN.
THE BUTLER SERVED TEA.
THE DAY WAS COOL.
THE SKY WAS CLOUDY.
- THE GARDEN WAS NICE.
THE FLOWERS WERE PRETTY.
MARION COMPLIMENTED LADY BUXLEY.
-
- RONALD TALKED WITH MARION.
-
- CHANGE STACK FOR TIME 20W1D16H20M
- 1: (RONALD TALKWITH MARION) SET AT 20W1D16H20M
-
- CHANGE STACK FOR TIME 20W1D16H10M
- 1: (LADYJANE GOT GARDEN) SET AT 20W1D16H10M
-
- CHANGE STACK FOR TIME 20W1D16H14M
- 1: (LUST XX) SET AT 20W1D16H14M
- 2: NOT (CATHY GOT PARLOR) SET AT 20W1D16H15M
(CATHY GOT GARDEN) SET AT 20W1D16H15M
- 3: NOT (DRUMM GOT PARLOR) SET AT 20W1D16H14M
(DRUMM GOT GARDEN) SET AT 20W1D16H14M
- 4: NOT (JAMES GOT PARLOR) SET AT 20W1D16H15M
(JAMES GOT GARDEN) SET AT 20W1D16H15M
- 5: NOT (JAMES GOT PARLOR) SET AT 20W1D16H15M
(JAMES GOT GARDEN) SET AT 20W1D16H15M
- 6: NOT (JOHNBUX GOT PARLOR) SET AT 20W1D16H15M
(JOHNBUX GOT GARDEN) SET AT 20W1D16H15M
- 7: NOT (JOHNBUX GOT PARLOR) SET AT 20W1D16H15M
(JOHNBUX GOT GARDEN) SET AT 20W1D16H15M
- 8: NOT (LADYJANE GOT PARLOR) SET AT 20W1D16H14M
(LADYJANE GOT GARDEN) SET AT 20W1D16H14M
- 9: NOT (LADYJANE GOT PARLOR) SET AT 20W1D16H14M
(LADYJANE GOT GARDEN) SET AT 20W1D16H14M
- 10: NOT (LADYJUX GOT PARLOR) SET AT 20W1D16H14M
(LADYJUX GOT GARDEN) SET AT 20W1D16H14M
- 11: NOT (LADYJUX GOT PARLOR) SET AT 20W1D16H14M
(LADYJUX GOT GARDEN) SET AT 20W1D16H14M
- 12: NOT (LADYJUX GOT PARLOR) SET AT 20W1D16H14M
(LADYJUX GOT GARDEN) SET AT 20W1D16H14M
- 13: NOT (LADYJUX GOT PARLOR) SET AT 20W1D16H14M
(LADYJUX GOT GARDEN) SET AT 20W1D16H14M
- 14: NOT (LADYJUX GOT PARLOR) SET AT 20W1D16H14M
(LADYJUX GOT GARDEN) SET AT 20W1D16H14M
- 15: NOT (LADYJUX GOT PARLOR) SET AT 20W1D16H14M
(LADYJUX GOT GARDEN) SET AT 20W1D16H14M
- 16: NOT (MARION GOT GARDEN) SET AT 20W1D16H14M
(MARION GOT PARLOR) SET AT 20W1D16H14M
- 17: NOT (MARION GOT GARDEN) SET AT 20W1D16H14M
(MARION GOT PARLOR) SET AT 20W1D16H14M
- 18: NOT (MARION GOT GARDEN) SET AT 20W1D16H14M
(MARION GOT PARLOR) SET AT 20W1D16H14M
- 19: NOT (RONALD GOT PARLOR) SET AT 20W1D16H14M
(RONALD GOT GARDEN) SET AT 20W1D16H14M
- 20: NOT (RONALD GOT PARLOR) SET AT 20W1D16H14M
(RONALD GOT GARDEN) SET AT 20W1D16H14M
-
- CHANGE STACK FOR TIME 20W1D16H40M
- 1: (TEATIME OVER) SET AT 20W1D16H40M

CHANGE STACK FOR TIME 20W1D17H

1: (COOK GOTO KITCHEN) SET AT 20W1D17H
2: (COOK PREPARE SUPPER) SET AT 20W1D17H

TEA TIME WAS OVER.

CHANGE STACK FOR TIME 20W1D17H45M

1: (LUST XX) SET AT 20W1D17H45M
2: NOT (CATHY GOTO GARDEN) SET AT 20W1D17H45M
3: (CATHY GOTO PARLOR) SET AT 20W1D17H45M
4: NOT (DRHUME GOTO GARDEN) SET AT 20W1D17H45M
5: (DRHUME GOTO PARLOR) SET AT 20W1D17H45M
6: NOT (JAMES GOTO GARDEN) SET AT 20W1D17H45M
7: (JAMES GOTO PARLOR) SET AT 20W1D17H45M
8: NOT (JOHNEUX GOTO GARDEN) SET AT 20W1D17H45M
9: (JOHNEUX GOTO PARLOR) SET AT 20W1D17H45M
10: NOT (LADYBUX GOTO GARDEN) SET AT 20W1D17H45M
11: (LADYBUX GOTO PARLOR) SET AT 20W1D17H45M
12: NOT (LADYJANE GOTO GARDEN) SET AT 20W1D17H45M
13: (LADYJANE GOTO PARLOR) SET AT 20W1D17H45M
14: NOT (LORDED GOTO GARDEN) SET AT 20W1D17H45M
15: (LORDED GOTO PARLOR) SET AT 20W1D17H45M
16: NOT (MARION GOTO GARDEN) SET AT 20W1D17H45M
17: (MARION GOTO PARLOR) SET AT 20W1D17H45M
18: NOT (NURSE GOTO GARDEN) SET AT 20W1D17H45M
19: (NURSE GOTO PARLOR) SET AT 20W1D17H45M
20: NOT (RONALD GOTO GARDEN) SET AT 20W1D17H45M
21: (RONALD GOTO PARLOR) SET AT 20W1D17H45M
22: (LUST XX) SET AT 20W1D17H45M
23: NOT (EVERYONE GOTO GARDEN) SET AT 20W1D17H45M
24: (EVERYONE GOTO PARLOR) SET AT 20W1D17H45M

CHANGE STACK FOR TIME 20W1D17H25M

1: (DRHUME ASK LORDED) SET AT 20W1D17H25M
2: (ASK PLAY TENNIS) SET AT 20W1D17H25M
3: (LORDED AGREE) SET AT 20W1D17H25M
4: NOT (LORDED GOTO PARLOR) SET AT 20W1D17H25M
5: (LORDED GOTO TENNIS) SET AT 20W1D17H25M
6: (GOTO WITH DRHUME) SET AT 20W1D17H25M
7: (LUST XX) SET AT 20W1D17H25M
8: (DRHUME PLAY TENNIS) SET AT 20W1D17H25M
9: (LORDED PLAY TENNIS) SET AT 20W1D17H25M
10: (LUST XX) SET AT 20W1D17H25M
11: (THEY PLAY TENNIS) SET AT 20W1D17H25M
12: (DRHUME IS PLAYER2) SET AT 20W1D17H25M
13: (PLAYER2 GOOD2) SET AT 20W1D17H25M
14: (LORDED PLAY TENNIS) SET AT 20W1D17H25M
15: (PLAY WELL) SET AT 20W1D17H25M

EVERYONE WENT TO THE PARLOR.

CHANGE STACK FOR TIME 20W1D17H50M

CHANGE STACK FOR TIME 20W1D17H45M

DR. HUME ASKED EDWARD TO PLAY TENNIS.
EDWARD AGREED.
EDWARD WENT TO THE TENNIS COURT WITH DR. HUME.
THEY PLAYED TENNIS.
DR. HUME WAS THE GOOD PLAYER.
EDWARD PLAYED TENNIS WELL.

CHANGE STACK FOR TIME 20W1D17H5M

1: NOT (DRHUME PLAY TENNIS) SET AT 20W1D17H25M
2: NOT (LORDS PLAY TENNIS) SET AT 20W1D17H25M
3: NOT (THEY PLAY TENNIS) SET AT 20W1D17H25M
4: (DRHUME STOPNO) SET AT 20W1D18H5M
5: (STOPNO PLAY TENNIS) SET AT 20W1D18H5M
6: (LORDS STOPNO) SET AT 20W1D18H5M
7: (STOPNO PLAY TENNIS) SET AT 20W1D18H5M

CHANGE STACK FOR TIME 20W1D17H30M

CHANGE STACK FOR TIME 20W1D17H45M

CHANGE STACK FOR TIME 20W1D17H55M

CHANGE STACK FOR TIME 20W1D18H0M
1: (LADY XX) SET AT 20W1D18H15M
2: NOT (CATHY GOTO PARLOR) SET AT 20W1D18H45M
3: NOT (CATHY GOTO DININGRM) SET AT 20W1D18H15M
4: NOT (DRHUME GOTO PARLOR) SET AT 20W1D18H45M
5: NOT (DRHUME GOTO DININGRM) SET AT 20W1D18H15M
6: NOT (JAMES GOTO PARLOR) SET AT 20W1D18H45M
7: NOT (JAMES GOTO DININGRM) SET AT 20W1D18H15M
8: NOT (JOHN DUX GOTO PARLOR) SET AT 20W1D18H45M
9: NOT (JOHN DUX GOTO DININGRM) SET AT 20W1D18H15M
10: NOT (LADY DUX GOTO PARLOR) SET AT 20W1D18H45M
11: NOT (LADY DUX GOTO DININGRM) SET AT 20W1D18H15M
12: NOT (LADY JANE GOTO PARLOR) SET AT 20W1D18H45M
13: NOT (LADY JANE GOTO DININGRM) SET AT 20W1D18H15M
14: NOT (LORD EDWARD GOTO TENNISCO) SET AT 20W1D17H25M
15: NOT (LORD EDWARD GOTO DININGRM) SET AT 20W1D18H45M
16: NOT (MARION GOTO PARLOR) SET AT 20W1D18H15M
17: NOT (MARION GOTO DININGRM) SET AT 20W1D18H15M
18: NOT (NURSE GOTO DININGRM) SET AT 20W1D18H45M
19: NOT (RONALD GOTO PARLOR) SET AT 20W1D18H45M
20: NOT (RONALD GOTO DININGRM) SET AT 20W1D18H15M
21: (CATHY SIT) SET AT 20W1D18H15M
22: (CATHY SIT) SET AT 20W1D18H15M
23: (SIT DOWNNO) SET AT 20W1D18H15M
24: (DRHUME SIT) SET AT 20W1D18H15M
25: (SIT DOWNNO) SET AT 20W1D18H15M
26: (JAMES SIT) SET AT 20W1D18H15M

THE BUTLER ANNOUNCED DINNER.

DR. BARTHOLOMEW HUME STOPPED PLAYING TENNIS.
EDWARD STOPPED PLAYING TENNIS.

CHANGE STACK FOR TIME 20W1D18H10M

SC

27: (SIT DOWNNO) SET AT 20W1D13H15M
 28: (JOHNEUX SIT) SET AT 20W1D13H15M
 29: (SIT DOWNNO) SET AT 20W1D13H15M
 30: (LADYBUX SIT) SET AT 20W1D13H15M
 31: (SIT DOWNNO) SET AT 20W1D13H15M
 32: (LADYJANE SIT) SET AT 20W1D13H15M
 33: (SIT DOWNNO) SET AT 20W1D13H15M
 34: (FLOPPED SIT) SET AT 20W1D13H15M
 35: (SIT DOWNNO) SET AT 20W1D13H15M
 36: (PARTON SIT) SET AT 20W1D13H15M
 37: (SIT DOWNNO) SET AT 20W1D13H15M
 38: (NURSE SIT) SET AT 20W1D13H15M
 39: (SIT DOWNNO) SET AT 20W1D13H15M
 40: (RONALD SIT) SET AT 20W1D13H15M
 41: (SIT DOWNNO) SET AT 20W1D13H15M
 42: (LST XX) SET AT 20W1D18H15M
 43: NOT (EVERYONE GOTO DININGRM) SET AT 20W1D18H45M
 44: (EVERYONE GOTO DININGRM) SET AT 20W1D13H15M
 45: (EVERYONE SIT) SET AT 20W1D13H15M
 46: (SIT DOWNNO) SET AT 20W1D13H15M
 47: (BUTLER SERVE FOOD) SET AT 20W1D13H15M
 48: (SUPPER STARTED) SET AT 20W1D13H15M

4: (NURSE IQ) = 25.0000
 96

CHANGE STACK FOR TIME 20W1D19H45M
 1: (NURSE TALKWITH LADYBUX) SET AT 20W1D19H45M
 2: (NURSE ARGUED WITH MARION)
 3: (MARION SAY THAT) SET AT 20W1D19H50M

CHANGE STACK FOR TIME 20W1D19H20M
 1: (NURSE TALKWITH LADY BUXLEY)

CHANGE STACK FOR TIME 20W1D19H10M
 1: (EVERYONE GOTO DININGRM) SET AT 20W1D19H10M
 2: (EVERYONE SIT) SET AT 20W1D19H10M
 3: (NOT (SIT DOWNNO)) SET AT 20W1D19H10M
 4: (NOT (EVERYONE SIT)) SET AT 20W1D19H10M
 5: (NOT (SIT DOWNNO)) SET AT 20W1D19H10M
 6: (NOT (EVERYONE SIT)) SET AT 20W1D19H10M
 7: (NOT (EVERYONE SIT)) SET AT 20W1D19H10M
 8: (NOT (EVERYONE SIT)) SET AT 20W1D19H10M
 9: (NOT (EVERYONE SIT)) SET AT 20W1D19H10M
 10: (NOT (EVERYONE SIT)) SET AT 20W1D19H10M
 11: (NOT (EVERYONE SIT)) SET AT 20W1D19H10M
 12: (NOT (EVERYONE SIT)) SET AT 20W1D19H10M
 13: (NOT (EVERYONE SIT)) SET AT 20W1D19H10M
 14: (NOT (EVERYONE SIT)) SET AT 20W1D19H10M
 15: (NOT (EVERYONE SIT)) SET AT 20W1D19H10M

EVERYONE WENT TO THE DINING ROOM.
 EVERYONE SAT DOWN.
 THE BUTLER SERVED THE FOOD.
 SUPPER STARTED.

CHANGE STACK FOR TIME 20W1D19H20M

CHANGE STACK FOR TIME 20W1D19H30M
 1: (NURSE TALKWITH NURSE) SET AT 20W1D19H30M
 2: (NURSE ARGUED WITH MARION) SET AT 20W1D19H30M
 3: (NURSE SAY THAT) SET AT 20W1D19H30M

THE WOMEN GOSSIPING DRANK COFFEE.

16: (JOHNBUX DRINK SHERRY) SET AT 20W1D19H30M
17: NOT (LORDED GOTO CINNINRM) SET AT 20W1D19H15M
18: (LORDED GOTO PARLOR) SET AT 20W1D19H30M
19: (LORDED SHCKE CIGARS) SET AT 20W1D19H30M
20: (LORDED DRINK SHERRY) SET AT 20W1D19H30M
21: NOT (RONAL GOTO CINNINPN) SET AT 20W1D19H15M
22: (RONAL GOTO PARLOR) SET AT 20W1D19H30M
23: (RONAL SMOKE CIGARS) SET AT 20W1D19H30M
24: (RONALD DRINK SHERRY) SET AT 20W1D19H30M
25: (LST XX) SET AT 20W1D19H30M
26: (SUFPER COVER) SET AT 20W1D19H30M
27: (MEN GOTO PARLOR) SET AT 20W1D19H30M
28: (MEN SMOKE CIGARS) SET AT 20W1D19H30M
29: (MX QD) = 2.0000
30: (CIGARS FAT) SET AT 20H1D19H30M
31: (CIGARS SMLLY) SET AT 20W1D19H30M
32: (LST XX) SET AT 20W1D19H30M
33: (MEN DRINK THERTY) SET AT 20W1D19H30M
34: (LUST XX) SET AT 20W1D19H30M
35: NOT (CATHY GOTO DINNRGR) SET AT 20W1D19H15M
36: (CATHY GOTO DRAWINGR) SET AT 20W1D19H30M
37: ((CATHY DRINK COFFEE)) SET AT 20W1D19H30M
38: (CATHY GOSSIP) SET AT 20W1D19H30M
39: NOT (LADYBUX GOTO DINNRGR) SET AT 20W1D19H30M
40: (LADYBUX GOTO DRAWINGR) SET AT 20W1D19H30M
41: (LADYBUX DRINK COFFEE) SET AT 20W1D19H30M
42: (LADYBUX GOSSIP) SET AT 20W1D19H30M
43: NOT (LADYJANE GOTO DINNRGR) SET AT 20W1D19H15M
44: (LADYJANE GOTO DRAWINGR) SET AT 20W1D19H30M
45: (LADYJANE DRINK COFFEE) SET AT 20W1D19H30M
46: (LADYJANE GOSSIP) SET AT 20W1D19H30M
47: NOT (MARION GOTO CINNINRM) SET AT 20W1D19H15M
48: (MARION GOTO DRAWINGR) SET AT 20W1D19H30M
49: (MARION DRINK COFFEE) SET AT 20W1D19H30M
50: (MARION GOSSIP) SET AT 20W1D19H30M
51: NOT (NURSE GOTO DINNRGR) SET AT 20W1D19H15M
52: (NURSE GOTO DRAWINGR) SET AT 20W1D19H30M
53: (NURSE DRINK COFFEE) SET AT 20W1D19H30M
54: (NURSE GOSSIP) SET AT 20W1D19H30M
55: (LST XX) SET AT 20W1D19H30M
56: (WOMEN GOTO CINNINR) SET AT 20W1D19H30M
57: (WOMEN DRINK COFFEE) SET AT 20W1D19H30M
58: (MX QD) = 2.0000
59: (LST XX) SET AT 20W1D19H30M
60: (WOMEN GOSSIP) SET AT 20W1D19H30M
61: (LST XX) SET AT 20W1D19H30M
62: (EVERYONE GOTO PARLOR) SET AT 20W1D19H30M

WUPPER WAS OVER.
HE MEN WENT TO THE PARLOR.
HE MEN SMOKED FAT SMELLY STOGIES.
HE MEN DRANK SHERRY.
THE WOMEN WENT TO THE DRAWING ROOM.

88

CHANGE STACK FOR TIME 20W1D20H20M
CHANGE STACK FOR TIME 20W1D21H10M

CHANGE STACK FOR TIME 20W1D20H25M
CHANGE STACK FOR TIME 20W1D21H15M

CHANGE STACK FOR TIME 20W1D20H30M
CHANGE STACK FOR TIME 20W1D21H20M

CHANGE STACK FOR TIME 20W1D20H35M
CHANGE STACK FOR TIME 20W1D21H25M

CHANGE STACK FOR TIME 20W1D20H40M
SET AT 20W1D20H40M

CHANGE STACK FOR TIME 20W1D20H40M
SET AT 20W1D20H40M

CHANGE STACK FOR TIME 20W1D21H35M
CHANGE STACK FOR TIME 20W1D21H30M

CHANGE STACK FOR TIME 20W1D21H40M
CHANGE STACK FOR TIME 20W1D21H40M

CHANGE STACK FOR TIME 20W1D21H45M
NOT (JAMES GOTO PARLOR) SET AT 20W1D21H45M

1: (JAMES GOTO LIBRARY) SET AT 20W1D21H45M
2: (JAMES READ BOOK) SET AT 20W1D21H45M

3: (MX 301 = 1.0000)
4: (BOOK GOOD) SET AT 20W1D21H45M

5: (LORDED ASK RONALD) SET AT 20W1D21H45M
6: (ASK PLAY TENNIS) SET AT 20W1D21H45M

7: (RONALD AGREE) SET AT 20W1D21H45M
8: NOT (RONALD GOTO PARLOR) SET AT 20W1D20H1EM

9: (RONALD GOTO TENNIS) SET AT 20W1D21H45M
10: (GOTO WITH LORDED) SET AT 20W1D21H45M

11: (ULST XX) SET AT 20W1D21H45M
12: (LORDED PLAY TENNIS) SET AT 20W1D21H45M
13: (RONALD PLAY TENNIS) SET AT 20W1D21H45M
14: (LST XX) SET AT 20W1D21H45M
15: (THEY PLAY TENNIS) SET AT 20W1D21H45M

CHANGE STACK FOR TIME 20W1D21H45M
SET AT 20W1D21H45M

CHANGE STACK FOR TIME 20W1D21H45M
SET AT 20W1D21H45M

CHANGE STACK FOR TIME 20W1D21H45M
SET AT 20W1D21H45M

5: (CLOCK GOTO BED) SET AT 20W1D22H
(MAID GOTO BED) SET AT 20W1D22H
(LST XX) SET AT 20W1D22H

7: (SERVANTS GOTO BED) SET AT 20W1D22H
(LST XX) SET AT 20W1D22H

8: (EVERYONE GOTO BED) SET AT 20W1D22H

JAMES WENT TO THE LIBRARY.
EDWARD READ THE GOOD PAPERBACK.
RONALD AGREED.
RONALD WENT TO THE TENNIS COURT WITH LORD EDWARD.
THEY PLAYED TENNIS.

THE SERVANTS WENT TO BED.
EVERYONE WENT TO BED.

CHANGE STACK FOR TIME 20W1D21H50M

CHANGE STACK FOR TIME 20W1D21H55M

1: ((JOHNBUX SUGGEST GAME)) SET AT 20W1D21H55M
2: ((GAME OF BRIDGE)) SET AT 20W1D21H55M
3: ((CLADYBUX AGREE)) SET AT 20W1D21H55M
4: ((ORHUNG AGREE)) SET AT 20W1D21H55M
5: ((LADYJANE AGREE)) SET AT 20W1D21H55M
6: ((THEY PLAY BRIDGE)) SET AT 20W1D21H55M
7: ((LST XX)) SET AT 20W1D21H55M
8: ((ORPHUME PLAY BRIDGE)) SET AT 20W1D21H55M
9: ((JOHNBUX PLAY BRIDGE)) SET AT 20W1D21H55M
10: ((CLADYBUX PLAY BRIDGE)) SET AT 20W1D21H55M
11: ((LADYJANE PLAY BRIDGE)) SET AT 20W1D21H55M
12: ((LST XX)) SET AT 20W1D21H55M

CHANGE STACK FOR TIME 20W1D22H35M

JOHN SUGGESTED THE GAME OF BRIDGE.
LADY BUXLEY AGREED.
DR. BAETHGOMEN HYNE AGREED.
JANE AGREED.
THEY PLAYED BRIDGE.

CHANGE STACK FOR TIME 20W1D22H

1: ((LST XX)) SET AT 20W1D22H
2: ((LST XX)) SET AT 20W1D22H
3: ((LST XX)) SET AT 20W1D22H
4: ((CUTLER GOTO BED)) SET AT 20W1D22H

99

CHANGE STACK FOR TIME 20W1D22H5M

CHANGE STACK FOR TIME 20W1D22H15M

1: NOT ((JAMES READ BOOK)) SET AT 20W1D22H15M
2: ((JAMES STOPNO)) SET AT 20W1D22H5M
3: ((STOPNO READ BOOK)) SET AT 20W1D22H55M

CHANGE STACK FOR TIME 20W1D22H45M

CHANGE STACK FOR TIME 20W1D22H55M

1: NOT ((JAMES READ BOOK)) SET AT 20W1D22H55M
2: ((JAMES STOPNO)) SET AT 20W1D22H55M
3: ((STOPNO READ BOOK)) SET AT 20W1D22H55M

CHANGE STACK FOR TIME 20W1D22H55M

JAMES STOPPED READING THE BOOK.

CHANGE STACK FOR TIME 20W1D23H

CHANGE STACK FOR TIME 20W1D23H54

CHANGE STACK FOR TIME 20W1D23H15M

1: (RONALD BEAT LORDED) SET AT 20W1D23H15M
2: (LORD AT TENNIS) SET AT 20W1D23H15M
3: NOT (LORDED PLAY TENNIS) SET AT 20W1D21H45M
4: NOT (RONALD PLAY TENNIS) SET AT 20W1D21H45M
5: NOT (THEY PLAY TENNIS) SET AT 20W1D21H45M
6: (LORDED STOPNO) SET AT 20W1D23H15M
7: (STOPNO PLAY TENNIS) SET AT 20W1D23H15M
8: (RONALD STOPNO) SET AT 20W1D23H15M
9: (STOPNO PLAY TENNIS) SET AT 20W1D23H15M

CHANGE STACK FOR TIME 20W1D23H15M

1: (JOHNSUX CHEAT) SET AT 20W1D23H45M
2: (CHEAT AT BRIDGE) SET AT 20W1D23H45M

JOHN CHEATED AT BRIDGE.

100

CHANGE STACK FOR TIME 20W1D23H15M

1: (JOHNSUX CHEAT) SET AT 20W1D23H45M
2: (CHEAT AT BRIDGE) SET AT 20W1D23H45M

CHANGE STACK FOR TIME 20W2D5M

CHANGE STACK FOR TIME 20W1D23H5M

CHANGE STACK FOR TIME 20W2D5M

CHANGE STACK FOR TIME 20W2D5M

CHANGE STACK FOR TIME 20W2D5M

CHANGE STACK FOR TIME 20H1D23H35M

- 101
-
- CHANGE STACK FOR TIME 20W2D1H15M
- 9: (JAMES KNOW PLAN) SET AT 20W2D2H15M
 10: (JAMES DECIDE) SET AT 20W2D2H15M
 11: (DECIDE FOLLOW THEY) SET AT 20W2D2H15M
 12: (LST XX) SET AT 20W2D2H15M
 13: (JAMES DECIDE) SET AT 20W2D2H15M
 14: (DECIDE FOLLOW JOHNBUX) SET AT 20W2D2H15M
 15: (JAMES DECIDE) SET AT 20W2D2H15M
 16: (DECIDE FOLLOW MARION) SET AT 20W2D2H15M
 17: (LST XX) SET AT 20W2D2H15M
-
- CHANGE STACK FOR TIME 20W2D1H55M
- 1: NOT (DRHME PLAY BRIDGE) SET AT 20W1D21H55M
 2: NOT (JOHNBUX PLAY BRIDGE) SET AT 20W1D21H55M
 3: NOT (LADYJUX PLAY BRIDGE) SET AT 20W1D21H55M
 4: NOT (LADYJANE PLAY BRIDGE) SET AT 20W1D21H55M
 5: NOT (THCY PLAY BRIDGE) SET AT 20W1D21H55M
 6: (CARDSAME OVER) SET AT 20W2D1H55M
-
- CHANGE STACK FOR TIME 20W2D1H35M
- 1: NOT (DRHME PLAY BRIDGE) SET AT 20W1D21H55M
 2: NOT (JOHNBUX PLAY BRIDGE) SET AT 20W1D21H55M
 3: NOT (LADYJUX PLAY BRIDGE) SET AT 20W1D21H55M
 4: NOT (LADYJANE PLAY BRIDGE) SET AT 20W1D21H55M
 5: NOT (THCY PLAY BRIDGE) SET AT 20W1D21H55M
-
- CHANGE STACK FOR TIME 20W2D1H15M
- 1: (JOHNBUX KICKS MARION) SET AT 20W2D2H20M
 2: (MARION KISS JOHNBUX) SET AT 20W2D2H20M
 3: (LST XX) SET AT 20W2D2H20M
 4: NOT (JOHNBUX GOTO PARLOR) SET AT 20W1D20H15M
 5: (JOHNBUX GOTO LIBRARY) SET AT 20W2D2H20M
 6: NOT (MARION GOTO HALL) SET AT 20W2D2H15M
 7: (MARION GOTO LIBRARY) SET AT 20W2D2H20M
 8: (JAMES FOLLOW JOHNBUX) SET AT 20W2D2H20M
 9: (JAMES FOLLOW MARION) SET AT 20W2D2H20M
 10: (LST XX) SET AT 20W2D2H20M
 11: NOT (THEY GOTO GREENH) SET AT 20W1D1H20M
 12: (THEY GOTO LIBRARY) SET AT 20W2D2H20M
 13: (JAMES FOLLOW THEM) SET AT 20W2D2H20M
 14: (MARION UNDRESS) SET AT 20W2D2H20M
 15: (JOHNBUX FUCK MARION) SET AT 20W2D2H20M
 16: (MARION COMMIT ADULTRY) SET AT 20W2D2H20M
 17: (JAMES ENRAGED) SET AT 20W2D2H20M
 18: (JAMES ENTER LIBRARY) SET AT 20W2D2H20M
 19: (JAMES YELLAT JOHNSUX) SET AT 20W2D2H20M
 20: (JAMES THREATEN) SET AT 20W2D2H20M
 21: (THREATEN KILL JOHNBUX) SET AT 20W2D2H20M
 22: (MARION EMARASO) SET AT 20W2D2H20M
 23: (MARION CRY) SET AT 20W2D2H20M
 24: (EVERYONE GOTO BGD) SET AT 20W2D2H20M
 25: (LST XX) SET AT 20W2D2H20M
 26: (JAMES GOTO SEC) SET AT 20W2D2H20M
 27: (JOHNBUX GOTO SEC) SET AT 20W2D2H20M
-
- CHANGE STACK FOR TIME 20W2D2H15M
- 1: (JOHNEJUX AWAKE) SET AT 20W2D2H15M
 2: (JOHNEJUX GETUP) SET AT 20W2D2H15M
 3: (JOHNBUX PLANN) SET AT 20W2D2H15M
 4: (PLANN MEET MARION) SET AT 20W2D2H15M
 5: (JOHNEJUX ENTER HALL) SET AT 20W2D2H15M
 6: (MARION CETUP) SET AT 20W2D2H15M
 7: NOT (MARION GOTO PARLOR) SET AT 20W2D2H15M
 8: (MARION GOTO HALL) SET AT 20W2D2H15M

28: (MARION GOT TO BED) SET AT 20W2D2H20M
29: (LST XX) SET AT 20W2D2H20M

14: (JAMES GOT TO BED) SET AT 20W2D5H
15: (JAMES DIED) SET AT 20N2DEH
16: (OTHERS THINK THAT) SET AT 20W2D6H
17: (JAMES ASLEEP) SET AT 20W2D6H
18: (LST XX) SET AT 20W2D6H
19: (CATHERINE THINK THAT) SET AT 20W2D6H
20: (JAMES ASLEEP) SET AT 20N2D6H
21: (COOK THINK THAT) SET AT 20W2D6H
22: (JAMES ASLEEP) SET AT 20W2D6H
23: (ORPHANE THINK THAT) SET AT 20W2D6H
24: (JAMES ASLEEP) SET AT 20W2D6H
25: (JOHNEUX THINK THAT) SET AT 20W2D6H
26: (JAMES ASLEEP) SET AT 20N2D6H
27: (LADYBUX THINK THAT) SET AT 20W2D6H
28: (JAMES ASLEEP) SET AT 20W2D6H
29: (LADYJANE THINK THAT) SET AT 20N2D6H
30: (JAMES ASLEEP) SET AT 20N2D6H
31: (LORDED THINK THAT) SET AT 20W2D6H
32: (JAMES ASLEEP) SET AT 20W2D6H
33: (MAID THINK THAT) SET AT 20N2D6H
34: (JAMES ASLEEP) SET AT 20W2D6H
35: (MARION THINK THAT) SET AT 20N2D6H
36: (JAMES ASLEEP) SET AT 20W2D6H
37: (NURSE THINK THAT) SET AT 20W2D6H
38: (JAMES ASLEEP) SET AT 20W2D6H
39: (RONALD THINK THAT) SET AT 20N2D6H
40: (JAMES ASLEEP) SET AT 20W2D6H
41: (LST XX) SET AT 20W2D6H
42: (BUTLER REMOVE FPRINTS) SET AT 20W2D6H
43: (BUTLER RETURN BOTTLE) SET AT 20N2D6H

CHANGE STACK FOR TIME 20W2D4H

CHANGE STACK FOR TIME 20W2D6H

1: (JAMES RICH) SET AT 20W2D6H
2: (RICH VERY) SET AT 20W2D6H
3: (BUTLER WEALTH) = -3.0000
4: (BUTLER WANT MONEY) SET AT 20W2D6H
5: (BUTLER RELATED JAMES) SET AT 20W2D6H
6: (BUTLER DECIDE) SET AT 20W2D6H
7: (DECIDE POISONS JAMES) SET AT 20W2D6H
8: (BUTLER THINK THAT) SET AT 20N2D6H
9: (BUTLER INHERIT MONEY) SET AT 20W2D6H
10: (BUTLER KNOW THAT) SET AT 20W2D6H
11: (JAMES DRINK MILK) SET AT 20W2D6H
12: (BUTLER POISONS MILK) SET AT 20W2D6H
13: (JAMES DRINK MILK) SET AT 20N2D6H

CHANGE STACK FOR TIME 20W2D7H

1: (JAMES RICH) SET AT 20W2D6H
2: (RICH VERY) SET AT 20W2D6H
3: (BUTLER WEALTH) = -3.0000
4: (BUTLER WANT MONEY) SET AT 20W2D6H
5: (BUTLER RELATED JAMES) SET AT 20W2D6H
6: (BUTLER DECIDE) SET AT 20W2D6H
7: (DECIDE POISONS JAMES) SET AT 20W2D6H
8: (BUTLER THINK THAT) SET AT 20N2D6H
9: (BUTLER INHERIT MONEY) SET AT 20W2D6H
10: (BUTLER KNOW THAT) SET AT 20W2D6H
11: (JAMES DRINK MILK) SET AT 20W2D6H
12: (BUTLER POISONS MILK) SET AT 20W2D6H
13: (JAMES DRINK MILK) SET AT 20N2D6H

102

JAMES WAS VERY RICH.
CLIVE WAS IMPOVERISHED.
CLIVE WANTED THE MONEY.
THE BUTLER WAS RELATED TO JAMES.
THE BUTLER DECIDED TO POISON JAMES.
CLIVE THOUGHT THAT CLIVE INHERITED THE MONEY.
CLIVE KNEW THAT JAMES DRANK A MILK.
CLIVE POISONED THE MILK.
JAMES DRANK THE MILK.
JAMES WENT TO BED.
JAMES DIED.
THE OTHERS THOUGHT THAT JAMES WAS ASLEEP.
CLIVE REMOVED THE FINGERPRINTS.
THE BUTLER RETURNED THE BOTTLE.

CHANGE STACK FOR TIME 20W2D7H

1: (RONALD AWAKEN) SET AT 20W2D7H
 2: (RONALD GET UP) SET AT 20W2D7H
 3: (RONALD THINK THAT) SET AT 20W2D7H
 4: (DAY BEAUTIFUL) SET AT 20W2D7H
 5: (RONALS FIND JAMES) SET AT 20W2D7H
 6: (RONALD SEE THAT) SET AT 20W2D7H
 7: (JAMES DEAD) SET AT 20W2D7H
 8: (RONALD YELL) SET AT 20W2D7H
 9: (ULST XX) SET AT 20W2D7H
 10: (LST XX) SET AT 20W2D7H
 11: (OTHERS AWAKEN) SET AT 20W2D7H
 12: (COTHERS RUN) SET AT 20W2D7H
 13: (RUN TO RONALD) SET AT 20W2D7H
 14: (COTHERS SEE JAMES) SET AT 20W2D7H
 15: (EVERYONE TALK) SET AT 20W2D7H
 16: (MAID CALL POLICE) SET AT 20W2D7H
 17: (ORHUME EXAMINE CORPSE) SET AT 20W2D7H
 18: (ORHUME SAY THAT) SET AT 20W2D7H
 19: (JAMES KILL DAY POISON) SET AT 20W2D7H
 20: (LUST XX) SET AT 20W2D7H
 21: (BUTLER TALK) SET AT 20W2D7H
 22: (CATHY TALK) SET AT 20W2D7H
 23: (COOK TALK) SET AT 20W2D7H
 24: (ORHUME TALK) SET AT 20W2D7H
 25: (JOHNBEUX TALK) SET AT 20W2D7H
 26: (LADYJANE TALK) SET AT 20W2D7H
 27: (LADYJANE TALK) SET AT 20W2D7H
 28: (FLORED TALK) SET AT 20W2D7H
 29: (MHAIS TALK) SET AT 20W2D7H
 30: (MARION TALK) SET AT 20W2D7H
 31: (NURSE TALK) SET AT 20W2D7H
 32: (RONALD TALK) SET AT 20W2D7H
 33: (LST XX) SET AT 20W2D7H
 34: (ULST XX) SET AT 20W2D7H
 35: (BUTLER AWAKEN) SET AT 20W2D7H
 36: (BUTLER RUN) SET AT 20W2D7H
 37: (RUN TO RONALD) SET AT 20W2D7H
 38: (BUTLER SEE JAMES) SET AT 20W2D7H
 39: (CATHY AWAKEN) SET AT 20W2D7H
 40: (CATHY RUN) SET AT 20W2D7H
 41: (RUN TO RONALD) SET AT 20W2D7H
 42: (CATHY SEE JAMES) SET AT 20W2D7H
 43: (COOK AWAKEN) SET AT 20W2D7H
 44: (COOK FUN) SET AT 20W2D7H
 45: (RUN TO RONALD) SET AT 20W2D7H
 46: (COOK SEE JAMES) SET AT 20W2D7H
 47: (JOHNBEUX AWAKEN) SET AT 20W2D7H
 48: (ORHUME RUN) SET AT 20W2D7H
 49: (RUN TO RONALD) SET AT 20W2D7H
 50: (ORHUME SEE JAMES) SET AT 20W2D7H
 51: (JOHNBEUX AWAKEN) SET AT 20W2D7H
 52: (ORHUME RUN) SET AT 20W2D7H
 53: (RUN TO RONALD) SET AT 20W2D7H
 54: (JOHNBEUX SEE JAMES) SET AT 20W2D7H
 55: (LADYBUX AWAKEN) SET AT 20W2D7H
 56: (RUN TO RONALD) SET AT 20W2D7H

SET AT 20W2D7H

57: (LADYJANE AWAKEN) SET AT 20W2D7H
 58: (LADYJANE RUN) SET AT 20W2D7H
 59: (RUN TO RONALD) SET AT 20W2D7H
 60: (LADYJANE SEE JAMES) SET AT 20W2D7H
 61: (LORDED AWAKEN) SET AT 20W2D7H
 62: (LORDED RUN) SET AT 20W2D7H
 63: (RUN TO RONALD) SET AT 20W2D7H
 64: (LORDED SEE JAMES) SET AT 20W2D7H
 65: (LORDED RUN) SET AT 20W2D7H
 66: (LORDED SEE JAMES) SET AT 20W2D7H
 67: (MAIS AWAKEN) SET AT 20W2D7H
 68: (MAIS RUN) SET AT 20W2D7H
 69: (RUN TO RONALD) SET AT 20W2D7H
 70: (MAIS SEE JAMES) SET AT 20W2D7H
 71: (MARION AWAKEN) SET AT 20W2D7H
 72: (MARION RUN) SET AT 20W2D7H
 73: (RUN TO RONALD) SET AT 20W2D7H
 74: (MARION SEE JAMES) SET AT 20W2D7H
 75: (NURSE AWAKEN) SET AT 20W2D7H
 76: (NURSE RUN) SET AT 20W2D7H
 77: (RUN TO RONALD) SET AT 20W2D7H
 78: (NURSE SEE JAMES) SET AT 20W2D7H

SET AT 20W2D7H

RONALD AWAKENED.
 RONALD GOT UP.
 RONALD THOUGHT THAT THE DAY WAS BEAUTIFUL.
 RONALD FOUND JAMES.
 RONALD SAW THAT JAMES WAS DEAD.
 RONALD YELLED.
 THE OTHERS AWAKENED.
 THE OTHERS RAN TO RONALD.
 THE OTHERS SAW JAMES.
 EVERYONE TALKED.
 HEATHER CALLED THE POLICEMEN.
 HUME EXAMINED THE BODY.
 DR. BARTHOLEMEN HUME SAID THAT JAMES WAS KILLED BY POISON.

CHANGE STACK FOR TIME 20W2D7H10M

1: (JOHNBEUX TALKWITH LORDED) SET AT 20W2D7H10M
 2: (TALKWITH ABOUT MURDER) SET AT 20W2D7H10M

JOHN TALKED WITH EDWARD ABOUT THE MURDERER.

CHANGE STACK FOR TIME 20W207H20M
 1: (LORDED TALKWITH COOK) SET AT 20W207H20M
 2: (TALKWITH ABOUT MURDER) SET AT 20W207H20M
 3: (COOK UPSET) SET AT 20W207H20M
 4: (UPSET ABOUT MURDER) SET AT 20W207H20M

EDWARD TALKED WITH MAGGIE ABOUT THE MURDER.
 MAGGIE WAS UPSET ABOUT THE MURDER.

5: (QUESTNS STUPID) SET AT 20W207H40M
 6: (LIST XX) SET AT 20W207H40M
 7: (POLICE SEARCH GARDEN) SET AT 20W207H40M
 8: (POLICE TRY) SET AT 20W207H40M
 9: (TRY FIND CLUES) SET AT 20W207H40M
 10: (MARION CRY) SET AT 20W207H40M

THE POLICEMEN QUESTIONED DR. BARTHOLOMEW HUME.
 THE DETECTIVE ASKED QUESTIONS.
 THE POLICEMEN SEARCHED THE GARDEN.
 THE POLICEMEN TRIED TO FIND CLUES.
 MARION CRIED.

CHANGE STACK FOR TIME 20W207H30M
 1: (POLICE ARRIVE) SET AT 20W207H30M
 2: (POLICE TG) = 7F.0000
 3: (INSPECTO EXAMINE CORPSE) SET AT 20W207H30M
 4: (POLICE LOOKFOR CLUES) SET AT 20W207H30M
 5: (LOOKFOR IN BATHROOM) SET AT 20W207H30M
 6: (COPHUME LOOK) SET AT 20W207H30M
 7: (LOOK ALSO) SET AT 20W207H30M
 8: (CLOSED TRY) SET AT 20W207H30M
 9: (TRY CALM MARION) SET AT 20W207H30M

THE COPS ARRIVED.
 THE COPS WERE DETECTIVE.
 A DETECTIVE EXAMINED THE CORPSE.
 THE POLICEMEN LOOKED FOR HINTS IN THE BATHROOM.
 DR. BARTHOLOMEW HUME ALSO LOOKED.
 EDWARD TRIED TO CALM MARION.

CHANGE STACK FOR TIME 20W207H50M
 1: (DRHUME SEARCH STAIRS) SET AT 20W207H50M
 2: (COPHUME LOOKFOR CLUES) SET AT 20W207H50M
 3: (DRHUME QUESTION LADYUX) SET AT 20W207H50M
 4: (DRHUME KNOW THAT) SET AT 20W207H50M
 5: (LADYUX TELL TRUTH) SET AT 20W207H50M
 6: (NURSE TALKWITH MAID) SET AT 20W207H50M
 7: (TALKWITH ABOUT MURDER) SET AT 20W207H50M
 8: (MARION CRY) SET AT 20W207H50M

DR. BARTHOLOMEW HUME SEARCHED STAIRS.
 HUME LOOKED FOR HINTS.
 DR. HUME QUESTIONED LADY BUXLEY.
 DR. HUME KNEW THAT LADY BUXLEY TOLD THE TRUTH.
 FLIGENCE TALKED WITH HEATHER ABOUT THE MURDER.
 MARION CRIED.

CHANGE STACK FOR TIME 20W208H
 1: (POLICE QUESTION RONALD) SET AT 20W208H
 2: (INSPECTO SUSPECT RONALD) SET AT 20W208H
 3: (INSPECTO ASK QUESTNS) SET AT 20W208H
 4: (MX GC) = 1.0000
 5: (QUESTNS STUPID) SET AT 20W208H
 6: (LIST XX) SET AT 20W208H

7: (POLICE SEARCH PARLOR) SET AT 20W2D8H
8: (POLICE TRY) SET AT 20W2D8H
9: (TRY F-ND CLUES) SET AT 20W2D9H
10: (NURSE UPSET) SET AT 20W2D9H

THE COPS QUESTIONED HEATHER.
THE DETECTIVE ASKED THE STUPID QUESTIONS.
DR. HUME QUESTIONED HEATHER.
DR. HUME KNEW THAT HEATHER TOLD THE TRUTH.
THE COPS SEARCHED THE TENNIS COURT.
CLIVE TALKED WITH RONALD ABOUT THE MURDER.
THE BUTLER SAID THAT JAMES WAS KIND.
THE COOK TALKED ABOUT THE MURDER.

THE POLICEMEN QUESTIONED RONALD.
THE INSPECTOR SUSPECTED RONALD.
THE INSPECTOR ASKED THE STUPID QUESTIONS.
THE POLICEMEN SEARCHED THE PARLOR.
THE POLICEMEN TRIED TO FIND HINTS.
FLORENCE WAS UPSET.

CHANGE STACK FOR TIME 20W2D8H10M

1: (DRHUME SEARCH DININGRM) SET AT 20W2D8H10M
2: (DRHUME LOOKFOR CLUES) SET AT 20W2D8H10M

DR. BARTHOLOMEW HUME STARCHED THE DINING ROOM.
DR. BARTHOLOMEW HUME LOCKED FOR HINTS.

CHANGE STACK FOR TIME 20W2D8H30M

1: (DRHUME SEARCH BATHROOM) SET AT 20W2D8H30M
2: (DRHUME LOOKFOR CLUES) SET AT 20W2D8H30M
3: (MARION CRY) SET AT 20W2D8H30M

DR. BARTHOLOMEW HUME SEARCHED THE BATHROOM.
DR. HUME LOOKED FOR CLUES.
MARION CRIED.

CHANGE STACK FOR TIME 20W2D8H40M

1: (DRHUME QUESTION NURSE) SET AT 20W2D8H40M
2: (DRHUME KNOW THAT) SET AT 20W2D8H40M
3: (NURSE TELL TRUTH) SET AT 20W2D8H40M
4: (DRHUME GET INFORMATI) SET AT 20W2D8H40M
5: (GET FROM NURSE) SET AT 20W2D8H40M
6: (POLICE SEARCH BATHROM) SET AT 20W2D8H40M
7: (POLICE FIND THREAD) SET AT 20W2D8H40M
8: (THREAD IS CLUE1) SET AT 20W2D8H40M
9: (CLUE1 MISLEADI) SET AT 20W2D8H40M
10: (LADYBUX TALKWITH JOHNBEUX) SET AT 20W2D8H40M
11: (TALKWITH ABOUT MURDER) SET AT 20W2D8H40M
12: (LADYBUX SAY THAT) SET AT 20W2D8H40M
13: (JAMES GOOD) = 2.0000
14: (DRHUME UPSET) SET AT 20W2D8H40M

CHANGE STACK FOR TIME 20W2D8H20M

1: (POLICE QUESTION MAID) SET AT 20W2D8H20M
2: (INSPECTO ASK QUESTIN) SET AT 20W2D8H20M
3: (NY QG1 = 1.0000)
4: (QUESTINS STUPIC) SET AT 20W2D8H20M
5: (LST XX) SET AT 20W2D8H20M
6: (DRHUME QUESTION MAID) SET AT 20W2D8H20M
7: (DRHUME KNOW THAT) SET AT 20W2D8H20M
8: (MAID TELL TRUTH) SET AT 20W2D8H20M
9: (POLICE SEARCH TENNISCO) SET AT 20W2D8H20M
10: (CUTLERY TALKWITH RONALD) SET AT 20W2D8H20M
11: (TALKWITH ABOUT MURDER) SET AT 20W2D8H20M
12: (BUTLER SAY THAT) SET AT 20W2D8H20M
13: (JAMES GOOD) = 2.0000
14: (COOK TALKSOU MURSER) SET AT 20W2D8H20M

MR. HUME QUESTIONED FLORENCE.
FLORENCE KNEW THAT FLORENCE TOLD THE TRUTH.
BARTHolemew Hume got information from Florence.
CopS SEARCHED THE BATHROOM.
HE COPIs FOUND A THREAD.
HE THREADED WAS HIS LEADING CLUE.
LADY SUXLEY TALKED WITH JOHN ABOUT THE MURDER.
LADY SUXLEY SAID THAT JAMES WAS KIND.
MR. HUME WAS UPSET.

(DRHUME SAY THAT) SET AT 20W209H
(JAMES KILLED BY POISON) SET AT 20W209H
(DRHUME FIND SICKLE) SET AT 20W209H
(DRHUME SAY THAT) SET AT 20W209H
(BUTLER KILL JAMES) SET AT 20W209H
(MOTIVE 2 IS GREEN) SET AT 20W209H
(EVERYONE SHOCKED) SET AT 20W209H
(FULT XX) SET AT 20W209H
(DRHUME ASK THAT) SET AT 20W209H
(DRHUME ASK PAISLOR) SET AT 20W209H

```

CHANGE STACK FOR TIME 20W203H50M

1:   (CRHUME SEARCH LIBRARY)      SET AT 20W203H50M
2:   (POLICE QUESTION JOHN BUX)  SET AT 20W203H50M
3:   (INSPECT TO ASK QUESTNS)    SET AT 20W203H50M
4:   (CHY Q3) = 1.0000
5:   (QUESTNS STUPIC)           SET AT 20W203H50M
6:   (QUEST XX)                 SET AT 20W203H50M
7:   (CRHUME QUESTION COOK)    SET AT 20W203H50M
8:   (CRHUME KNOW THAT)        SET AT 20W203H50M
9:   (COOK TELL TRUTH)         SET AT 20W203H50M
10:  (CRHUME SET INFERNAL)     SET AT 20W203H50M
11:  (GET FROM COOK)           SET AT 20W203H50M

```

DR. BARTHOLOMEE HUME SEARCHED THE LIBRARY.
THE COPS QUESTIONED JOHN BUXLEY.
THE DETECTIVE ASKED THE STUPID QUESTIONS.
HUME QUESTIONED THE COOK.
DR. BARTHOLOMEE HUME KNEW THAT MAGGIE TOLD THE TRUTH.
HUME GOT INFORMATION FROM THE COOK.

CHANGE STACK FOR TIME 204209H	
1:	NOT (CRHUME GOTO PARLOR) SET AT 20W120H1EM
2:	(CRHUME SOTO BATHROOM) SET AT 20W209H
3:	(CRHUME FIND BOTTLE) SET AT 20M20SH
4:	(CRHUME KNOW MURDERER) SET AT 20W209H
5:	(CRHUME ASK EVERYONE) SET AT 20W209H
6:	(ASK SOTO PARLOR) SET AT 20W209H
7:	(CRHUME SAY THAT) SET AT 20M20SH
8:	(MURDERER IN ROOM) SET AT 20W2C2H
9:	(CRHUME KNOW MURDERER) SET AT 20W2C2H
10:	(EVERYONE SURPRISED) SET AT 20W2C2H
11:	(EVERYONE TALK) SET AT 20W20SH

59: (MAID TALK) SET AT 20W2D9H
60: (MARION TALK) SET AT 20W2D9H
61: (NURSE TALK) SET AT 20W2D9H
62: (POLICE TALK) SET AT 20W2D9H
63: (RONALD TALK) SET AT 20W2D9H
64: (CATHY SURPRISED) SET AT 20W2D9H
65: (COOK SURPRISED) SET AT 20W2D9H
66: (INSPECTOR SURPRISED) SET AT 20W2D9H
67: (JOHN BUX SURPRISED) SET AT 20W2D9H
68: (LADY BUX SURPRISED) SET AT 20W2D9H
69: (LADY JANE SURPRISED) SET AT 20W2D9H
70: (LORD SURPRISED) SET AT 20W2D9H
71: (MAGGIE SURPRISED) SET AT 20W2D9H
72: (MARION SURPRISED) SET AT 20W2D9H
73: (NURSE SURPRISED) SET AT 20W2D9H
74: (POLICE SURPRISED) SET AT 20W2D9H
75: (RONALD SURPRISED) SET AT 20W2D9H
76: (LST XX) SET AT 20W2D9H
77: (RONALD CONGRATULATES DR HUME) SET AT 20W2D9H
78: (DR HUME SOLVE CRIME) SET AT 20W2D9H
79: (MX QQ) = 1•0000 SET AT 20W2D9H
80: (DR HUME CLEVER) SET AT 20W2D9H

HUME WENT TO THE BATHROOM.
DR. BARTHOLOMEW HUME FOUND THE BOTTLE.
HUME KNEW THE MURDERER.
HUME ASKED EVERYONE TO GO TO THE PARLOR.
DR. BARTHOLOMEW HUME SAID THAT THE MURDERER WAS IN THE ROOM.
EVERYONE WAS SURPRISED.
EVERYONE TALKED.
DR. BARTHOLOMEW HUME SAID THAT JAMES WAS KILLED BY POISON.
HUME SAID THAT THE BUTLER KILLED JAMES.
EVERYONE WAS SHOCKED.
THE BUTLER DREW A PISTOL.
CLIVE HEADED FOR THE DOOR.
DP. BARTHOLOMEW HUME FOLLOWED CLIVE.
THE BUTLER SHOT AT HUME.
DP. BARTHOLOMEW HUME GRABBED A PAPERWEIGHT.
DP. BARTHOLOMEW HUME THREW THE PAPERWEIGHT AT CLIVE.
THE PAPERWEIGHT HIT CLIVE IN THE HEAD.
CLIVE FELL.
DP. BARTHOLOMEW HUME TOOK THE GUN.
THE POLICEMEN TOOK CLIVE.
RONALD CONGRATULATED HUME.
CLEVER DR. HUME SOLVED THE CRIME.

8.6.2 Murder and Solution from Story 2

JAMES KNEW THAT HUME SCREWED MARION.

JAMES HATED DR. BARTHLOMEW HUME.

JAMES WANTED A REVENGE.

JAMES DECIDED TO KILL DR. HUME.

JAMES WROTE A NOTE.

DR. HUME GOT THE NOTE FROM JAMES.

HUME MET JAMES.

THE DAY WAS SUNDAY.

THE TIME WAS THE DAWN.

JAMES GOT UP.

JAMES WENT TO THE LIBRARY.

DR. BARTHLOMEW HUME WENT TO THE LIBRARY.

JAMES THOUGHT THAT JAMES WAS UNAWARE.

JAMES SAID THAT DR. BARTHLOMEW HUME WAS EVIL.

JAMES POINTED A PISTOL AT DR. BARTHLOMEW HUME.

DR. HUME SAN THE PISTOL.

DR. BARTHLOMEW HUME HIT JAMES IN THE BELLY.

DR. BARTHLOMEW HUME TRIED TO GRAB THE PISTOL.

JAMES HIT HUME.

JAMES STRUGGLED WITH DR. BARTHLOMEW HUME.

JAMES KEPT THE PISTOL.

HUME STAGGERED BACK.

DR. BARTHLOMEW HUME DIED.

JAMES HIT THE GUN.

JAMES LOOKED FOR THE NOTE.

THE NOTE WAS GONE.

JAMES RETURNED TO THE BEDROOM.

LADY JANE AWAKENED.

LADY JANE GOT UP.

JANE THOUGHT THAT THE DAY WAS BEAUTIFUL.

JANE FOUND DR. BARTHLOMEW HUME.

LADY JANE SAW THAT DR. HUME WAS DEAD.

LADY JANE SCREAMED LOUD.

LADY JANE FAINTED.

THE OTHERS AWAKENED.

THE OTHERS RAN TO LADY JANE.

THE OTHERS SAN DR. BARTHLOMEW HUME.

EVERYONE TALKED.

EDWARD CALLED THE COPS.

FLORENCE EXAMINED THE CORPSE.

FLORENCE SAID THAT DR. BARTHLOMEW HUME WAS KILLED BY THE GUN.

THE POLICEMEN ARRIVED.
THE COPS WERE IDIOTIC.
A DETECTIVE EXAMINED THE CORPSE.
THE COPS LOOKED FOR CLUES IN THE LIBRARY.
FLORENCE ALSO LOOKED.

FLORENCE TALKED WITH THE COOK ABOUT THE MURDER.
THE COOK WAS UPSET ABOUT THE MURDER.
JAMES SAID THAT RONALD KILLED DR. HUME.
RONALD DENIED THE ACCUSATION.
RONALD SAID THAT JAMES WAS STUPID.

THE COPS QUESTIONED FLORENCE.
THE DETECTIVE SUSPECTED FLORENCE.
THE INSPECTOR ASKED QUESTIONS.
LADY CATHERINE TALKED ABOUT THE MURDER.

FLORENCE SEARCHED THE PARLOR.
FLORENCE LOOKED FOR HINTS.
FLORENCE QUESTIONED THE BUTLER.
FLORENCE GOT INFORMATION FROM CLIVE.

FLORENCE SEARCHED THE LIBRARY.
FLORENCE LOOKED FOR HINTS.
THE COPS QUESTIONED LADY JANE.

FLORENCE SEARCHED THE LIBRARY.
FLORENCE FOUND ASHES.
THE ASHES WERE VALUABLE CLUE.
THE POLICEMEN QUESTIONED RONALD.
THE INSPECTOR ASKED THE QUESTIONS.
JAMES TALKED ABOUT THE MURDER.

FLORENCE QUESTIONED MARION.
FLORENCE KNEW THAT MARION TOLD THE TRUTH.
FLORENCE GOT INFORMATION FROM MARION.

8.6.3 Murder Scene from Story 3

THE COPS QUESTIONED HEATHER.
THE INSPECTOR ASKED THE QUESTIONS.
THE COPS SEARCHED THE DRAWING ROOM.
THE POLICEMEN FOUND A THREAD.
THE THREAD WAS MISLEADING CLUE.
CATHERINE TALKED WITH THE BUTLER ABOUT THE MURDER.
CATHY SAID THAT DR. BARTHOLOMEW HUME WAS KIND.
THE BUTLER AGREED.
CLIVE WAS UPSET ABOUT THE MURDER.

DR. BARTHOLOMEW HUME BLACKMAILED EDWARD.
EDWARD WAS AFRAID OF DR. HUME.
LORD EDWARD DECIDED TO KILL DR. BARTHOLOMEW HUME.
THE DAY WAS SUNDAY.
THE TIME WAS THE SUNRISE.
LORD EDWARD GOT UP.
LORD EDWARD WENT TO THE DARK CORRIDOR.
LORD EDWARD HID.
EDWARD HAD A CANDLE HOLDER.
EDWARD HIT DR. BARTHOLOMEW HUME AWAKENED EARLY.
DR. BARTHOLOMEW HUME WAS USUALLY EARLY.
CR. HUME WENT FOR THE WALK.
EDWARD WAITED FOR HUME.
LORD EDWARD SURPRISED HUME.
EDWARD HIT DR. BARTHOLOMEW HUME WITH THE CANDLE HOLDER.
DR. BARTHOLOMEW HUME GRANDED WEAKLY.
DR. HUME DIED.
EDWARD RETURNED TO THE BEDROOM.

8.6.4 Murder Scene from Story 4

FLORENCE WENT TO THE LIBRARY.
FLORENCE FOUND THE NOTE.
FLORENCE KNEW THE KILLER.
FLORENCE ASKED EVERYONE TO GO TO THE PARLOR.
FLORENCE SAID THAT THE MURDERER WAS IN THE ROOM.
EVERYONE WAS SURPRISED.
EVERYONE TALKED.
FLORENCE SAID THAT DR. HUME WAS KILLED BY THE PISTOL.
EVERYONE WAS SHOCKED.
JAMES DREW THE GUN.
JAMES HEADED FOR THE DOOR.
FLORENCE TRIPPED JAMES.
JAMES FELL.
FLORENCE STRUGGLED WITH JAMES.
THE GUN FIRED.
FLORENCE GOT THE SUN.
THE COPS TOOK JAMES TO THE JAIL.
THE POLICEMEN CONGRATULATED FLORENCE.
CLEVER FLORENCE SOLVED THE CRIME.

LORD EDWARD KNEW THAT LADY JANE COMMITTED ADULTERY.
LORD EDWARD WAS ENRAGED.
EDWARD DECIDED TO STAB JANE.
THE DAY WAS SUNDAY.
THE TIME WAS THE SUNRISE.
JANE AWAKENED EARLY.
JANE GOT UP QUICKLY.
LADY JANE DECIDED TO GO FOR THE WALK.
JANE THOUGHT THAT EDWARD WAS ASLEEP.
JANE GOT DRESSED.
JANE WENT TO THE GARDEN.
EDWARD FOLLOWED LADY JANE.
JANE SAW EDWARD.
LORD EDWARD HAD A LONG DAGGER.
EDWARD WAVED THE DAGGER VIOLENTLY.
LORD EDWARD STABBED JANE SCREAMING.
THE KNIFE SANK DEEP.
JANE STRUGGLED WEAKLY.
JANE HIT EDWARD.
LORD EDWARD SLASHED JANE AGAIN.
EDWARD SAID THAT LADY JANE BETRAYED LORD EDWARD.
JANE DYING COVERED WITH THE BLOOD.
LORD EDWARD HID THE KNIFE.
LORD EDWARD RETURNED TO THE BEDROOM.
EDWARD WASHED OFF THE BLOOD.
LORD EDWARD WASHEP OFF THE BLOOD.