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Project Proposal: Reproduction 繁殖

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REPRODUCTION

I Scheme:

A. Method:

1. The information of a human body (gestation) and the biological information (incubation) are denoted respectively as X and Y.

2. X and Y, as basic elements, are measured separately. The main variables of X at different stages are tested.

3. X, which is composed of media and equipments, is quantified and transmited to the model. Y, consisting of media and equipments is transmited to the medium. Time is considered as a factor in the whole process, thus a dynamic structure is formed.

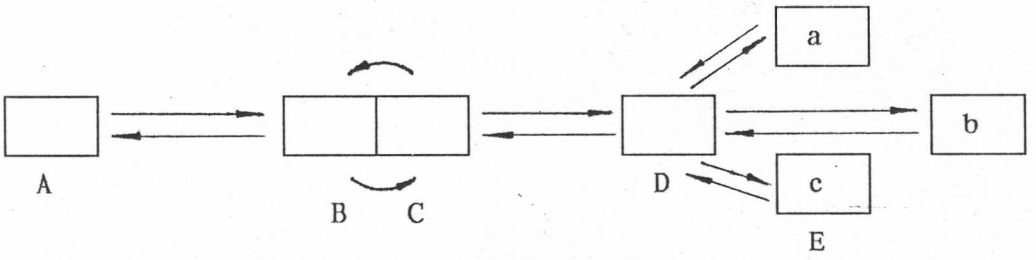
4. Various states of X during the process are quantified, the results of which are transmited and transformed, forming a relation with Y (a medium environment).

5. Process and states are synthetically handled according to the basic rules of the controlling programme and outputed regularilly. According to the basic functions of the model, the output methods are:
   a. two - dimensional processing
   b. model simulation
   c. three - dimensional modeling (omitted).

6. At a particular moment in the input - output process, a new " description " of the synchronous evolution and transforming elements is provided by the use of varying material structures and a comparison method .

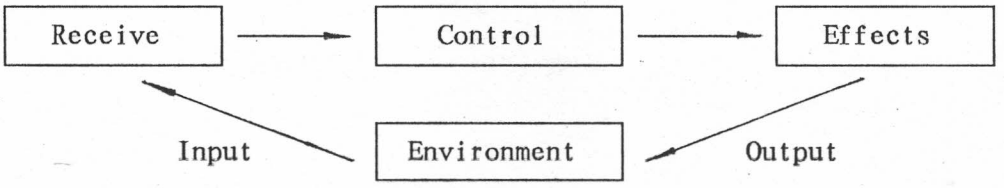
B. Basic Structure and model.

1. Diagram of the basic structure :



A. Occurrence and reception of the evolution.
B. State effect Ⅰ
C. State effect Ⅱ
D. Transformation controlling programme
E. Output states

2. Basic information flow and model.



Ⅱ Process and States of Reproduction:

A. Elements:

1. X (states of human pregnancy, X_1, X_2, X_3, X_4)
   Y (states of biological incubation, Y_1 ... Y_n)

2. Main procedures:
   a. Make a record of element Y from the initial state to the final state.
   b. Measure and record the main variables of X at different stages.
   c. The main variables of X are:
      a/ weight
      b/ blood pressure
      c/ height of the womb
      d/ size of the abdomen

3. Time limit: thirty days as a basic unit.

4. The main variables (a, b, c, d) of element X (X_1, X_2, X_3, X_4) are measured at four successive stages in time sequence.

5. The data of the four variables of X (X_1, X_2, X_3, X_4) from stage one to stage four are as follows:

X_1

	Stage1	Stage2	Stage3	Stage4
	30	60	90	120
a	51	53	56	57
b	130/80	140/80	130/90	130/90
c	10	16	18	21
d	78	80	86	88

X_2

	Ⅰ	Ⅱ	Ⅲ	Ⅳ
	30	60	90	120
a	52	55	56	56.5
b	130/90	140/80	150/90	140/80
c	20	25	28	32
d	80	86	88	92

X_3

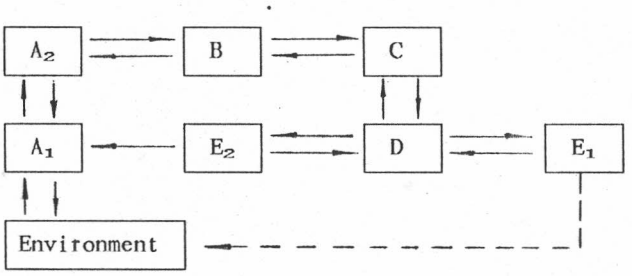
	Stage1	Stage2	Stage3	Stage4
	30	60	90	120
a	54	57	61	61.5
b	150/90	140/80	140/80	150/90
c	26	28	30	32
d	79	84	94	98

X_4

	Ⅰ	Ⅱ	Ⅲ	Ⅳ
	30	60	90	120
a	50	52	55	56
b	130/80	140/90	130/80	130/90
c	6	14	18	21
d	75	79	84	86

B. Input model.

1. Diagram of the model



2. Put X into system A (A_1 - A_2) of the model.
   A_1 receives the message of X and transmits it to A_2.
3. A_2 receives the message from A_1, producing state S (S_1, S_2,S_3,S_4) accordingly. State S is quantified and outputed.

4. System B receives the outcoming messages of system A (A_1 - A_2) and produces state Z.

   a. State Z evolutes in time sequence.

   b. State Z is put into quantitative order, presenting the states of the variables (a, b, c, d).

   c. State Z transformes the quantified states to scales.

   d. The basic scales are a: 1 : 10
      b: 1 : 10 (using the smallest figure as
      c: 1 : 2 reference)
      d: 1 : 10

   e. According to the above scales, the quantified states of Z are as follows.

Z_1

	Ⅰ	Ⅱ	Ⅲ	Ⅳ
a	5.1	5.3	5.6	5.7
b	8	8	9	9
c	5	8	9	10.5
d	7.8	8	8.6	8.8

Z_2

	Ⅰ	Ⅱ	Ⅲ	Ⅳ
a	5.2	5.5	5.6	5.6
b	9	8	9	8
c	10	12.5	14	16
d	8	8.6	8.8	9.2

Z_3

	Ⅰ	Ⅱ	Ⅲ	Ⅳ
a	5.4	5.7	6.1	6.15
b	9	8	8	9
c	13	14	15	15.5
d	7.9	8.4	9.4	9.8

Z_4

	Ⅰ	Ⅱ	Ⅲ	Ⅳ
a	5	5.2	5.5	5.6
b	8	9	8	9
c	3	7	9	10
d	7.5	7.9	8.4	8.6

   f. Quantified states of Z are transmited from system B to system C.

5. System C receives the messages of system B and forms state Q.

   a. State Q receives the quantified messages of Z in time sequence (Z_1, Z_2, Z_3, Z_4) and transforms them as Q_1, Q_2, Q_3 and Q_4 accordingly.

   b. The transformed state Q is quantified at different stages. The results are :

Q_1	
a	21.7
b	34
c	32.5
d	35.2

Q_2	
a	21.9
b	34
c	52.5
d	34.6

Q_3	
a	23.35
b	34
c	57.5
d	35.5

Q_4	
a	21.3
b	34
c	29
d	32.4

c. The structures of the quantified state Q are.

Q_1	
a	b
c	d

Q_2	
a	b
c	d

Q_3	
a	b
c	d

Q_4	
a	b
c	d

d. State Q (Q_1, Q_2, Q_3, Q_4) is transmited to the container according to the above structures. (scale: 1:1)

e. The working states of W, which is the control unit of state Q, are as follows:

W		
	a:	2ml / min
	b:	3ml / min
	c:	4ml / min
	d:	2ml / min

Transmission and its time are controlled by W.

The states of Q under the control of W are :

Q_1	
21.7	34
32.5	35.2

Q_2	
21.9	34
52.5	34.6

Q_3	
23.3	34
57.5	35.5

Q_4	
21.3	34
29	32.4

W	Q_1	Q_2	Q_3	Q_4
→	a: 2ml/min	a: 2ml/min	a: 2ml/min	a: 2ml/min
	b: 3ml/min	b: 3ml/min	b: 3ml/min	b: 3ml/min
	c: 4ml/min	c: 4ml/min	c: 4ml/min	c: 4ml/min
	d: 2ml/min	d: 2ml/min	d: 2ml/min	d: 2ml/min

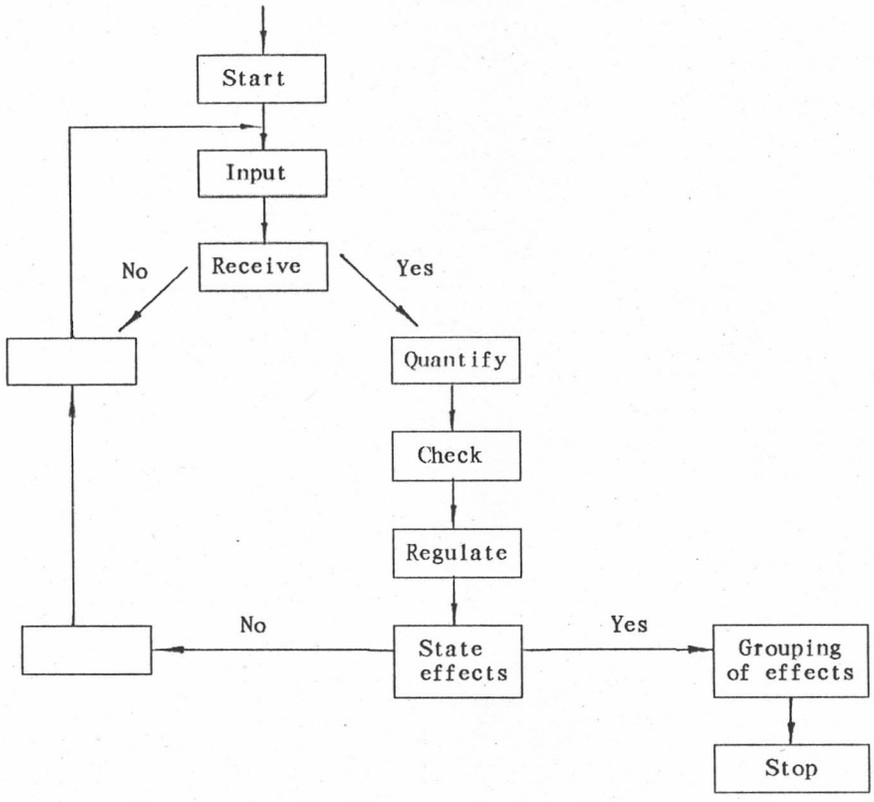
Under the control of W, the outputs of state Q are the same.

f. Q_1, Q_2, Q_3 and Q_4 , controlled by the working state of W are transmited to container Q to be handled synthetically.

g. The quantified state Q dissolves in the container and after internal cycling, the synthetically handled messages of state Q are outputed to D.

6. The messages of system C are received by system D and outputed after controlling state treatment.

a. Diagram of state treatment of system D.



b. Rules for state treatment.

	Sign	Color	Direction	Movement	Scale
a		red		anticlockwise	1:10
b		blue		clockwise	1:10
c		green		anticlockwise	1:2
d		yellow		clockwise	1:10

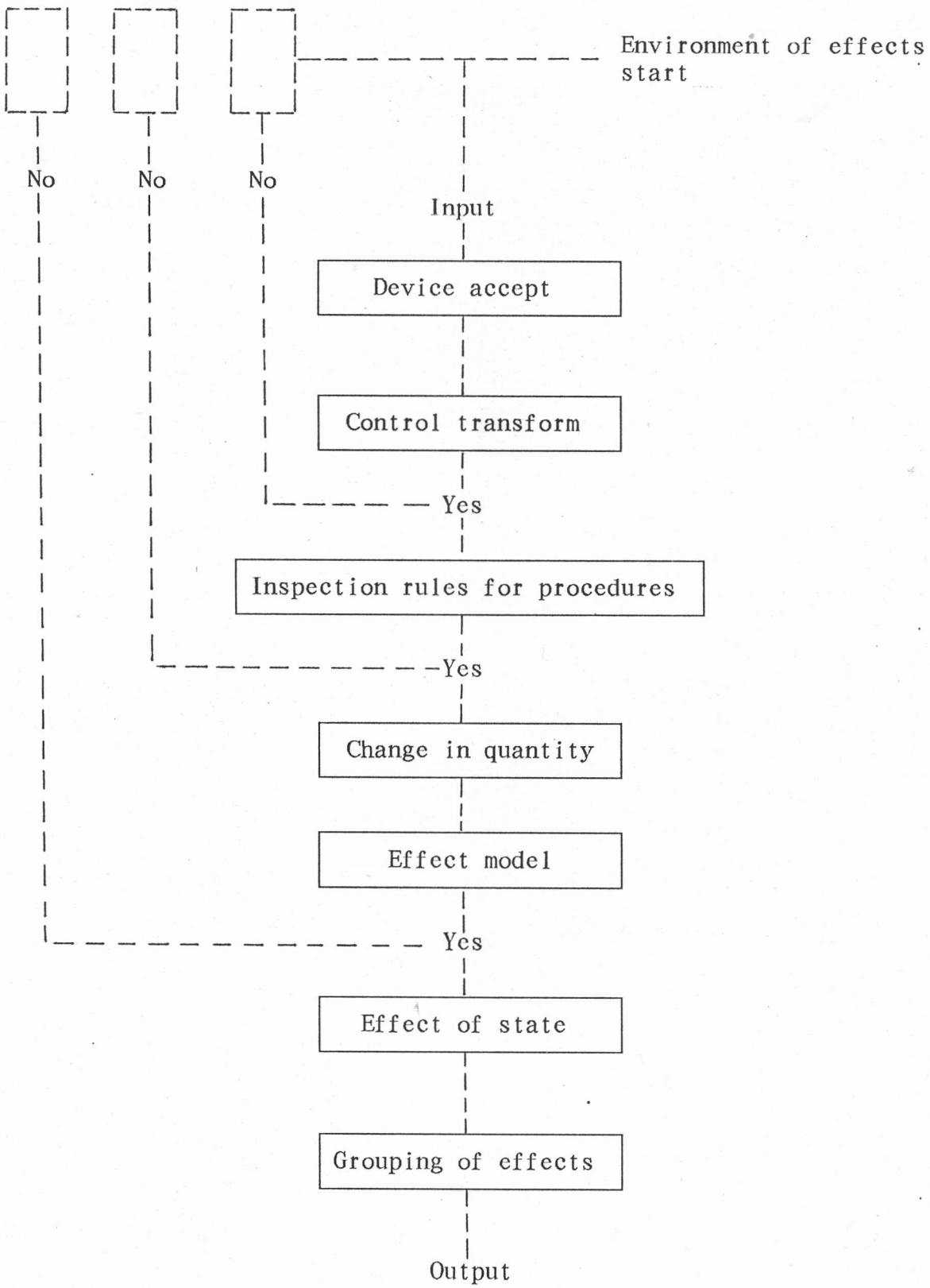
C. State output.

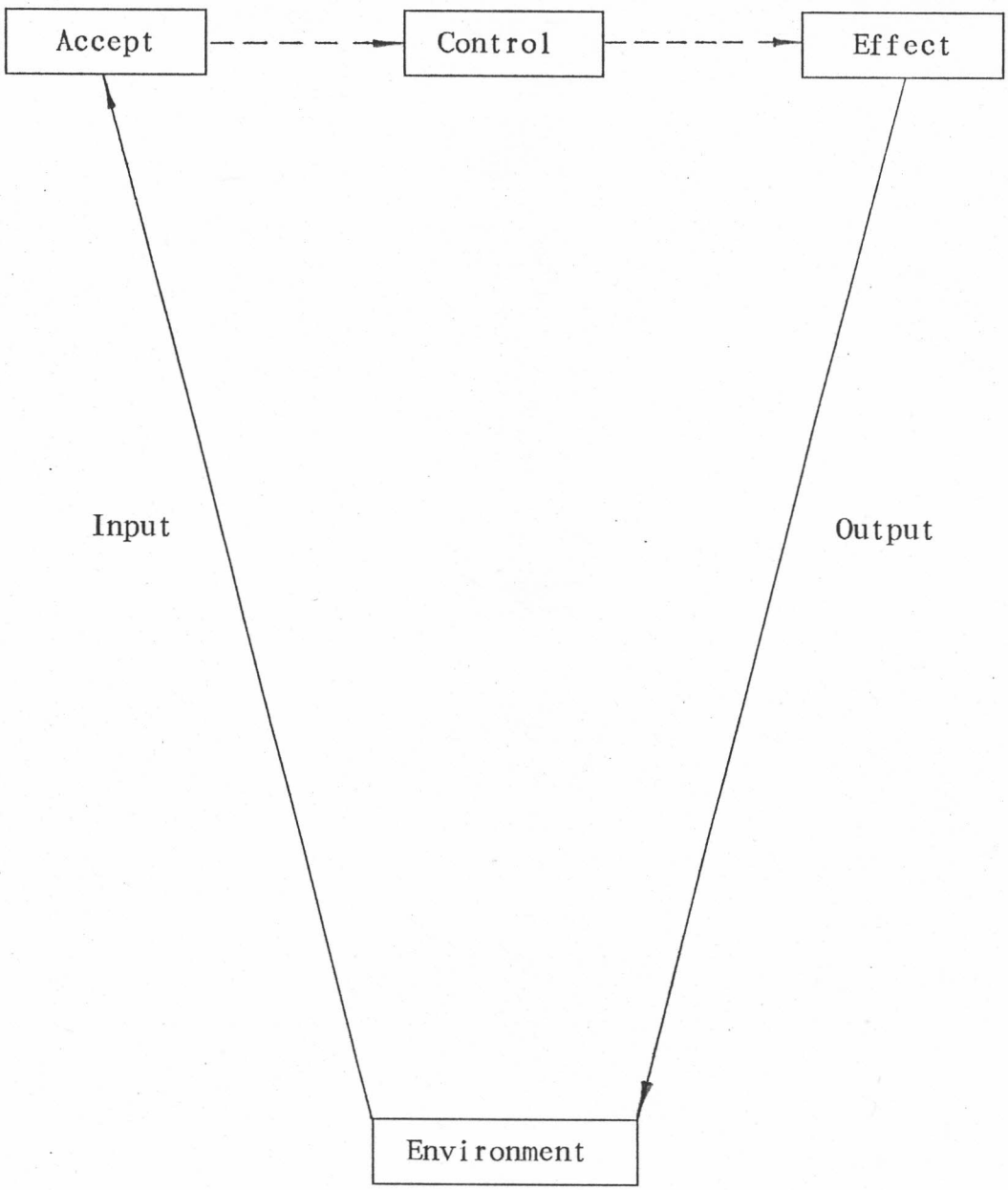
According to the output pattern and process of system D, system E synthesizes and outputs the messages received from system D.

a. E_1: State model simulation according to the state treatment rules of system D.
output method: state simulation (E_a, E_b, E_c, E_d)

b. E_2: State two - dimensional treatment according to state treatment rules of system D.
output method : state messages (computer, television)

D. Element Y is synchronously related to the model system.


Environment of effects start
No
No
No
Input
Device accept
Control transform
Yes
Inspection rules for procedures
Yes
Change in quantity
Effect model
Yes
Effect of state
Grouping of effects
Output


Accept
Control
Effect
Input
Output
Environment