THE A-SQUARE TECHNOLOGY GROUP & NASCENT APPLIED METHODS AND ENDEAVOR'S THE SYSTEMS INTEGRATION & VERIFICATION PROCESSES (ORGANIZATIONAL PROFILING)

(ANMESCL² RDWEF)

ALPHA NUMEROUS MAXIMUS EGREGIOUS SUMMA CUM LAUDE

(ANMESCL² EL NEGRO)

ALPHA NUMEROUS MAXIMA EGREGIA SUMMA CUM LAUDE

(ANMESCL² QUO VADIS)

ALPHA NUMEROUS MAXIMUS EGREGION SUMMA CUM LAUDE

Premise for NAME's investigative profile is to obtain a review of the history, objectives, operation, and merits of NAME's investigative profiling and existing autonomous expert systems. This review serves several purposes. It serves to describe the many functions that the existing internal internet-based operating systems can perform, thereby demonstrating the potential breath of future applications for NAME's investigative profiling and expert operating systems. It also illustrates the strategic expert systems (search engines) discussed in Appendix - D**, which are organized by the type of strategic or grammatical analysis they perform. NAME's informational demographics and expert system's procedural manuals are illustrated by the following list of their potential uses within a focused educational environment developed by the systems designers at NAME's workshops:**

BY WILLIAM EARL FIELDS (GCNO)

(ANMESCL^{2}RDWEF)

ALPHA NUMEROUS MAXIMUS
EGREGIOUS SUMMA CUM LAUDE

Investigative Profiling

(Database Ranges for Analytical Netmapping)

1. Who?
- **a.** Name(s):
- **b.** Date(s) of Birth:
- **c.** Place(s) of Birth:
- **d.** SSN(s):
- **e.** DLN(s):
- **f.** VLN(s):
- **g.** VIN(s):
- **h.** Type of Residence(s):
- **i.** Current Home Phone Number(s):
- **j.** Previous Home Phone Number(s):
- **k.** Type of Business(es):
- **l.** Current Business Phone Number(s):
- **m.** Previous Business Phone Number(s):
- **n.** Current Home Address(es):
- **o.** Previous Home Address(es):
- **p.** Current Business Address(es):
- **q.** Previous Business Address(es):
- **r.** BLN(s):
- **s.** EIN(s):
- **t.** Physical Characteristics:
  - **(i)** Individual:
  - **(ii)** Group(s):
  - **(iii)** Inter-Group(s):
  - **(iv)** Social System(s):
  - **(v)** Larger-Social System:
- **u.** Physiological Genealogic Structure(s):
- **v.** Current Physical Characteristics of Functional Duties:

w. Current Genealogical Characteristics of Functional Duties:
x. Previous Physical Characteristics of Functional Duties:
y. Previous Genealogical Characteristics of Functional Duties:
z. Forecasted Physical Characteristics of Functional Duties:
aa. Forecasted Genealogical Characteristics of Functional Duties:
bb. Current Physical Classification(s) of Functional Duties:
cc. Current Genealogical Classification(s) of Functional Duties:
dd. Previous Physical Classification(s) of Functional Duties:
ee. Previous Genealogical Classification(s) of Functional Duties:
ff. Forecasted Physical Classification(s) of Functional Duties:
gg. Forecasted Genealogical Classification(s) of Functional Duties:

2. What?
a. Race:
b. Creed:
c. Color:
d. Nationality:
e. Ethnicity:
f. Sex:
g. Hair:
h. Eye(s):
i. Height:
j. Weight:
k. Previous Marital Status:
l. Current Marital Status:
m. Previous Sexual Preferences:
n. Current Sexual Preferences:
o. Current Language Skills:
p. Linguistic Profile:
q. Previous Religion:
r. Current Religion:
s. Religious Profile:
t. Previous Education:
u. Current Education:
v. Educational Profile:
w. Previous Psychological Profile:
x. Current Psychological Profile:
y. Forecasted Psychological Profile:
z. Previous Economic Profile:
aa. Current Economic Profile:
bb. Forecasted Economic Profile:
cc. Previous Sociological Profile:
dd. Current Sociological Profile:
ee. Forecasted Sociological Profile:

3. When?
a. Date(s) of Action(s) Committed:
b. Date(s) when Support Personnel were Introduced into Action(s) Committed:
c. Date(s) when Support Personnel Committed Action(s):
d. Date(s) of Documents Involved in Action(s) Committed:
e. Date(s) of when Action(s) Committed were Completed:

4. Where?
- **a.** Previous Location(s) of Action(s) Committed:
- **b.** Current Location(s) of Action(s) Committed:
- **c.** Location of Individuals in Support of Action(s) Committed:
- **d.** Subject(s) of Action(s) Committed:
- **e.** Investigative Profile(s) of Subject(s) of Action(s) Committed:
- **f.** Opinions of Subject(s) of Action(s) Committed:

5. How?
- **a.** Action(s) Committed:
- **b.** Action(s) Committed with Whom:
- **c.** Source or History of Actions(s) Committed:
- **d.** Previous Results of Action(s) Committed:
- **e.** Current Results of Action(s) Committed:
- **f.** Alphanumeric Definitions & Methods of Action(s) Committed:
- **g.** Alphanumeric Impact of Action(s) Committed:
- **h.** Legal Definitions & Methods of Action(s) Committed:
- **i.** Legal Impact of Action(s) Committed:
- **j.** Psychological Definitions & Methods of Action(s) Committed:
- **k.** Psychological Impact of Action(s) Committed:
- **l.** Physiological Definitions & Methods of Action(s) Committed:
- **m.** Physiological Impact of Action(s) Committed:
- **n.** Sociological Definitions & Methods of Action(s) Committed:
- **o.** Sociological Impact of Action(s) Committed:
- **p.** Economic Definitions & Methods of Action(s) Committed:
- **q.** Economic Impact of Action(s) Committed:
- **r.** Forecasted Integrated Results of Current Action(s) Committed:

6. Why?
- **a.** Ideological Reasons for Previous Action(s) Committed:
- **b.** Physiological Reasons for Previous Action(s) Committed:
- **c.** Economic Reasons for Previous Action(s) Committed:
- **d.** Sociological Reasons for Previous Action(s) Committed:
- **e.** Ideological Reasons for Current Action(s) Committed:
- **f.** Physiological Reasons for Current Action(s) Committed:
- **g.** Economic Reasons for Current Action(s) Committed:
- **h.** Sociological Reasons for Current Action(s) Committed:

7. Tactical Enterprise Work Architectures and Autonomous Programs used in Profile
- **a.** Autonomous Programs used in Profile:
- **b.** Sources and Performance History of Autonomous Programs used in Profile:
- **c.** Legal Position of Autonomous Programs used in Profile:
- **d.** Documentary Dispensation of Autonomous Programs used in Profile:
- **e.** Tactical Enterprise Work Architectures used in Profile:
- **f.** Sources and Performance History of Tactical Enterprise Work Architectures used in Profile:
- **g.** Legal Position of Tactical Enterprise Work Architectures used in Profile:
- **h.** Documentary Dispensation of Tactical Enterprise Work Architectures used in Profile:

i. Tactical Enterprise Work Architectures and Autonomous Programs Ranking Prior to Investigative Profile:
j. Tactical Enterprise Work Architectures and Autonomous Programs Ranking During Investigative Profile:
k. Tactical Enterprise Work Architectures and Autonomous Programs Ranking After Investigative Profile:
l. Legal Position of Enterprise Work Architectures and Autonomous Programs Prior to Investigative Profile:
m. Legal Position of Enterprise Work Architectures and Autonomous Programs During Investigative Profile:
n. Legal Position of Enterprise Work Architectures and Autonomous Programs After Investigative Profile:

8. Internal/External Personnel and Political Tactics used in Profile
a. Internal/External Personnel used in Profile:
b. Sources and History of Internal/External Personnel used in Profile:
c. Legal Position of Internal/External Personnel used in Profile:
d. Economic Dispensation of Internal/External Personnel used in Profile:
e. Political Tactics used in Profile:
f. Sources and History of Political Tactics used in Profile:
g. Legal Position of Political Tactics used in Profile:
h. Economic Dispensation of Political Tactics used in Profile:
i. Network Configuration Prior to Investigative Profile:
j. Network Configuration During Investigative Profile:
k. Network Configuration After Investigative Profile:
l. Legal Position of Network Prior to Investigative Profile:
m. Legal Position of Network During Investigative Profile:
n. Legal Position of Network After Investigative Profile:

9. Basis for Investigative Profiling
a. Examination of Power Bases:
b. Barriers to Entry into Certain Fields:
c. Causes of Social Intercourse:
d. Causes of Economic Conflicts:
e. Causes of Legal Conflicts:
f. Causes of Social Conflicts:
g. Causes of Political Conflicts:
h. Causes of Personal Conflicts:
i. Causes of Racial Conflicts:
j. Religious Conflicts:
k. Basis for Human Interactions:
l. Classification Theories:
m. Bibliographic Theories:
n. Structural Analysis Theories:
o. Infrastructural Development:
p. Educational Examination(s):
q. Religious Examination(s):

10. Premise for NAME's investigative profile is to obtain a review of the history, objectives, operation, and merits of NAME's investigative profiling and existing autonomous expert systems. This review serves several purposes. It serves to describe the many functions that

the existing internal internet-based operating systems can perform, thereby demonstrating the potential breath of future applications for NAME's investigative profiling and expert operating systems. It also illustrates the strategic expert systems (search engines) discussed in **Appendix - D**, which are organized by the type of strategic or grammatical analysis they perform. NAME's informational demographics and expert system's procedural manuals are illustrated by the following list of their potential uses within a focused educational environment developed by the systems designers at NAME's workshops:

a. Aiding DOT database drafting by testing a textual draft against a set of related strategic databases and linguistic standards, and having the computer system(s) or IAOA make the appropriate suggestions;

b. Researching expert DOT databases on the basis of a statement of facts or concepts (strategic or grammatical retrieval as opposed to the current key word searches);

c. Generating ideas and advising the client base of the arguments (program functions) for and against a documented situations and also how to weaken or strengthen the arguments (program functions) in a particular set circumstances or skills;

d. Advising a client on strategies and tactics in procedure or structural negotiations;

e. Evaluating a situation as to settlement (final analyses) or strategic value;

f. Evaluating procedural consistencies with prior decisions of a proposed administrative decision in a discretionary area;

g. Aiding in the document drafting of contracts, wills, and other documents by testing for the consistency with existing laws, personal and social policies, and linguistic standards;

h. Assisting decision making in which little or no discretion is involved;

i. Planning transactions such as business mergers, with tax and other strategic consequences by presenting alternative scenarios and identifying their legal or structural consequences;

j. Predicting the consequences of proposed legislation, policies, draft contracts, wills, situations, etc.;

k. Finding legal or strategic authorities which are consistent or inconsistent with proposed laws or consciences;

l. Evaluating the effectiveness of existing procedures, laws or rules and identifying the procedures, laws or rules, which may govern the need for organizational modification;

m. Training and disseminating information on related concepts or skills;

n. Interviewing clients for information relevant to the identification of the nature of their strategic or procedural problems;

o. ***Informing client of the consequences of particular acts, in order to enable their subordinates to know the reality of their proposed or past acts, and if communication with an expert is required, to obtain a complete answer;***

p. Preserving institutional and instructional expertise;

q. Reviewing conceptual or strategic database systems against new rules or situations, and modifying them to keep them activated and current;

r. Identifying clients whose educational affairs may have been affected by changes in the network, so that a subcontractor can determine whether to contact a client regarding the change(s).

The primary application areas for an expert internet operating system (DOSA) or document development program (IAOA) includes strategic management, organizational management, monitoring, conceptual or legal interpretation, and document or report generation for the purposes of structural or strategic investigations in developing novel organizational forms.

11. Organizational and operational systems for infrastructural management

a. The Personal Systems Training Solutions:

- Application Development (Ia.);
- Database (2a.);
- DOS, OS/2, OS/400 (3a.);
- Windows & Windows NT (4a.);
- Programming Languages (5a.);
- Transaction Processing (6a.);
- End User Applications (**IV. & V.);**
- Hardware Operations (7a.);

b. The Midrange Training Solutions:

- Application Development (Ib.);
- Database (2b.);
- Office Applications (7b.);
- AIX/UNIX (4b.);
- OS1400 (3b.);
- Programming Languages (5b.);
- Transaction Processing (6b.);

c. The Mainframe Training Solutions:

- Application Development (Ie.);
- Database (2c.);
- MVS, VM, VSE (3c.);
- Programming Languages (5c.);
- Storage Management (4c.);
- Transaction Processing (6c.);
- Hardware Operations (7c.);

d. The Client/Server, Networking & Object Technology Training Solutions:

- Client/Server (ld.);
- Distributed Databases (2d.);
- Internetworking (3d.);
- Local Area Networking (4d.);
- Network Management (5d.);
- Voice Applications (6d.);
- Object Technology (7d.);

e. The Business & Personal Development Training Solutions:

- Business Management (4e.);
- Financial Skills (3e.);
- Industry Applications (2e.);
- Personal Effectiveness (le.);
- Project Management (5e.);
- Total Quality Management (7e.);
- Sales Training (6e.);

12. End product lines of investigative solution frameworks

a. Intercommunicative autonomous software applications and platforms:
b. Organizational and personnel procedural or policy manuals:
c. Computational Intelligence in Industrial Engineering:
d. Consumer Product Design:
e. Economic Engineering & Cost Estimation:
f. Facilities Design & Location:
g. Information Systems:
h. Maintenance Engineering and Management:
i. Materials Handling:
j. Performance Analysis & Simulation:
k. Production Systems Design, Planning and Control:
l. Productivity & Business Strategies:
m. Project Management:
n. Technology Management & Transfer:
o. Total Quality Management & Quality Technology:
p. Work Measurement & Methods Engineering:
q. Industrial Ergonomics & Safety:
r. Applied Operations Research:
s. CAD/CAM:
t. Other Topics of Interest in the Business Engineering Fields:

The Systems Integration & Verification Processes
(The Organizational Profile)

Codons Found In DNA

First Position		Second Position of Codon				Third Position
		T	**C**	**A**	**G**	
	T	TTT Phe [F] TTC Phe [F] TTA Leu [L] TTG Leu [L]	TCT Ser [S] TCC Ser [S] TCA Ser [S] TCG Ser [S]	TAT Tyr [Y] TAC Tyr [Y] TAA *Ter* [end] TAG *Ter* [end]	TGT Cys [C] TGC Cys [C] TGA *Ter* [end] TGG Trp [W]	**T** **C** **A** **G**
	C	CTT Leu [L] CTC Leu [L] CTA Leu [L] CTG Leu [L]	CCT Pro [P] CCC Pro [P] CCA Pro [P] CCG Pro [P]	CAT His [H] CAC His [H] CAA Gln [Q] CAG Gln [Q]	CGT Arg [R] CGC Arg [R] CGA Arg [R] CGG Arg [R]	**T** **C** **A** **G**
	A	ATT Ile [I] ATC Ile [I] ATA Ile [I] ATG Met [M]	ACT Thr [T] ACC Thr [T] ACA Thr [T] ACG Thr [T]	AAT Asn [N] AAC Asn [N] AAA Lys [K] AAG Lys [K]	AGT Ser [S] AGC Ser [S] AGA Arg [R] AGG Arg [R]	**T** **C** **A** **G**
	G	GTT Val [V] GTC Val [V] GTA Val [V] GTG Val [V]	GCT Ala [A] GCC Ala [A] GCA Ala [A] GCG Ala [A]	GAT Asp [D] GAC Asp [D] GAA Glu [E] GAG Glu [E]	GGT Gly [G] GGC Gly [G] GGA Gly [G] GGG Gly [G]	**T** **C** **A** **G**

Codons Found In Messenger RNA

First Position		Second Position								Third Position
		U		C		A		G		
U		UUU	Phe	UCU	Ser	UAU	Tyr	UGU	Cys	U
		UUC		UCC		UAC		UGC		C
		UUA	Leu	UCA		UAA	Stop	UGA	Stop	A
		UUG		UCG		UAG	Stop	UGG	Trp	G
C		CUU	Leu	CCU	Pro	CAU	His	CGU	Arg	U
		CUC		CCC		CAC		CGC		C
		CUA		CCA		CAA	Gln	CGA		A
		CUG		CCG		CAG		CGG		G
A		AUU	Ile	ACU	Thr	AAU	Asn	AGU	Ser	U
		AUC		ACC		AAC		AGC		C
		AUA		ACA		AAA	Lys	AGA	Arg	A
		AUG	Met (start)	ACG		AAG		AGG		G
G		GUU	Val	GCU	Ala	GAU	Asp	GGU	Gly	U
		GUC		GCC		GAC		GGC		C
		GUA		GCA		GAA	Glu	GGA		A
		GUG		GCG		GAG		GGG		G

An explanation of the Genetic Code: DNA is a two-stranded molecule. Each strand is a polynucleotide composed of **A** (adenosine), **T** (thymidine), **C** (cytidine), and **G** (guanosine) residues polymerized by "dehydration" synthesis in linear chains with specific sequences. Each strand has polarity, such that the 5'-hydroxyl (or 5'-phospho) group of the first nucleotide begins the strand and the 3'-hydroxyl group of the final nucleotide ends the strand; accordingly, we say that this strand runs 5' to 3' ("*Five prime to three prime*") . It is also essential to know that the two strands of DNA run *antiparallel* such that one strand runs 5' -> 3' while the other one runs 3' -> 5'. At each nucleotide residue along the double-stranded DNA molecule, the nucleotides are complementary. That is, **A** forms two hydrogen-bonds with **T**; **C** forms three hydrogen bonds with **G**. In most cases the two-stranded, antiparallel, complementary DNA molecule folds to form a helical structure which resembles a spiral staircase. This is the reason why DNA has been referred to as the "Double Helix".

One strand of DNA holds the information that codes for various genes; this strand is often called the template strand or antisense strand (containing anticodons). The other, and complementary, strand is called the coding strand or sense strand (containing codons). Since mRNA is made from the template strand, it has the same information as the coding strand. The table above refers to triplet nucleotide codons along the sequence of the coding or sense strand of DNA as it runs 5' -> 3'; the code for the mRNA would be identical but for the fact that RNA contains a **U** (Uridine) rather than **T**.

An example of two complementary strands of DNA would be:

(5' -> 3') **ATGGAATTCTCGCTC** (Coding, sense strand) **?**
(3' <- 5') **TACCTTAAGAGCGAG** (Template, antisense strand) **.**

(5' -> 3') **AUGGAAUUCUCGCUC** (mRNA made from Template strand) **!**

Since amino acid residues of proteins are specified as triplet codons, the protein sequence made from the above example would be Met-Glu-Phe-Ser-Leu... (MEFSL...).

Practically, codons are "decoded" by transfer RNAs (tRNA) which interact with a ribosome-bound messenger RNA (mRNA) containing the coding sequence. There are 64 different tRNAs, each of which has an anticodon loop (used to recognize codons in the mRNA). 61 of these have a bound amino acyl residue; the appropriate "charged" tRNA binds to the respective next codon in the mRNA and the ribosome catalyzes the transfer of the amino acid from the tRNA to the growing (nascent) protein/polypeptide chain. The remaining 3 codons are used for "punctuation"; that is, they signal the termination (the end) of the growing polypeptide chain.

Lastly, the Genetic Code in the table above has also been called "The Universal Genetic Code". It is known as "universal", because it is used by all known organisms as a code for DNA, mRNA, and tRNA. The universality of the genetic code encompases animals (including humans), plants, fungi, archaea, bacteria, and viruses. However, all rules have their exceptions, and such is the case with the Genetic Code; small variations in the code exist in mitochondria and certain microbes. Nonetheless, it should be emphasized that these variances represent only a small fraction of known cases, and that the Genetic Code applies quite broadly, certainly to all known nuclear genes.

The Genetic Foundation for the Relationship Between Words, Concepts and Search Engine Protocols within a P&D Effort

(The Genetic Hierarchical Classification of Words, Concepts, Ideas & Search Engine Protocols)

1) **Actions**
   a. Class of 1-6 **[TTT]**
   b. Cognitive 7-43 **[TTC_A]**
   c. Communicative 44-79 **[TTA]**
   d. General 80-143 **[TTG]**
   e. Motion 144-154 **[TCT]**
   f. Physical 155-226 **[TCC]**

2) Causes
   a. Abstract 227-246 **[TCA]**
   b. Physical 247-255 **[TCG]**

3) Fields of Human Activity [A1]
   a. Agriculture 256-257 **[TAT]**
   b. The Arts 258-264 **[TAC]**
   c. Communications 265-283 **[TAA]**
   d. Education 284-290 **[TAG]**
   e. Entertainment 291-293 **[TGT]**
   f. Family 294-296 **[TGC]**
   g. Government and Politics 297-300 **[TGA]**
   h. Health 301-315 **[TGG]**
   i. Legal 316-318 **[CTT]**
   j. Military 319-321 **[CTC]**
   k. Monetary and Financial Affairs 322-345 **[CTA]**
   l. Professions 346-361 **[CTG]**
   m. Recreation 362-365 **[CCT]**
   n. Religious 366-369 **[CCC]**
   o. Sex and Reproduction 370-374 **[CCA]**
   p. Social Interactions 375-387 **[CCG]**

4) Life Forms
   a. Being 388-392 **[CAT]**
   b. Beings, Animal 393-399 **[CAC]**
   c. General Characteristics 400-410 **[CAA]**
   d. Humans 411-423 **[CAG]**
   e. Plants 424-430 **[CGT]**

5) Objects
   a. Articles, Physical 431-435 **[CGC]**
   b. Atmosphere 436 **[CGA]**
   c. Buildings, Furnishings, & Possessions 437-448 **[CGG]**
   d. Clothing 449-452 **[ATT]**
   e. Food and Drink 453-461 **[ATC]**
   f. Machines 462-463 **[ATA]**
   g. Matter, Conditions of 464-470 **[ATG]**

h. Matter, Divisions of 471-478 **[ACT]**
i. Matter, Qualities of 479-490 **[ACC]**
j. Tools 491-499 **[ACA]**
k. Transportation 500-505 **[ACG]**

6) The Planet(s)
a. Geography 506-513 **[AAT]**
b. Habitats 514-517 **[AAC]**
c. Natural Resources 518-522 **[AAA]**
d. Weather 523-525 **[AAG]**

7) Qualities
a. Abstract 526-559 **[AGT]**
b. Comparative 560-574 **[AGC]**
c. Physical 575-588 **[AGA]**

8) Senses
a. Aspects of Perception 589 **[AGG]**
b. Auditory 590-596 **[GTT]**
c. Olfactory 597-601 **[GTC]**
d. Tactile 602-611 **[GTA]**
e. Tasting 612-615 **[GTG]**
f. Visual 616-628 **[GCT]**

9) States
a. Abstract 629-657 **[GCC]**
b. Cognitive 658-661 **[TTC_B]**
c. Comparative 662-670 **[GCA]**
d. Of Being 671-694 **[GCG]**
e. Of Change 695-702 **[GAT]**
f. Of Need or Achievement 703-710 **[GAC]**
g. Physical 711-731 **[GAA]**
h. Spatial 732-758 **[GAG]**

10) Weights and Measures
a. Mathematics 759-767 **[GGT]**
b. Quantifiers 768-793 **[GGC]**
c. Time 794-820 **[GGA]**
d. Wholeness or Division 821-834 **[GGG]**

The Upper & Lower Level Change Equation Components for Chromosomal Development & Implementation within a P&D Effort Involving Personnel in a Real-Time or Virtual Scenario Environment

(The 23 or 24 Base Pair Chromosomal Elements within a IBOS[DALP/DOSA/IAOA] Genetic Formula Matrix)

1. P&D Systems User Investigative Profile (Autonomous Agent(s) Request(s)) & Dictionary of Occupational Titles Application Selections [**M/C** 3 part format-right-side (**Measures-Environment/Measures-Human Agents**)] - - **Chromosomal Type Set**/**Chromosomal Sequences**
2. P&D Systems Feasible Ideal Solution Target Study [**G/O** 4 part format-right-side (**Measures-Purpose/Measures-Sequence**)] - - **Chromosomal Type Set**/**Chromosomal Sequences**
3. P&D Systems Investigative Matrixes [**G/O** 3 part format-left-side (**Measures-Inputs/Measures Outputs**] - - **Chromosomal Type Set**/**Chromosomal Sequences**
4. P&D Systems Analysis & Taxonomy Development [**N/S** 5 part format-left-side (**Values-Information Aids/Values-Physical Catalysts**)] - - **Chromosomal Type Set**/**Chromosomal Sequences**
5. P&D Systems Design Classification(s) & Hierarchical Formation [**G/O** 4 part format-right-side (**Measures-Information Aids/Measures-Physical Catalysts**)] - - **Chromosomal Type Set**/**Chromosomal Sequences**
6. P&D Systems Programming & Chromosomal Formula Matrix Development [**M/C** 5 part format-left-side (**Interface-Purpose/Interface-Sequence**)] - - **Chromosomal Type Set**/**Chromosomal Sequences**
7. P&D Systems Group Ordering Logic & MRP/ERP Testing [**P/A** 3 part format-right-side (**Control-Environment/Control-Human Agents**)] - - **Chromosomal Type Set**/**Chromosomal Sequences**
8. P&D Systems Documentation & Procedural Guidelines[**N/S** 3 part format-left-side (**Values-Purpose/Values-Sequence**)] - - **Chromosomal Type Set**/**Chromosomal Sequences**
9. P&D Systems Conversion & Analogous Implementations [**G/O** 3 part format-right-side (**Fundamental-Purpose/Fundamental-Sequence**)] - - **Chromosomal Type Set**/**Chromosomal Sequences**
10. P&D Systems Maintenance, Enterprise Work Architectural Profile & Autonomous Agent(s) Repository [**G/O** 4 part format-left-side (**Fundamental-Environment/Fundamental-Human Agents**)] - - **Chromosomal Type Set**/**Chromosomal Sequences**
11. P&D Systems Evaluation & Alphanumeric Computations [**N/S** 3 part format-left-side (**Future-Inputs/Future-Outputs**)] - - **Chromosomal Type Set**/**Chromosomal Sequences**

1. **P&D Project Initiation** (Hardware/Software) **Power/Authority** Chromosomal Configurations [(**Control-Information Aids/Control-Physical Catalysts**)] - - **Chromosomal Type Set**/**Chromosomal Sequences**
2. **P&D Project Development** (The Project) **Norms/Standards** Chromosomal Configurations [(**Future-Purpose/Future-Sequence**)] - - **Chromosomal Type Set**/**Chromosomal Sequences**
3. **P&D Project Implementation** (The User Climate/Autonomous Agent Conditional Formation) **Goals/Objectives** Chromosomal Configurations [(**Control-Purpose/Control-Sequence**)] - - **Chromosomal Type Set**/**Chromosomal Sequences**
4. **P&D Post Project Evaluation** (The Systems Analysts/Autonomous Agent Activities) **Morale/Cohesion** Chromosomal Configurations [(**Control-Inputs/Control-Outputs**)] - - **Chromosomal Type Set**/**Chromosomal Sequences**

1. P&D Subordinate Genetic-Based Environmental Inputs [3 part **Norms/Standards**] [(**Values-Inputs/Values-Outputs**)] - - **Chromosomal Type Set**/**Chromosomal Sequences**
2. P&D Subordinate Genetic-Based Computer Matrixes [3 part **Norms/Standards**] [(**Future-Information Aids/Future-Physical Catalysts**)] - - **Chromosomal Type Set**/**Chromosomal Sequences**
3. P&D Subordinate Genetic-Based Environmental Outputs [3 part **Norms/Standards**] [(**Values-Environment/Values-Human Agents**)] - - **Chromosomal Type Set**/**Chromosomal Sequences**

1. P&D Method Phase-One [5 part **Goals/Objectives** (The Dictionary of Occupational Titles)] [(**Interface-Information Aids/Interface-Physical Catalysts**)] - - **Chromosomal Type Set**/**Chromosomal Sequences**

2. P&D Method Phase-Two [5 part **Goals/Objectives** (The Dictionary of Occupational Titles)] [(**Interface-Inputs/Interface-Outputs**)] - - **Chromosomal Type Set**/**Chromosomal Sequences**
3. P&D Method Phase-Three [5 part **Goals/Objectives** (The Dictionary of Occupational Titles)] [(**Future-Environment/Future-Human Agents**)] - - **Chromosomal Type Set**/**Chromosomal Sequences**
4. P&D Method Phase-Four [5 part **Goals/Objectives** (The Dictionary of Occupational Titles)] [(**Fundamental-Information Aids/Fundamental-Physical Catalysts**)] - - **Chromosomal Type Set**/**Chromosomal Sequences**
5. P&D Method Phase-Five [5 part **Goals/Objectives** (The Dictionary of Occupational Titles)] [(**Fundamental-Inputs/Fundamental-Outputs**)] - - **Chromosomal Type Set**/**Chromosomal Sequences**

Legend – [**Gaius Julius Caesar**] **Hierarchical format for Economic Legions**

The Chromosomal Elements within a IBOS[DOSA/DALP/IAOA] Genetic-Based Consultative P&D Formula Matrix

24. INTERFACE-ENVIRONMENT

1. MEASURES-ENVIRONMENT/MEASURES-HUMAN AGENTS
2. MEASURES-PURPOSE/MEASURES-SEQUENCE
3. MEASURES-INPUTS/MEASURES-OUTPUTS
4. VALUES-INFORMATION AIDS/VALUES-PHYSICAL CATALYSTS
5. MEASURES-INFORMATION AIDS/MEASURES-PHYSICAL CATALYSTS
6. INTERFACE-PURPOSE/INTERFACE-SEQUENCE
7. CONTROL-ENVIRONMENT/CONTROL-HUMAN AGENTS
8. VALUES-PURPOSE/VALUES-SEQUENCE
9. FUNDAMENTAL-PURPOSE/FUNDAMENTAL-SEQUENCE
10. FUNDAMENTAL-ENVIRONMENT/FUNDAMENTAL-HUMAN AGENTS
11. FUTURE-INPUTS/FUTURE-OUTPUTS
12. CONTROL-INFORMATION AIDS/CONTROL-PHYSICAL CATALYSTS
13. FUTURE-PURPOSE/FUTURE-SEQUENCE
14. CONTROL-PURPOSE/CONTROL-SEQUENCE
15. CONTROL-INPUTS/CONTROL-OUTPUTS
16. VALUES-INPUTS/VALUES-OUTPUTS
17. FUTURE-INFORMATION AIDS/FUTURE--PHYSICAL CATALYSTS
18. VALUES-ENVIRONMENT/VALUES-HUMAN AGENTS
19. INTERFACE-INFORMATION AIDS/INTERFACE-PHYSICAL CATALYSTS
20. INTERFACE-INPUTS/INTERFACE-OUTPUTS
21. FUTURE-ENVIRONMENT/FUTURE-HUMAN AGENTS
22. FUNDAMENTAL-INFORMATION AIDS/FUNDAMENTAL-PHYSICAL CATALYSTS
23. FUNDAMENTAL-INPUTS/FUNDAMENTAL-OUTPUTS

24. INTERFACE-HUMAN AGENTS

The Genetic-Based Consultative P&D Formula Matrix

The System Matrix processes inputs into outputs that achieve & satisfy a purpose or purposes through the use of human, physical & information resources in a technical, sociological & physical environment. The System Matrix can vary in size. Thus, bigger levels in the purposeful hierarchy of systems incorporate smaller systems, which are subroutines, subsystems or components. Each system matrix shows the related horizontal or parallel systems, either within or outside the organizational unit of the client system.

Each system is thus a complex set of interrelated elements. The basic set defines the broad purpose & values of the larger entity or organizational unit, within which the system does or will exists. Each system matrix achieves an end. Thus, the purpose, function or result sought from a system is the first element, and each subsystem has a least one purpose.

Each system matrix receives physical, informational, &/or human items from smaller, larger, & parallel systems to process into a desired state that will achieve its purpose. Therefore, every subsystem or routine has inputs.

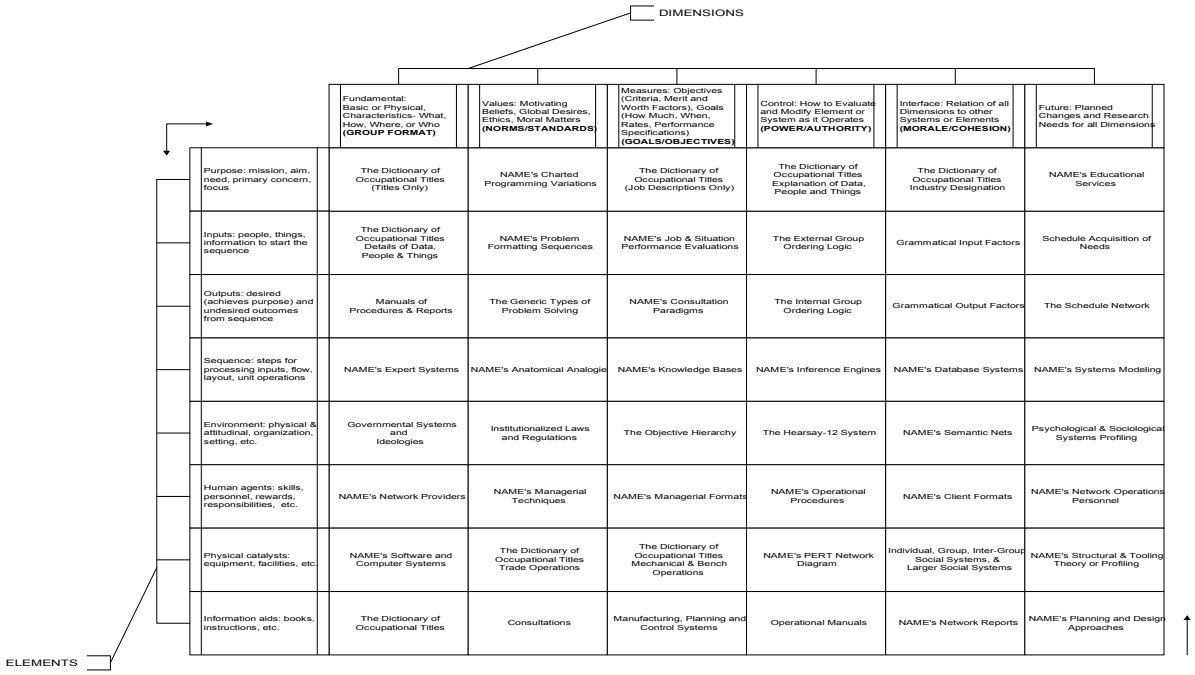
Each system matrix provides physical, informational, &/or human items or services to its smaller, larger, & horizontal systems. These outcomes represent the means whereby the purposes of the system are achieved. Therefore, each system or subroutine has outputs. Similarly, five other elements can be developed from this format: sequence, environment, human agents, physical catalysts, & information aids. Moreover, six dimensions for each of these elements of the System Matrix will provide significant operationality with minimal redundancy.

These dimensions will specify the precise conditions for each element in a specific situation: **(1)** fundamental existence characteristics; **(2)** values, beliefs & desires; **(3)** measures to assess the accomplishment of fundamental & value dimensions; **(4)** control or dynamic methods of ensuring achievement of fundamental values, & measures specifications; **(5)** interface relationships of fundamental, values, measures, and control specifications with other system matrixes & other elements in its system; and **(6)** future existence or desired changes & improvements that can be foreseen in fundamental, values, measures, control, & interface specifications.

The System Matrix also provides an orderly way of denoting all possible types of information to consider in specifying a system. The questions raised by probing what specifications should be developed for each cell are almost all-inclusive. They number far more than the usually suggested who, what, why, where, when, & how. They are also much more specific than the usual questions the Matrix appears to suggest are available. In addition to the 16 fundamental & value dimension questions, there are at least 16 measures dimension questions about the fundamental & values specifications, 24 control dimension questions, 32 interface, & 40 future.

NASCENT APPLIED METHODS & ENDEAVORS

NAME's SOLUTION FRAMEWORK



ELEMENTS	Fundamental: Basic or Physical, Characteristics- What, How, Where, or Who (GROUP FORMAT)	Values: Motivating Beliefs, Global Desires, Ethics, Moral Matters (NORMS/STANDARDS)	Measures: Objectives (Criteria, Merit and Worth Factors), Goals (How Much, When, Rates, Performance Specifications) (GOALS/OBJECTIVES)	Control: How to Evaluate and Modify Element or System as it Operates (POWER/AUTHORITY)	Interface: Relation of all Dimensions to other Systems or Elements (MORALE/COHESION)	Future: Planned Changes and Research Needs for all Dimensions
Purpose: mission, aim, need, primary concern, focus	The Dictionary of Occupational Titles (Titles Only)	NAME's Charted Programming Variations	The Dictionary of Occupational Titles (Job Descriptions Only)	The Dictionary of Occupational Titles Explanation of Data, People and Things	The Dictionary of Occupational Titles Industry Designation	NAME's Educational Services
Inputs: people, things, information to start the sequence	The Dictionary of Occupational Titles Details of Data, People & Things	NAME's Problem Formatting Sequences	NAME's Job & Situation Performance Evaluations	The External Group Ordering Logic	Grammatical Input Factors	Schedule Acquisition of Needs
Outputs: desired (achieves purpose) and undesired outcomes from sequence	Manuals of Procedures & Reports	The Generic Types of Problem Solving	NAME's Consultation Paradigms	The Internal Group Ordering Logic	Grammatical Output Factors	The Schedule Network
Sequence: steps for processing inputs, flow, layout, unit operations	NAME's Expert Systems	NAME's Anatomical Analogies	NAME's Knowledge Bases	NAME's Inference Engines	NAME's Database Systems	NAME's Systems Modeling
Environment: physical & attitudinal, organization, setting, etc.	Governmental Systems and Ideologies	Institutionalized Laws and Regulations	The Objective Hierarchy	The Hearsay-12 System	NAME's Semantic Nets	Psychological & Sociological Systems Profiling
Human agents: skills, personnel, rewards, responsibilities, etc.	NAME's Network Providers	NAME's Managerial Techniques	NAME's Managerial Formats	NAME's Operational Procedures	NAME's Client Formats	NAME's Network Operations Personnel
Physical catalysts: equipment, facilities, etc.	NAME's Software and Computer Systems	The Dictionary of Occupational Titles Trade Operations	The Dictionary of Occupational Titles Mechanical & Bench Operations	NAME's PERT Network Diagram	Individual, Group, Inter-Group Social Systems, & Larger Social Systems	NAME's Structural & Tooling Theory or Profiling
Information aids: books, instructions, etc.	The Dictionary of Occupational Titles	Consultations	Manufacturing, Planning and Control Systems	Operational Manuals	NAME's Network Reports	NAME's Planning and Design Approaches

The Genetic-Based Consultative P&D System Elements

1. Purpose The mission, aim, need, primary concern, or function of or results sought from a system. The purpose is the contribution made to or necessary for a larger system in the hierarchy(ies). A purpose is **what** the system is to accomplish, with no emphasis on **how** it is to be accomplished.

2. Inputs Any physical items, information, and/or human beings on which work, conversion, or processing takes place to arrive at the output(s). **Physical items** could be coils of steel, powdered plastic, money (the actual currency and coins), the mark-sense punch card, the sales order form, and so on. Information could be a bank account balance (printed on a piece of paper), whereabouts of the president (secretary's explanation), number of toasters ordered (sales order form), amount of production on machine 472 (orientation of iron particles on a magnetic tape), history of the conflicts between key managers (perceptions in the minds of people), etc. **Human beings** relevant in this context could be sick people entering a hospital, a housewife shopping at a grocery store, a family wanting house plans, a student attending a college, an overweight person visiting a reducing salon, etc.

A combination input is the return of previous outputs of the system. For example, a large system for manufacturing airplanes includes the reentry of each airplane for major periodic maintenance. A patient may reenter a hospital after having been discharged. User information about product performance serves as new input to the product design system.

Every system requires at least two of the three types of input. A manufacturing system, for example, will require information about alloy, tensile and yield strengths, gauge, and width to accompany the physical input of a coil of steel. A patient entering the system of a hospital represents human (previous medical history and symptoms), and physical (personal belongings) information inputs. A system which is a board of directors meeting needs inputs of information and humans.

3. Outputs Desired (and undesired) physical items, information, humans and/or services (response, event, policy, reaction, safety level, correction, etc.) which result from working on or converting inputs. Desired outputs achieve the selected and bigger purposes by adding net value to the inputs. Undesired outputs include such things as dislocations, pollutants, scrap, and trash, for which provisions must be included in the system specifications. Outputs also include substantive properties, performance, and physical or chemical characteristics of the output when actually being used. For example, the dynamic characteristics (cornering, power pickup, shock absorption ability, or acceleration) of an automobile output are a part of output itself.

4. Sequence The conversion, work, process, transformation, or order and cycle of steps or events by which the inputs become the outputs. The basic steps are the essential "unit operations" or identifiable changes in the state of the inputs which lead to their transformation into outputs. Additional steps include causal bonds, movement, storage, meeting, decision, and control, which enable the unit operations to take place. Parallel channels for processing different inputs are often included, along with various connective points to interrelate the channels.

5. Environment The physical and sociological (psychological, legal, political, economic) factors or ambiance (as the French call it) within which the other elements are to operate. These are always changing. Many are usually outside the influence of the system itself, yet others can be modified or specified for the system. Physical or "climatic" factors include temperature, humidity, noise, dirt, light, colors of machines and walls, and so forth. Ecological physical factors "outside" the system include spatial aspects, accessibility, and shapes and relationships in the design of the physical facilities and equipment.

Sociological factors include the state of technology within which the organizational unit operates, the cultural and historical determinants of attitudes, and the society's economic conditions. More specific factors concern the attitudes of the managerial and supervisory personnel, morale and "reality" disposition of working forces, the operating controls and rules for personnel, and the social interactions and communications of the people involved. Sociological environment forms the larger context of externalities which "own" or "set the stage" for the system. The Japanese, for example, do not build factories or plants with an entrance on the northeast side, the devil's gate. The managerial style and organizational structure sets another environmental factor: autocratic, paternalistic, bureaucratic, permissive, diplomatic, or democratic

6. Human Agents Human beings on differentiated levels who are aids in the steps of the sequence, without becoming part of the outputs. Human agent activities or methods to aid in the sequence include the whole range of human capabilities: talking, writing, expending energy in manipulating controls and/or changing input items, reasoning, performing dexterous tasks, decision making, evaluating, learning, creativity, and acting as a diligent monitoring and sensing device. Human beings are either inputs and outputs (patients in a hospital), or human agents (nurses). Overlap exists in most cases, for example, as patients can be human agents aiding other patients, and nurses can be inputs into the cafeteria system.

7. Physical Catalysts Physical resources that are aids in the steps of the sequence without becoming part of the outputs. Typical items are chalkboards, machines, vehicles, chairs, computers, filing cabinets, energy, buildings, tools, jigs, automatic devices, paper, lubricating oil, projector, desks, self-measuring sensors, and pallets. A chicken on an egg farm is a physical catalyst. Each of these illustrative items could be a physical catalyst in one system, or input or output in another system. A computer, for example, may be a physical catalyst in an accounts payable system, an input in a maintenance system, and an output in a production system.

8. Information Aids Knowledge and data resources that help in the steps of the sequence, without becoming part of the outputs. Computer programming instructions, equipment operating manuals, maintenance instructions, standard operating procedures for human agents, and policy manuals are typical information aids. These may also be inputs and outputs in other systems. On occasion, an expert consultant, media advisor, or corporate legal advisor could embody the role of this element.

Summary

Systems can vary in size. Thus, bigger levels in the hierarchy of systems incorporate smaller systems, which are subsystems or components.

Because a hierarchy is often a size-based order of systems, with no superior- inferior relationship implied, a vertical channel of systems can be extended for the area of interest. Each system shoo the related horizontal or parallel systems, either within or outside the organizational unit. System levels do not always correspond with organizational divisions.

Each system is thus a complex set of interrelated elements. The basic set defines the broad purpose and values of the larger entity or organizational unit within which the system does or will exist. Each system achieves an end. Thus, the purpose, function, or result sought from a system is the first element, and each system has at least one purpose.

Each system receives physical, informational, and/or human items from smaller, larger, and parallel systems to process into a desired state that will achieve its purpose. Therefore, every system has inputs.

Each system provides physical, informational, and/or human items or services to its smaller, larger, and horizontal systems. These outcomes represent the means whereby the purposes of the system are achieved. Therefore, each system has outputs.

Similarly, five other elements can be developed from this Axiom: sequence, environment, human agents, physical catalysts, and information aids. The words used for names of elements are unimportant and can vary, whereas the **ideas** represented by each are critical.

The Genetic-Based Consultative P&D System Dimensions

1. Fundamental This dimension must exist or no others can be specified. It is the identity or context of a system. Also referred to as the existence, real-life, or manifestation dimension, it concerns tangible, overt, observable, physical, and/or basic structure characteristics. It includes the basic "what-who-how-where" specifications, along with associated quality levels. It states specifically the intensity, degree to which the specific condition is distinguishable from others, and/or the operation of each element.

Determining the specific fundamental attributes is what the P&D approach seeks to accomplish, so that the conditions thus identified can be implemented. Many terms describe the specific numbers, descriptions, drawings, and so on, including specifications, parameter variables, estimates, relationships, properties, characteristics, and identifications.

2. Values This is the situation-specific form of the values part of this appendix. It also embodies and enlarges on the "satisfy" part of Axiom 8 by stating both the solution values and the human values (disposition to behave in certain ways).

Motivating beliefs, human expectations, global desires, ethics, equity, and moral concerns can be **ascribed in some form to each element.** The most global values are likely candidates for the purpose element. Other descriptions concern how people and organizations "feel" about desirable results in specifying each element: preferences, basic (unyielding?) or important assumptions (e.g., democratic society), concern with societal life and civil liberties, disposition to a behavior, pleasures, productivity, justice, concern with individual life, relevance, sensitivities, preferred modes of conduct, involvement of

others, essential beliefs, sentiments, convenience, human dignity, willingness to shape societal acts and conscience, emphases on successes rather than failures and wrongs, comprehensiveness, safety, and cultural or esthetic properties. Values could thus be said to capture the "standards" that a solution is expected to continue.

Perhaps the most important benefit of the values dimension for each element is the forced review of what the value standards are and how they need to be part of the solution and the decisions in selecting the solution. "On all sides," one sees evidence today of cop-out realism-ostensible efforts to be sensible in dealing with things as they are but that turn out to be a shucking of responsibility.... It is now possible to assess the effect of [the] legalization [of off-track betting and the numbers game].... New York State itself has become a predator in a way that the Mafia could never hope to match.... Millions of dollars are being spent by New York State on lavish advertising on television, on radio, on buses, and on billboards. At least the Mafia was never able publicly to glorify and extol gambling with taxpayer money...[Also consider the] cop-out realism [in] dealing with cigarette-smoking by teenagers and pre-teenagers. Special rooms are now being set aside for students who want to smoke.... The effect of [the] supposedly 'realistic' policy is to convert a ban into benediction. By sanctioning that which [people] deplore, they become part of the problem they had the obligation to meet... The function of [value] standards is not to serve as the basis for mindless repressive measures but to give emphasis to the realities of human experience.

3. Measures Measures change the values dimensions into particular objectives and operational goals. They embody the "achieve" part of Axiom 8, and concern how much and when, including what is needed to overcome entropy. Measures in general concern effectiveness, time, performance, cost and other factors of importance concerning the fundamental specifications. They are indicators of the success of the eventual solution. They include any associated confidence limits.

The word **objectives** identifies the specific categories, units, verifiable indicators, scales, factors of merit, criteria or parameters that are considered the important measures. Forecasts, financial matters and quantitative factors are almost always included. They should conform to what people consider useful for attaining the values and fundamental dimensions, but should also be clear, capable of being measured, reproducible, unequivocal in interpretation, and as accurate as needed. Some typical measures are cost per month, time per service or output per hour, reject rate, reliability life, expense ratio, and profit per year.

Goals assign specific amounts and time and/or cost factors to each objective. Assume that one value is "Improve safety record in the department." An objective might be "decrease accidents," and a goal "reduce monthly accident rate by 30% within a year." Here is another illustration: the value is to improve manpower services; **one** objective of several is to increase placements of disadvantaged people; **one** goal of several would be to increase by 25% per year the number of disadvantaged placements. No number of objectives or goals will ever capture exactly what is meant by the specific values. In addition, some goals will be set by external groups, such as the standards or threshold levels defined by the Bureau of Standards, Underwriters Laboratory, Environmental Protection Agency, Consumer Product Safety Commission, and American National Standards Institute.

4. Control Control comprises methods for ensuring that the fundamental, measures, and even value specifications are maintained as desired (at or within limits around a specified condition) during the operation of the system. Dynamic control of each specification involves **(a)** making measurements of the performance of the specification as the solution or system is in operation, **(b)** comparing the actual measurements to the desired specification, and **(c)** taking actions to correct significant deviations if necessary, through human corrections, automated response, advance modifications of equipment, or by changing a desired specification, or planning and designing an overall improvement. A significant deviation between performance and desired specification is interpreted as meaning that the error of taking action when none is really needed is minimal compared to the error of not taking action when it should be taken.

All three parts of the control dimension may be carried out within the system itself, or any one or more may become the responsibility of another system or group. Government regulations illustrate one form of

external measurement, comparison, and/or corrective action. Licensing, accrediting, peer review, receiving room inspection, customer surveys and complaints, board of director's review, and outside auditing firms are also possible outside controls. Cost control, waste control, internal audits, and productivity improvement programs illustrate major efforts that may be designed into a solution or activated after implementation. On the other hand, all three parts of the control dimension may be an integral part of the fundamental and measures dimensions of a particular element. For example, a part produced by a machine may be inspected by the operator, or inspection may be done automatically. The effectiveness of corrective action is judged by measuring the extent to which actual performance recovers to the desired specification level. Correction is measured by stability, as when the significant differential disappears as elapsed time increases; accuracy, or closeness of recovery to desired specification; lag time, or speed of response to the action; and performance oscillations as the control-reaction-control-reaction cycles take place.

5. Interface The interface constitutes the relationships of the fundamental, values, measures, and control specifications to other elements and to other systems. Some illustrations of interfaces are inspection of materials received from a vendor, the impact of a changed grading system on parents, shared services with other hospitals, and government reporting regulations related to personnel actions. Illustrations of intrasystem interfaces are process control interactions with human agents, physical catalysts, and information aids. Some of these cause difficulties with element specifications and vice versa.

Interface dimension specifications help in the avoidance of difficulties in getting a system to operate well by anticipating and assessing consequences of negative and hostile interactions. What additional or how much less work will result for other system? What costs will the other system incur? Can the other system be modified to let this system be implemented, or even to have the other system take advantage of the ideas? Perhaps a substitute or add-on "technological shortcut" might be located by such searching for interfaces. What possible disturbances and forces from other systems (lobbying, special interest groups, oil embargo, supreme court decision) will impact on this system (delay service, increase cost)? Can a model (differential equation) express the interrelationships of the factors or variables? How does the P&D professional or team interact with managers/administrators, users/clients/customers, people working in the current system, and so on? Are there cause-effect research results describing how one factor (element or dimension) changes as another varies?

6. Future Anticipated changes in each specification of the other five dimensions at one or more points of time in the future. The future dimension defines the growth, learning rate (evolution, homeostasis) or decay of the specifications. Forecasts of all types (e.g., social attitudes, costs, weather, population) express possible "future" specifications. Also included are specifications on how the specific element dimension is to get to the anticipated stage (a transfer function). The arrival at the desired stage may be planned (obsolescence or gradual termination). May be due to learning and duration, or may require a new P&D effort. Sunset laws and zero-based budgeting illustrate two broad ideas for describing **how** arrival at the future point might be accomplished

Combining this corollary with Axiom 8 forms the system matrix or morphological box shown on the first page of this section. It represents the prescriptive, universal, and understandable definition of the word **system.** Different words can be used to represent the same ideas as the elements and dimensions. One version in policy making, for example, uses these elements: purpose-relevant reference system, inputs, outputs, structure and process, and operating, information, and human communication requirements. These are detailed by the following dimensions: physical, values, measures criteria, analysis procedures, elemental interfaces, model interfaces, systems interfaces, and anticipated changes.

Another version of the system matrix is shown in next graph on the following page to portray the time component aspects of the future dimension. The lines denoting the cells in the first and second charts are **not** firm divisions, for there are both overlapping and interrelationships among the cells. Each cell, rather, connotes the major thrust of the element/dimension intersections.

The representational matrix provides an orderly way of denoting all possible types of information to consider in specifying a system. Not all elements or dimensions need to be specified in a particular system. Nor is it necessary to have the same amount of information in each cell. The amount can range from an empty set to some large, almost infinite number of models or sets of data. Similar or identical accuracy is not required for the information in each cell. The system matrix is very seldom, if ever, used in exactly this form as a basis for recording information needed in designing a system.

The questions raised by probing what specifications should be developed for each cell are almost all-inclusive. They number far more than the usually suggested who, what, why, where, when, and how. They are also much more specific than the usual questions because more than the 48 questions the matrix appears to suggest a available. In addition to the 16 fundamental and values dimension questions, there are **at least** 16 measures dimension questions about the fundamental and values specifications, 24 control dimension questions, 32 interface, and 40 future, or a total of at least 128 system view of each system matrix cell.

The Computational Techniques by Chromosomal Cells within a Genetic-Based Consultative P&D System

The techniques and models listed in each cell illustrate some that may be useful in accomplishing the functions of the cell. Others may well be applicable, but the following listing is an appropriate stimulator:

(1) Purpose, fundamental. Brain writing, couplet comparison technique, ends-mean chain, intent structures, interviews, map of activity and thought chains, multilevel approach, needs analysis, nominal group technique, objective trees, purpose expansion, relationship chart, relevance trees, sensitivity analysis, scenarios, semilattice tree, surveys, system pyramid.

(2) Purpose, values. Brainstorming, climate analysis, dialectical process, ends-means chain, intent structures, interviews, objectives tree, questionnaire, utility theory.

(3) Purpose, measures. Budgets, correlation analysis, financial investment appraisal, Gantt chart, index analysis, indifference curves, interpretive structural modeling, measurement model monthly operating statement, needs analysis, nominal group technique, objectives or goals survey, objectives pyramid, Planning, Programming, and Budgeting System, profit/volume analysis, return on investment, single-factor and multiattribute utility assessment, subjective probability assessment, subjective 0-100 scaling, variance analysis.

(4) Purpose, control. Annual report of P&D system activities and achievements, board of director review, budget control sheets, control charts, data transformation, external peer evaluation, influence diagram, management style questionnaire, participative review and control, Planning, Programming, and Budgeting System, trend analysis, value analysis, worst/best case analysis, zero-base budgeting.

(5) Purpose, interface. A fortiori analysis, arbitration and mediation planning, cause/effect assessment, correlation analysis, cross-impact matrix, digraphs, ends-means chain, graph theory, hierarchical structure, influence diagram, intent structures, interaction analysis, interpretive structural modeling, intersectoral analysis, negotiation, objectives tree, ombudsman, opportunity identification, policy graphs, purpose network analysis, relationship chart, sensitivity analysis.

(6) Purpose, future. Each of those in cells 1-5. Conditional demand analysis, extended scenarios, futures research, objectives tree, profits progress (learning function, sociological projection techniques.

(7) Inputs, fundamental. Budgets, conditional demand analysis, contingency forecasting, demographic forecasts monthly operating statements and balance sheets, nominal group technique, partitioning techniques, questionnaire, regression analysis, technological forecasting, telephone polling, time series analysis.

(8) Inputs, values. Brainstorming, dialectical process, group process technique, interviews, questionnaires, sociological projection technique, utility assessment, and utility theory.

(9) Inputs, measures. Budget, checklists, cost-benefit analysis, cost-effectiveness analysis, data transformation, information acquisition preference inventory, judgment analysis technique, judgment policy analysis, measurement model, planning and control technique, preference ordering, psychological scaling, sampling theory, sensitivity analysis, simulation, statistical model, subjective probability assessment, subjective scaling, voting techniques.

(10) Inputs, control. Attitude surveys, board of directors review, budget, checklists, citizen honoraria, control charts for human involvement measures and for information quality and quantity norms, control method, correlation analysis, data base system, employee panels, external peer evaluation, focus group testing, a fortiori analysis, Gantt charts, group process technique, influence diagram, operational games, organization analysis, planning and control technique, program planning budgeting system, probability assessment, productivity circles, questionnaire, replicate information collection, role playing, sensitivity analysis, simulation, statistical model, task force, team building, telephone polling, use testing, value analysis, worst-case analysis, zero-base budgeting.

(11) Inputs, interface. Interface with outputs: charette, computer graphics, correlation analysis, drop-in centers, fishbowl planning, input-output analysis, media-based issue balloting, meetings, open-door policy, public hearing workshops. Others: arbitration and mediation planning, cross-impact matrix, influence diagram, interaction analysis interaction matrix, inter-sectoral analysis, interpretive structural modeling, negotiation, ombudsman, profit/volume analysis, system pyramid, technology assessment.

(12) Inputs, future. Each of those in cells 7-11. Conditional demand analysis, contextual mapping, extended scenarios, forecasting, futures research, new-product early warning system, opportunity identification, progress ("learning") function for quality and quantity measures of effectiveness, regression forecasting, simulation, social indicators, technology assessments and forecasts, time series analysis.

(13) Outputs, fundamental. All available ones are possible as output representations, but a sample of them includes computer graphics, drawings, drop-in centers, fishbowl planning, hotline, input-output analysis, intent structures, interpretive structural models, media-based issue balloting, meetings, open door policy, oval diagrams, photographs, policy graphs, pro forma balance and operating statements, public hearing, public information program, scenario, system matrix, system or semilattice pyramid, workshops.

(14) Outputs, values. Brainstorming, dialectical process, intent structures, questionnaires, sociological projection technique, utility assessment.

(15) Outputs, measures. Benefit-cost analysis, break-even analysis, budget, correlation analysis, data transformation, a fortiori analysis, measurement model, PPBS, product or service life cycle analysis, profit/volume analysis, progress functions, psychological scalings, reliability theory, sensitivity analysis, simulation, subjective probability assessment, variance analysis.

(16) Outputs, control. Budget, cause-effect analysis, central location testing, checklists, control charts, control model, correlation analysis, counter planning, data transformation, decision matrix, employee panels, financial investment appraisal, influence diagram, return on investment, simulation, tables reporting variance to norms, use testing, worst case analysis, zero-base budgeting.

(17) Outputs, interface. With inputs: computer graphics, correlation analysis, drop-in centers, fishbowl planning, input-output analysis, media-based issue balloting, meetings, open-door policy, public hearing, and workshops. With other elements: arbitration and mediation planning, cause-effect analysis, charrette, cross-impact analysis, diagraphs, environmental impact statements, fault tree analysis, impact analysis, influence diagram, interaction analysis, intersectoral analysis, negotiation, new business project screening summary, ombudsman, policy graphs, PPBS, profit/volume analysis, system or semilattice pyramid, and technology assessment.

(18) Outputs, future. Each of those in cells 13-17, plus additional techniques in cell 12.

(19) Sequence, fundamental. Because the P&D system sequence involves all aspects of a time-based P&D, all of the techniques could be involved, especially the change principles. The following just illustrate the differing types for each phase:

1. Delphi, forecasting techniques, function expansion, purpose hierarchy, intent structures, oval diagrams, semi-lattice, system pyramid, tree diagrams.

2. Analogies, bisociation, brain resting, brainstorming, brain writing, dialectical process, morphological box, search for diverse sources of options.

3. Cash flow analysis, causal diagram, cost effectiveness analysis, decision matrix, DELTA chart (decision, event, logic, time, activities), feasibility study, financial investment appraisal, flowchart, goals-achievement matrix, input-output matrix, layout-diagram, multilevel digraph, operations research, optimization, pair comparison, Pareto analysis, return on investment, scenario, social cost benefit analysis, system matrix.

4. Same as **3** plus contingency analysis, cost-benefit analysis, decision tables, forecasting, multiple attribute utility assessment, parameter analysis, program planning method, simulation.

5. Same as **1**, **2, 3,** and **4** plus control charts, questionnaires (cells 21, 22, 23).

(20) Sequence, values. Brainstorming, dialectical process, group process technique, questionnaires, and utility theory.

(21) Sequence, measures. Activity balance line evaluation, break-even analysis, budget, correlation analysis, data transformation, decision tree, Gantt chart, life cycle phasing, line of balance, management operations systems technique, measurement model, milestone chart, network analysis, operations chart, PERT or critical path method (manual or computerized), PERT/COST, precedence diagram method, process chart, RAMPS, statistical model, subjective probability assessment, timeline budget for phases, variance analysis.

(22) Sequence, control. Activity balance line evaluation, activity matrix, budget variance analysis, client/user/citizen/ P&D peer review panels, contingency/worst case analysis, control charts, correlation analysis, data transformation, decision tables, DELTA chart, Gantt chart, influence diagram, line of balance, management operations systems technique, milestone chart, network analysis, operation chart, PERT/COST, PPBS, precedence diagram methods, process chart, RAMPS, scheduling model, simulation, statistical model, task force, zero-base budgeting.

(23) Sequence, interface. Arbitration and mediation, cause/ effect assessment, change principles, contingency tables, correlation analysis, cross-impact analysis, decision tables, digraphs, force field analysis, improvement program, influence diagram, interaction matrix analysis, interface event control, intersectoral analysis, multiple criteria utility assessment, negotiation, ombudsman, policy graphs, scenarios, subjective probability assessment, surveys.

(24) Sequence, future. Each of those in cells 19-23. Some newer techniques are emerging: computerized Delphi, contingency forecasts, a fortiori analysis, parameter analysis, technological forecasting, worst-case analysis.

(25) Environment, fundamental. Causal diagrams, community attitude survey, Delphi, demographic analysis, dialectical process, dynamic model, gaming and simulation, goals program analysis, intersectoral analysis, interviews, matrix structure, organizational climate analysis, organizational sensing, oval diagrams, parameter analysis, productivity circles, project teams, preference ordering, scenarios, semilattice pyramid, telephone polling, tree diagrams, utility assessment, volunteer group status.

(26) Environment, values. Brainstorming, climate analysis, dialectical process, questionnaires, technology assessment, utility theory.

(27) Environment, measures. Budget, bureaucracy level analysis, cause/effect assessment, climate analysis, correlation analysis, counts and/or ratios of public attendance at P&D meetings, data transformation, demand analysis, econometric models, factor analysis, frequency of P&D system meetings, frequency of updating "pulse" of external environment aspects, magnitude of external pressure, management grid analysis, measurement model, network analysis of P&D system, PPBS, regression analysis, rigidity versus openness analysis, role analysis, statistical model, subjective probability assessment, variance analysis.

(28) Environment, control. Budget, climate analysis trends, control charts, control model, correlation analysis, critical incidence review, data transformation, influence diagram, P&D peer review, PPBS, statistical model, utility assessment, zero-base budgeting.

(29) Environment, interface. Arbitration and mediation planning, cause/effect assessment, correlation analysis, demographic analysis, digraphs, environmental impact statement, factor analysis, fault-tree analysis, force field analysis, graph theory, human development continua, impact analysis, influence diagram, ISM, interaction analysis, intersectoral analysis, interviews, negotiation, ombudsman, organization mirror, organizational sensing, policy graphs, regression analysis, role analysis, surveys, technology and managerial control analysis, tree diagrams, trend analysis.

(30) Environment, future. Each of those in cells 25-29. Adaptive forecasting, contextual mapping, demographic forecasting, forecasting, Markov chains, probabilistic system dynamics, regression forecasting, sales force composite, smoothing, sociological projection technique, substitution analysis, technological forecasting, time series analysis.

(31) Human agents, fundamental. Attitude tests, contingency analysis, creativity techniques (analogy, morphological box, bisociation, brainstorming, brain writing, etc.), interviews, nominal group technique, ombudsman, oval diagrams, personality tests, personality type analysis, role analysis, semilattice pyramid, scenarios, subjective probability assessment, task analysis, task force, wage scale.

(32) Human agents, values. Brainstorming, dialectical process, group process technique, questionnaires, utility theory.

(33) Human agents, measures. Activity sampling, aptitude test, budget, correlation analysis, critical incident technique, data transformation, external examiner to assess performance, financial plans, Gantt chart, historical time/cost data in P&D, information content analysis, job evaluation, measurement model, performance measures tally, PPBS, progress functions and learning curves, quality of working life autonomy, salary versus job education curves, statistical estimation, statistical model, subjective probability assessment, user satisfaction surveys, variance analysis, wage scale, wage surveys, work measurement.

(34) Human agents, control. Aptitude test, budget, contingency analysis, control charts, control model, correlation analysis, counseling interviews, critical incident technique, critical path method, data transformation, Gantt charts, influence diagram, organizational analysis, peer review, PPBS, performance appraisal, RAMPS, regular retraining courses, semi-annual sample tests or games, statistical model, task force, team building, training, zero-base budgeting.

(35) Human agents, interface. Arbitration and mediation planning, cause/effect assessment, correlation analysis, counseling interviews, cross-impact analysis, decision tables, digraphs, educational curriculum formats, group processes techniques, influence diagram, interaction analysis, interactive computer languages, intersectoral analysis, ISM, negotiation, ombudsman.

(36) Human agents, future. Each of those in cells 31-35.

(37) Physical catalysts, fundamental. Flow path diagrams, layout drawings, nomographs, photographs, physical and mathematical equations describing operating characteristics, physical model, specification listing, templates, three-dimensional models.

(38) Physical catalysts, values. Brainstorming, dialectical process, group process technique, questionnaires, utility theory.

(39) Physical catalysts, measures. Break-even analysis, budget, cash flow analysis, correlation analysis, cost benefit analysis, cost-effectiveness analysis, data transformation, downtime distribution, machine-loading charts, maintenance network, maintenance schedule graph, measurement model, PPBS, progress function, queuing models, social cost-benefit analysis, statistical model, subjective probability assessment, and variance analysis.

(40) Physical catalysts, control. Activity sampling, budget control sheets, control charts, control model, correlation analysis, critical path method, data transformation, influence diagram, interview surveys, maintenance charts, PPBS, RAMPS, replacement model, statistical mode, utilization indices and charts, value analysis, zero-base budgeting.

(41) Physical catalysts, interface. Arbitration and mediation planning, cause/effect assessment, climate analysis, contingency analysis, correlation analysis, cross-impact analysis, digraphs, graph theory, influence diagram, interaction analysis, interaction matrix diagram, intersectoral analysis, ISM, negotiation, ombudsman, semilattice pyramid, telecommunications.

(42) Physical catalysts, future. Each of those in cells 36-41. Modeling of conferences based on technologically advanced physical catalysts, technology assessment, technological forecasting.

(43) Information aids, fundamental. Abstract dimensioning, analysis of variance, career path analysis, case histories, charts, computer graphics, contingency analysis, continuing educational path, decision tables, decision trees, drawings, expected free cash flow model, graphics, graphs group process techniques, hierarchical clustering, histograms, information content analysis, information flowcharts, lattice theory, mathematical and statistical tools (correlation analysis, factor analysis, histogram, Laplace transforms, risk distribution, variance, etc.), mathematical model, mathematical programming technique, modeling, performance/time measurement estimate, physical model, probability assessment, programming languages, recursive programming model, risk analysis, simulation languages, software in structures and packaging, standard operating procedures, system pyramid, time study, utility theory.

(44) Information aids, values. Brainstorming, dialectical process, group process technique, questionnaires, utility theory.

(45) Information aids, measures. Activity sampling, budget, cast flow analysis, computer simulation, contingency analysis, correlation analysis, cost-benefit analysis, cost-effectiveness analysis, data transformation, decision tables, downtime measurements, fault analysis, forecasting, a fortiori analysis, measurement model, morphological analysis, objective tree, PPBS, probability assessment, sensitivity analysis, social cost-benefit analysis, statistical model, subjective probability assessment, surveys, time between request and response, variance analysis.

(46) Information aids, control. Auditing technique, budget, budget control sheets, control charts, control model, correlation analysis, critical path analysis, data base system, data transformation, decision tables, decision trees, flowcharts, forecasting, Gantt charts, influence diagram, PPBS, priority setting or voting, replacement models, RAMPS, standard data charts and tables, statistical model, utilization indices, value analysis, zero-base budgeting.

(47) Information aids, interface. Cause-effect matrix, computer graphics, contingency analysis, correlation analysis, cross-impact matrix, digraphs, a fortiori analysis, influence diagram, interaction analysis, interaction matrix diagrams, intersectoral analysis, ISM, negotiation, ombudsman, parameter analysis, programming-computer interaction analysis, sensitivity analysis, survey questionnaires and interviews, telecommunications.

(48) Information aids, future. Each of those in cells 42-47. Computer programming research, computerized Delphi, cost-benefit analysis, forecasting, gaming, and subjective probability.

The Procedural Titles & Processes for Search Engine Forward Chaining Sequences within a Genetic P&D Matrix

1. Not Applicable
2. [TAG] Purpose, Control (4)
3. [GAG] Purpose, Measures (3)
4. [TGC] Outputs, Values (14)
5. [GCT] Human Agents, Control (34)
6. [TCG] Physical Catalysts, Measures (39)
7. [AAC] Inputs, Measures (9)
8. [GAT] Inputs, Control (10)
9. [TCA] Environment, Measures (27)
10. [GAC] Environment, Future (30)

11. [GCA] Environment, Interface (29)
12. [GGT] Outputs, Fundamental (13)
13. [TTA] Outputs, Measures (15)
14. [CGT] Sequence, Measures (21)
15. [CAG] Outputs, Future (18)
16. [GGC] Sequence, Future (24)
17. [TGA] Information Aids, Future (48)
18. [CCA] Inputs, Fundamental (7)
19. [ACT] Purpose, Values (2)
20. Same as (22), but as an additional process
21. [CAC] Physical Catalysts, Control (40)
22. [CTG] Human Agents, Measures (33)
23. [CAT] Human Agents, Fundamental (31)
24. [GCG] Human Agents, Values (32)
25. [AAT] Purpose, Fundamental (1)
26. [ATC] Outputs, Interface (17)
27. [GTC] Sequence, Values (20)
28. [CGA] Human Agents, Interface (35)
29. [TCT] Inputs, Values (8)
30. [TAC] Information Aids, Values (44)
31. [TAT] Information Aids, Control (46)
32. [CCT] Environment, Control (28)
33. [TGT] Information Aids, Measures (45)
34. [AGT] Sequence, Fundamental (19)
35. [TTG] Purpose, Future (6)
36. [GTA] Sequence, Control (22)
37. [GTG] Sequence, Interface (23)
38. [ATG] Outputs, Control (16)
39. [CCG] Physical Catalysts, Interface (41)
40. [GGA] Physical Catalysts, Values (38)
41. [AGC] Environment, Values (26)
42. [TTC] Purpose, Interface (5)
43. [AAG] Information Aids, Fundamental (43)
44. [ACA] Inputs, Interface (11)
45. [ACG] Environment Fundamental (25)
46. [AGA] Physical Catalysts, Future (42)
47. [ATA] Inputs, Future (12)
48. [CTC] Information Aids, Interface (47)
49. [CGC] Physical Catalysts, Fundamental (37)
50. [CTA] Human Agents, Future (36)

The Procedural Titles & Processes for Search Engine Backward Chaining Sequences within a Genetic P&D Matrix

(The Operational Mindset or Genetic Embodiment of Gaius Julius Caesar Involving the Staging for Commercial Expansionism through the Global Market Principles of Frederick Von Hayek)

1. Describe/Establish/Measure Relationships (VIII)
2. [UAG] Analyze Project Impacts on Society (II)
3. [GAG] Analyze Policy Setting & Decision-Making Variables (XVI)
4. [UGC] Establish Project Schedules & Basis for Measuring Progress & Performance (III)
5. [GCU] Involve People (XIV)
6. [UCG] Identify (Product) Opportunities (I)

7. [AAC] Estimate Budget & Dollar Requirements (XI)
8. [GAU] Analyze Investments (XVI)
9. [UCA] Identify (Project) Opportunities (Ia)
10. [GAC] Appraise/Assess Investments (XVI)
11. [GCA] Inform & Involve Citizens (XIV)
12. [GGU] Appraise/Assess Alternative Options/Plans/Policies/ Programs/Contingencies/Functions (XVI)
13. [UUA] Collect Data and/or Information (I)
14. [CGU] Identify Regularities (VI)
15. [CAG] Establish Priorities (VI)
16. [GGC] Evaluate Alternatives (XVI)
17. [UGA] Establish Project Schedules & Basis for Measuring Progress & Performance (III)
18. [CCA] Approach Problems (V)
19. [ACU] Evaluate Interpersonal Relationships, Performance & Effectiveness of an Organization (VIII)
20. Categorize/Classify Alternatives (VI)
21. [CAC] Organize Alternatives (VI)
22. [CUG] Identify Problems, Overlaps & Conflicts (V)
23. [CAU] Rank Alternatives (VI)
24. [GCG] Test Impact of Different Values of an Attribute/Parameter/Variable (XV)
25. [AAU] Generate a List of Possible Purpose/Function Statements (X)
26. [AUC] Portray an Order of Events (VII)
27. [GUC] Develop (Enhance) Creativity (XII)
28. [CGA] Preserve an Image (VII)
29. [UCU] Analyze Job Methods & Motions (I)
30. [UAC] Appraise/Assess Projects (II)
31. [UAU] Analyze Projects (II)
32. [CCU] Identify Management Styles (V)
33. [UGU] Measure Projects Progress & Performance (III)
34. [AGU] Predict Future Conditions (XI)
35. [UUG] Identify New Product Quality (I)
36. [GUA] Produce Consensus (XIII)
37. [GUG] Stimulate Creativity of People (XIII)
38. [AUG] Rate Conditions (VIII)
39. [CCG] Weight Criteria or Factors (VI)
40. [GGA] Measure Errors (XVI)
41. [AGC] Detail Proposed Solution (XI)
42. [UUC] Collect and/or Organize Performance Information (I)
43. [AAG] Determine Human Ability & Skill Requirements for Tasks (XI)
44. [ACA] Analyze Alternative Options/Plans/Policies/Programs/Contingencies/Functions (IX)
45. [ACG] Develop & Analyze Structure (IX)
46. [AGA] Generate Alternatives/Ideas (XII)
47. [AUA] Plot & Analyze Data about the Performance of an Existing Installation (VII)
48. [CUC] Appraise/Assess Systems (IV)
49. [CGC] Provide Graphic Representations (VII)
50. [CUA] Analyze Systems (IV)

The Organizational Profile for 5-Phase Educational Development within a Genetic-based P&D Effort

(Search Engine Integration & Systems Verification Processes)

PHASE ONE

I. Collect and/or Organize Performance Information, Collect Data and/or Information, Identify New Product Quality, Analyze Job Methods and Motions, Identify Project Opportunities, Identify (Product) Opportunities ([UUU] UUC, UUA, UUG, UCU, UCA and UCG)

II. Analyze Projects, Appraise/Assess Projects, Analyze Project Impacts on Society ([UCC] UAU, UAC and UAG)

III. Measure Project Progress and Performance, Establish Project Schedules and Basis for Measuring Progress and Performance, EPSBMPP2 ([UAA] UGU, UGC and UGA)

IV. Appraise/Assess Systems, Analyze Systems ([UGG] CUC and CUA)

V. Identify Problems, Overlaps, and Conflicts, Identify Management Styles, Approach Problems ([CUU] CUG, CCU and CCA)

VI. Weight Criteria or Factors, Rank Alternatives, Organize Alternatives, Categorize/Classify Alternatives, Establish Prior ties, Identify Regularities ([CCC] CCG, CAU, CAC, CAG and CGU)

VII. Provide Graphic Representations, Preserve an Image, Portray an Order of Events, Plot and Analyze Data about the Performance of an Existing Installation ([CAA] CGC, CGA, AUC and AUA)

PHASE TWO

VIII. Rate Conditions, Describe/Establish/Measure Relationships, Evaluate Interpersonal Relationships, Performance, and Effectiveness of an Organization ([CGG] AUG and ACU)

IX. Analyze Alternative Options/Plans/Policies/Programs/Contingencies/Functions, Develop and Analyze Structure ([AUU] ACA and ACG)

X. Generate a List of Possible Purpose/Function Statements ([ACC] AAU)

PHASE THREE

XI. Estimate Budget and Dollar Requirements, Determine Human Ability and Skill Requirements for Tasks, Predict Future Conditions, Detail Proposed Solution ([AAA] AAC, AAG, AGU and AGC)

PHASE FOUR

XII. Generate Alternatives/Ideas, Develop (Enhance) Creativity ([AGG] AGA and GUC)

XIII. Produce Consensus, Stimulate Creativity of People ([GUU] GUA and GUG)

PHASE FIVE

XIV. Involve People, Inform and Involve Citizens ([GCC] GCU and GCA)

XV. Test Impact of Different Values of an Attribute/Parameter/Variable ([GAA] GCG)

XVI. Analyze Investments, Appraise/Assess Investments, Analyze Policy Setting and Decision-Making Variables, Appraise/Assess Alternative Options/Plans/Policies/Programs/Contingencies/Functions, Evaluate Alternatives, Measure Errors ([GGG] GAU, GAC, GAG, GGU, GGC and GGA)

THE CHARTED PROGRAMMING STRATEGY

This section illustrates the format by-which most, if not all, of this network's programming strategies shall be graphically represented. The chart titled, the Systems Theory Infrastructural Process System, reflects the incorporation of a total of fifty (50) separate programming variations that are housed within the procedural format of Nascent Applied Methods & Endeavors. Also, following this area are the names and titles of these processing variations, as well as their 3, 4, 5 and 12 part operational formats, that are the individualized components of each chart. Furthermore, the Chaining Sequences involved in the inference engine of these charts, have been supplied with some additional terms that represent the technic of integrating the System Matrix into the procedural structure of this network's programming strategies.

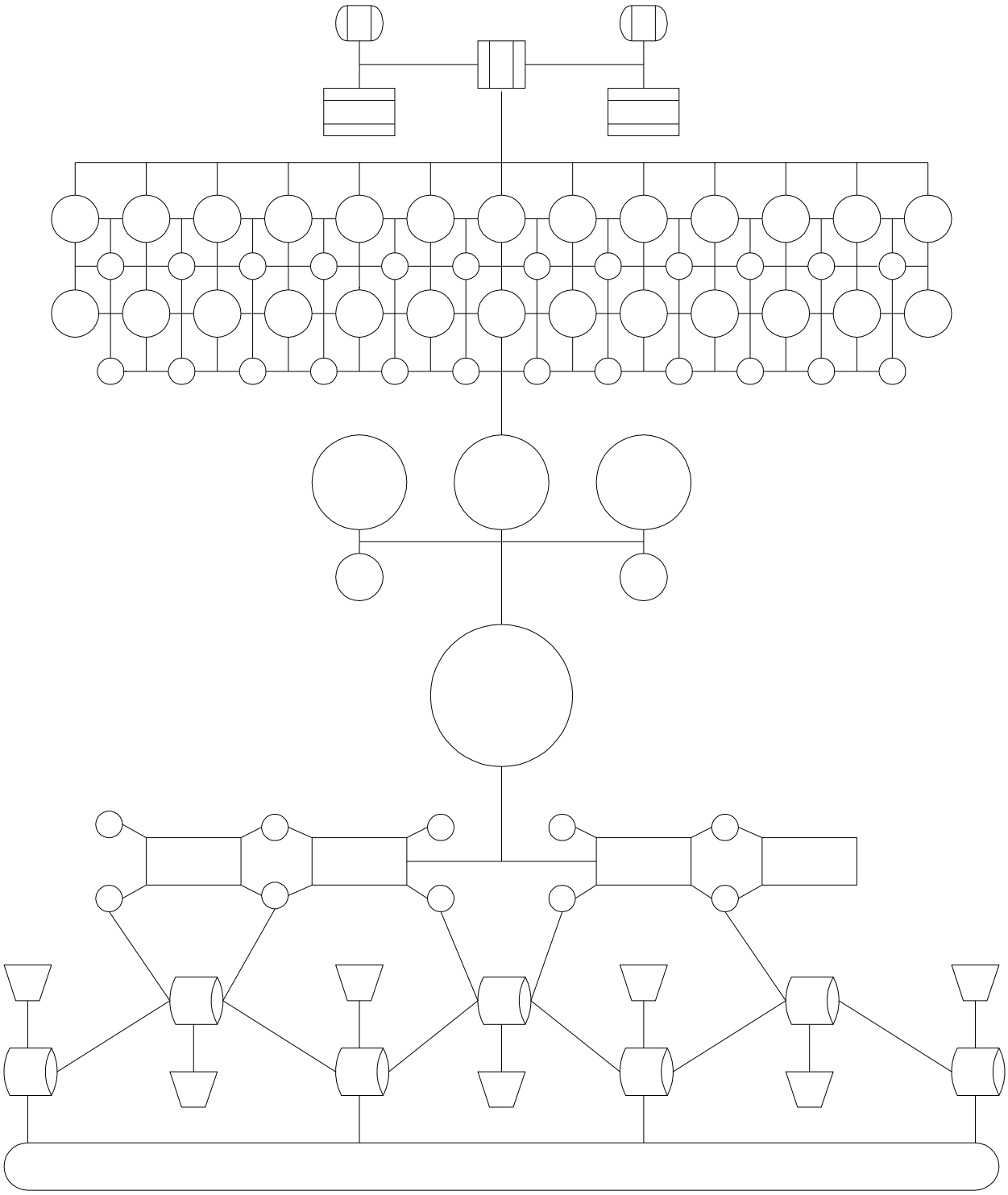
Additionally, the terms under the Backward Chaining heading, account for the method of infusing the processes of a chart into the cellular techniques of the System Matrix. While those terms under the Forward Chaining heading account for a dissimilar procedure to accomplish the same goal. It also represents the strategical embodiment of the Organizational Profile, of which within itself, reflects the 5-Phase operational format of Strategical Programming (Exhibit - J, Section 9).

THE DEPTH-FIRST AND BREATH-FIRST SEARCH STRATEGIES

In addition to the distinction between the backward chaining and forward chaining strategies mentioned above, there also exist the need to distinguish between the depth-first and breath-first search strategies of this network's programming variations. In the depth-first search strategy, the inference engine takes every opportunity to produce a subgoal. From "action" the engine backs up to "means" and then "distance." Searching for detail first is the theme of backward-chaining in a depth-first manner. A breath-first search strategy sweeps across all the premises in a chart before digging for greater detail. Breath-first search strategies will be more efficient if one rule succeeds and the goal attribute's numerical value is obtained.

If the system wanted to draw a loose analogy to human problem solvers, it would say to itself that "generalists" use a breath-first strategy. It would begin by inquiring in a general way about the aspects of a problem. "Specialists," on the other hand, would tend to focus toward a specific aspect of a problem and then probe for a lot of details regarding that aspect. Overall though, if all states are examined, then the search is exhaustive. If the search is suspended when a singular numerical value is obtained, then the search is nonexhaustive.

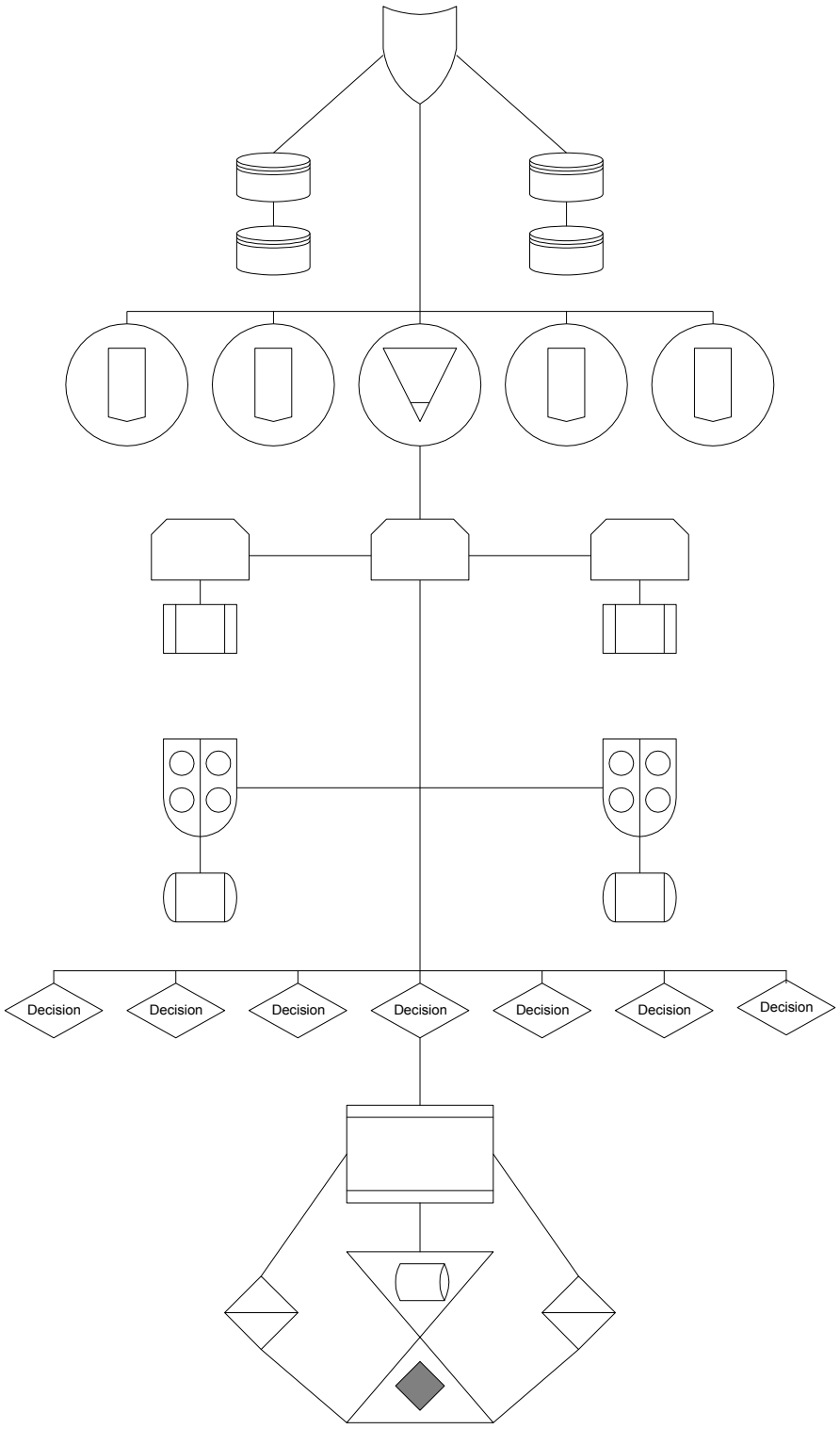
THE SYSTEMS THEORY INFRASTRUCTURAL PROCESS
and
CHART OF PROCEDURES



(XLVIII)
FORWARD CHAINING SEQUENCES

APPRAISE/ASSESS SYSTEMS (IV)

THE SYSTEMS THEORY INFRASTRUCTURAL PROCESS
and
CHART OF PROCEDURES



(XLVIII)
BACKWARD CHAINING SEQUENCES

INFORMATION AIDS, INTERFACE (47)

3 - PART PROCESSING FORMATS

I. Computerized Operations (Power/Authority)

1. Appendix - D, Sections XXX & XXXIV
2. The Database Strategies of NAME
3. The Measures of Effectiveness (143F)
4. The Solution Framework (273F)
5. The S.1 Artificial Intelligence Format
6. The Management of Organizational Behavior (112 & 184)
7. The Manufacturing, Planning & Control Systems (133)
8. The Structure of the Spread-Sheet Windows (DF)
9. The Theories of & in Planning & Design (92 - 96F)
10. The Expert Systems (245)
11. The People Side of Systems (271)
12. Language & Perception (374)

II. Procedural Operations (Norms/Standards)

1. Appendix - D, Sections XXIX - A (XIX & XXX) & XLIII
2. The People Side of Systems (121, 192 & 248)
3. People - Oriented Computer Systems (42, 59, 112 & 237)
4. The DSM (758)
5. The Manufacturing, Planning & Control Systems (27)
6. The Planning & Design Approach (XI)
7. The Expert Systems (196)
8. The Entry Format
9. Appendix - E (34 - 39)
10. The Problem Format (86F)
11. Selecting Planning & Design Projects (113 - 115F)
12. The Decision Making Processes (167F)

III. Structural Operations (Goals/Objectives)

1. The Structural Areas of a Business
2. The People Side of Systems (135)
3. The Principles of Pharmacology (50)
4. Appendix - E (27)
5. The Structure of Economic Systems
6. The Systems Areas of NAME
7. The Ego-State Contributions (44F)
8. The Indicators of Ego States (45F)
9. The Structuring Function Statement (58F)
10. The Concept of a Problem (88F)
11. The Planning & Design Organization (140F)
12. The Relationship of Activities (159F)

IV. Support Operations (Morale/Cohesion)

1. Appendix - D, Section XXIV
2. The People Side of Systems (123 & 158)
3. The Information & Decision Making Processes (288F)
4. The Principles for Data Security (260F)
5. The Integrity Management Techniques (261F)
6. The Techniques for Auditing, Validation & Testing (262F)
7. The Illustrative Sensitivity Scale (265F)
8. The Operating Formats of a Business
9. The Handbook of Strategic Expertise (178 & 200)
10. The Problem Tracing Format
11. The Management of Organizational Behavior (98)
12. The Manufacturing, Planning & Control Systems (446)

4 - PART MANAGERIAL FORMATS

I. Computerized Operations (Power/Authority)

1. Appendix - D, Sections XXX & XXIX
2. Appendix - C (7 - 11)
3. People - Oriented Computer Systems (108)
4. Consultation (37, 119, 213, 311 & 481)
5. The Expert Systems (94)
6. The Analysis of Data (36, 46, 63 & 80)
7. The Managerial Programming Sheet XXXII
8. The Chromosomal Processing Factor - **A** XXXVIII
9. The Planning & Design System Matrix - **A** (84 - 90)
10. The Characteristics of Information & Knowledge (243F)
11. The Processes & Profiles
12. The Integrated Windowing Sheet XXXV

II. Procedural Operations (Norms/Standards)

1. Consultation (306)
2. Appendix - D, Sections XXX & XXIII
3. Consultation (81, 175, 245, 393 & 533)
4. The People Side of Systems (121, 198 & 223)
5. The Documentary Structure XXXIV
6. The 4 - Part Psychological Effects Systems XX
7. The Planning & Design System Matrix - **B** (102)
8. The Chromosomal Processing Factor - **B** XXXIX
9. The Other Purposeful Activities (84F)
10. Operationalizing a Strategy (177F)

11. The Personal Infrastructural Processes III
12. Language & Perception (154 & 160)

III. Structural Operations (Goals/Objectives)

1. The Network Operations (Part XX)
2. People Oriented Computer Systems (67 & 84)
3. The People Side of Systems (4, 13, 47, 94 & 97)
4. Consultation (11, 19, 97, 189, 275, 435 & 539)
5. Appendix - D, Section XXXIV
6. The Planning & Design System Matrix - **D** (193)
7. The Chromosomal Processing Factor - **D** XL
8. The Different Levels of Planning & Design (97F)
9. The Threats to Public Databanks (257F)
10. The Managerial Problem Format
11. The Planning & Design Abstraction Format (77)
12. The Handbook of Strategic Expertise (68 & 74)

IV. Support Operations (Morale/Cohesion)

1. Appendix - D, Section XXX
2. Consultation (77, 159, 239, 367 & 505)
3. The Biblical Research Structure (30Kj)
4. The 3 - Part Operational Format
5. The 4 - Part Operational Format
6. The 5 - Phase Operational Format
7. The 12 - Phase Operational Format
8. The Planning & Design System Matrix - **D** (323)
9. The Chromosomal Processing Factor - **D** XLI
10. The Steps in System Building
11. The Application Process Flow Chart IV
12. The Handbook of Strategic Expertise (313)

5-PHASE FORMATS

I. Computerized Operations (Power/Authority)

1. The Planning & Design Databases (310 & 311)
2. The Planning & Design Sequence (324)
3. The Expert Systems (139, 168, 178 & 245)
4. Consultation (19, 31, 117, 211, 292 & 477)
5. The DSM (25 & 758)
6. Appendix - D, Sections XXX & XLIII or XXIX
7. Appendix - E
8. Medical Physiology (I)
9. The Netweaver's Sourcebook (171)
10. The DSM Decision Tree (689 & 752)

11. Language & Perception (I)
12. The Formula Formats

II. Procedural Operations (Norms/Standards)

1. The Planning & Design Approach (181)
2. The Planning & Design Scenario (264)
3. The Nursing Approach (147) - (NET 123)
4. The Phases in Consulting (548)
5. The Consultative Interventions (573)
6. Strategic Modeling Consultation (103)
7. Appendix - C (Team Organizers)
8. The Netweaver's Sourcebook (97)
9. The DSM (34)
10. Appendix - F
11. The Synopsis - Managerial Applied Numerics
12. Law Enforcement (I)

III. Structural Operations (Goals/Objectives)

1. Appendix - A & B
2. The Planning & Design Approach (46)
3. Consultation's Action Research (304)
4. Consultation (552)
5. Clinical Neurology for Psychiatrists (4 & 26)
6. The Software Formats 5/12/5
7. The Manual of Nursing Practice (11, 13, 22 & 1352)
8. Critical Care Nursing (36)
9. Planning Nursing Research (1 & 19)
10. The People Side of Systems (6 & 18)
11. Appendix - H
12. The MSDLC Phases

IV. Support Operations (Morale/Cohesion)

1. Store Location & Assessment Research (302)
2. People - Oriented Computer Systems (112, 175, 91, 62 & 36)
3. The Teaching Guide (I)
4. Appendix - J
5. Appendix - D, Section XI
6. The Manual of Nursing Practice (20 & III - VII)
7. Critical Care Nursing (53, 222 & 20)
8. The People Side of Systems (99)
9. Planning Nursing Research (19)
10. Appendix - E (I5)
11. Appendix - G (I)
12. The Anatomical or Biblical Formula Format

12 - PHASE FORMATS

I. Computerized Operations (Power/Authority)

1. The Analysis of Data Tables (471)
2. People oriented Computer Systems (128)
3. The Expert Systems (94)
4. Roget's Thesaurus (921)
5. The 12 - Part Procedural Sub-Systems of NAME
6. The Database Structure of NAME Collegic Sub-Systems
7. The Principles of Planning & Design (19F)
8. The Profile Worksheet (79F)
9. The Immutable Timeline (149 - 154F)
10. The Logic Programming Sheet (164F)
11. The Documents & General Controls (255F)
12. The Handbook of Strategic Expertise (337 - 347)

II. Procedural Operations (Norms/Standards)

1. Appendix - E (27 - 31)
2. The Report Structure (Part XX)
3. The People Side of Systems (9, 18, 199 & 250)
4. The Manufacturing, Planning & Control Systems (6)
5. The King James Bible (1509)
6. The Rainbow Study Bible (I)
7. The Manual of Nursing Practice (428)
8. The Merck Manual (I - 4)
9. Gray's Anatomy (I)
10. The Function Hierarchy (58F)
11. Pursuing the Planning & Design Strategy (82F)
12. The Steps in Systems Development

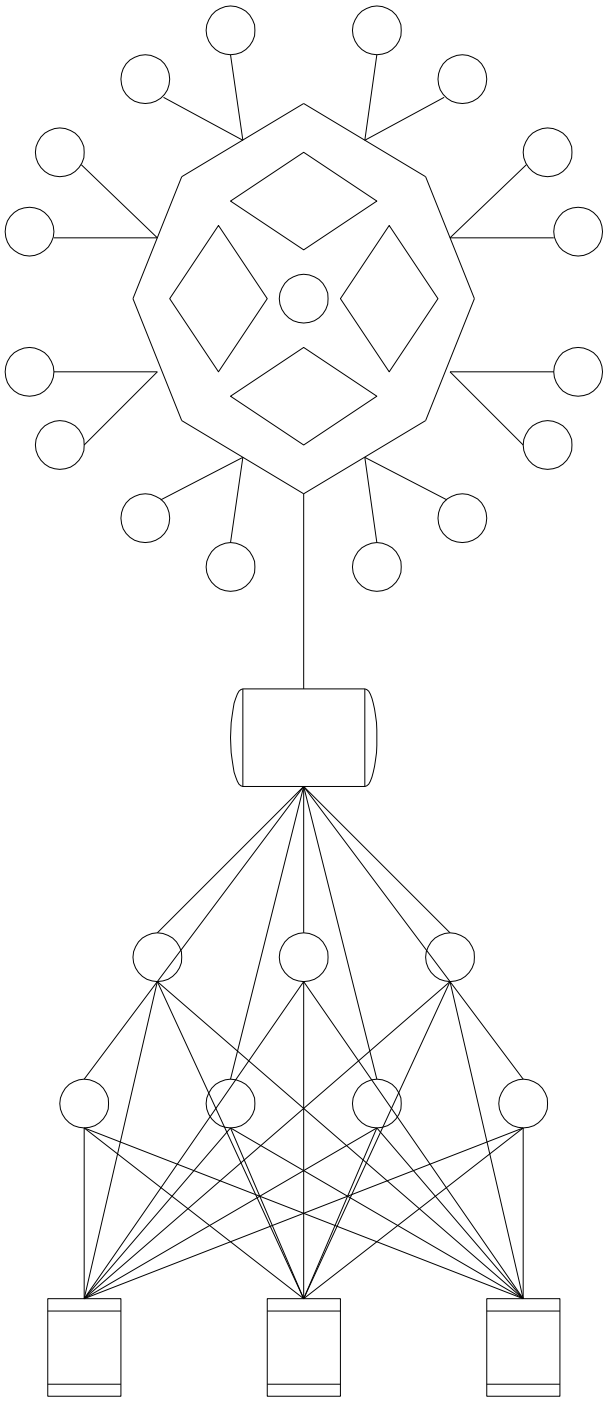
III. Structural Operations (Goals/Objectives)

1. Appendix - D, Section XXIII
2. The Rainbow Study Bible (XII, XIII & XIV)
3. Pharmacology in Nursing (IX - XI)
4. The Federal Reserve Banking Systems
5. The Biblical Hierarchy Structures
6. The Structure of the Federal Government System
7. The Structure of the State Government System
8. The Structure of the County or Local Government System
9. The Business Organizational Chart System
10. The Child or Elder Care Organizational Chart System
11. The Various Planning & Design Fields (179F)
12. The Handbook of Strategic Expertise (338)

IV. Support Operations (Morale/Cohesion)

1. Appendix - D, Section XXXI
2. The King James Bible (12)
3. The Ascension Process of the Concordance
4. The Yearly Procedural Processes XIV
5. The Testing Systems (64F)
6. The Grids, Matrixes & Flow Chart Systems (241F)
7. The Ideal Alternatives (250F)
8. The Facilities Planning Model IV
9. The Format of the Request for Proposal
10. The Project Management Schematic V
11. The Problem Analysis Format XXX
12. The Store Location & Assessment Research (196)

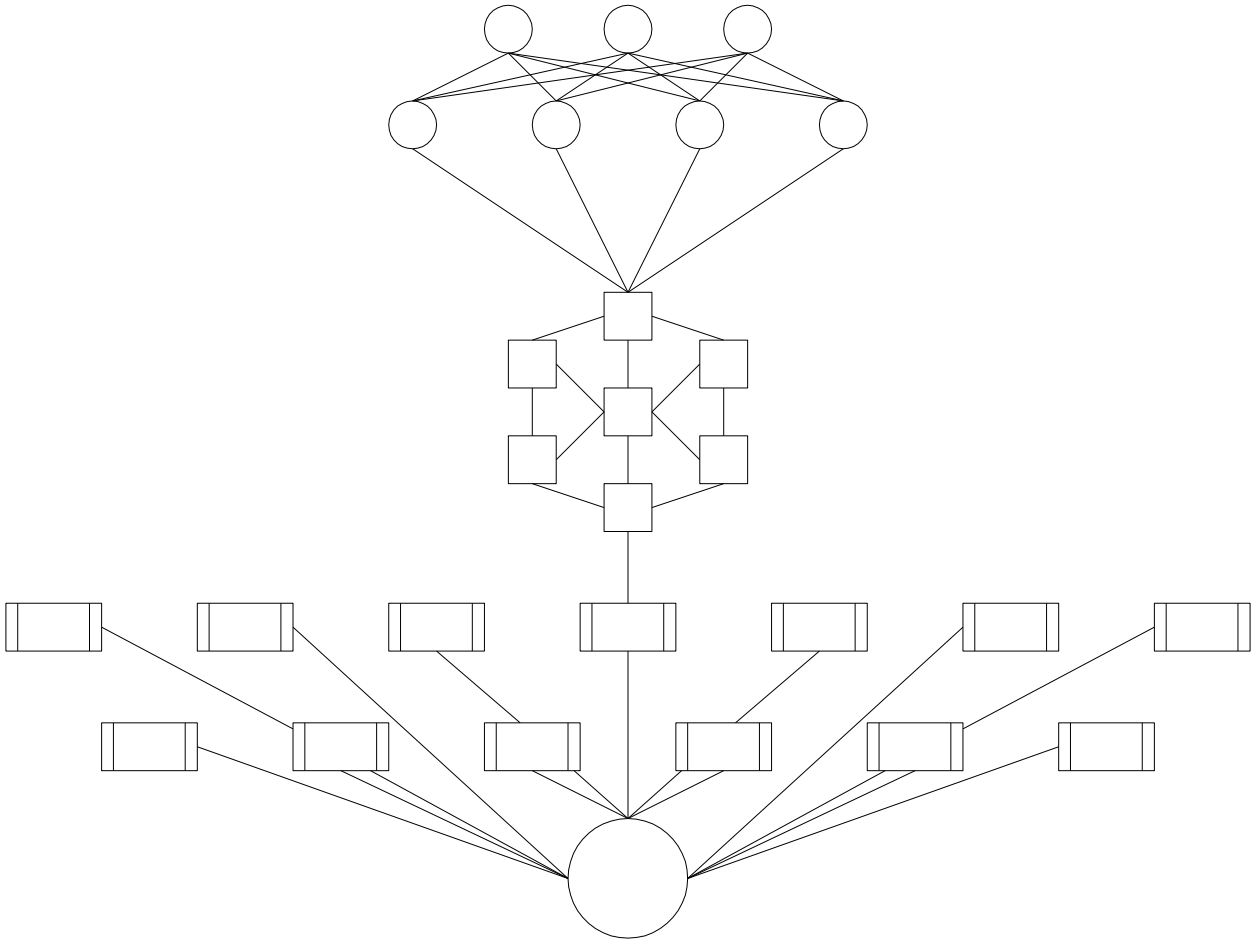
THE BUSINESS PROFILING SEQUENCES
and
CHART OF PROCEDURES



(I)
FORWARD CHAINING SEQUENCES

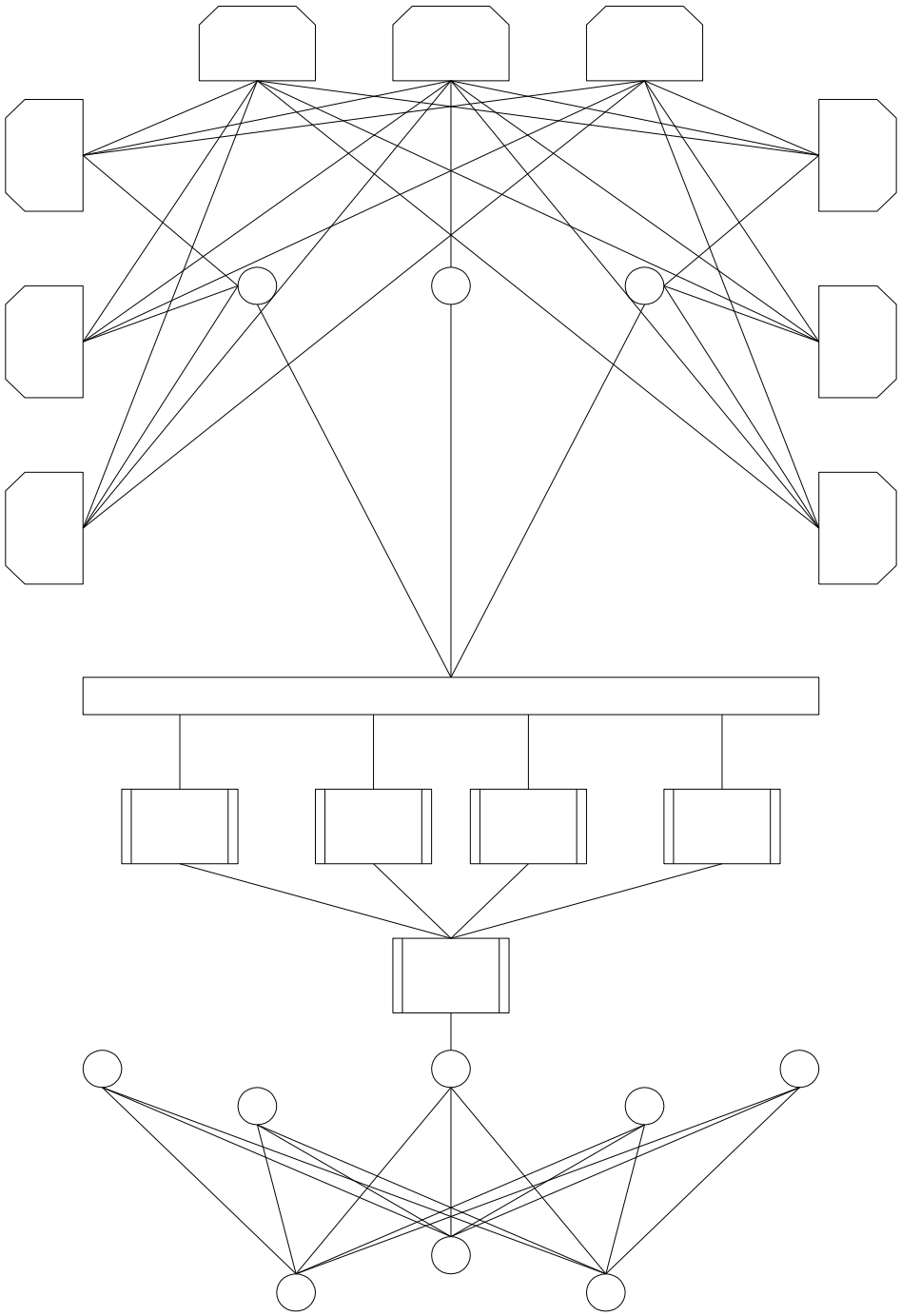
DESCRIBE\ESTIMATE\MEASURE RELATIONSHIPS (VIII)

THE BUSINESS PROFILING SEQUENCES
and
CHART OF PROCEDURES



(I)
BACKWARD CHAINING SEQUENCES

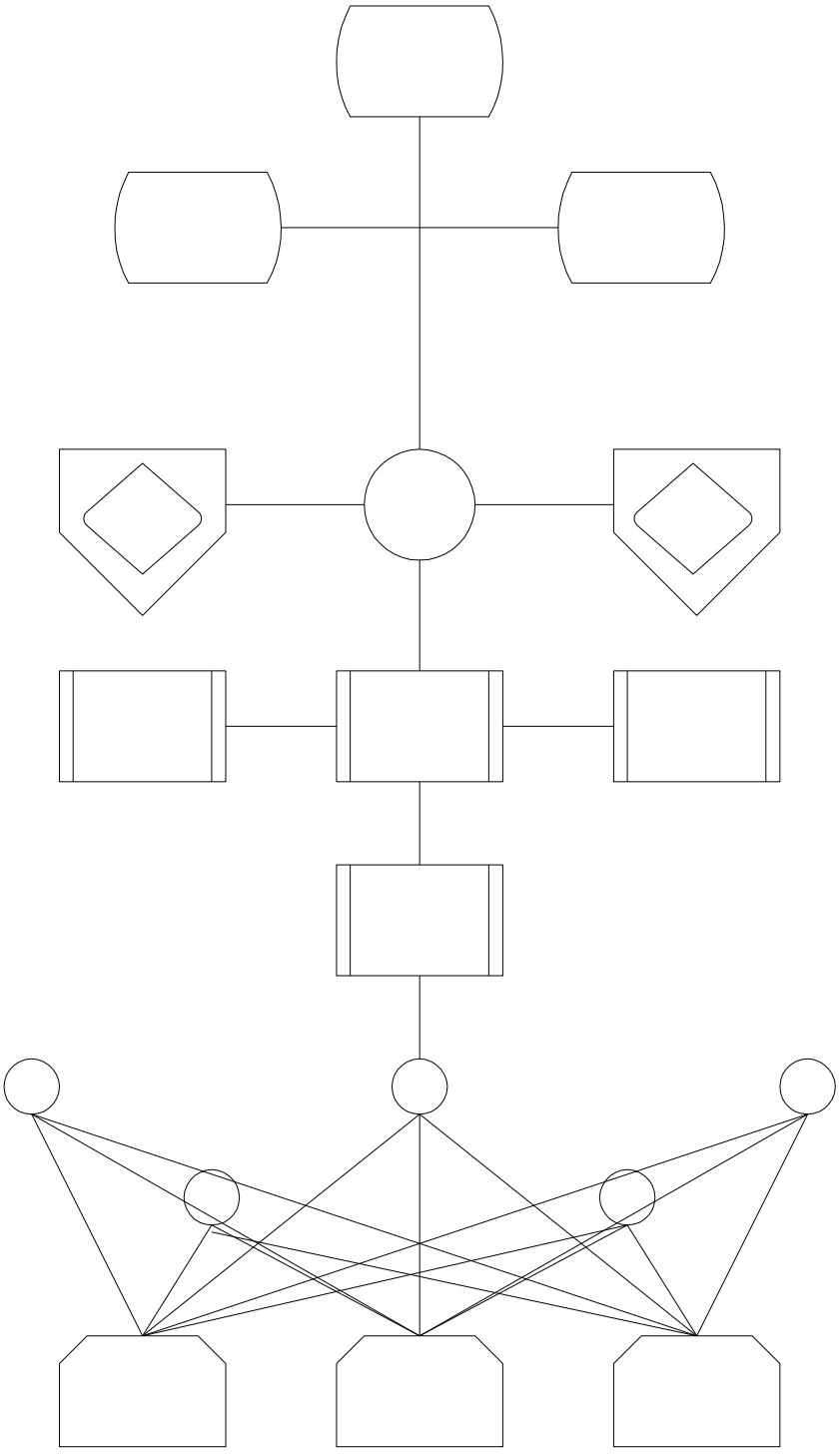
THE GENERAL CONTRACTOR PERSONAL INFRASTRUCTURE SYSTEMS
and
CHART OF PROCEDURES



(II)
FORWARD CHAINING SEQUENCES

ANALYZE PROJECT IMPACTS ON SOCIETY (II)

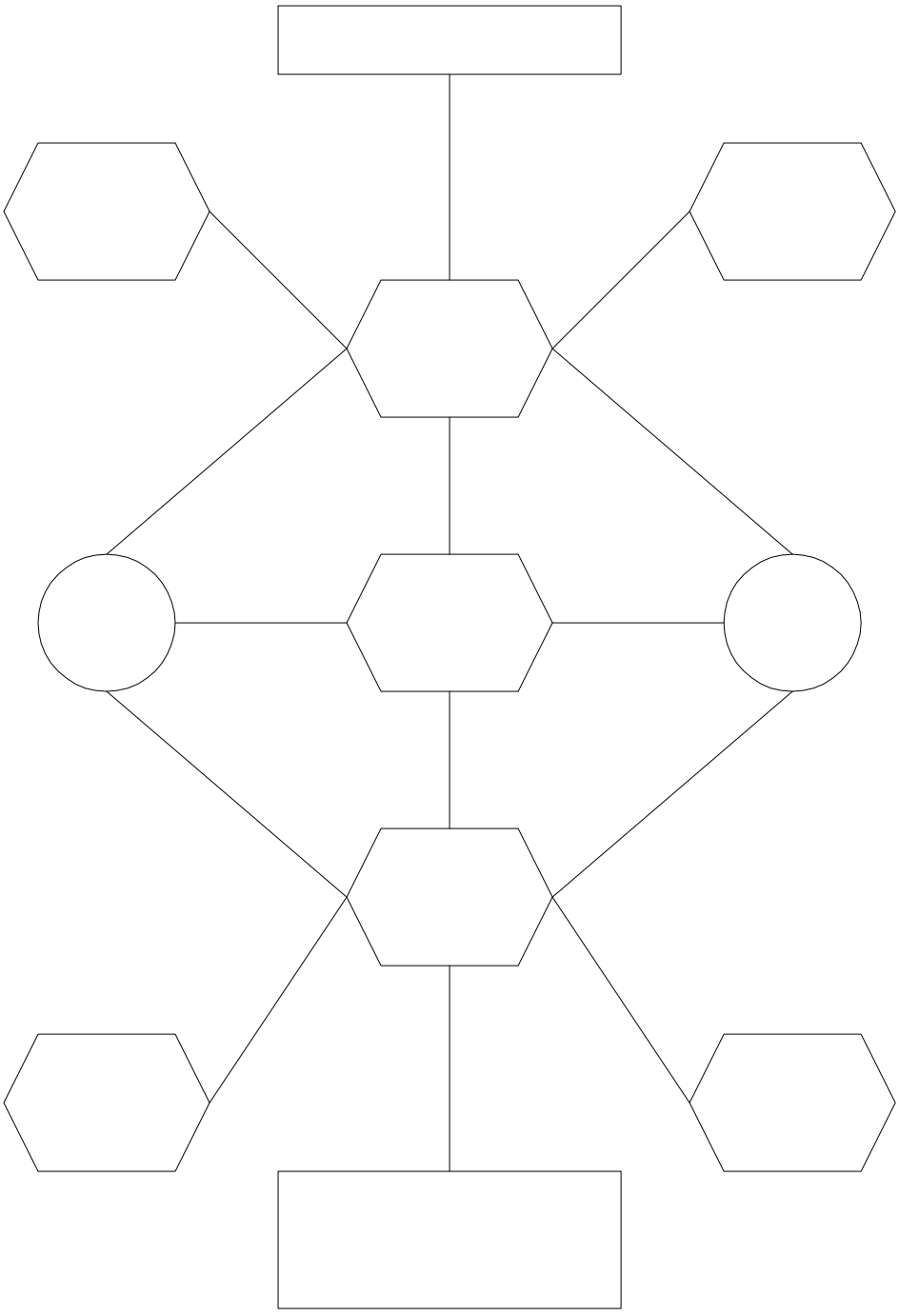
THE GENERAL CONTRACTOR PERSONAL INFRASTRUCTURE SYSTEMS
and
CHART OF PROCEDURES



(II)
BACKWARD CHAINING SEQUENCES

PURPOSE, CONTROL (4)

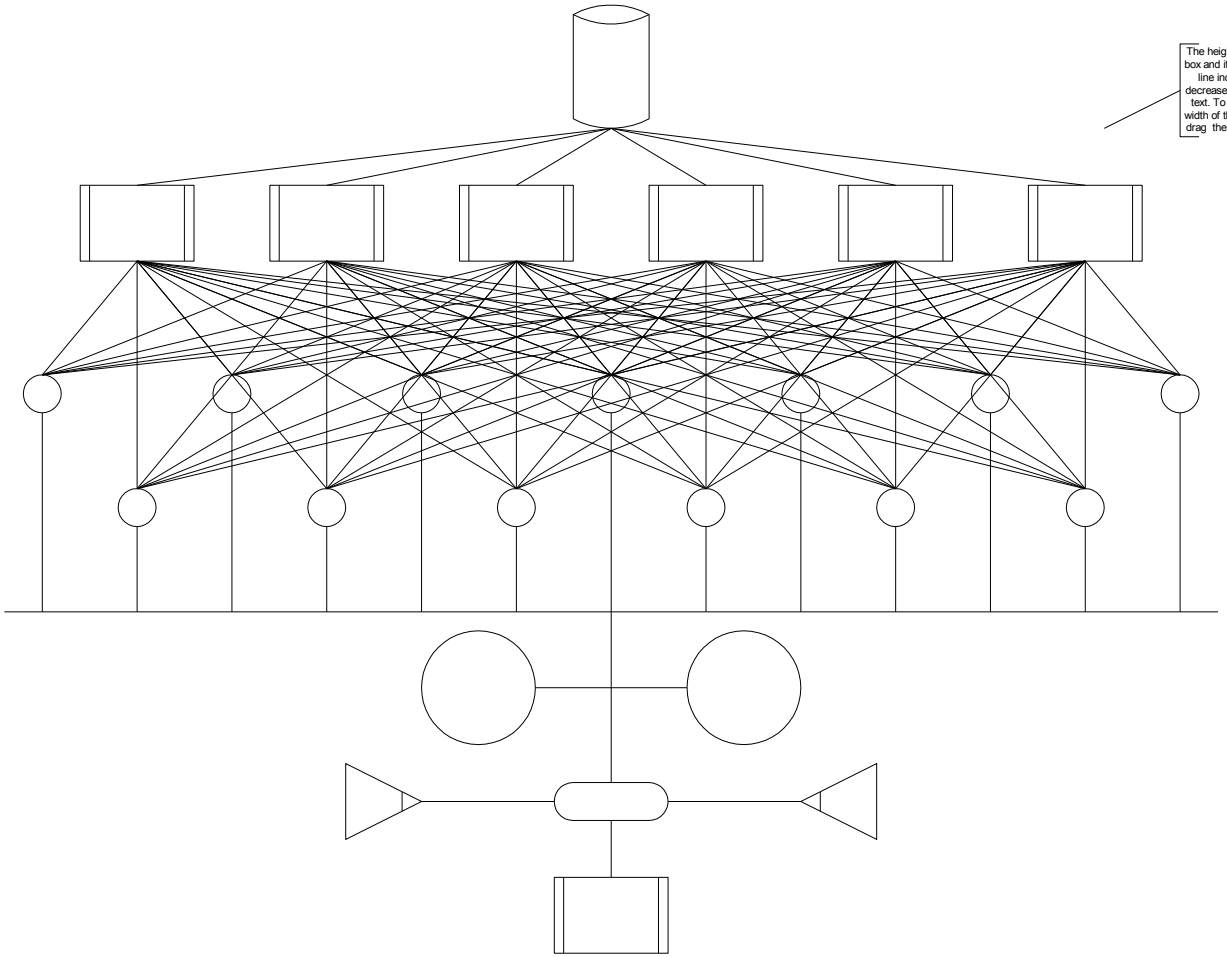
THE GENERAL CONTRACTOR FINANCIAL PROCESS SYSTEMS
and
CHART OF PROCEDURES



(III)
FORWARD CHAINING SEQUENCES

ANALYZE POLICY SETTING & DECISION-MAKING
VARIABLES (XVI)

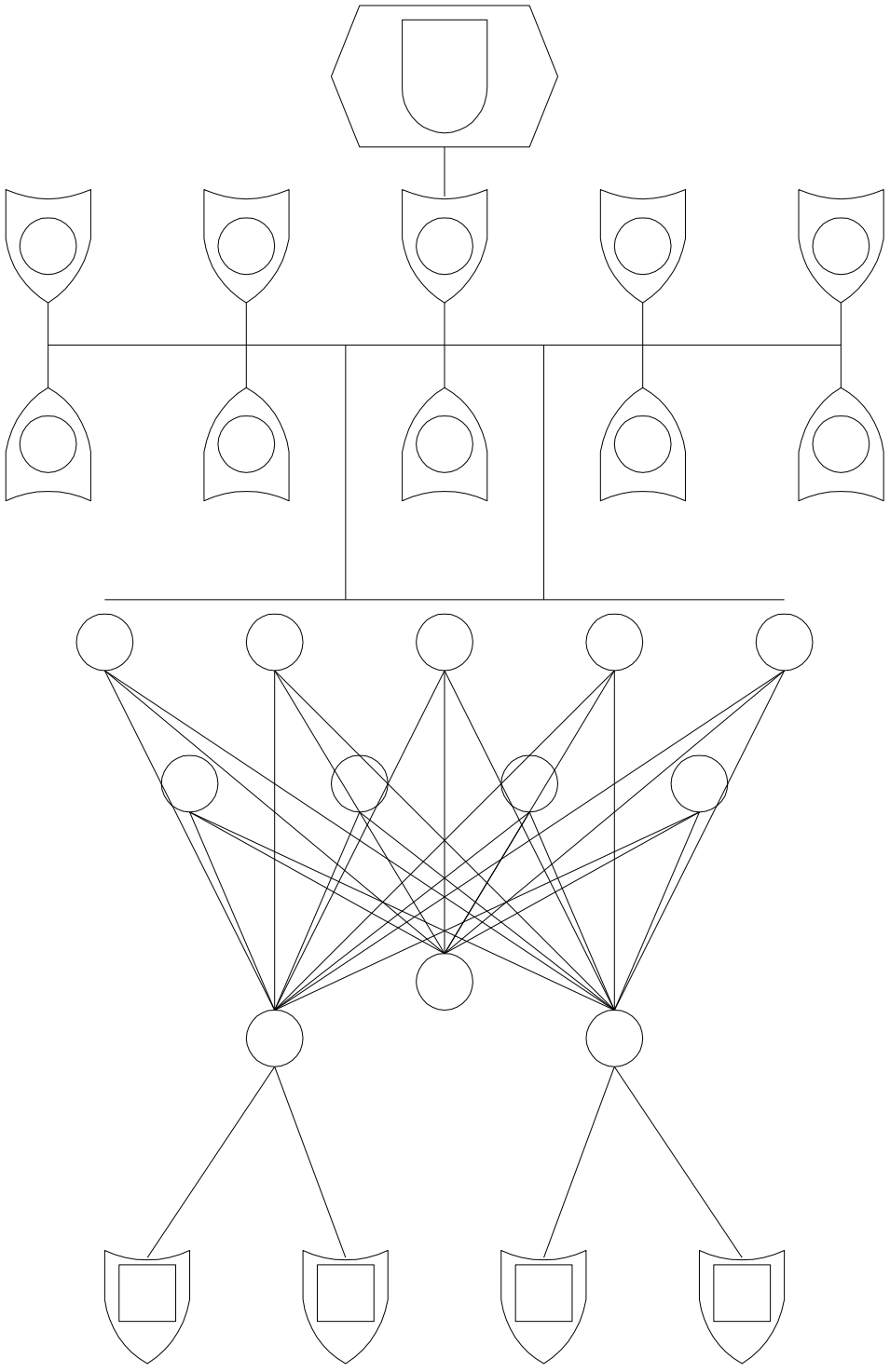
THE GENERAL CONTRACTOR FINANCIAL PROCESS SYSTEMS
and
CHART OF PROCEDURES



(III)
BACKWARD CHAINING SEQUENCES

PURPOSE, MEASURES (3)

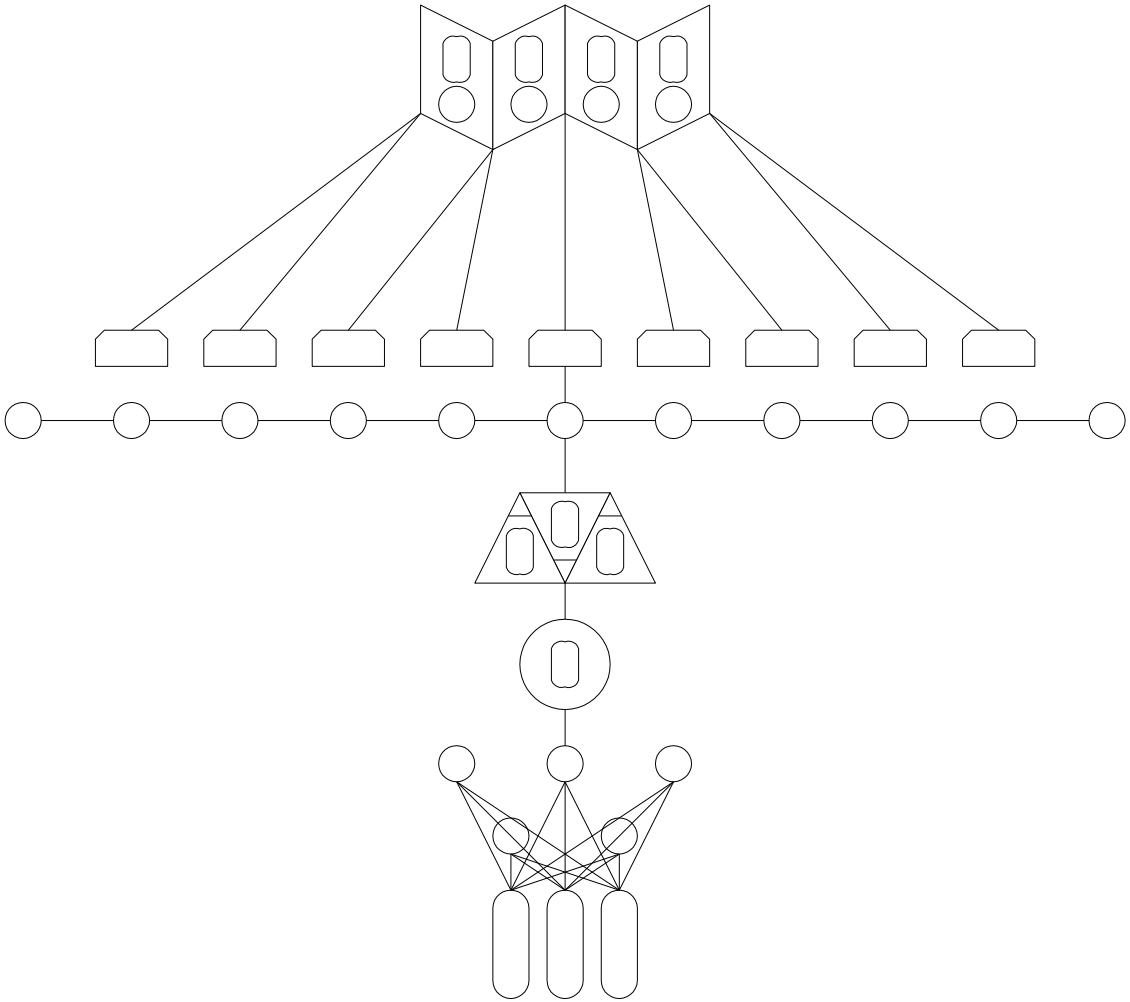
THE NETWORK INFRASTRUCTURAL SHEET
and
CHART OF PROCEDURES



(IV)
FORWARD CHAINING SEQUENCES

ESTABLISH PROJECT SCHEDULES & BASIS for
MEASURING PROGRESS & PERFORMANCE (III)

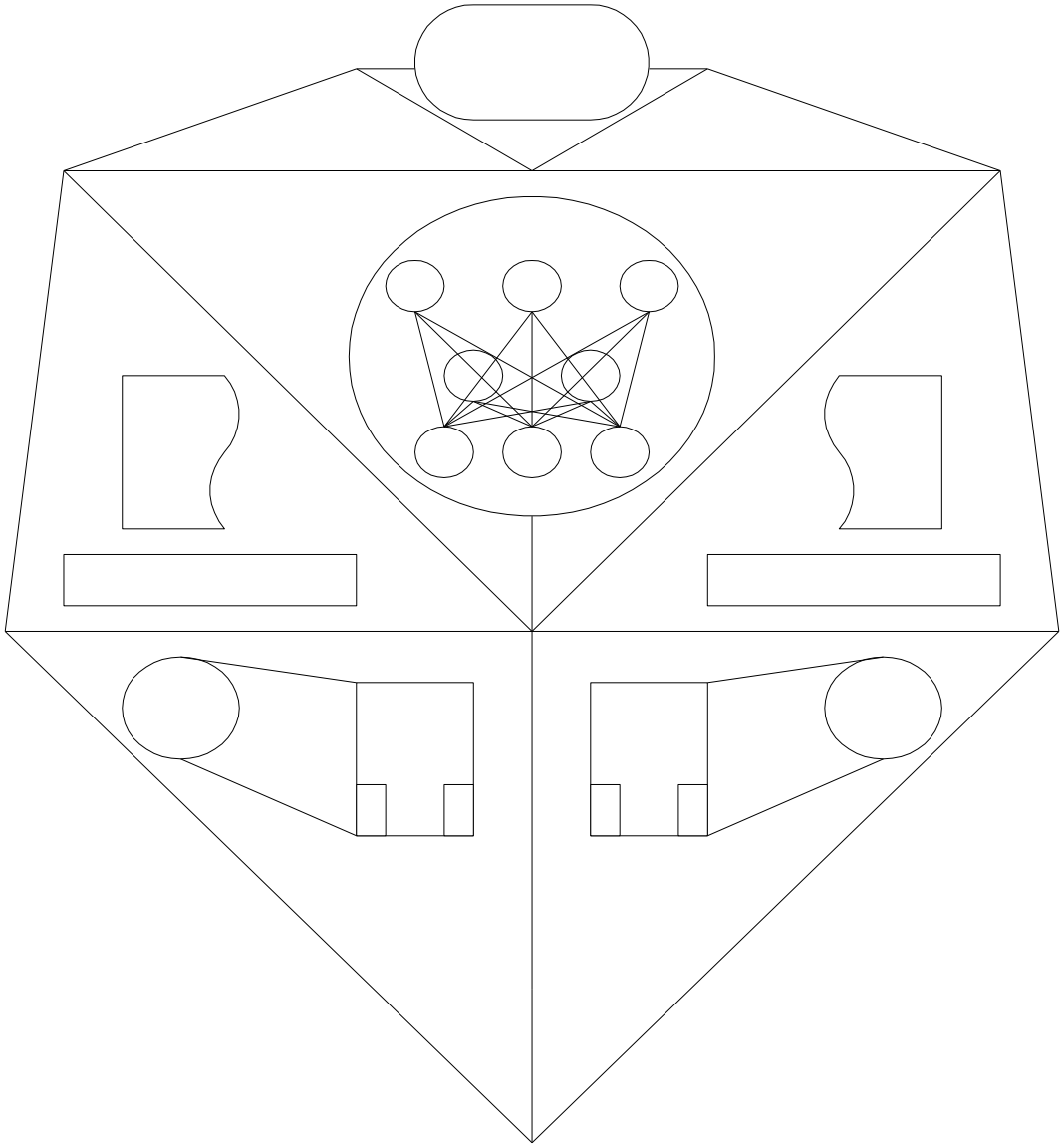
THE NETWORK INFRASTRUCTURAL SHEET
and
CHART OF PROCEDURES



(IV)
BACKWARD CHAINING SEQUENCES

OUTPUTS, VALUES (14)

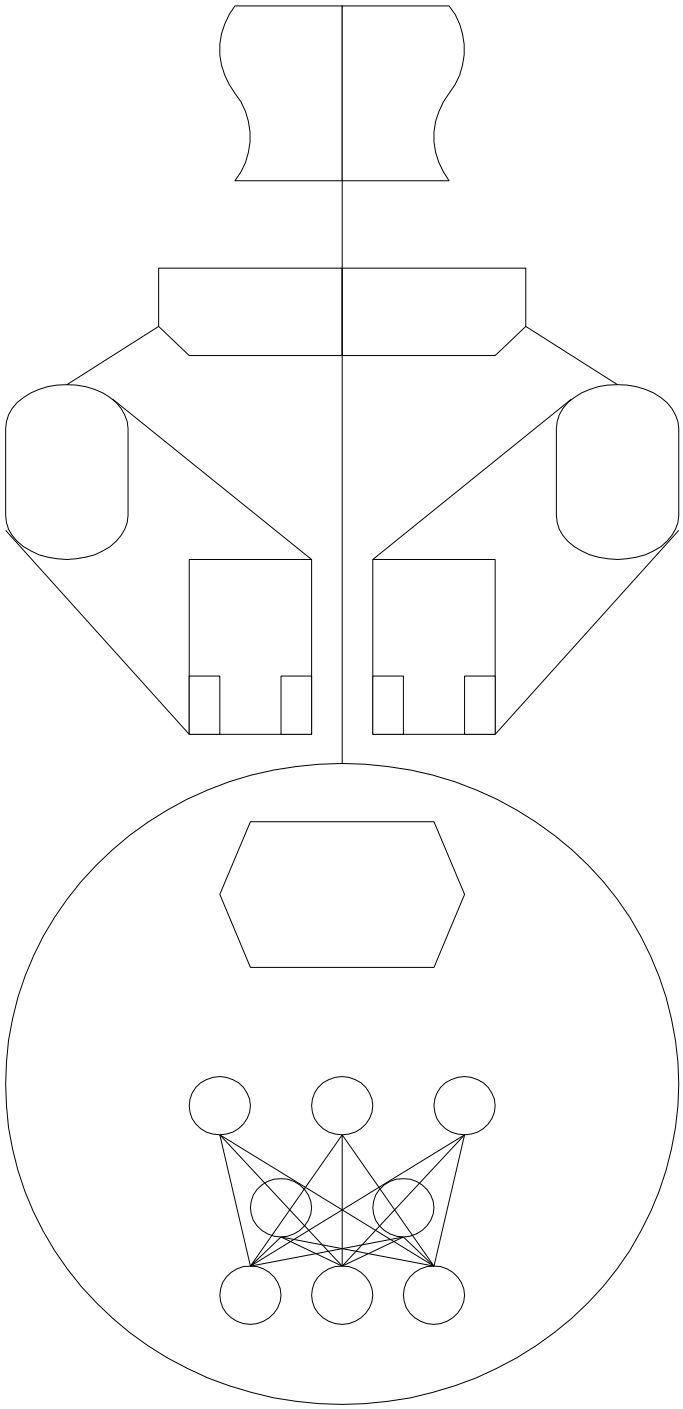
THE NETWORK PARTICIPANTORY PROCESS SYSTEMS
and
CHART OF PROCEDURES



(V)
FORWARD CHAINING SEQUENCES

INVOLVE PEOPLE (XIV)

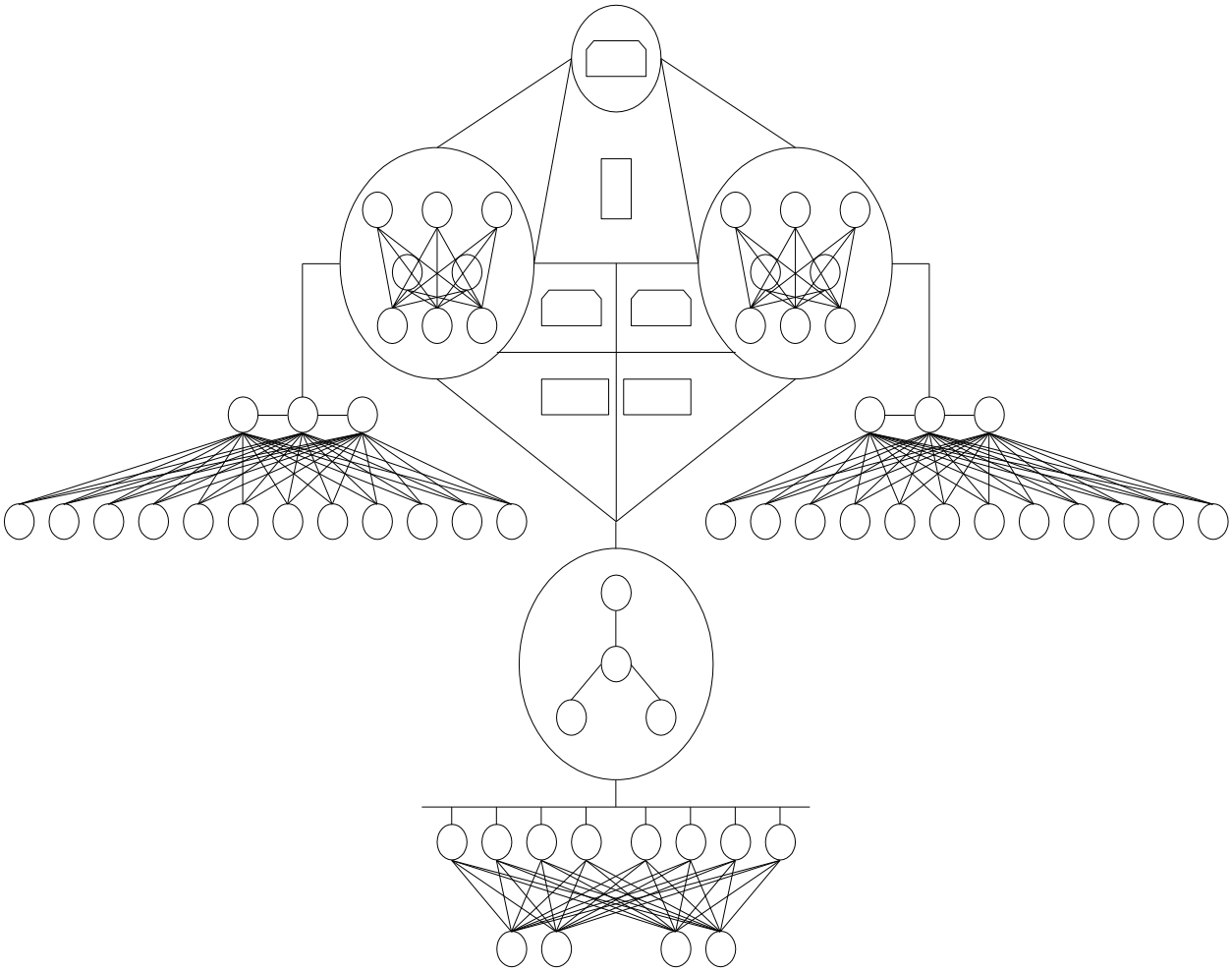
THE NETWORK PARTICIPANTORY PROCESS SYSTEMS
and
CHART OF PROCEDURES



(V)
BACKWARD CHAINING SEQUENCES

HUMAN AGENTS, CONTROL (34)

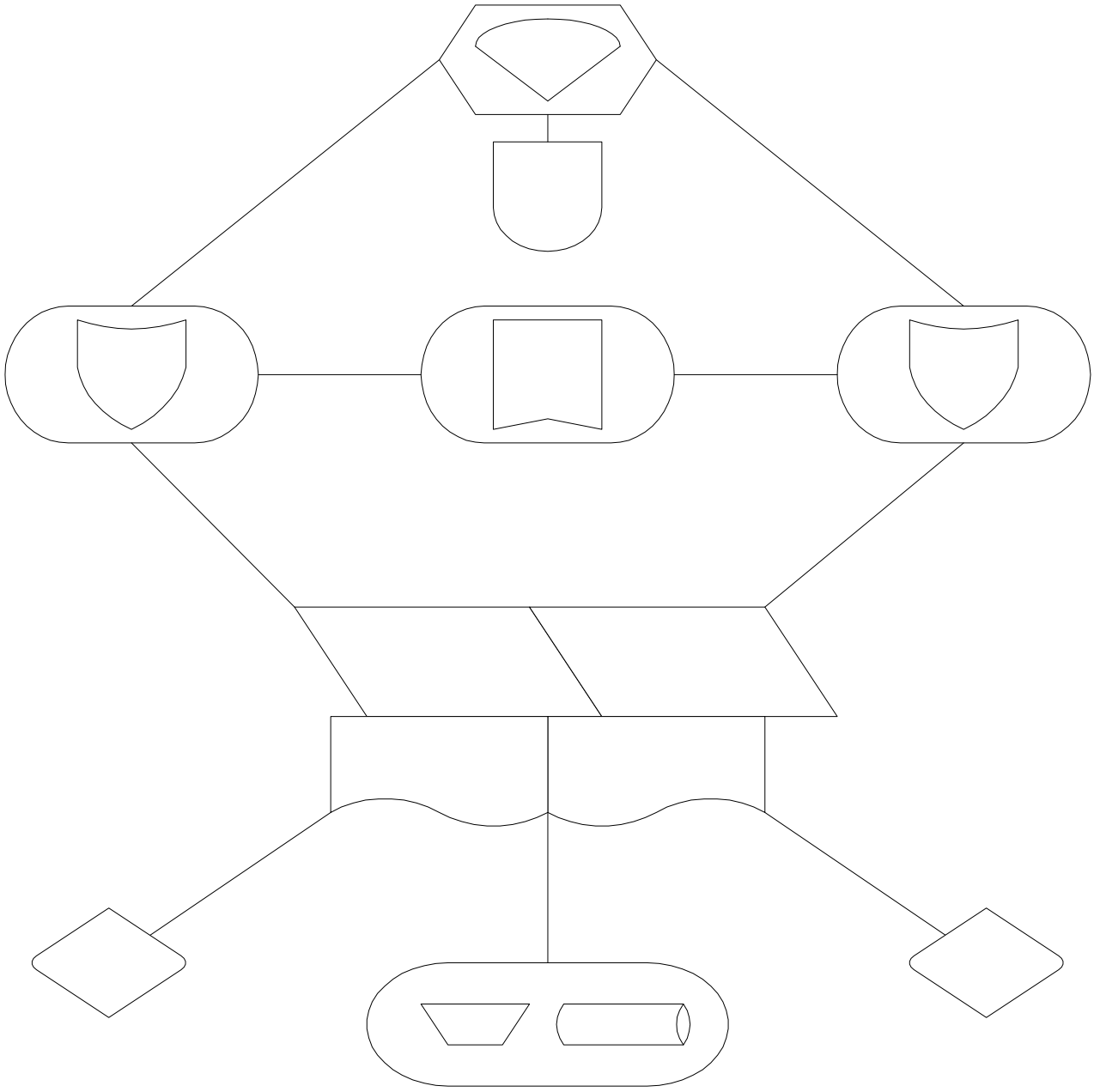
THE NETWORK FINANCIAL PROCESS SYSTEMS
and
CHART OF PROCEDURES



(VI)
FORWARD CHAINING SEQUENCES

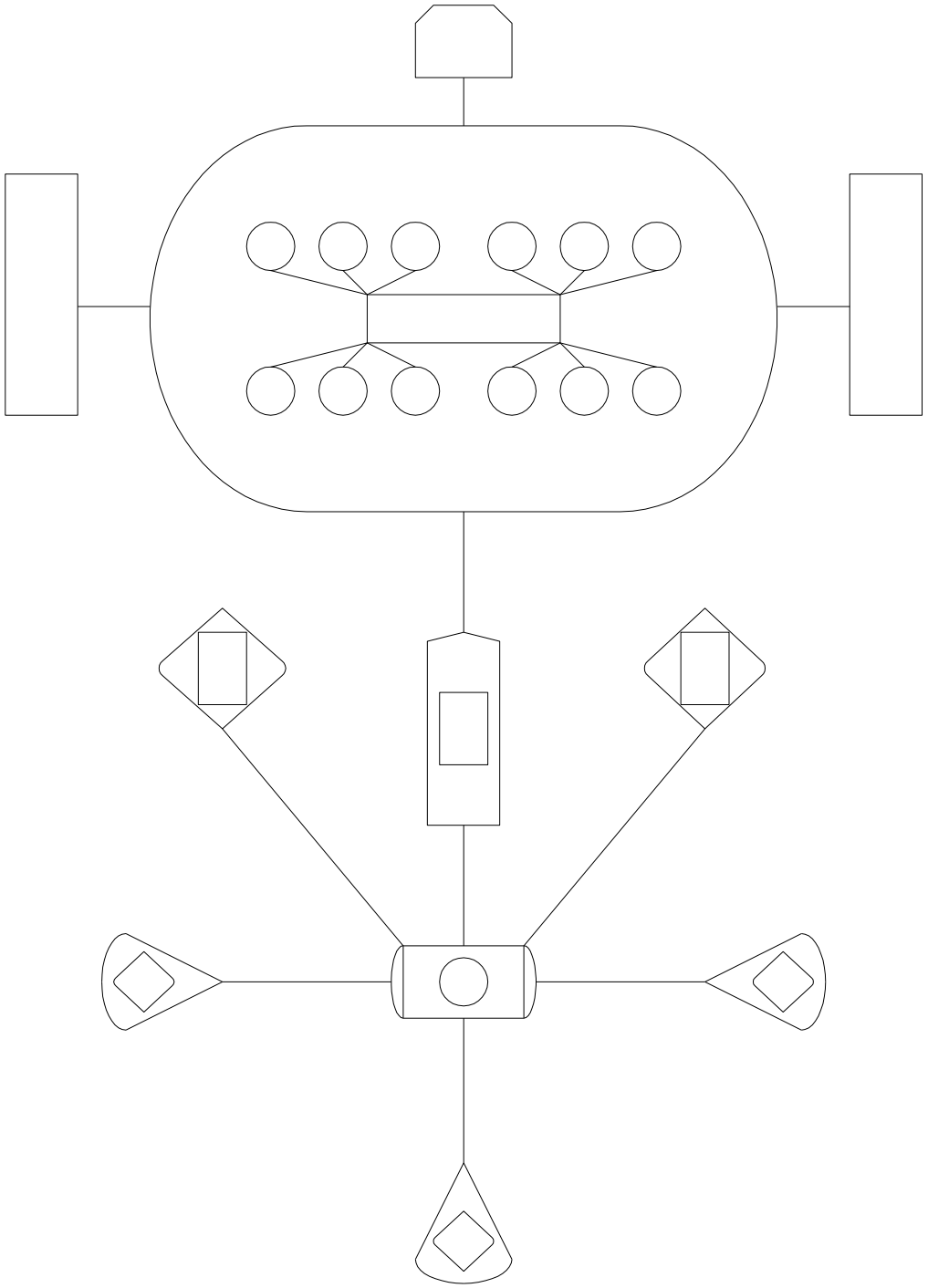
IDENTIFY (PRODUCT) OPPORTUNITIES (I)

THE NETWORK FINANCIAL PROCESS SYSTEMS
and
CHART OF PROCEDURES



(VI)
BACKWARD CHAINING SEQUENCES

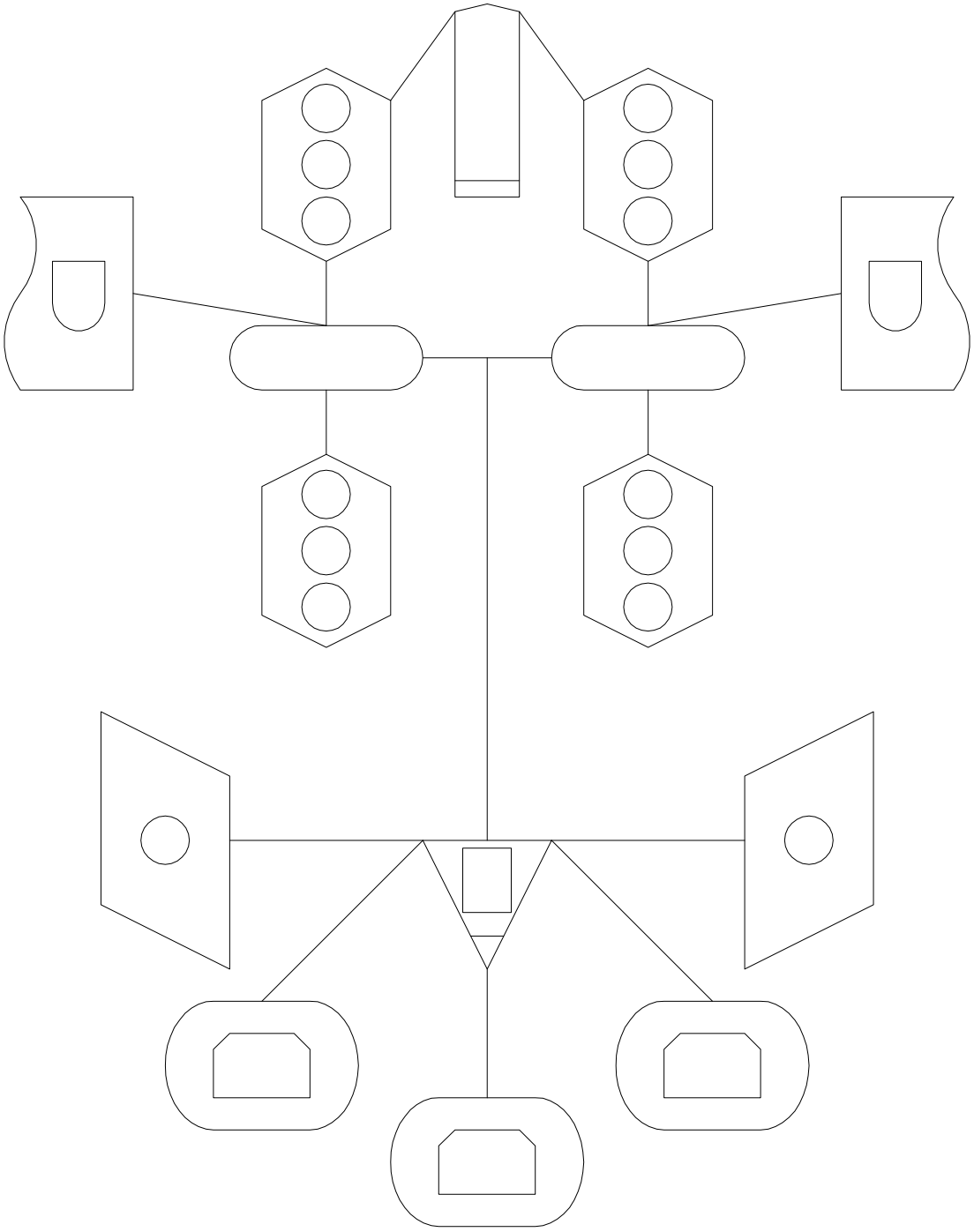
PHYSICAL CATALYSTS, MEASURES (39)



(VII)
FORWARD CHAINING SEQUENCES

ESTIMATE BUDGET & DOLLAR REQUIREMENTS (XI)

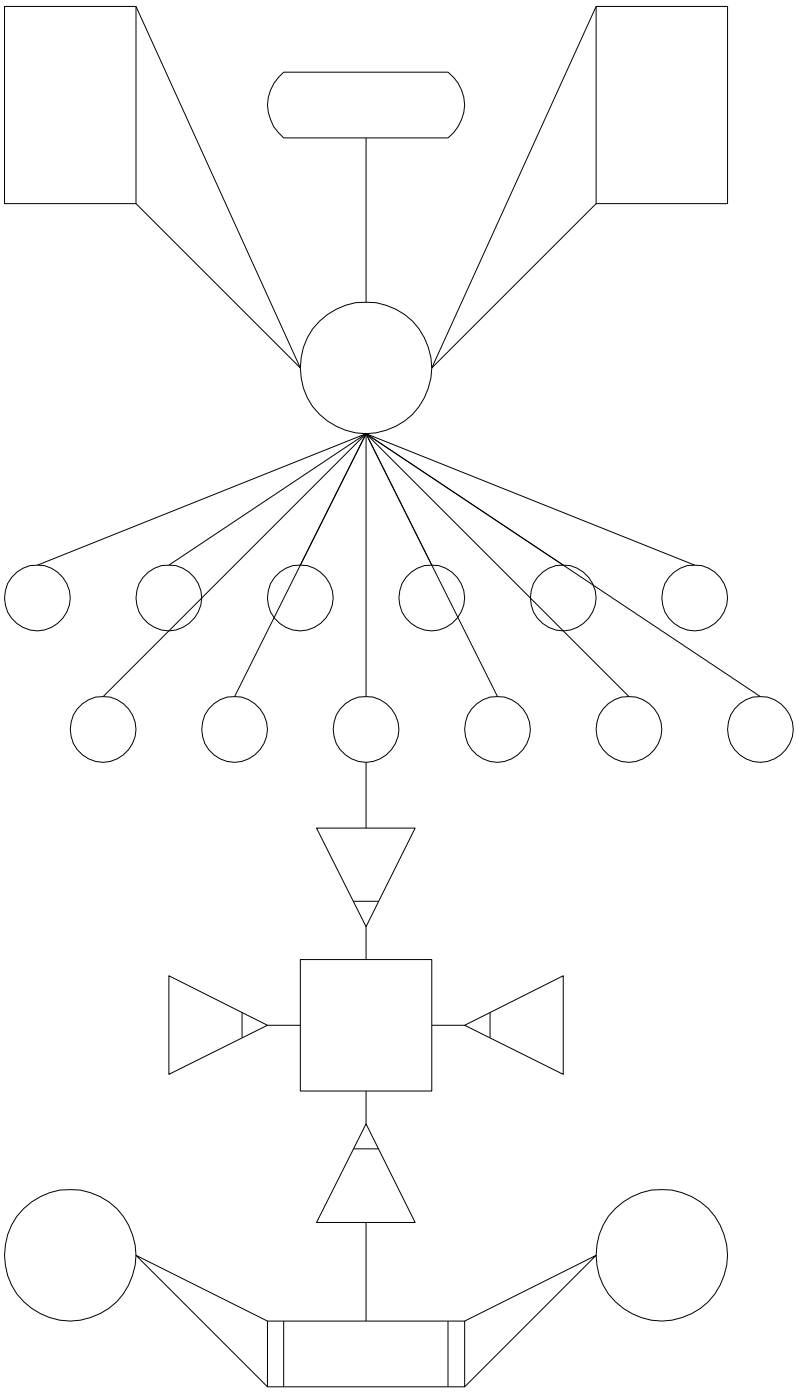
THE NETWORK OPERATIONAL THEORIES, COST, PROCESS SYSTEMS
and
CHART OF PROCEDURES



(VII)
BACKWARD CHAINING SEQUENCES

INPUTS, MEASURES (9)

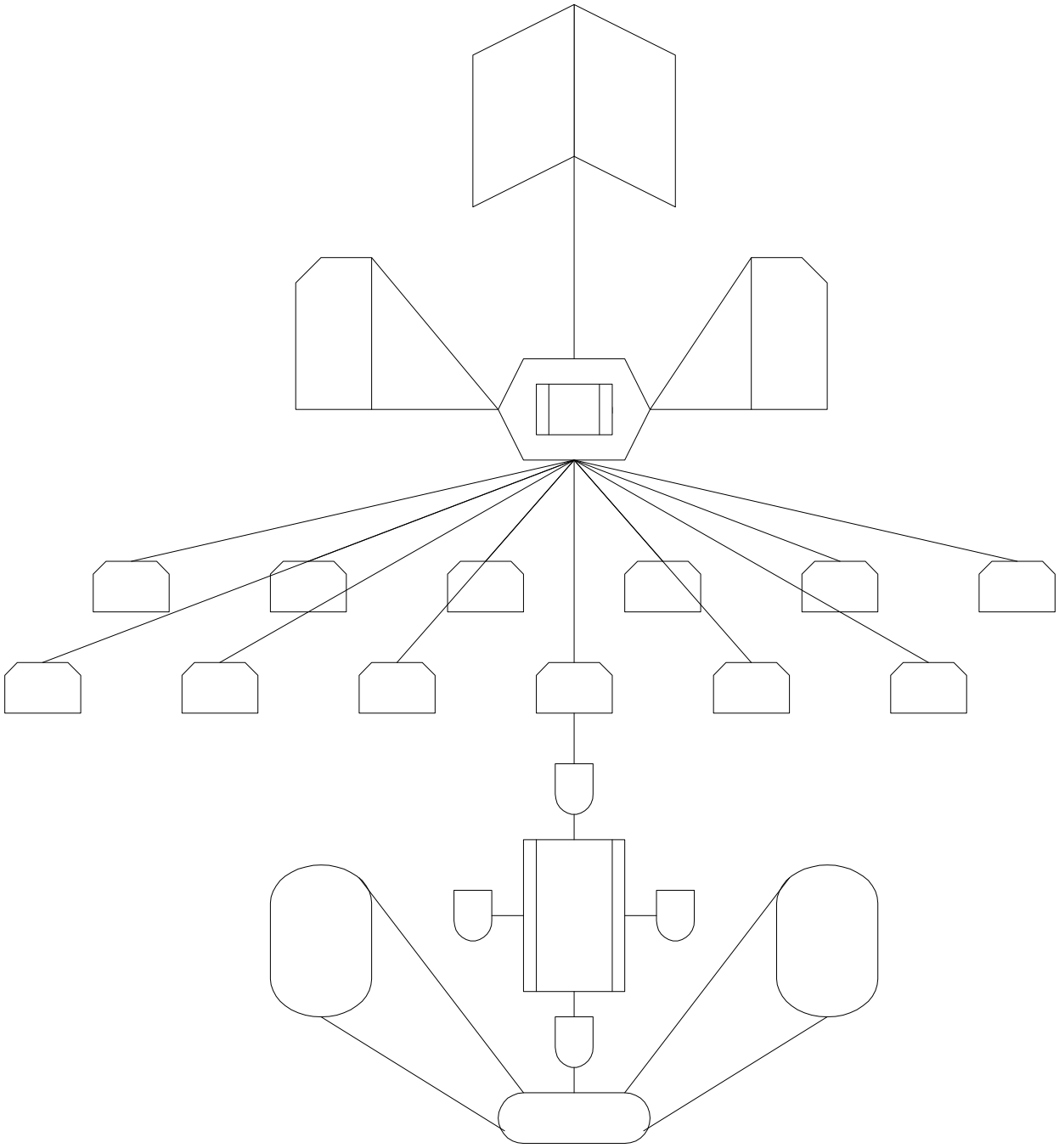
THE NETWORK FINANCIAL TIMELINE CONFIGURATIONS, STEPS, PROCESS SYSTEMS
and
CHART OF PROCEDURES



(VIII)
FORWARD CHAINING SEQUENCES

ANALYZE INVESTMENTS (XVI)

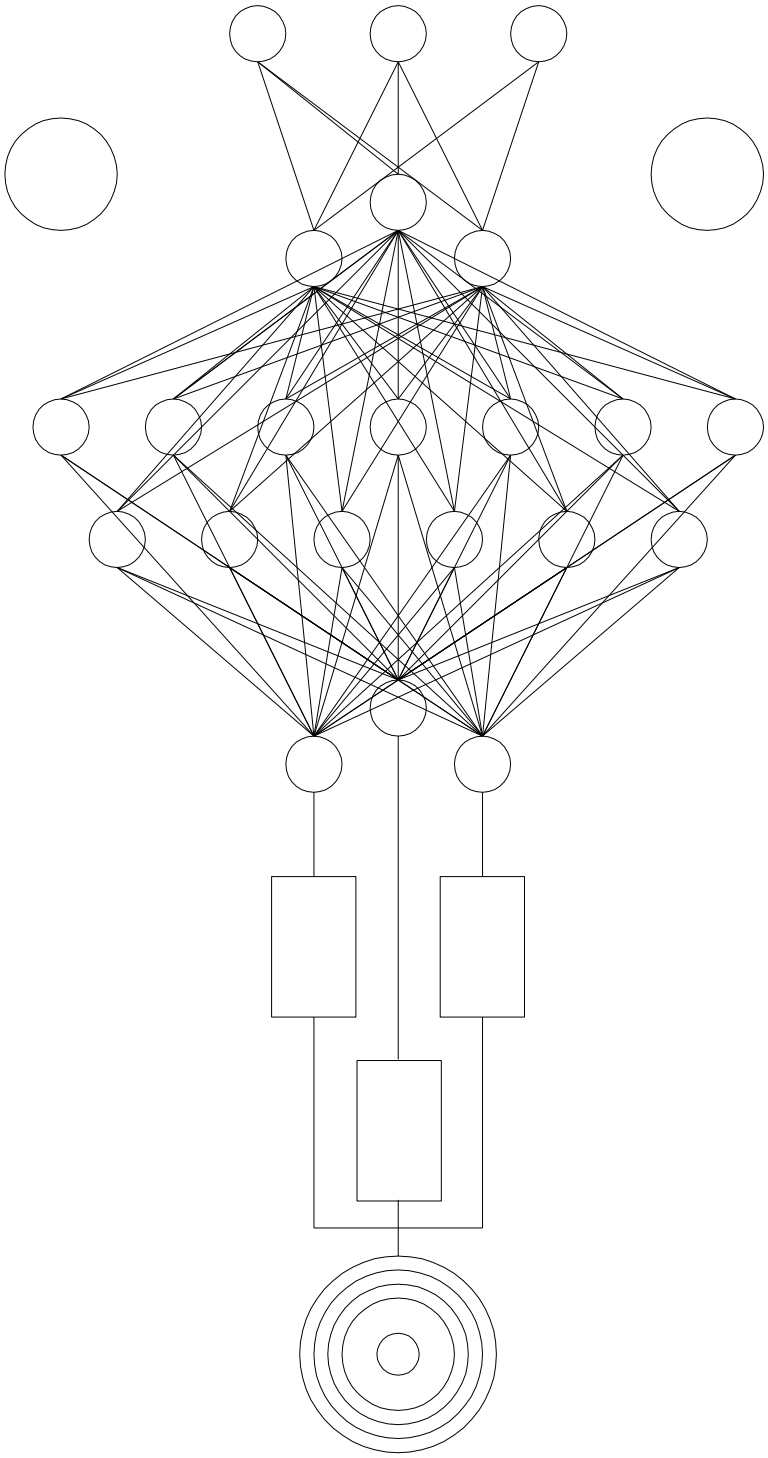
THE NETWORK FINANCIAL TIMELINE CONFIGURATIONS, STEPS, PROCESS SYSTEMS
and
CHART OF PROCEDURES



(VIII)
BACKWARD CHAINING SEQUENCES

INPUTS, CONTROL (10)

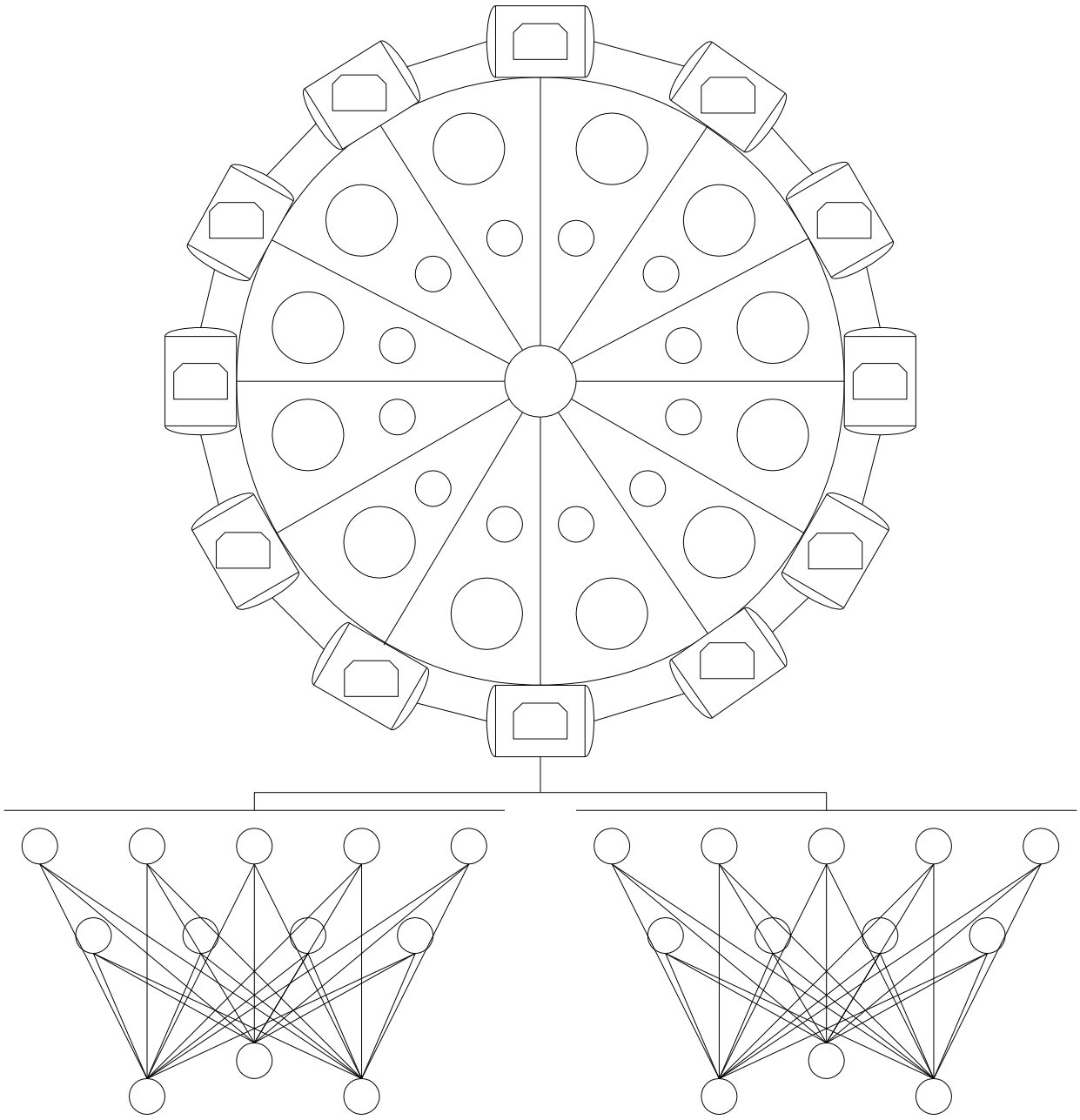
THE INTERNATIONAL FINANCIAL NETWORK PROCESS SYSTEMS
and
CHART OF PROCEDURES



(IX)
FORWARD CHAINING SEQUENCES

IDENTIFY (PROJECT) OPPORTUNITIES (I)

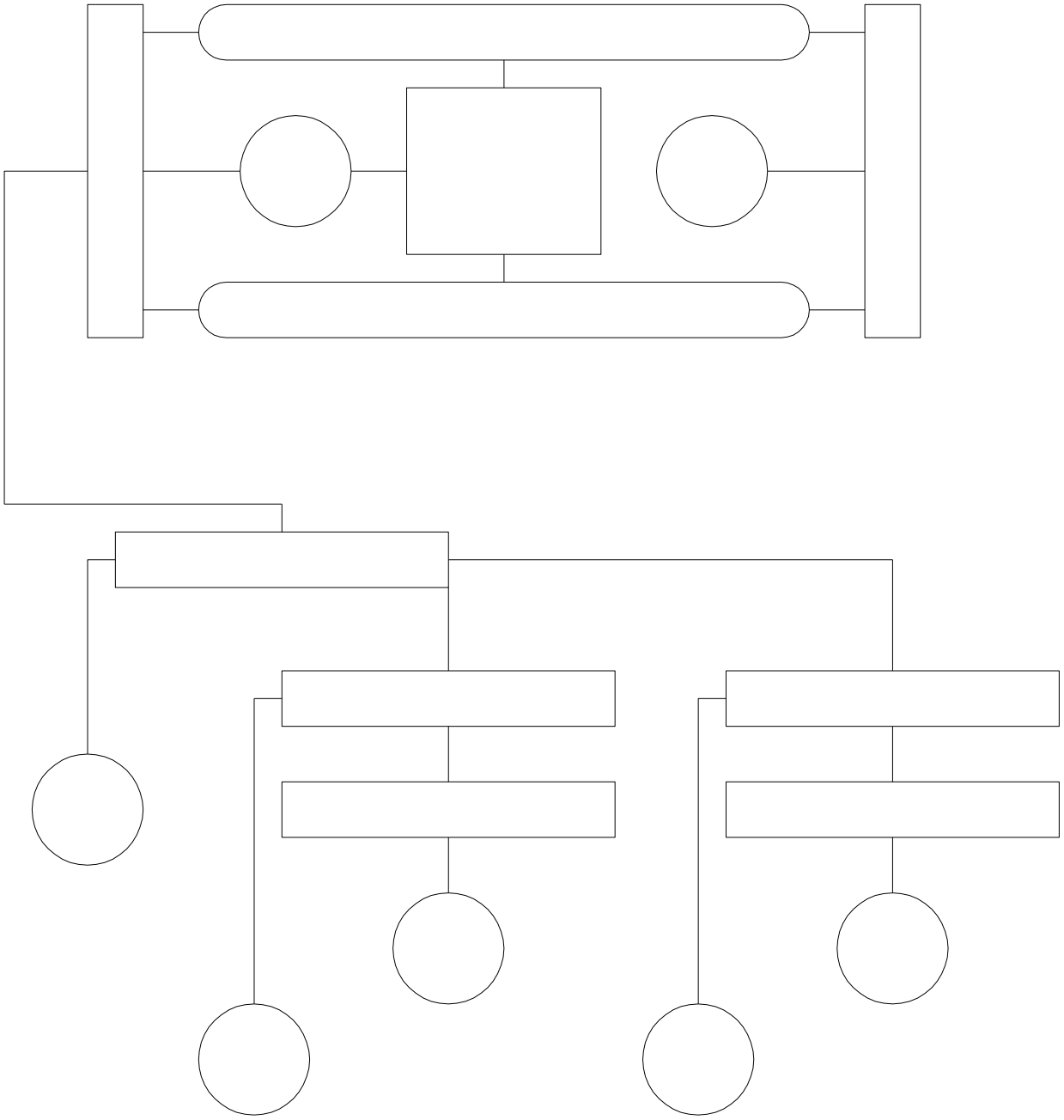
THE INTERNATIONAL FINANCIAL NETWORK PROCESS SYSTEMS
and
CHART OF PROCEDURES



(IX)
BACKWARD CHAINING SEQUENCES

ENVIRONMENT, MEASURES (27)

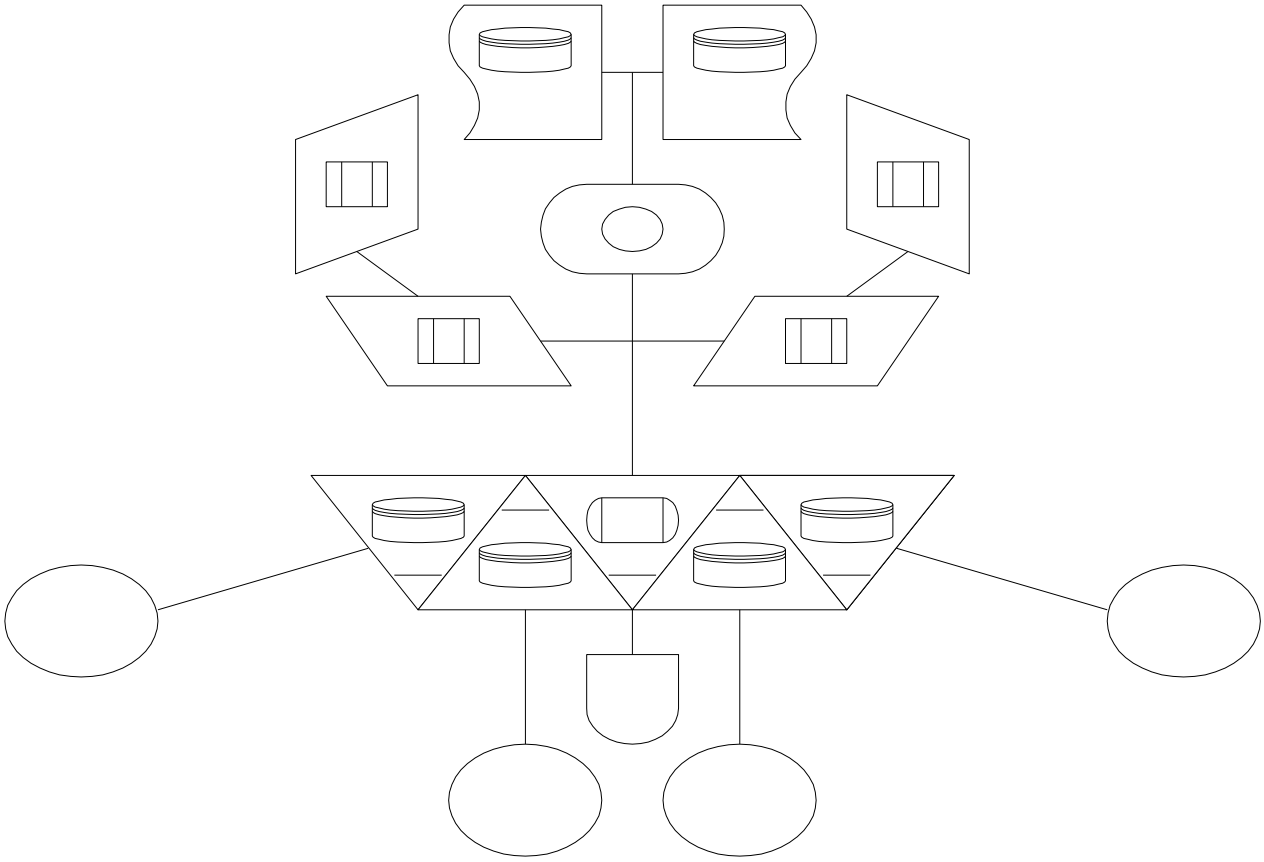
THE ECONOMIC INFRASTRUCTURE PROCESS SYSTEMS
and
CHART OF PROCEDURES



(X)
FORWARD CHAINING SEQUENCES

APPRAISE/ASSESS INVESTMENTS (XVI)

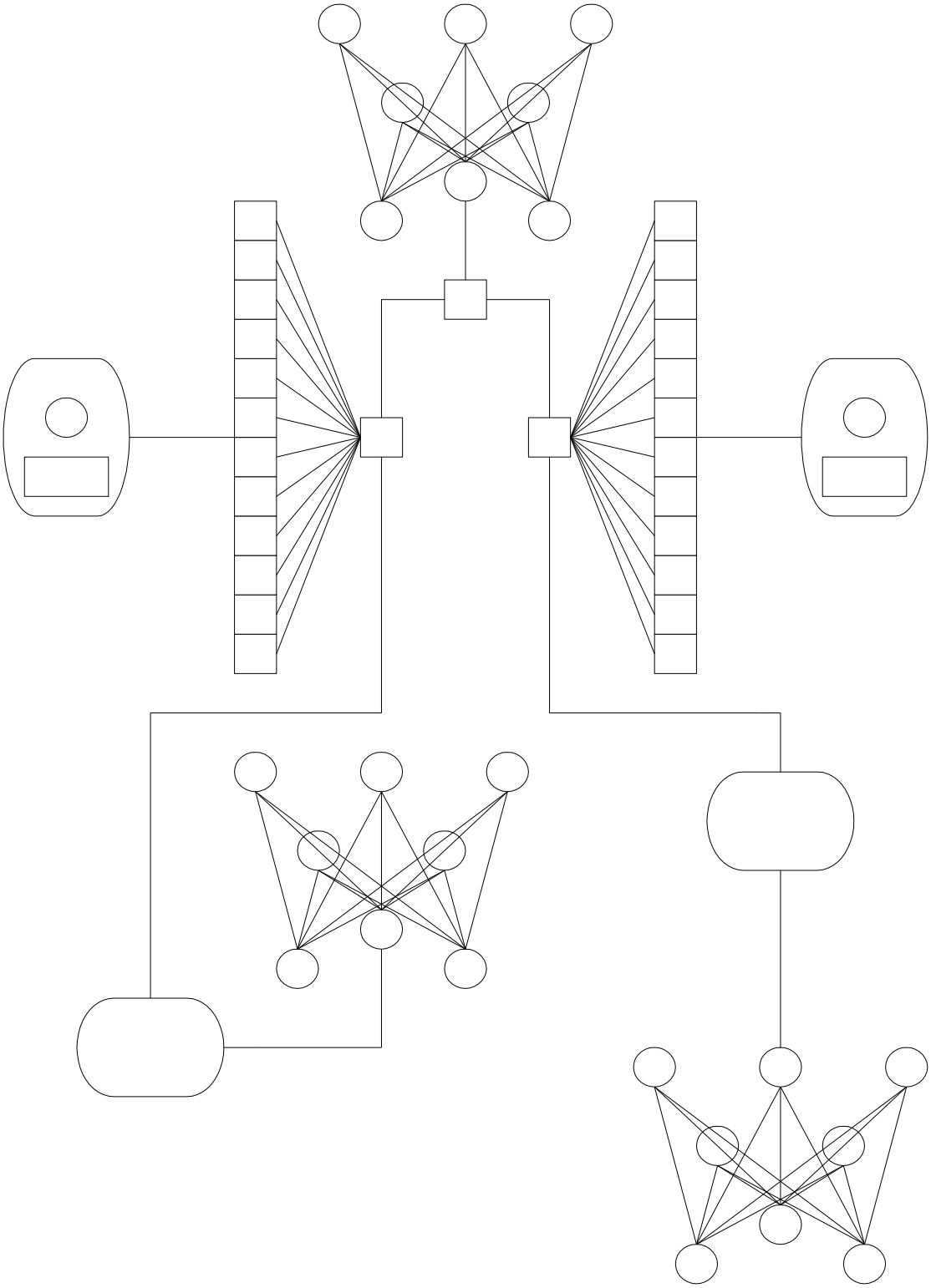
THE ECONOMIC INFRASTRUCTURE PROCESS SYSTEMS
and
CHART OF PROCEDURES



(X)
BACKWARD CHAINING SEQUENCES

ENVIRONMENT, FUTURE (30)

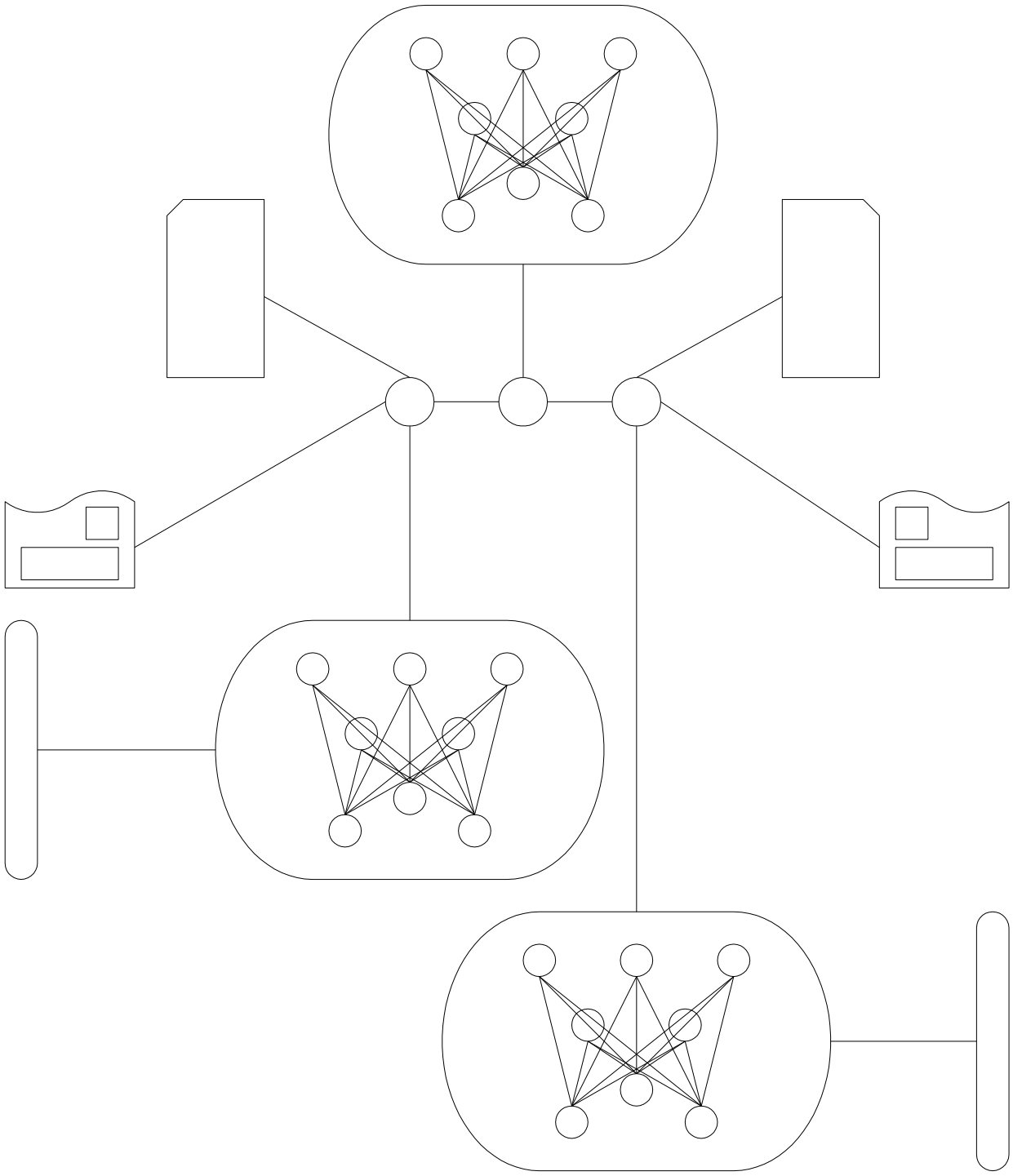
THE GEOGRAPHICAL EMPLOYMENT FACTORS, PROCESS SYSTEMS
and
CHART OF PROCEDURES



(XI)
FORWARD CHAINING SEQUENCES

INFORM & INVOLVE CITIZENS (XIV)

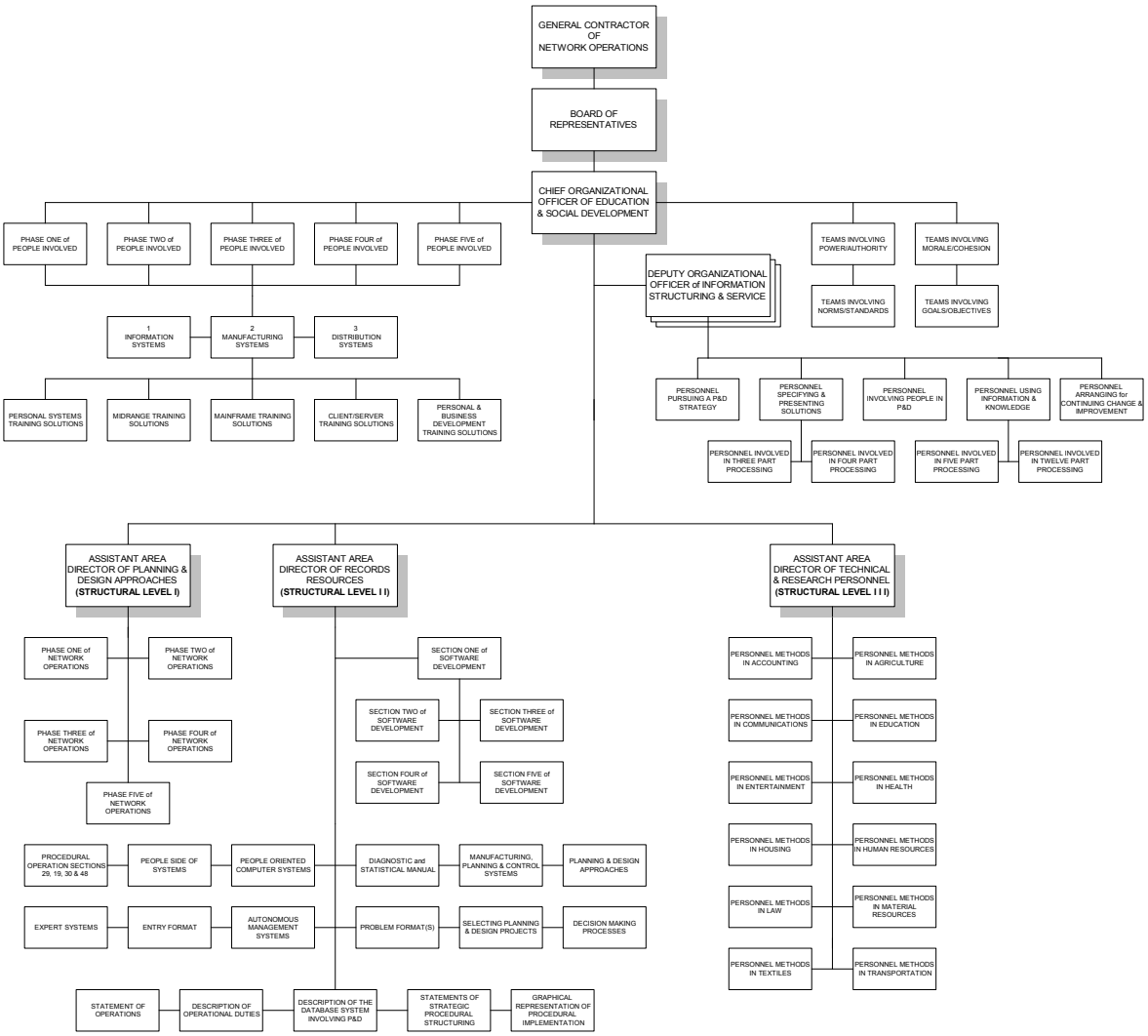
THE GEOGRAPHICAL EMPLOYMENT FACTORS, PROCESS SYSTEMS
and
CHART OF PROCEDURES



(XI)
BACKWARD CHAINING SEQUENCES

ENVIRONMENT, INTERFACE (29)

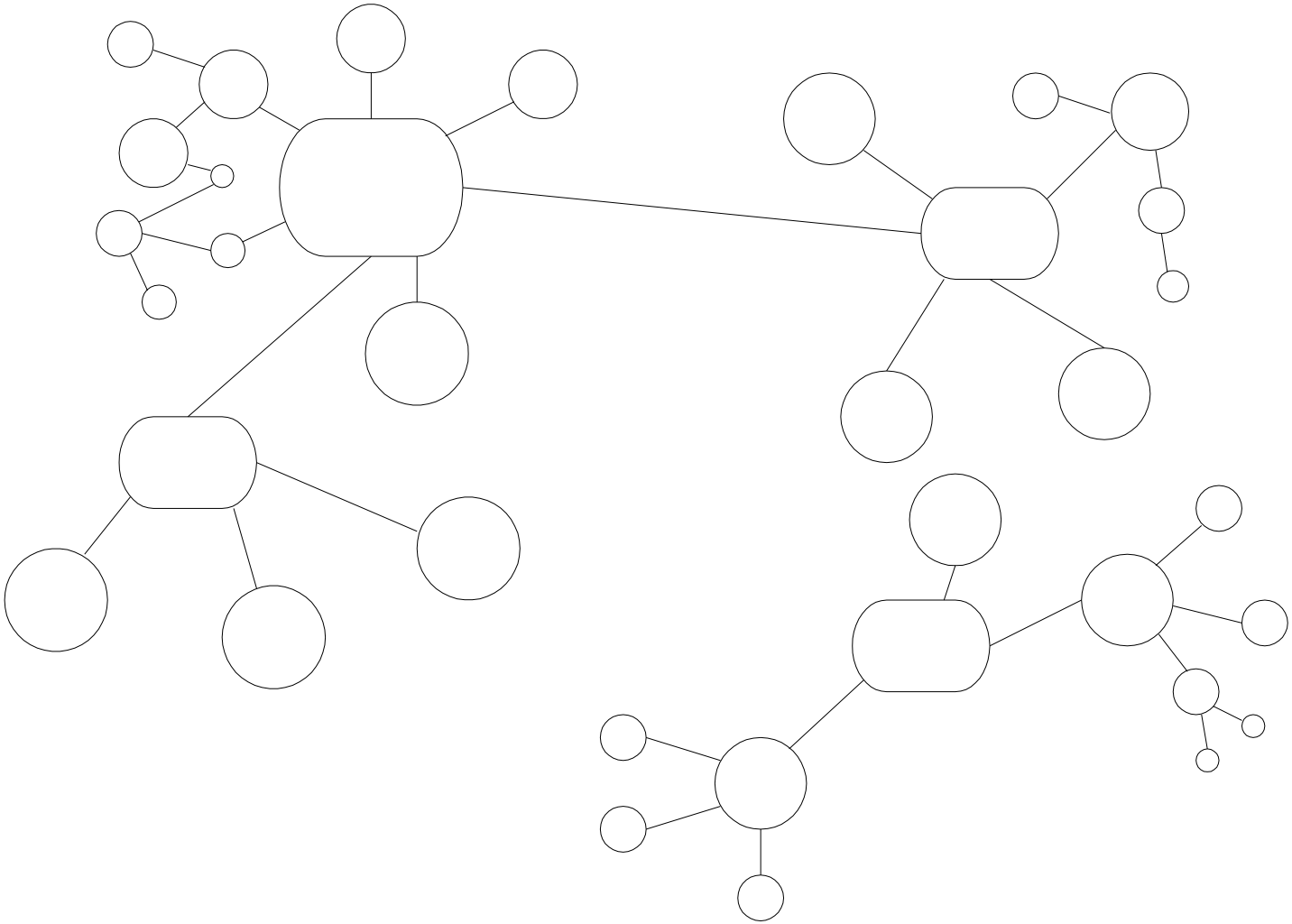
THE NETWORK EDUCATIONAL FORMAT, SYSTEMS
and
CHART OF PROCEDURES



(XII)
FORWARD CHAINING SEQUENCES

APPRAISE/ASSESS ALTERNATIVE OPTIONS/PLANS/POLICIES/
PROGRAMS/CONTIGENCIES/FUNCTIONS (XVI)

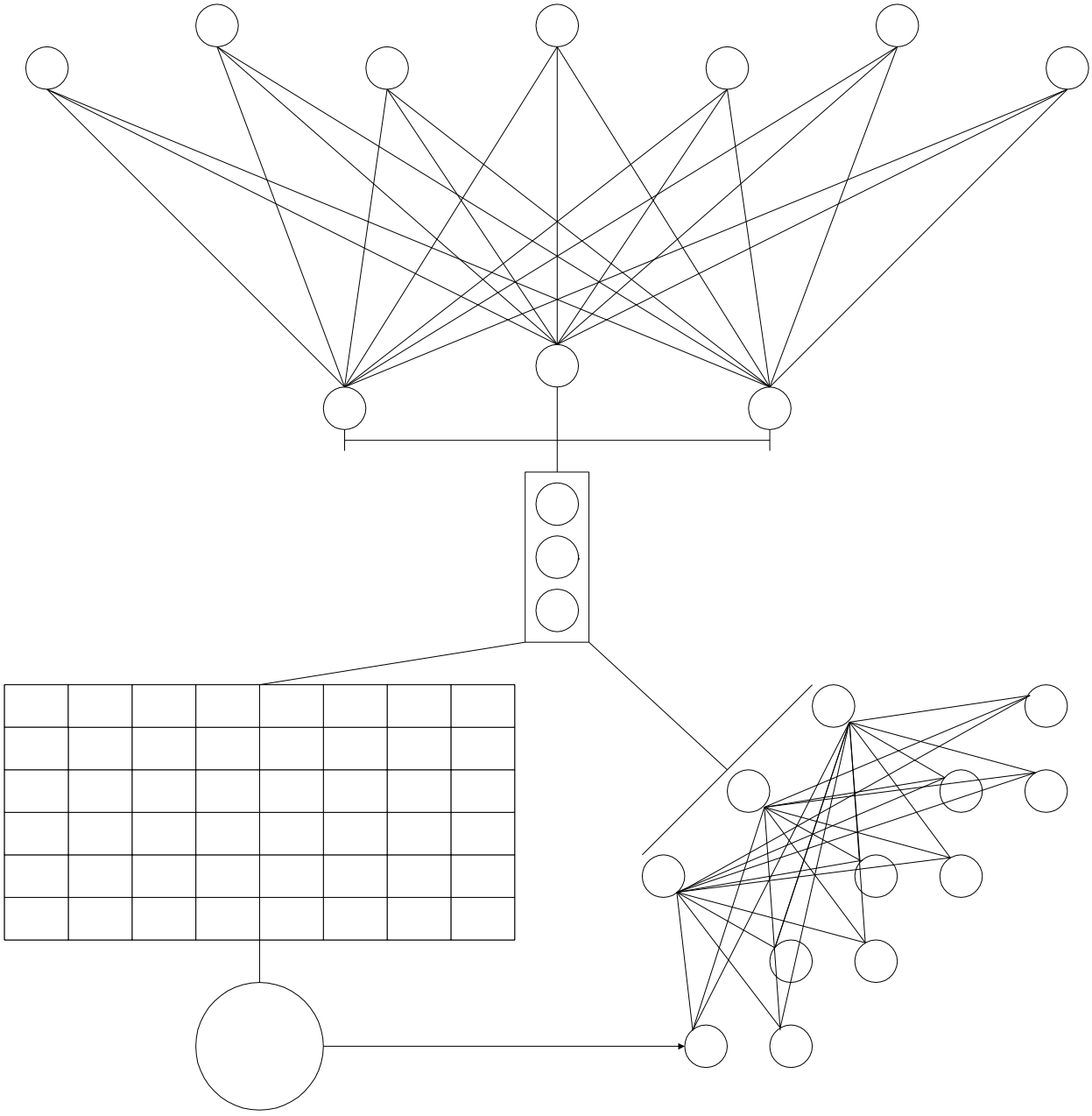
THE NETWORK EDUCATIONAL FORMAT, SYSTEMS
and
CHART OF PROCEDURES



(XII)
BACKWARD CHAINING SEQUENCES

OUTPUTS, FUNDAMENTAL (13)

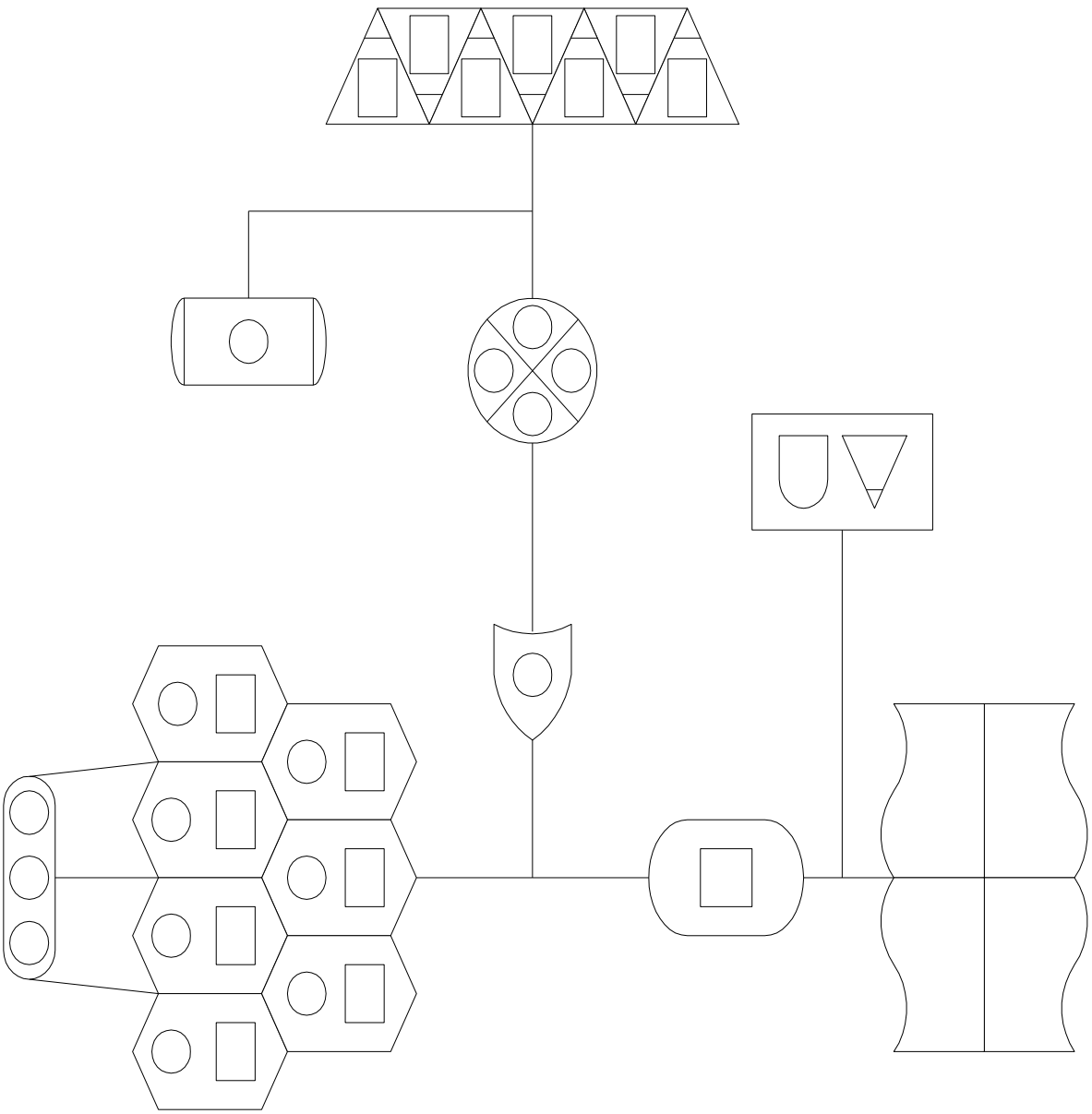
THE DAILY INFRASTRUCTURAL PROCESS SYSTEMS
and
CHART OF PROCEDURES



(XIII)
FORWARD CHAINING SEQUENCES

COLLECT DATA and/or INFORMATION (I)

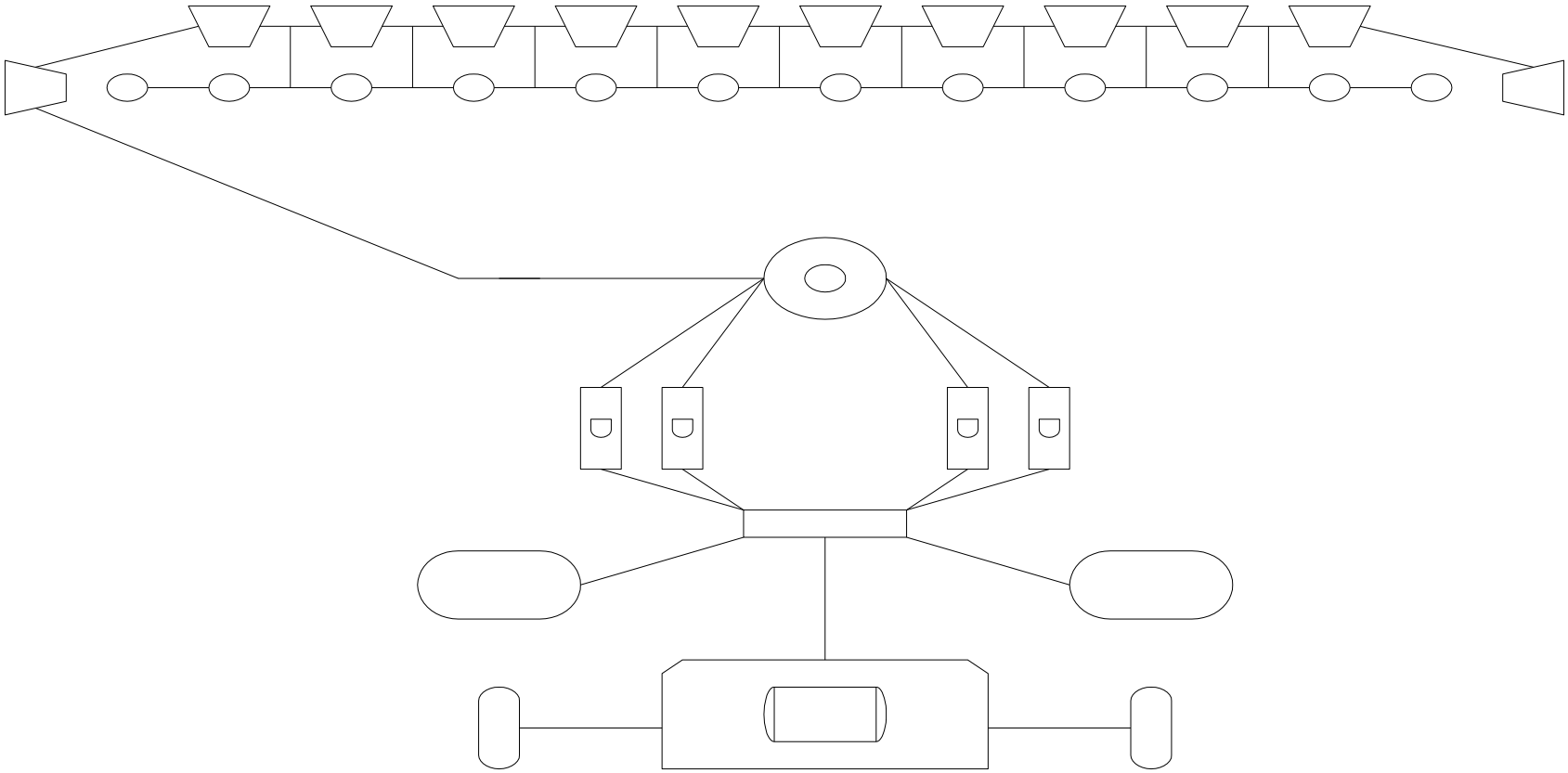
THE DAILY INFRASTRUCTURAL PROCESS SYSTEMS
and
CHART OF PROCEDURES



(XIII)
BACKWARD CHAINING SEQUENCES

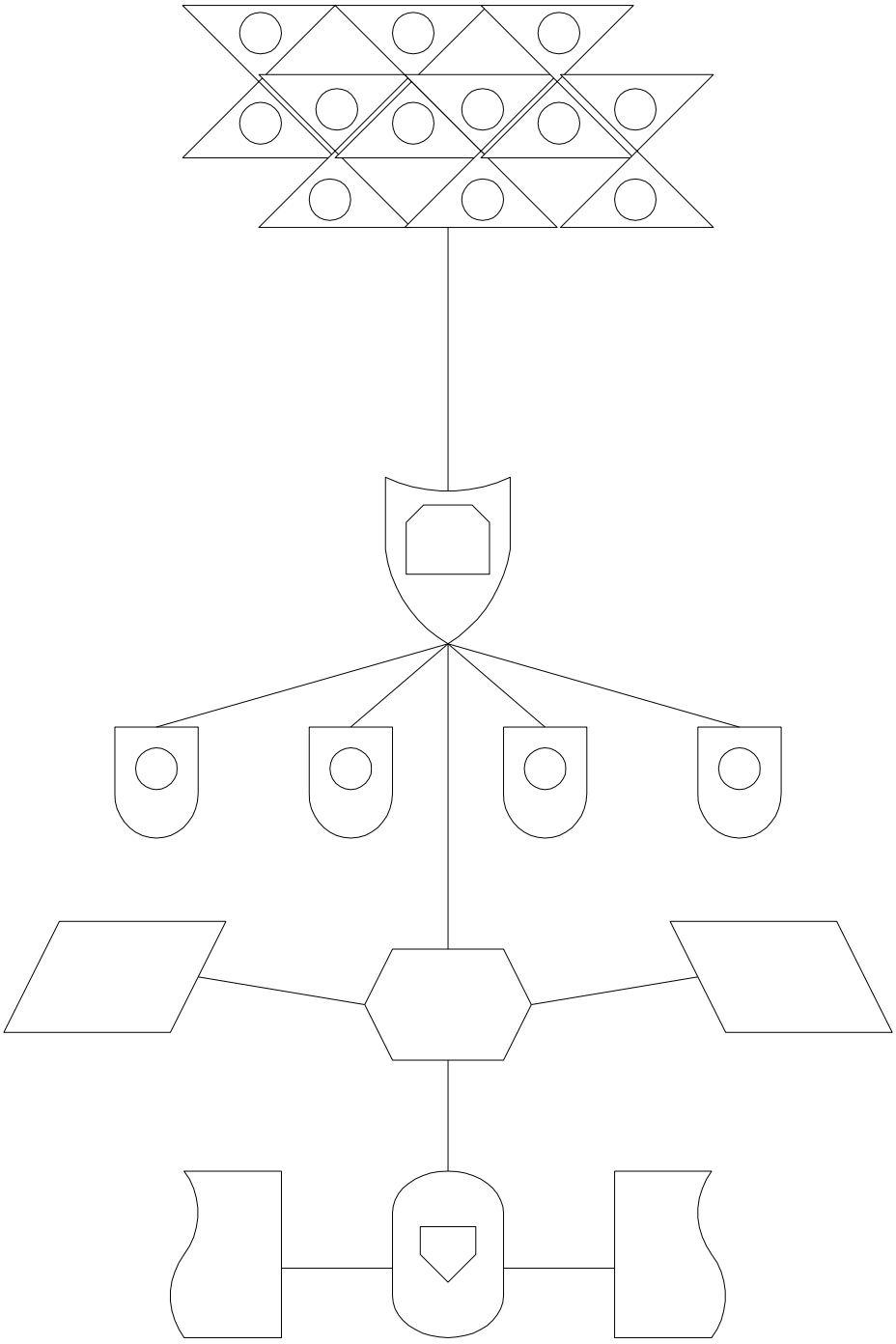
OUTPUTS, MEASURES (15)

THE YEARLY INFRASTRUCTURAL PROCESS SYSTEMS
and
CHART OF PROCEDURES



(XIV)
FORWARD CHAINING SEQUENCES
IDENTIFY REGULARITIES (VI)

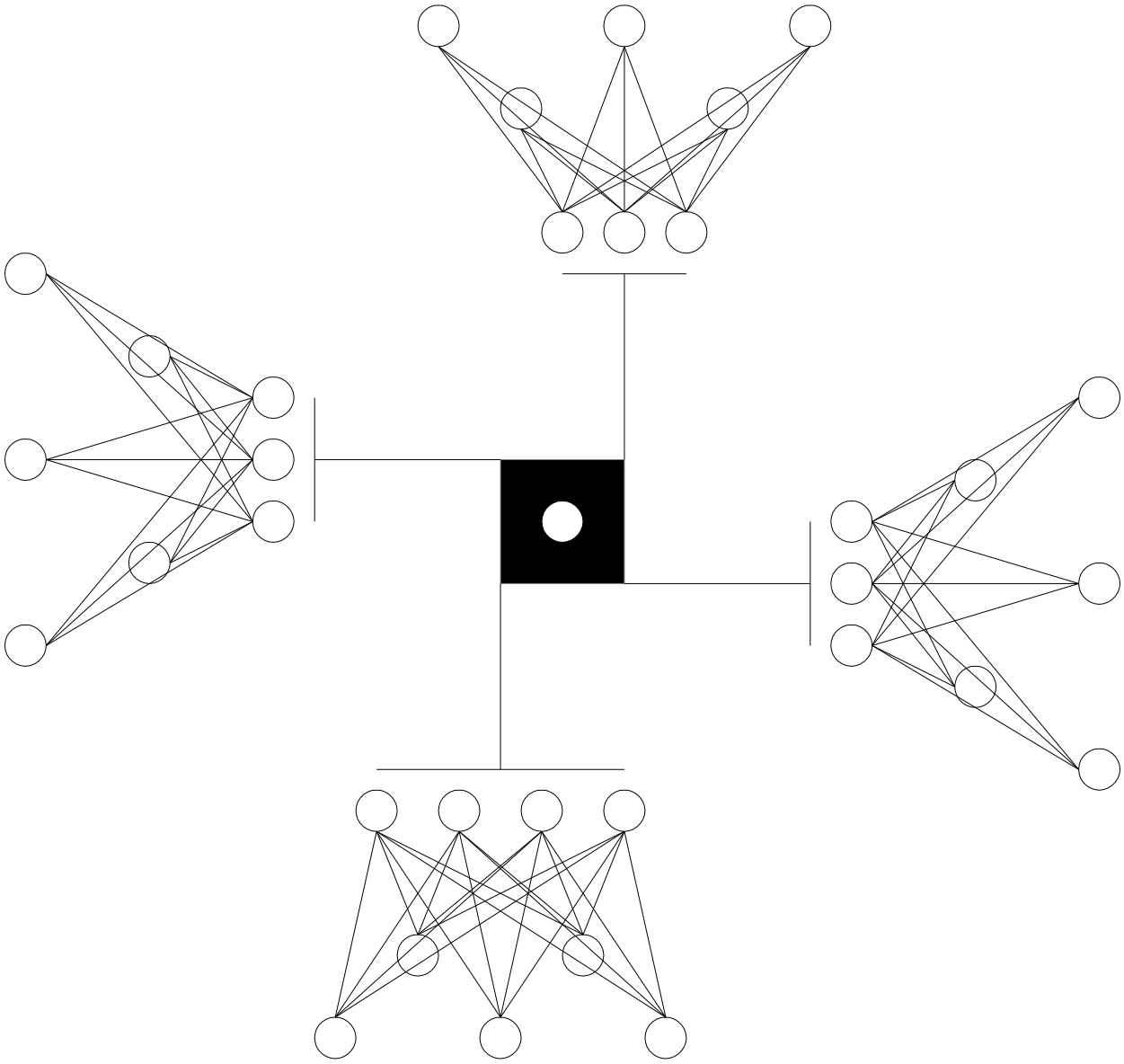
THE YEARLY INFRASTRUCTURAL PROCESS SYSTEMS
and
CHART OF PROCEDURES



(XIV)
BACKWARD CHAINING SEQUENCES

SEQUENCE, MEASURES (21)

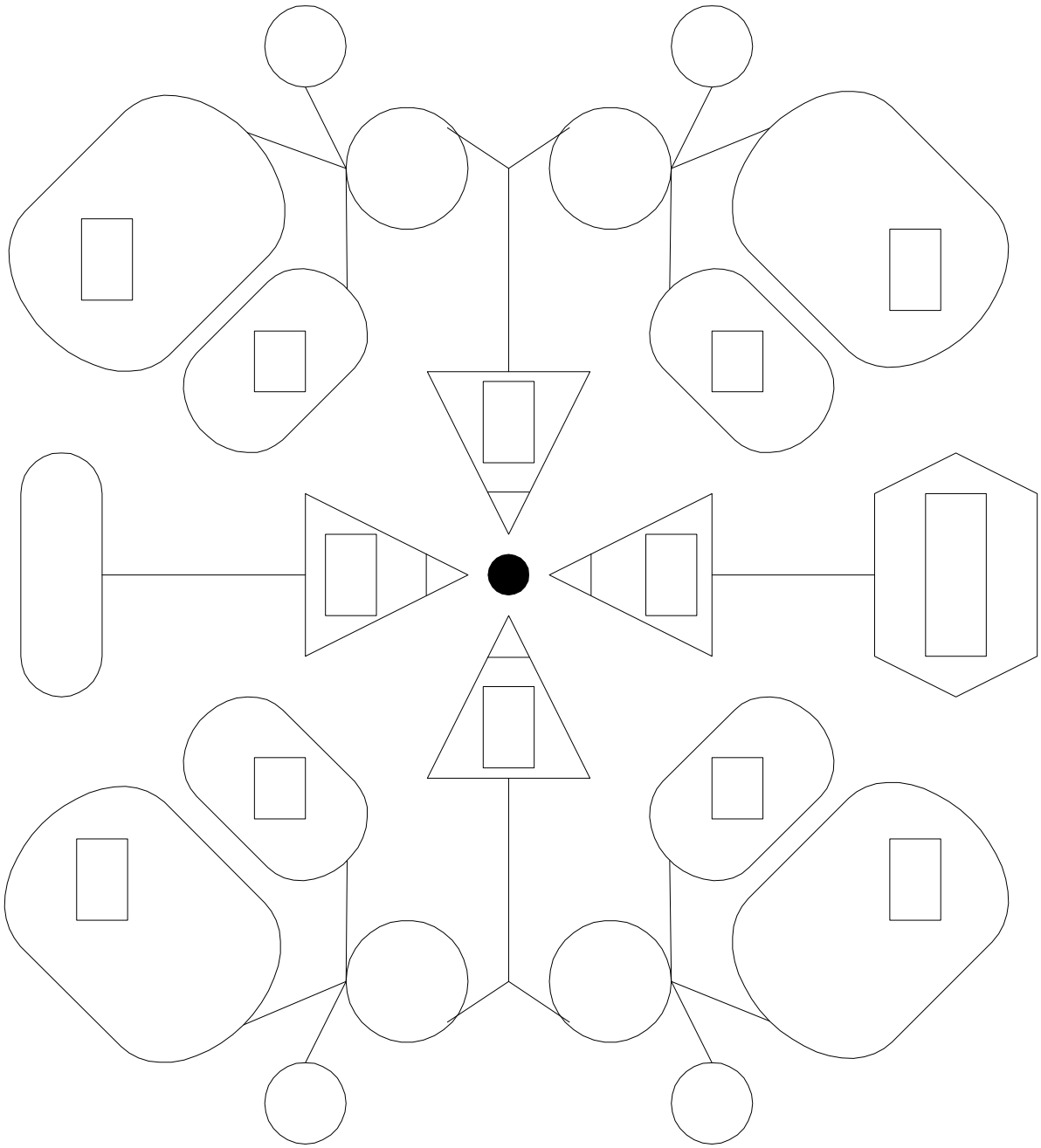
THE FISCAL INFRASTRUCTURAL PROCESS SYSTEMS
and
CHART OF PROCEDURES



(XV)
FORWARD CHAINING SEQUENCES

ESTABLISH PRIORITIES (VI)

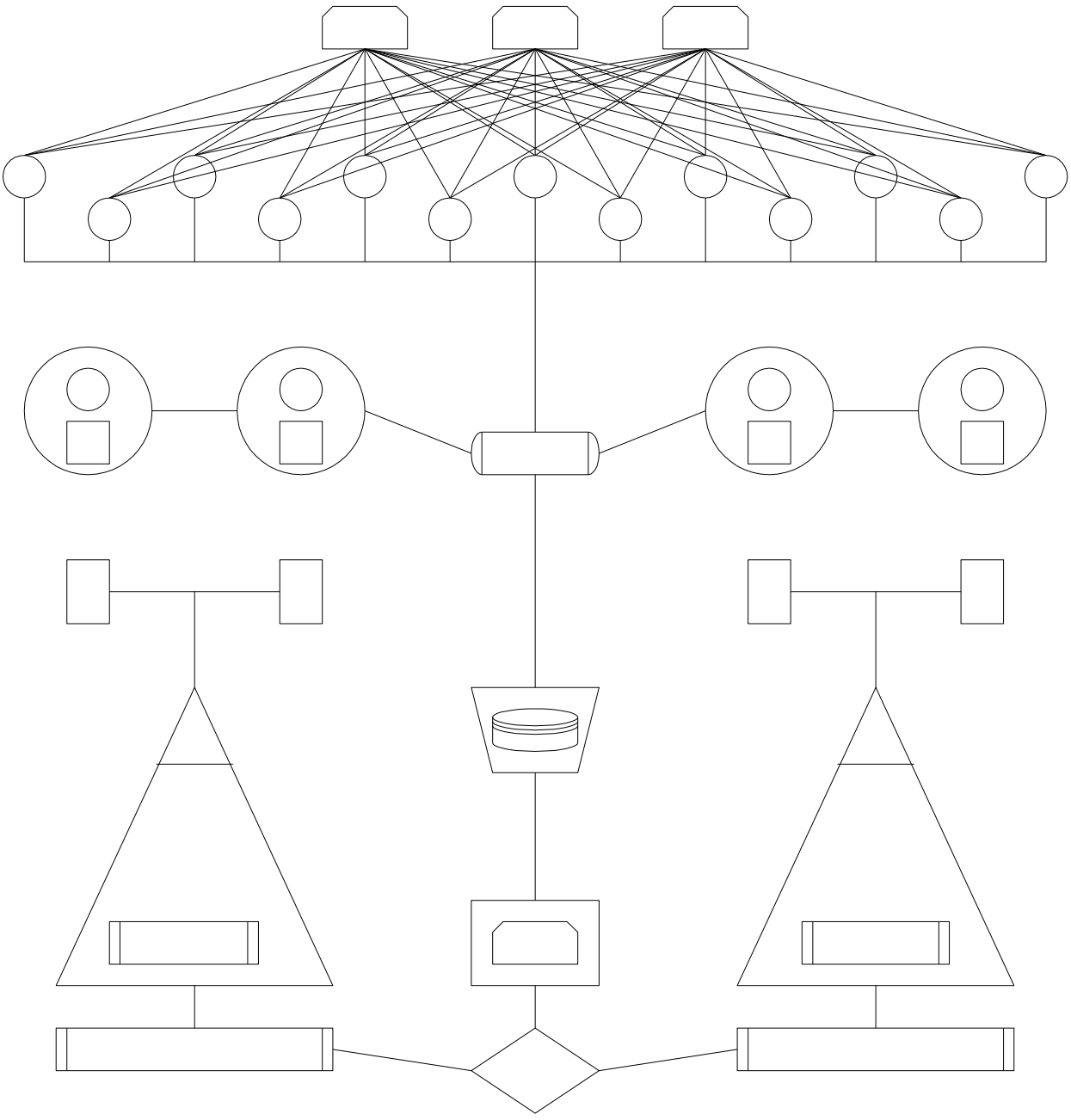
THE FISCAL INFRASTRUCTURAL PROCESS SYSTEMS
and
CHART OF PROCEDURES



(XV)
BACKWARD CHAINING SEQUENCES

OUTPUTS, FUTURE (18)

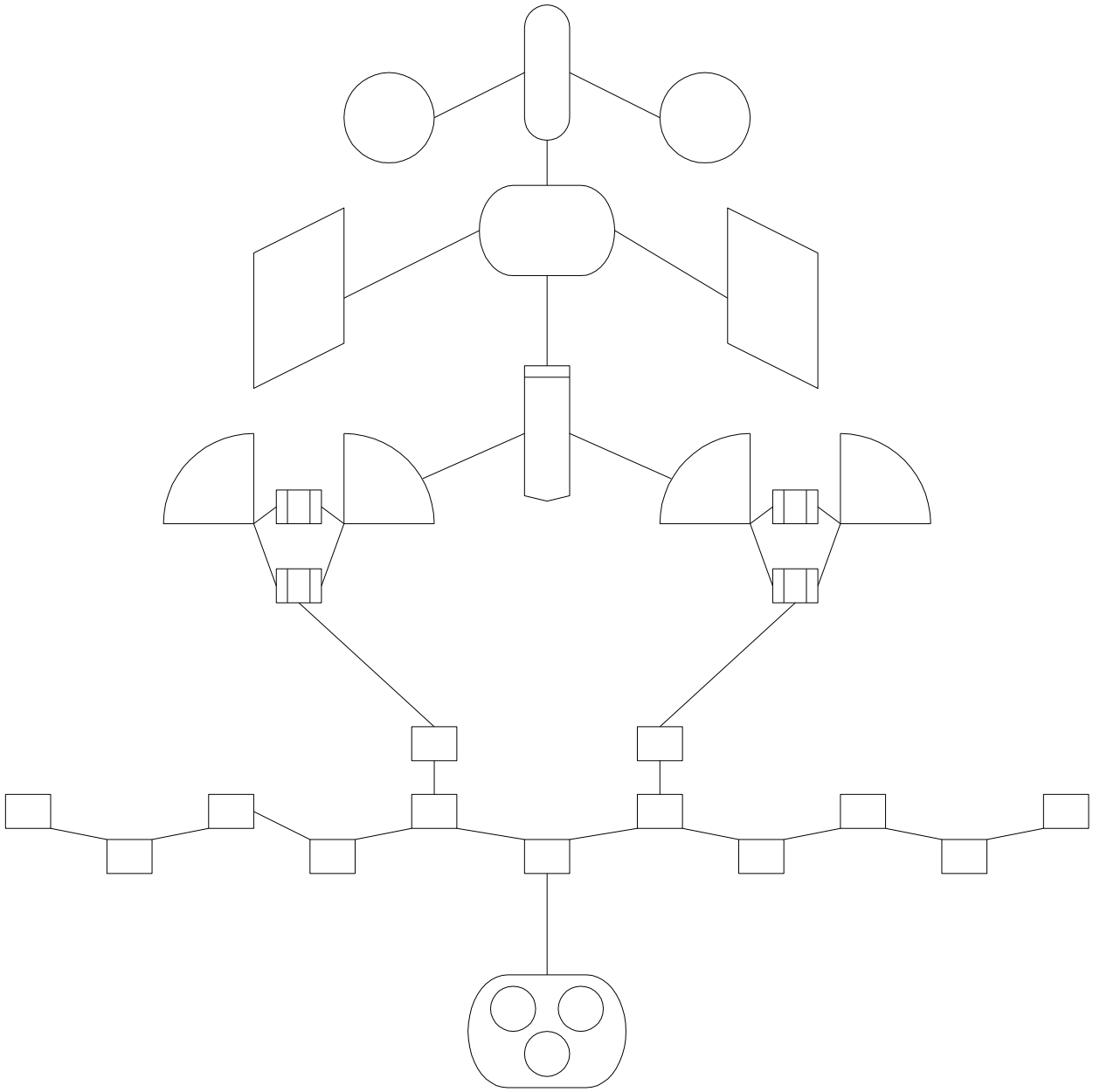
THE UNIVERSAL YEARLY INFRASTRUCTURAL PROCESS SYSTEMS
and
CHART OF PROCEDURES



(XVI)
FORWARD CHAINING SEQUENCES

EVALUATE ALTERNATIVES (XVI)

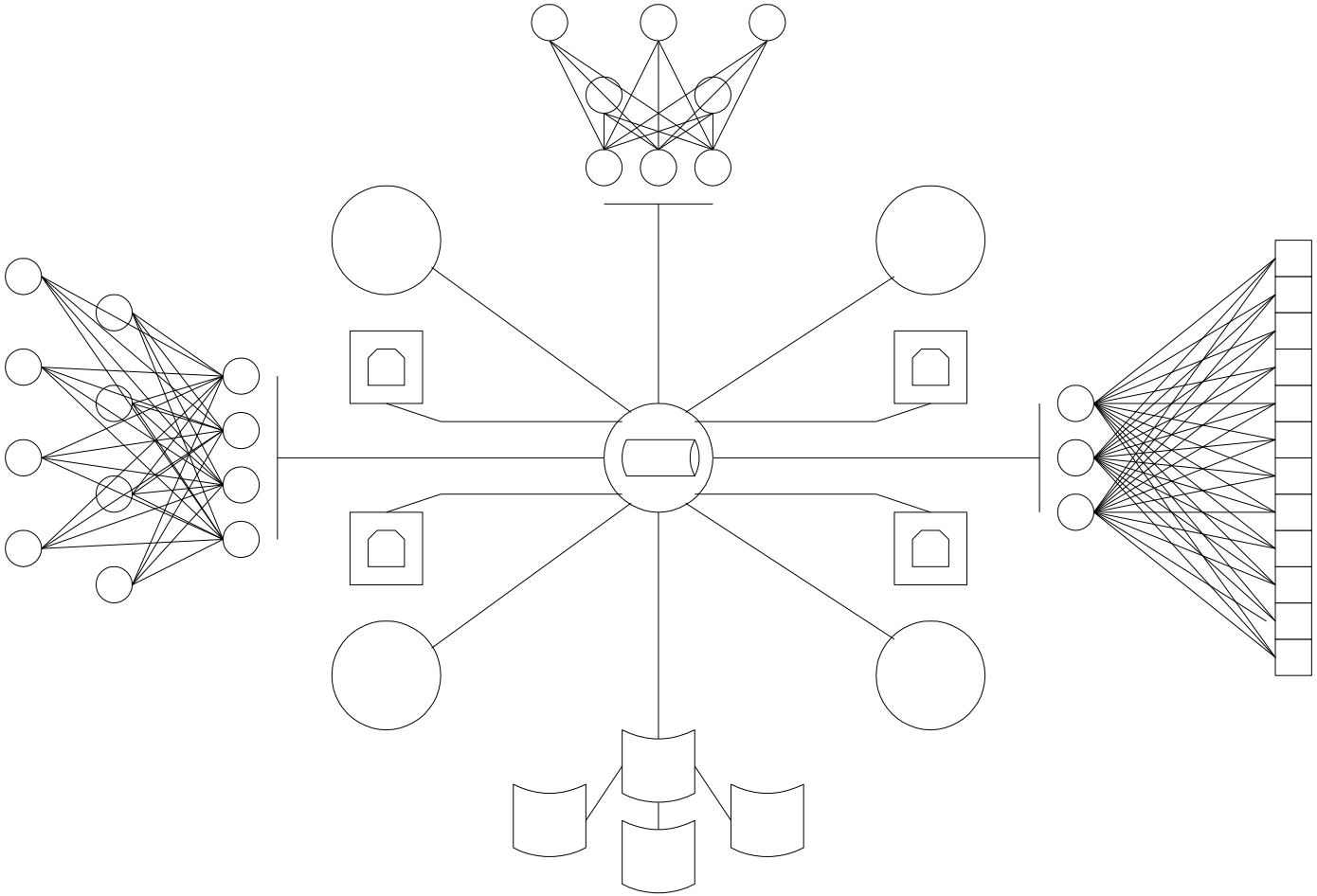
THE UNIVERSAL YEARLY INFRASTRUCTURAL PROCESS SYSTEMS
and
CHART OF PROCEDURES



(XVI)
BACKWARD CHAINING SEQUENCES

SEQUENCE, FUTURE (24)

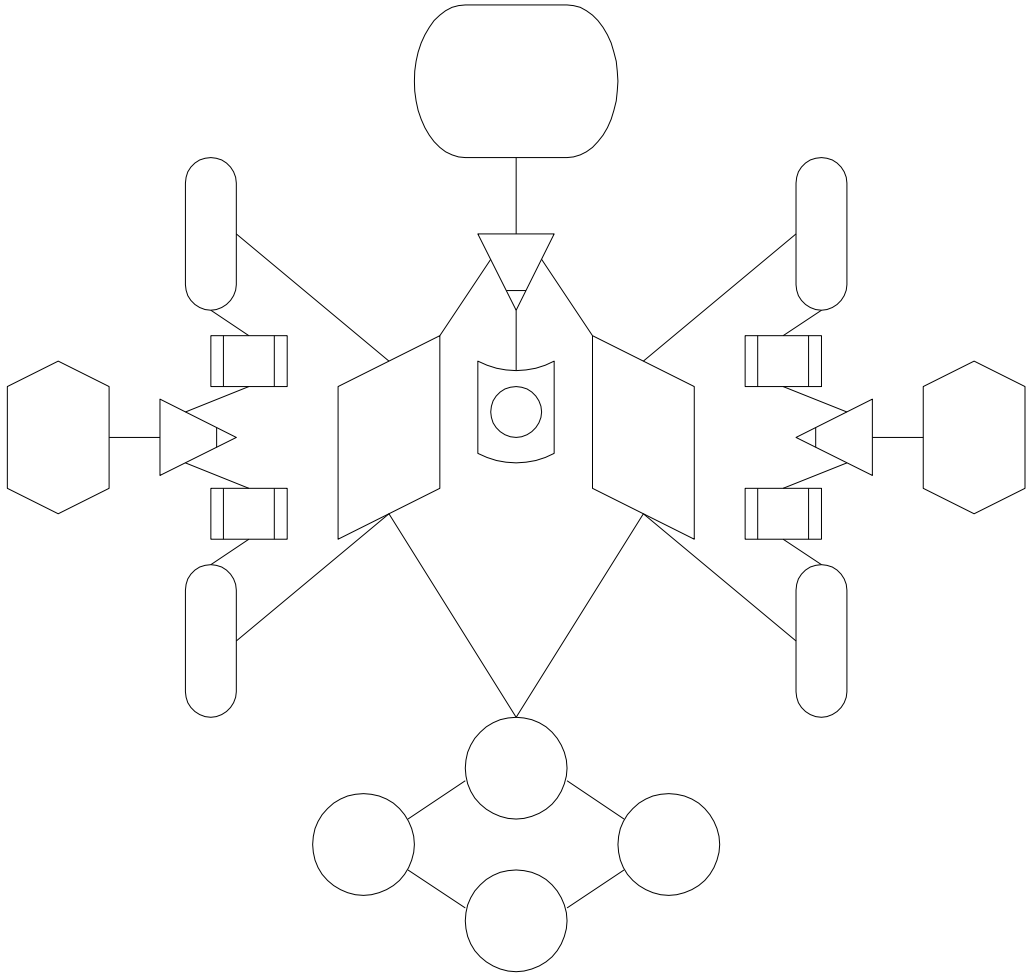
THE 32 YEAR INFRASTRUCTURAL PROCESS SYSTEMS
and
CHART OF PROCEDURES



(XVII)
FORWARD CHAINING SEQUENCES

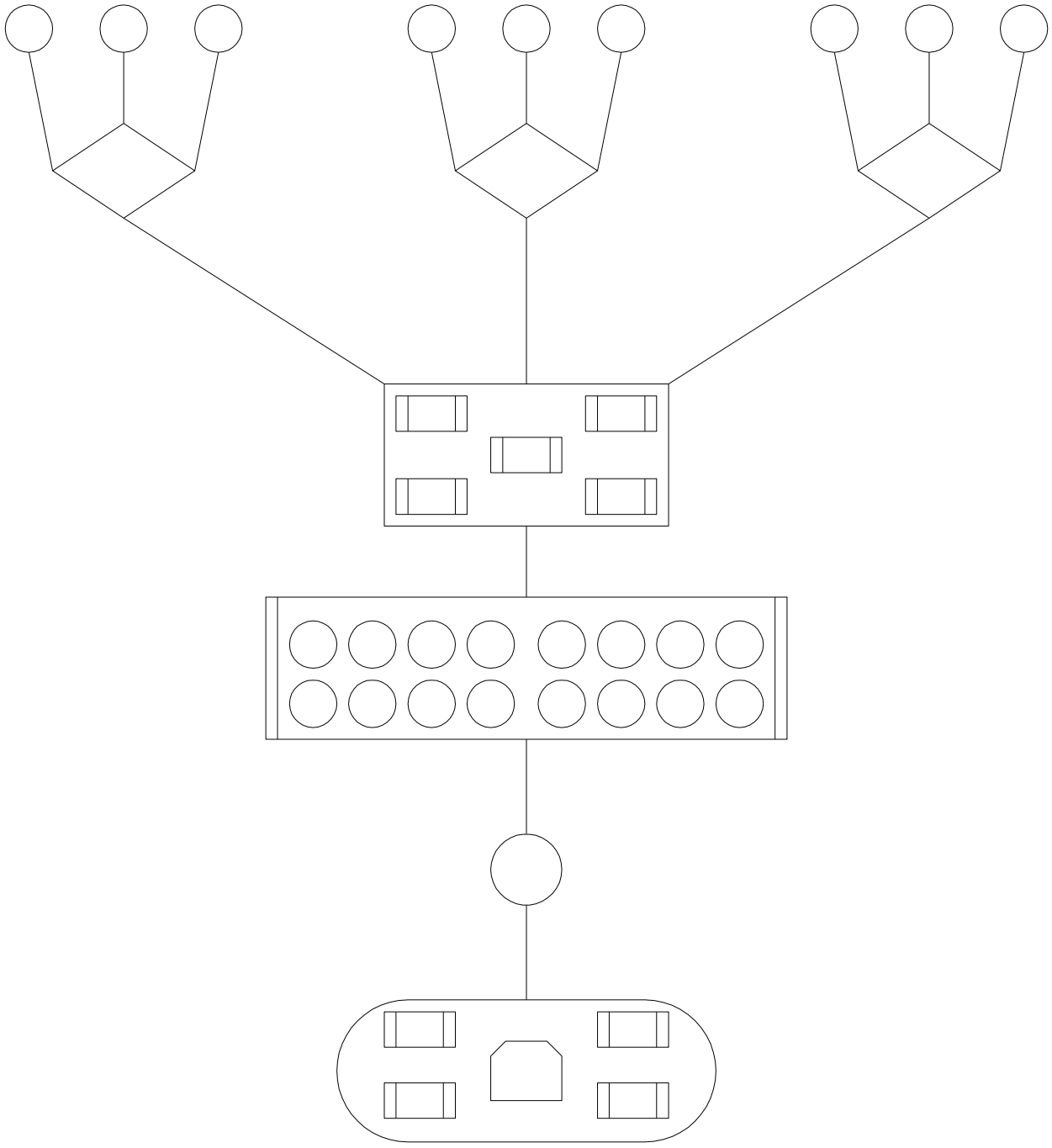
ESTABLISH PROJECT SCHEDULES & BASIS for
MEASURING PROGRESS & PERFORMANCE (III)

THE 32 YEAR INFRASTRUCTURAL PROCESS SYSTEMS
and
CHART OF PROCEDURES



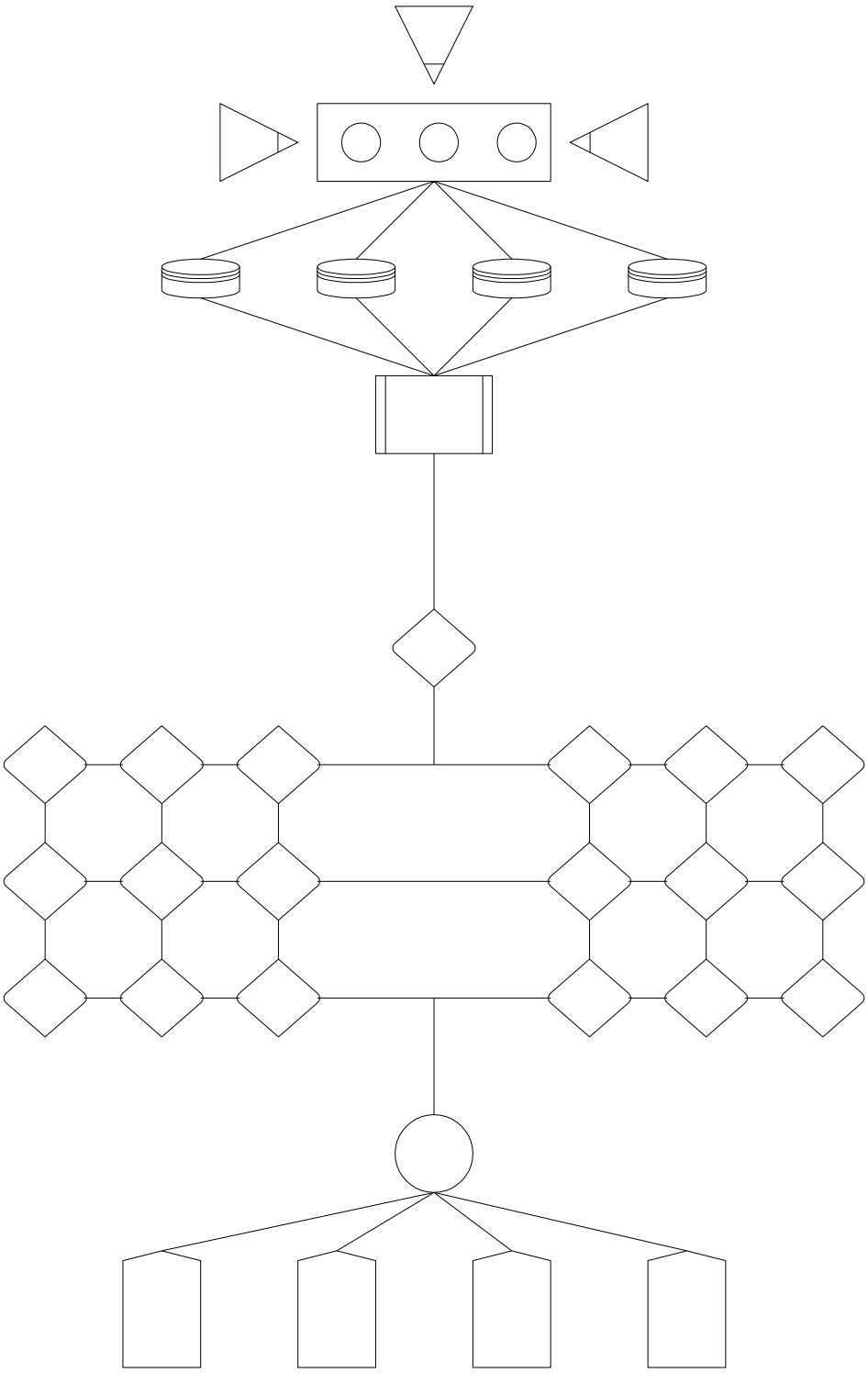
(XVII)
BACKWARD CHAINING SEQUENCES

INFORMATION AIDS, FUTURE (48)



(XVIII)
FORWARD CHAINING SEQUENCES

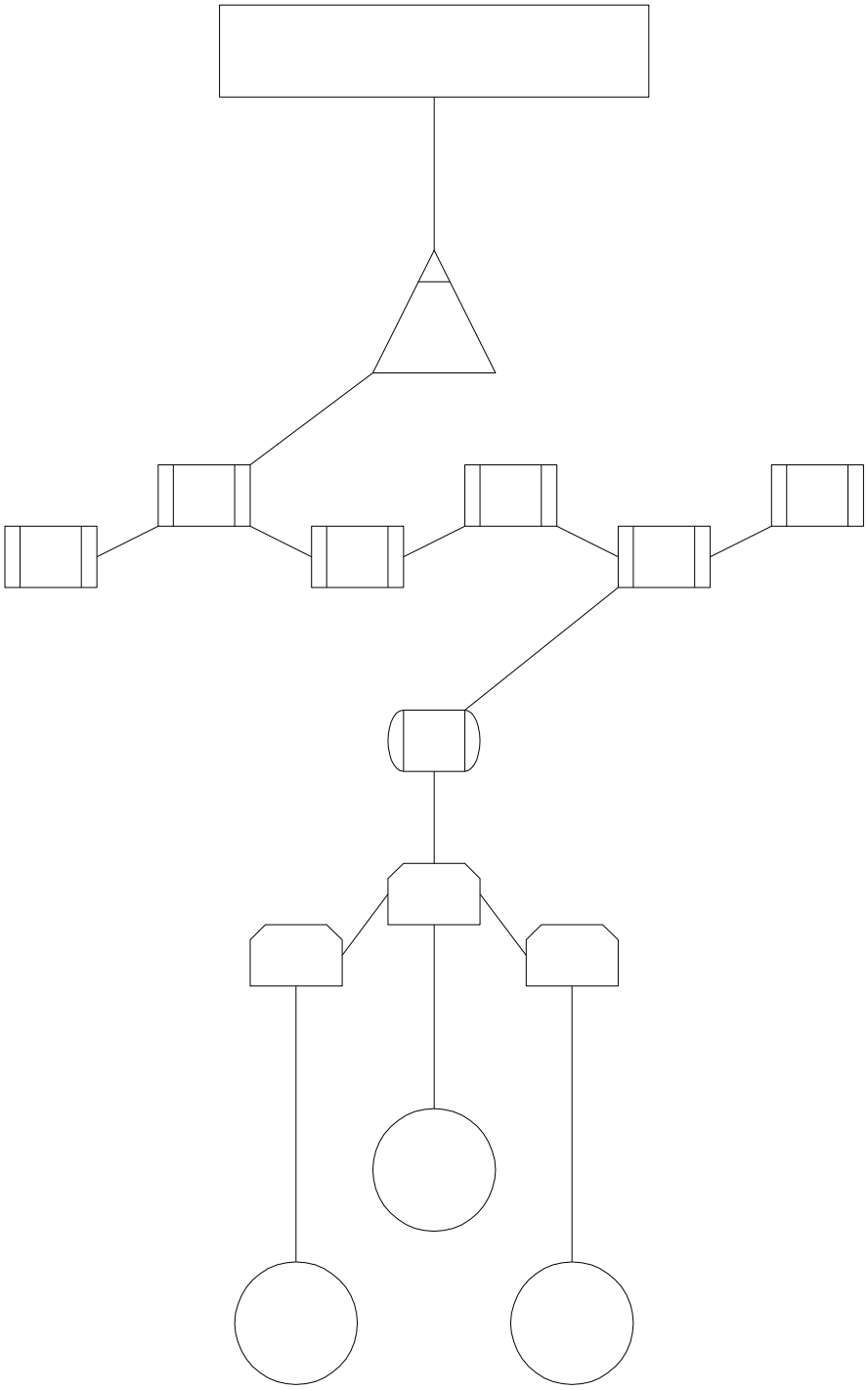
APPROACH PROBLEMS (V)



(XVIII)
BACKWARD CHAINING SEQUENCES

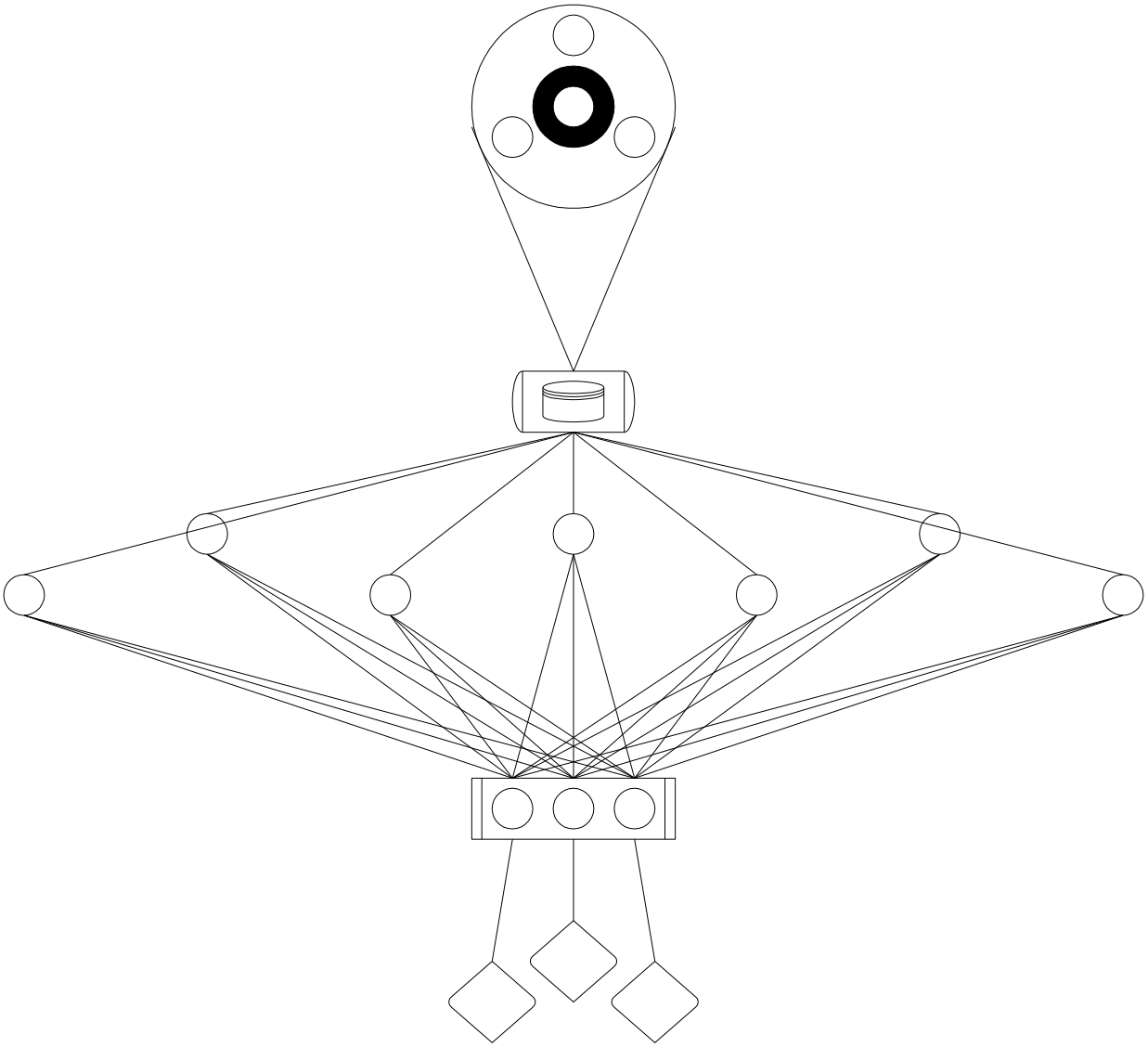
INPUTS, FUNDAMENTAL (7)

THE INFERENCE PROCESS SYSTEMS of INDIVIDUAL or ORGANIZATIONAL BEHAVIOR
and
CHART OF PROCEDURES



(XIXX)
FORWARD CHAINING SEQUENCES

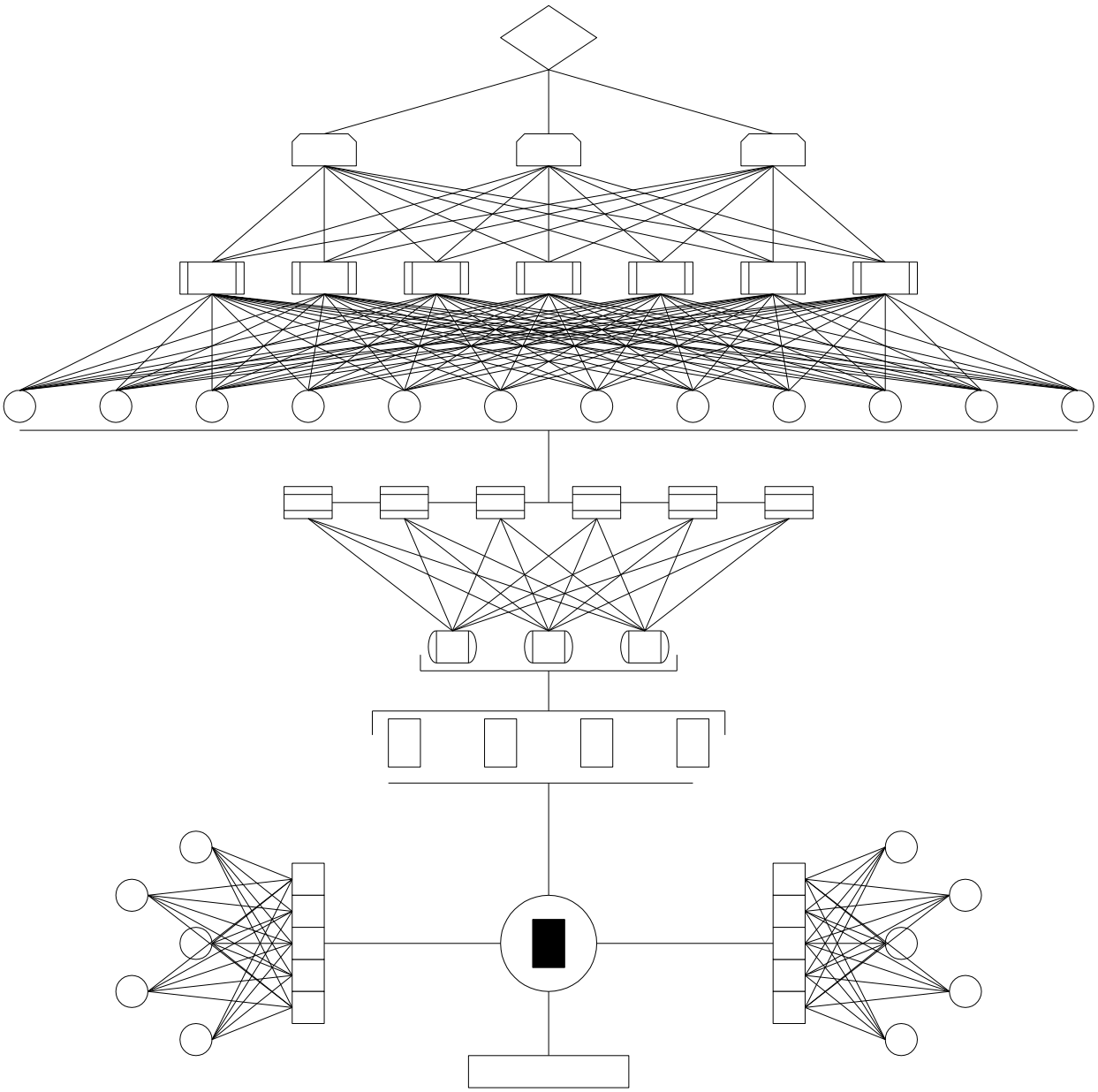
EVALUATE INTERPERSONAL RELATIONSHIPS, PERFORMANCE &
EFFECTIVENESS of an ORGANIZATION (VIII)



(XIXX)
BACKWARD CHAINING SEQUENCES

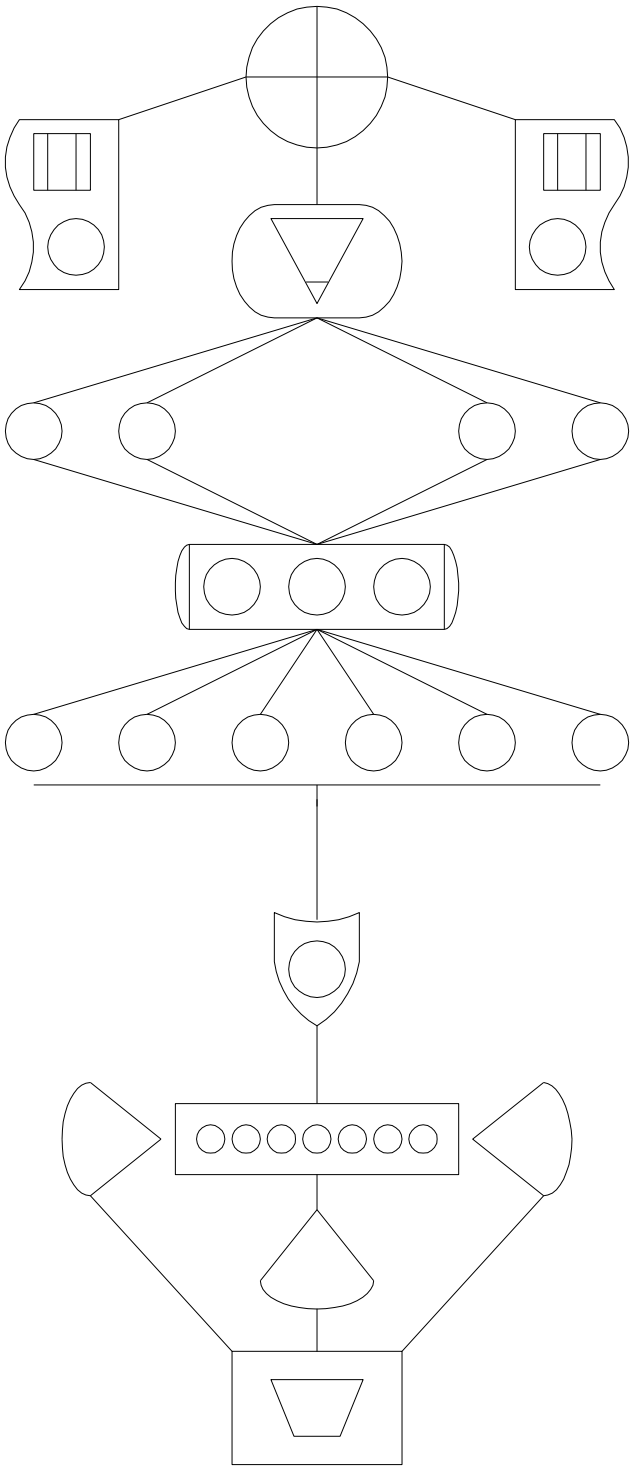
PURPOSE, VALUES (2)

THE BEHAVIORAL RANDOM ACCESS MEMORY SYSTEMS
and
CHART OF PROCEDURES



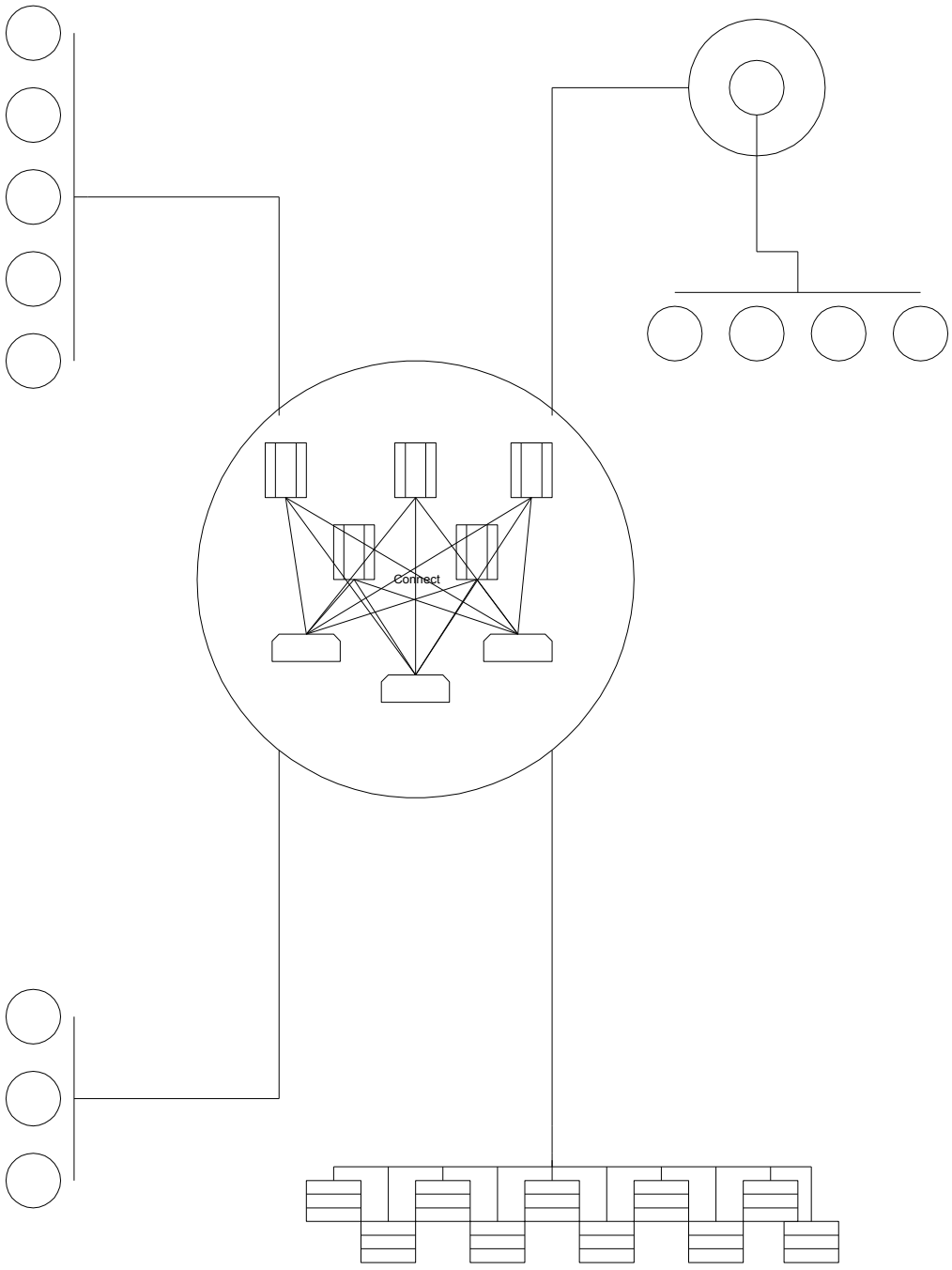
(XX)
FORWARD CHAINING SEQUENCES

CATEGORIZE/CLASSIFY ALTERNATIVES (VI)



(XX)
BACKWARD CHAINING SEQUENCES

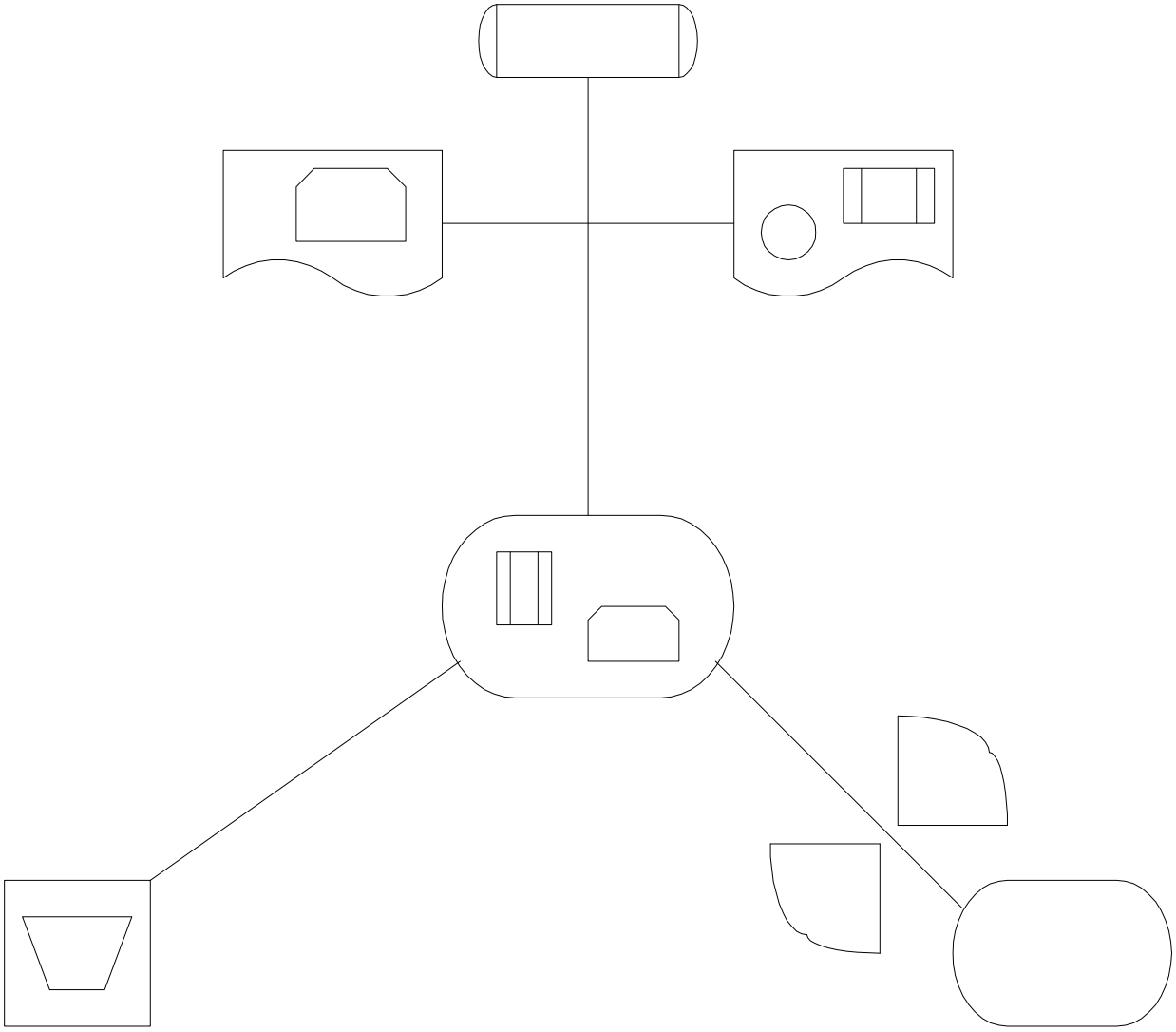
HUMAN AGENTS, MEASURES (33)



(XXI)
FORWARD CHAINING SEQUENCES

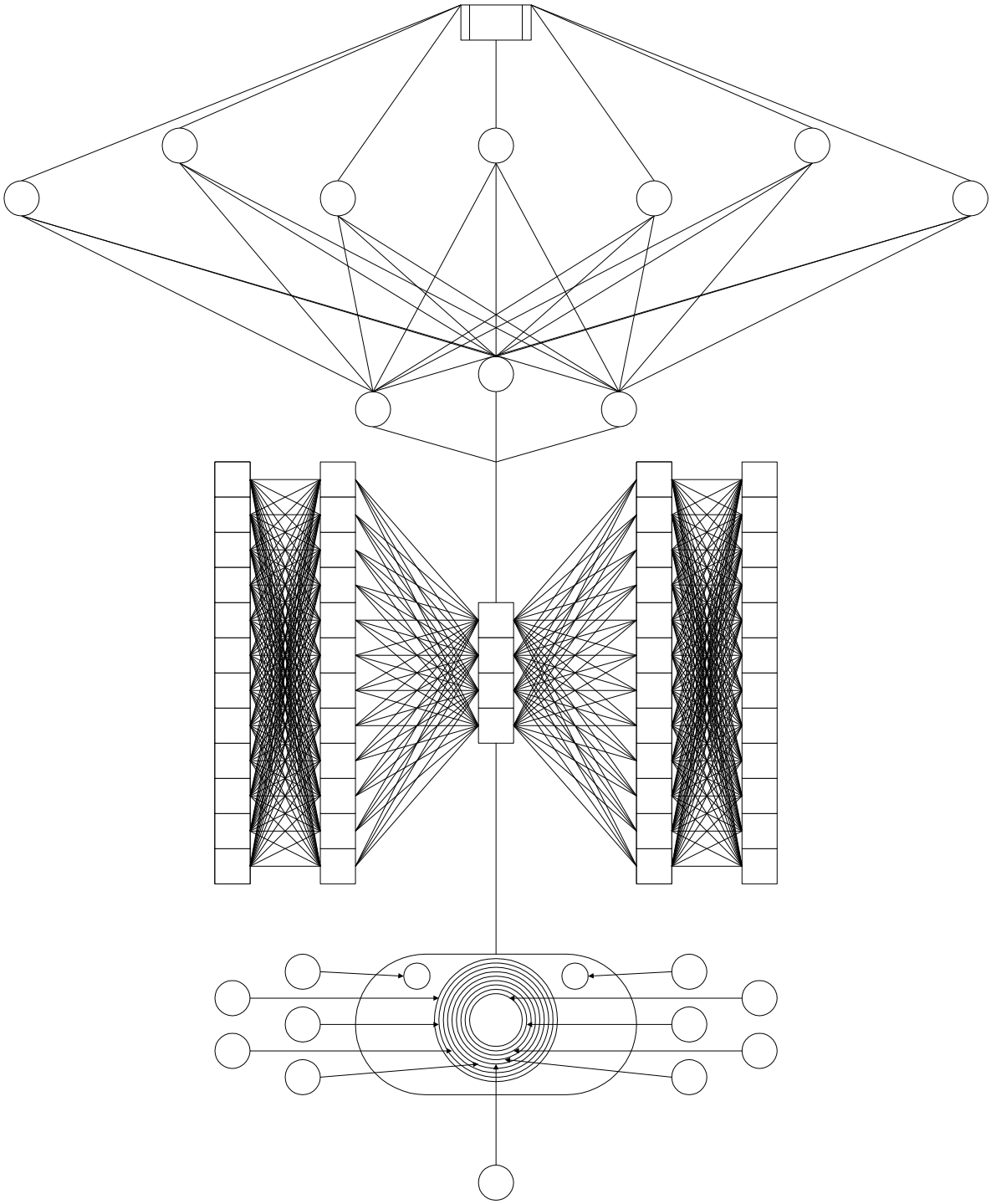
ORGANIZE ALTERNATIVES (VI)

THE INTEGRATED DATABASE, BEHAVIORAL PROCESS SYSTEMS
and
CHART OF PROCEDURES



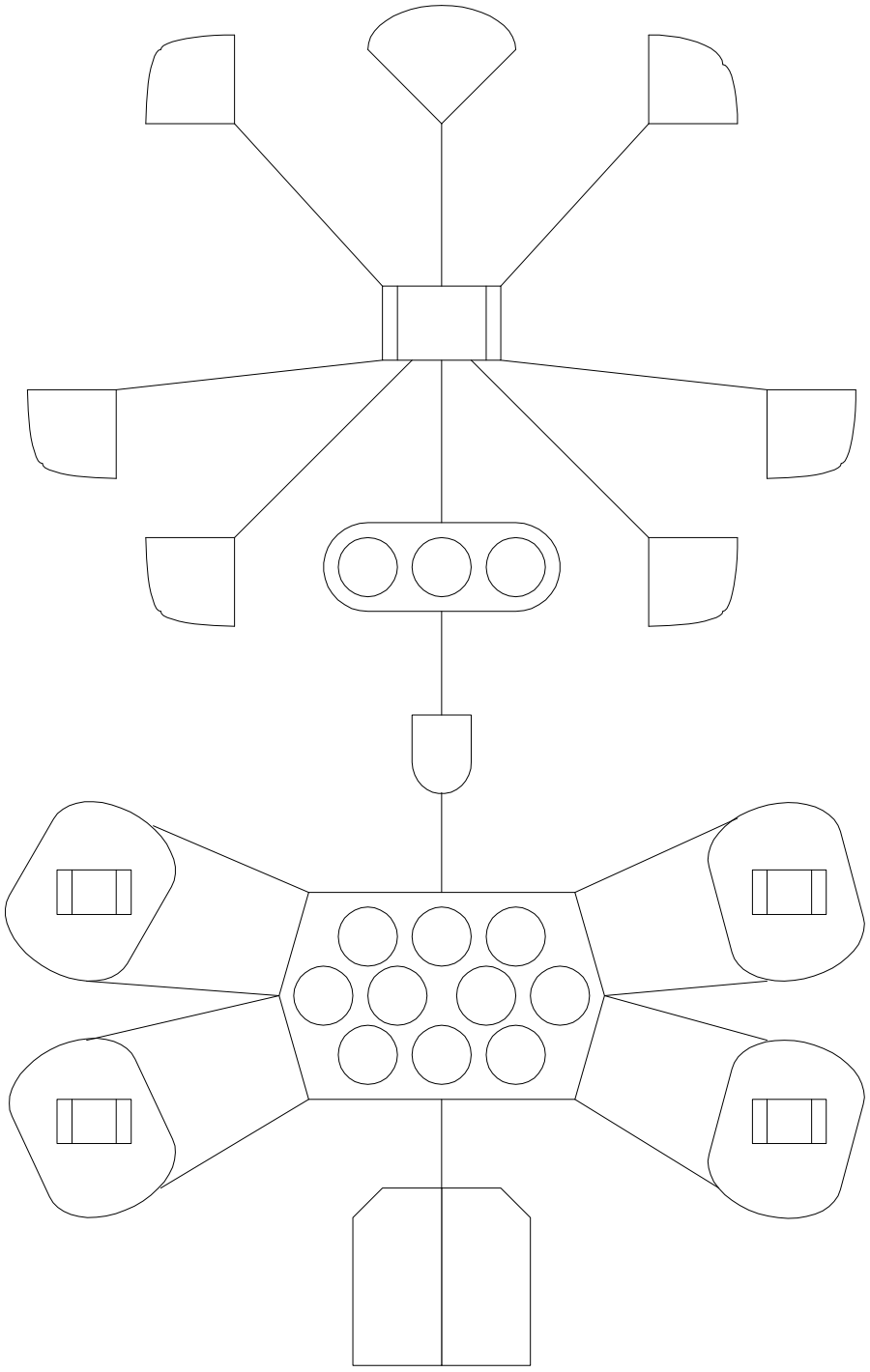
(XXI)
BACKWARD CHAINING SEQUENCES

PHYSICAL CATALYSTS, CONTROL (40)



(XXII)
FORWARD CHAINING SEQUENCES

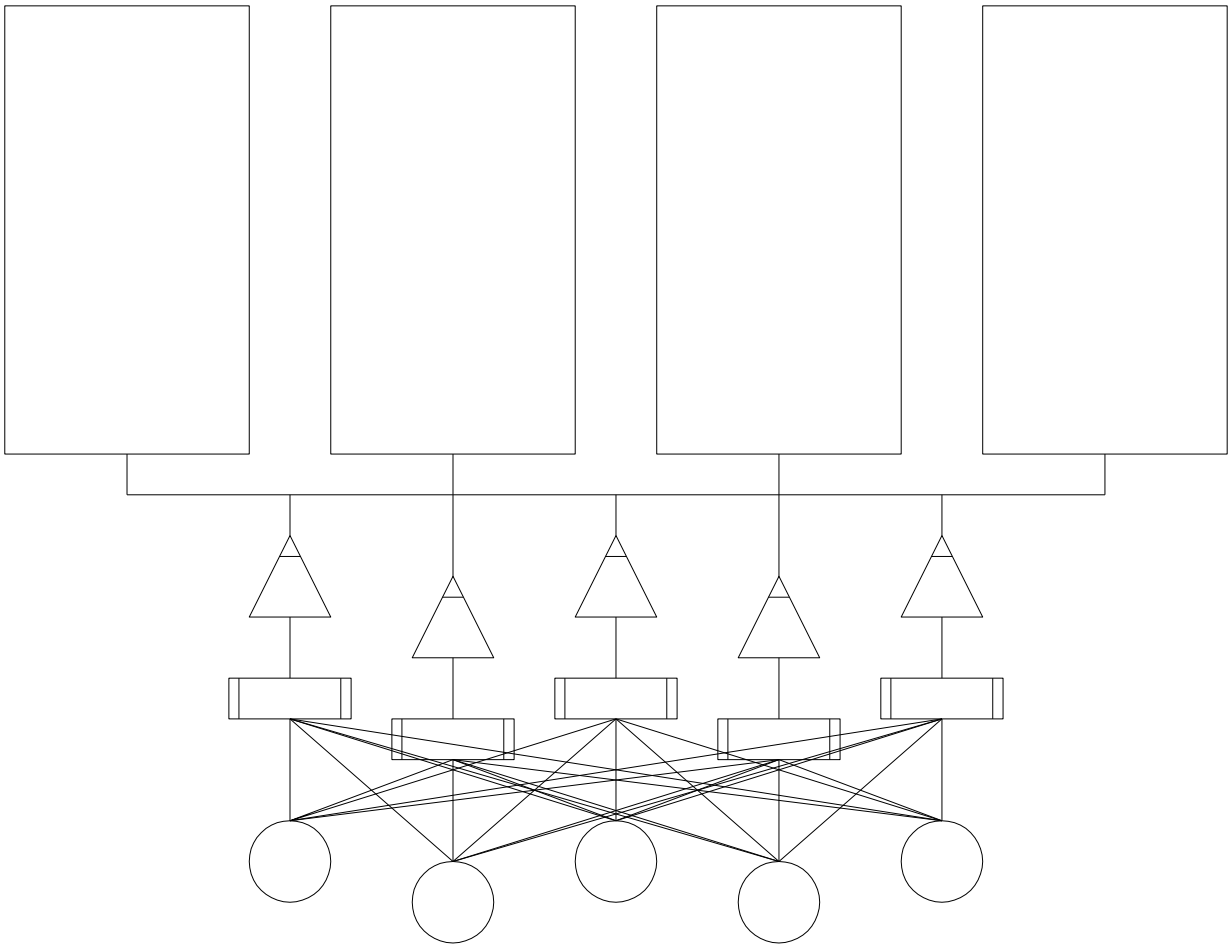
IDENTIFY PROBLEMS, OVERLAPS & CONFLICTS (V)



(XXII)
BACKWARD CHAINING SEQUENCES

HUMAN AGENTS, MEASURES (33)

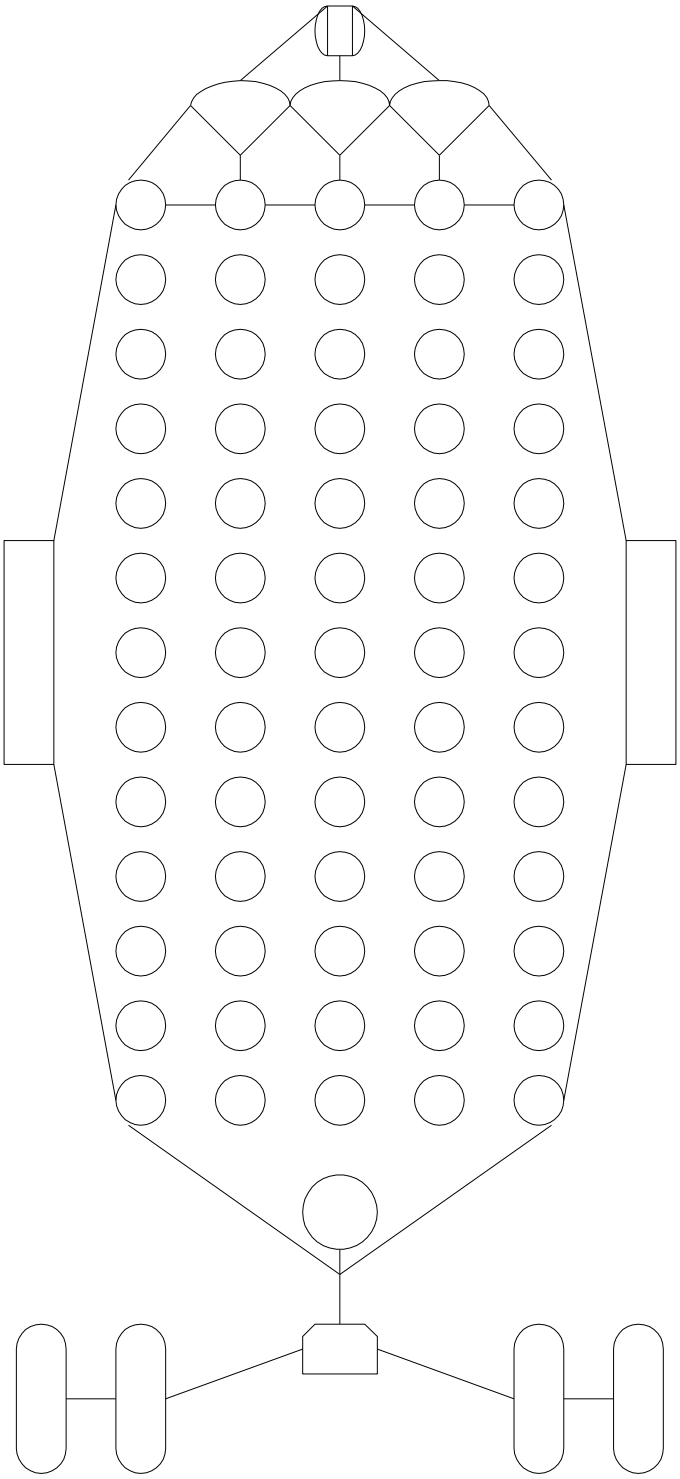
THE GENETIC DATABASE SYSTEMS
and
CHART OF PROCEDURES



(XXIII)
FORWARD CHAINING SEQUENCES

RANK ALTERNATIVES (VI)

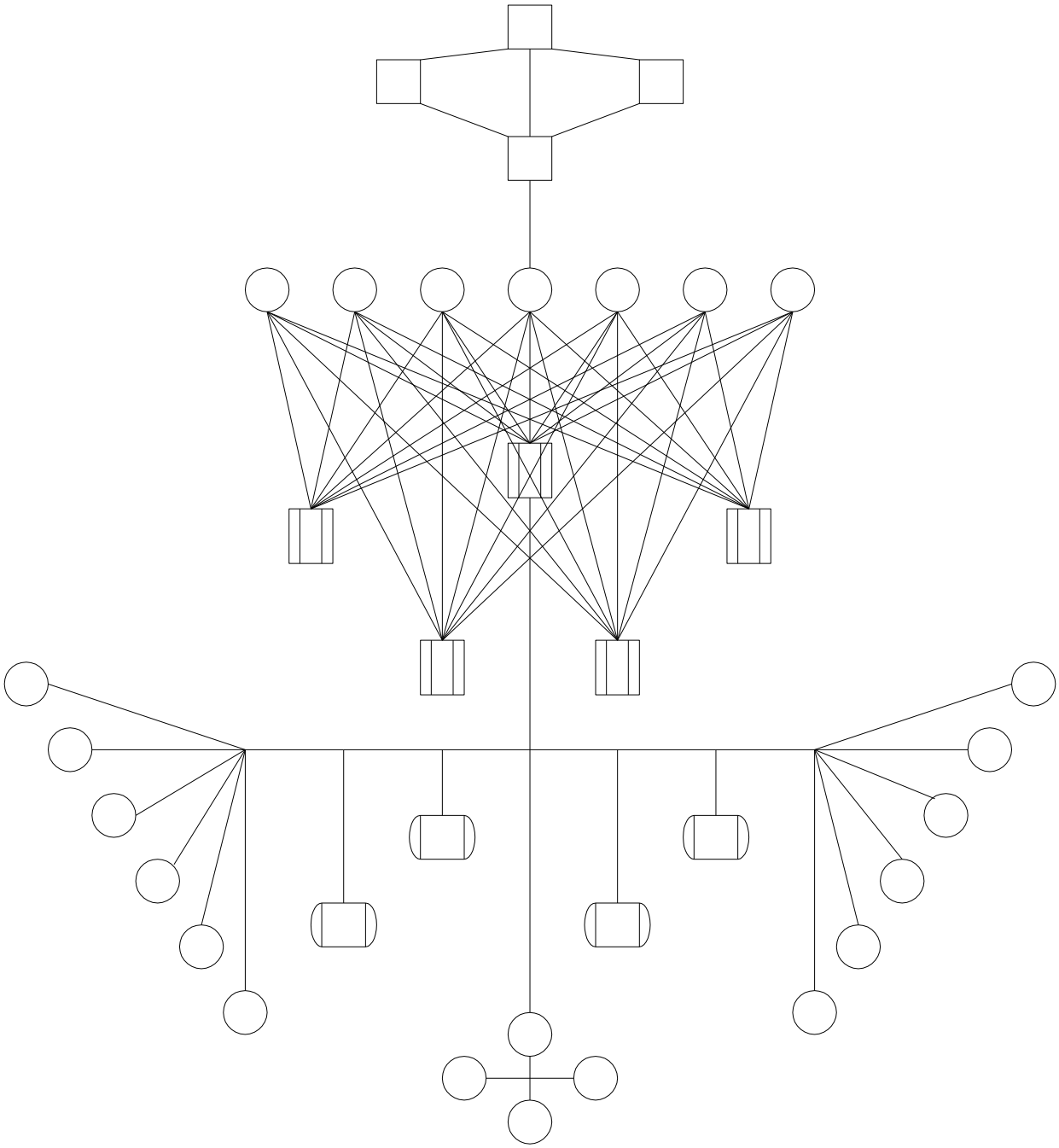
THE GENETIC DATABASE SYSTEMS
and
CHART OF PROCEDURES



(XXIII)
BACKWARD CHAINING SEQUENCES

HUMAN AGENTS, FUNDAMENTAL (31)

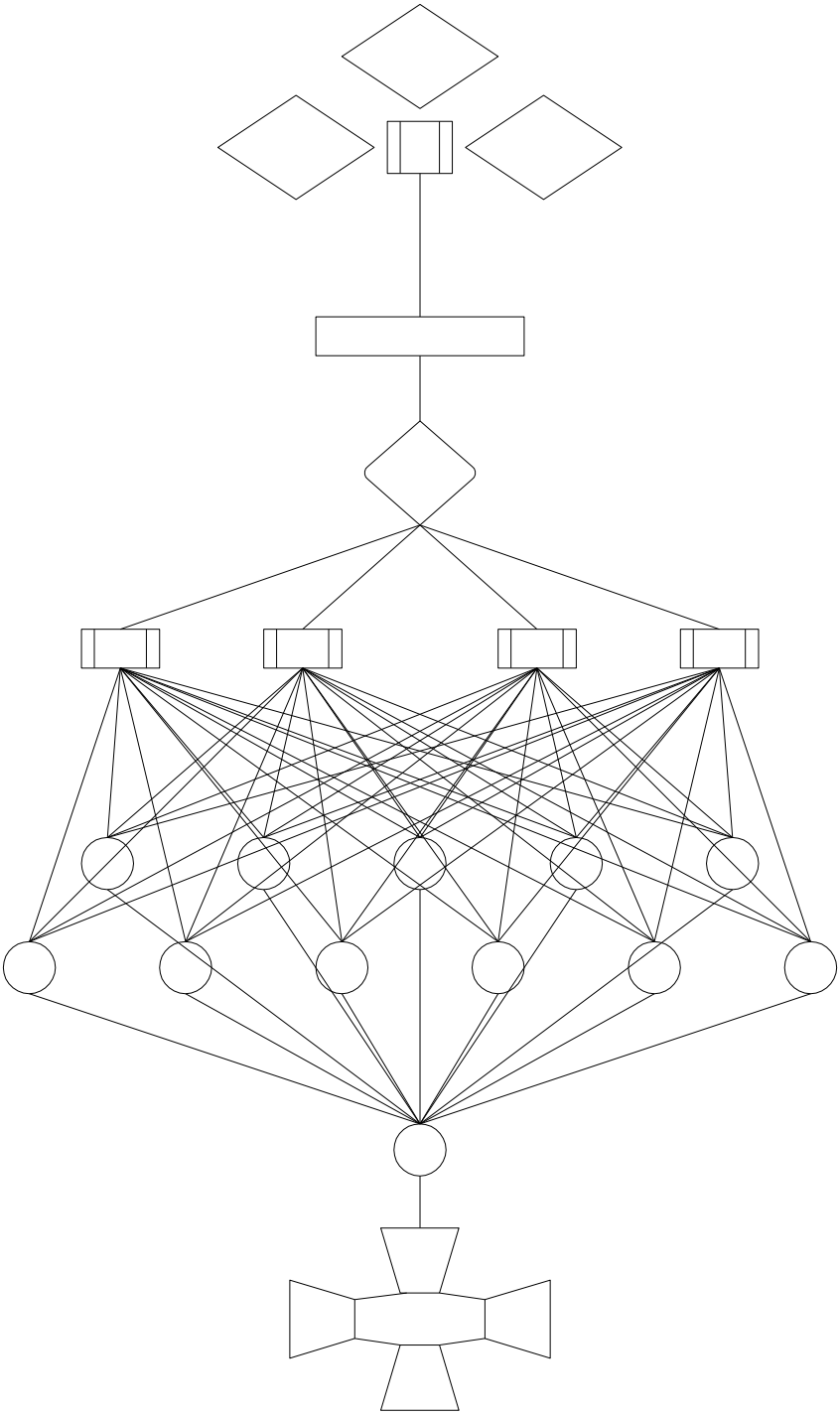
THE STRUCTURAL VALUES SYSTEMS
and
CHART OF PROCEDURES



(XXIV)
FORWARD CHAINING SEQUENCES

TEST IMPACT of DIFFERENT VALUES of an ATTRIBUTE/
PARAMETER/VARIABLE (XV)

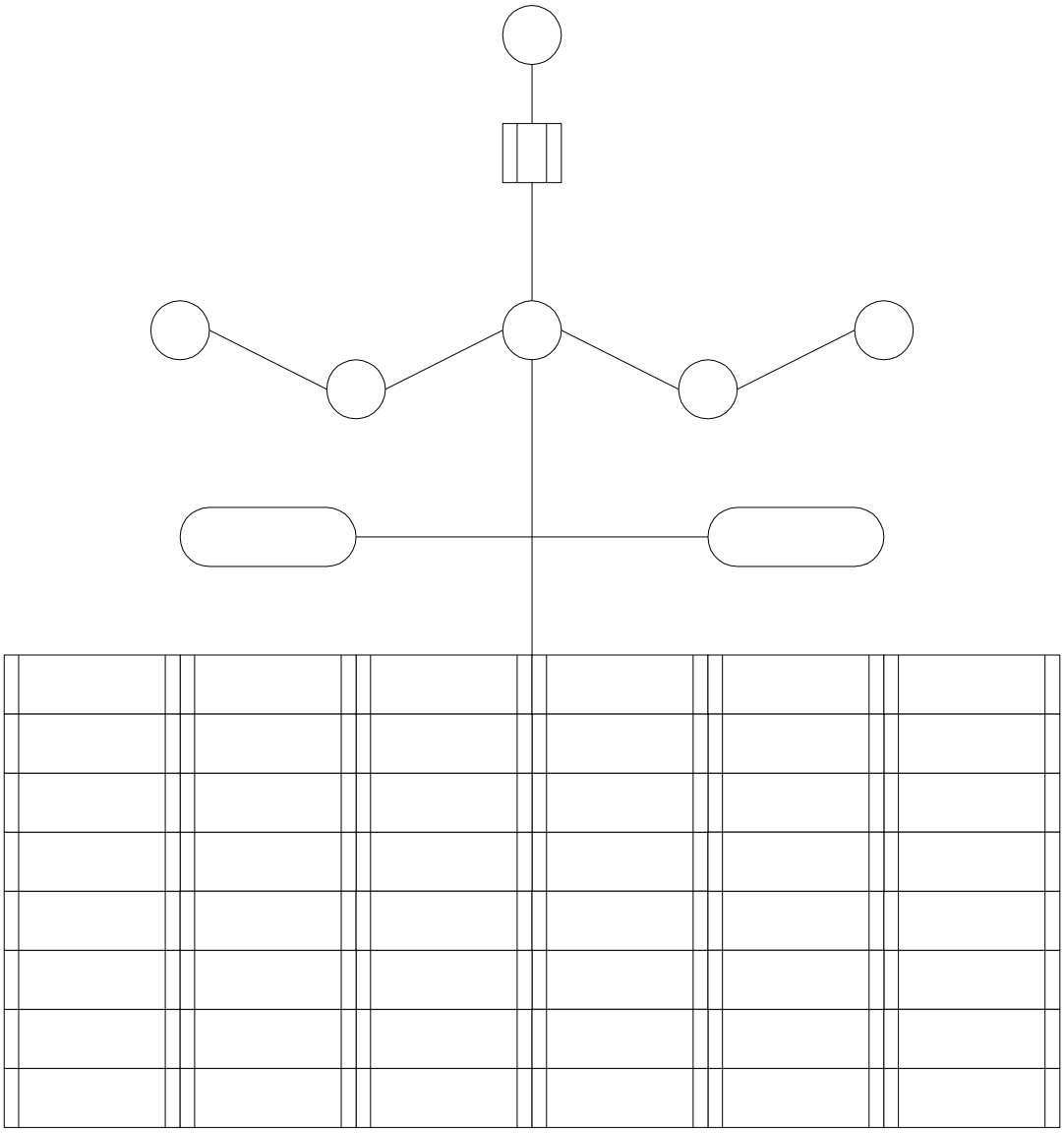
THE STRUCTURAL VALUES SYSTEMS
and
CHART OF PROCEDURES



(XXIV)
BACKWARD CHAINING SEQUENCES

HUMAN AGENTS, VALUES (32)

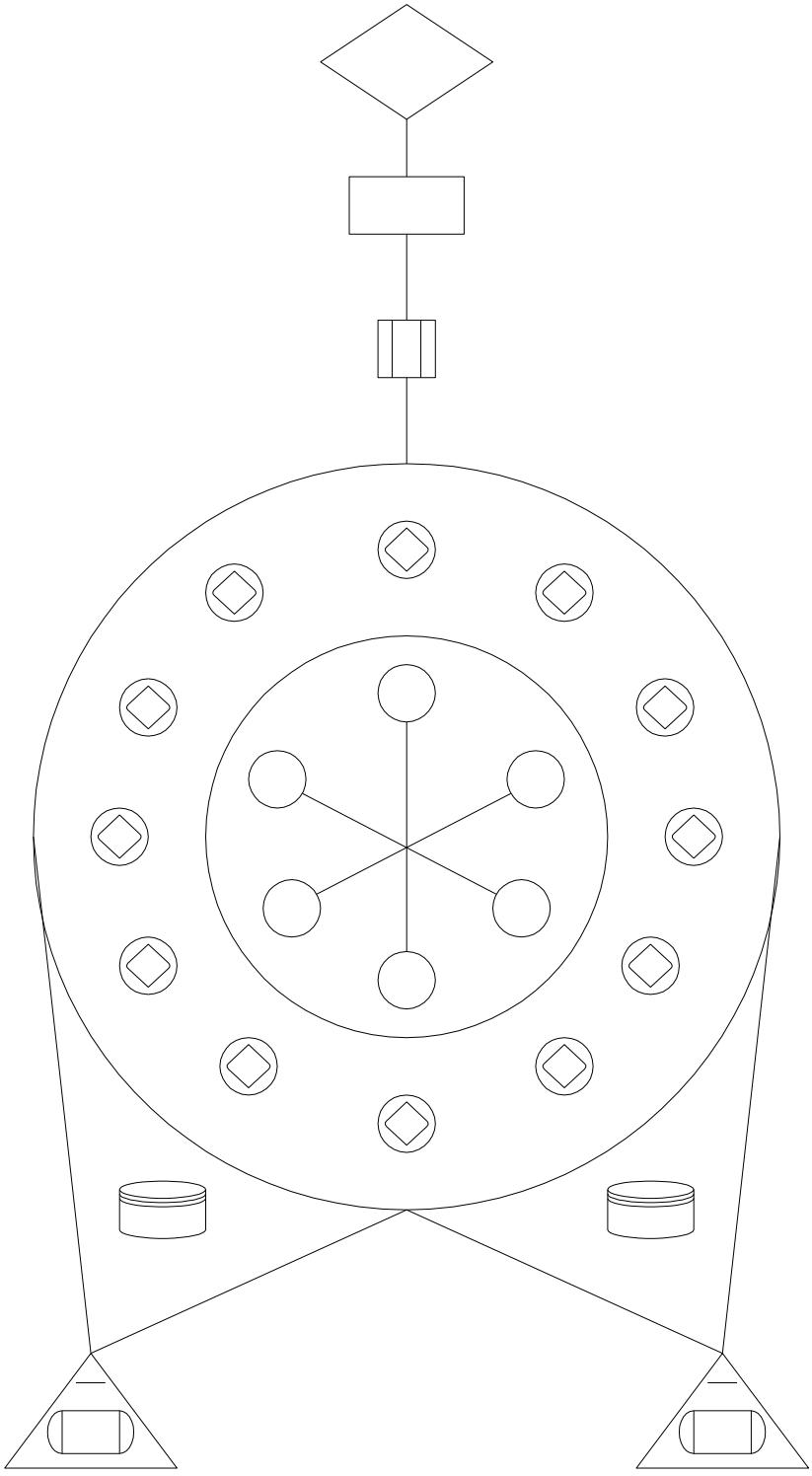
THE PURPOSEFUL HIERARCHY SYSTEMS
and
CHART OF PROCEDURES



(XXV)
FORWARD CHAINING SEQUENCES

GENERATE a LIST of POSSIBLE PURPOSE/FUNCTION
STATEMENTS (X)

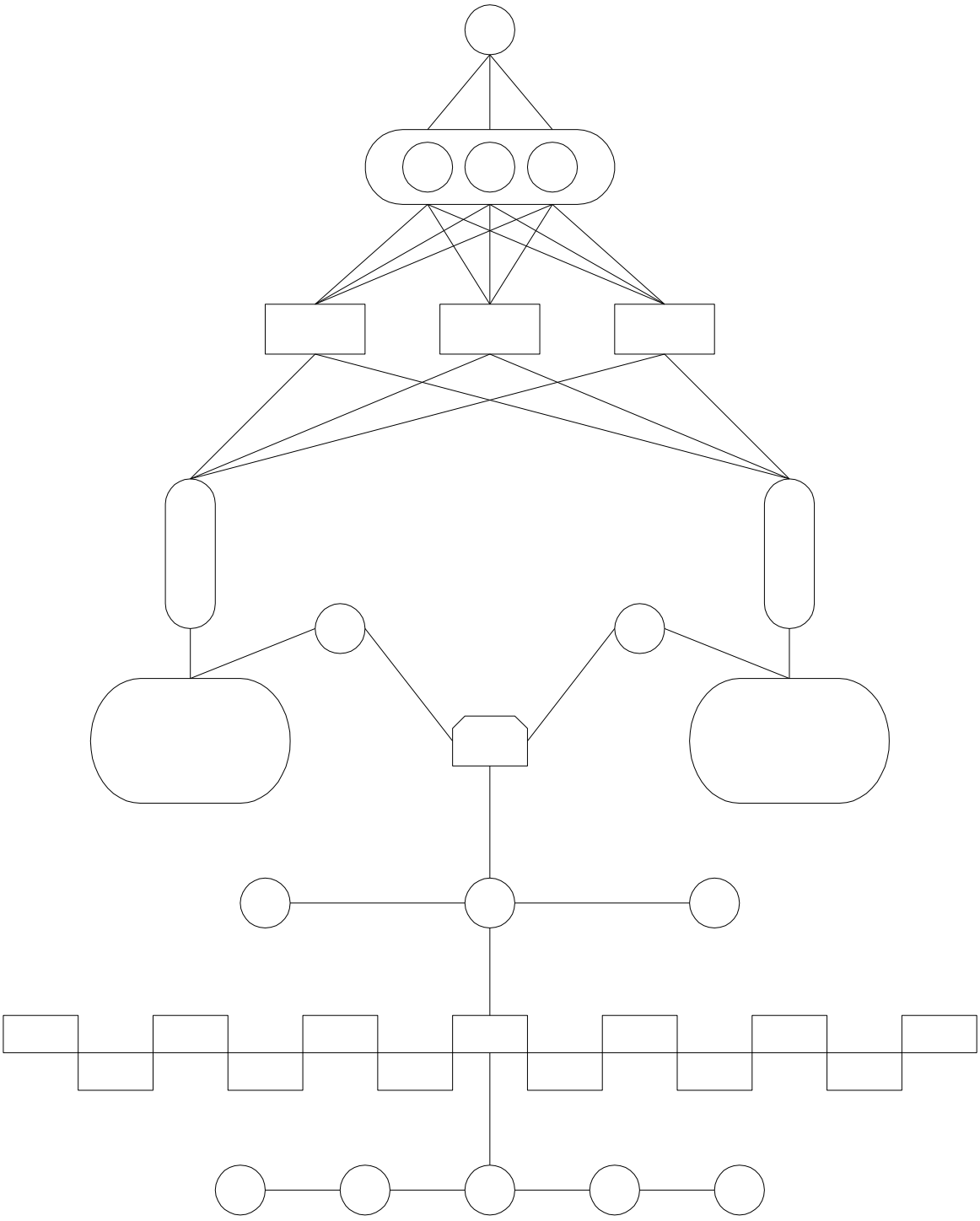
THE PURPOSEFUL HIERARCHY SYSTEMS
and
CHART OF PROCEDURES



(XXV)
BACKWARD CHAINING SEQUENCES

PURPOSE, FUNDAMENTAL (1)

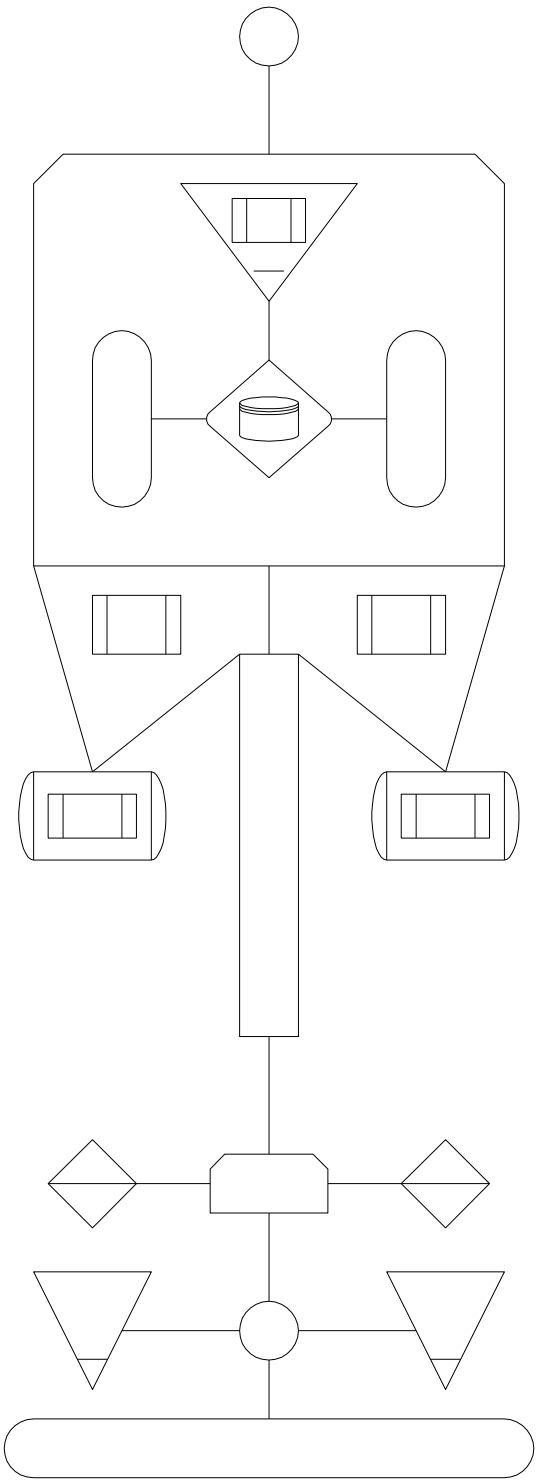
THE INFRASTRUCTURAL PROCESS SYSTEMS
and
CHART OF PROCEDURES



(XXVI)
FORWARD CHAINING SEQUENCES

PORTRAY an ORDER of EVENTS (VII)

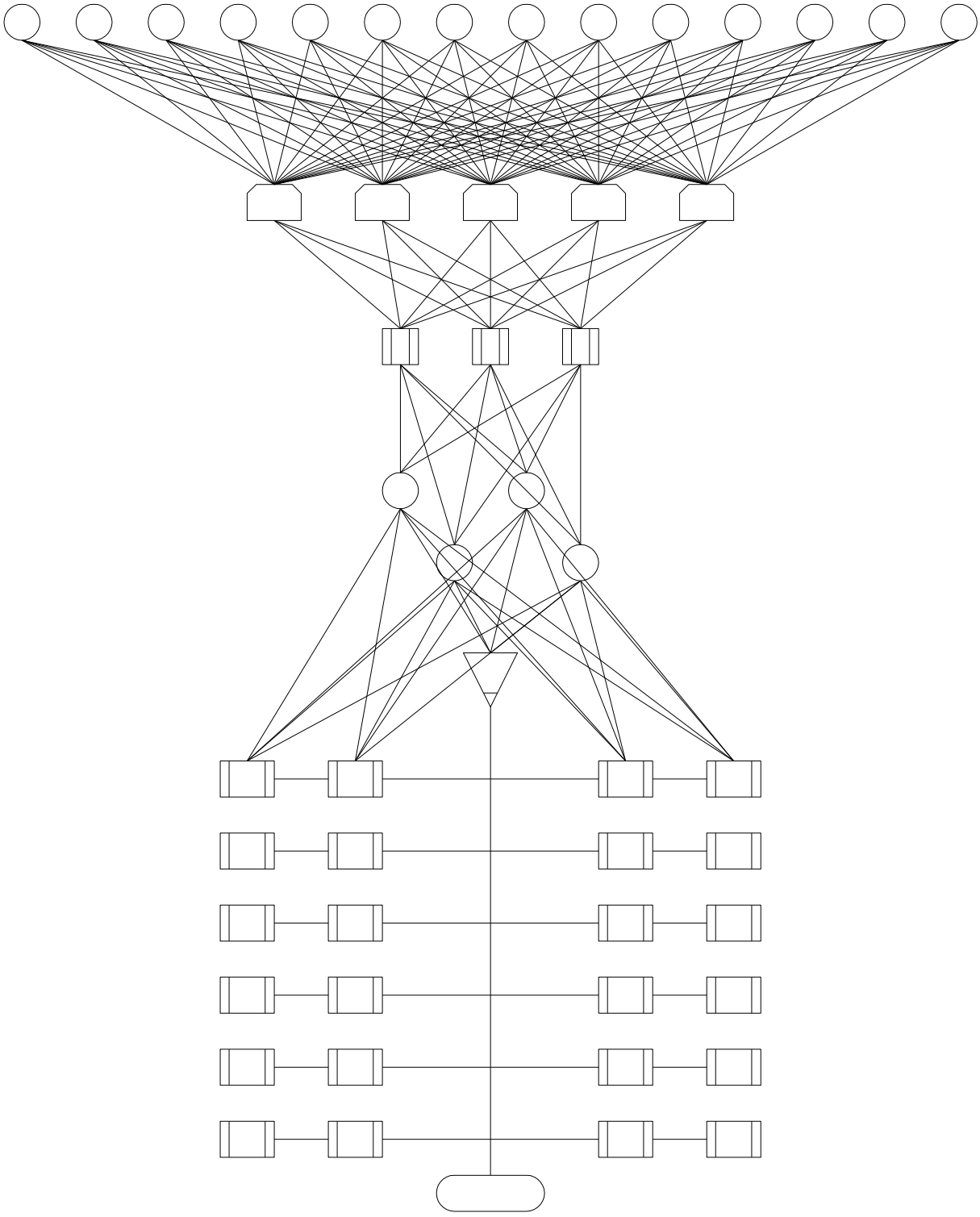
THE INFRASTRUCTURAL PROCESS SYSTEMS
and
CHART OF PROCEDURES



(XXVI)
BACKWARD CHAINING SEQUENCES

OUTPUTS, INTERFACE (17)

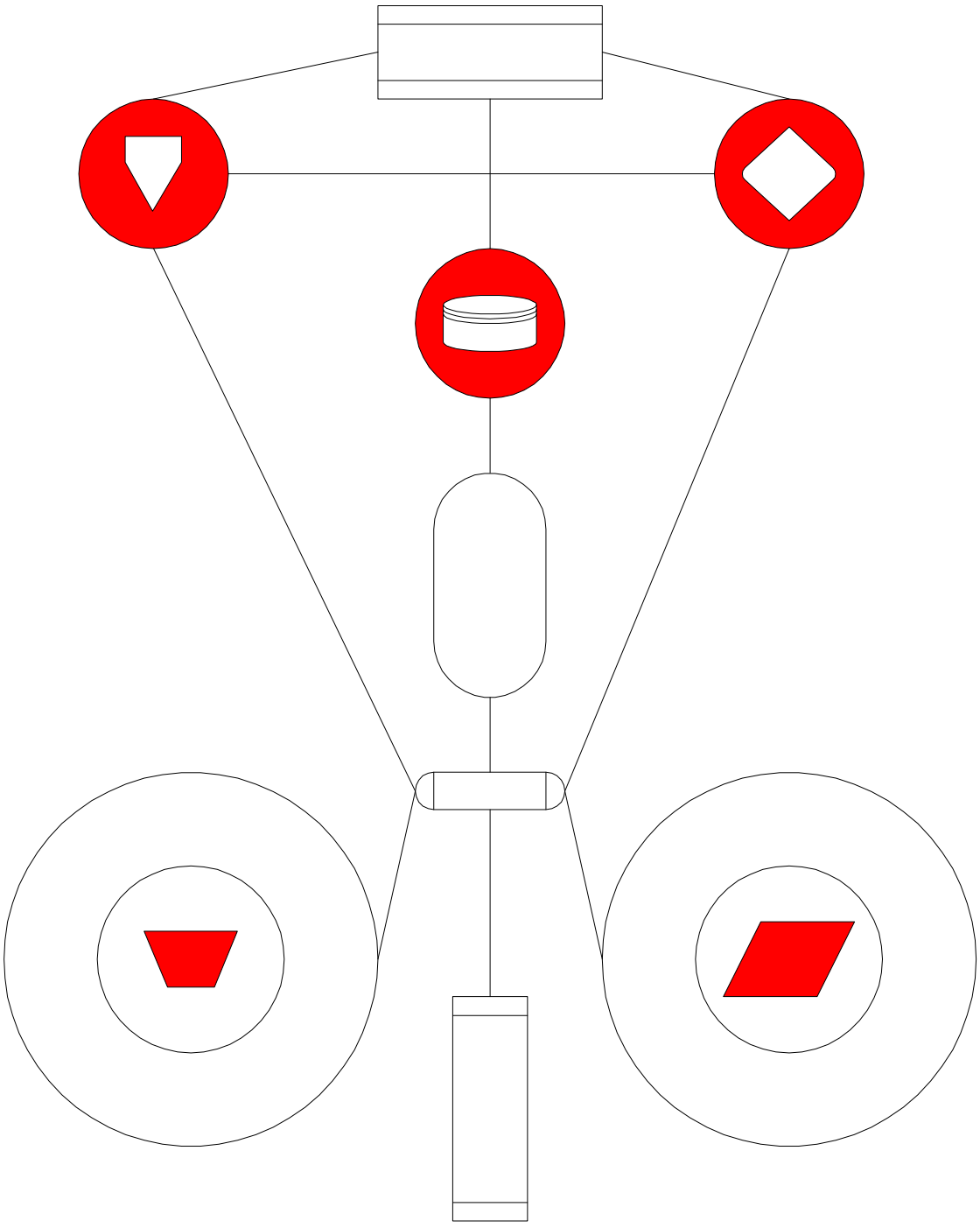
THE ANATOMICAL WORKING SYSTEMS of UPPER LEVEL PROCESSES
and
CHART OF PROCEDURES



(XXVII)
FORWARD CHAINING SEQUENCES

DEVELOP (ENHANCE) CREATIVITY (XII)

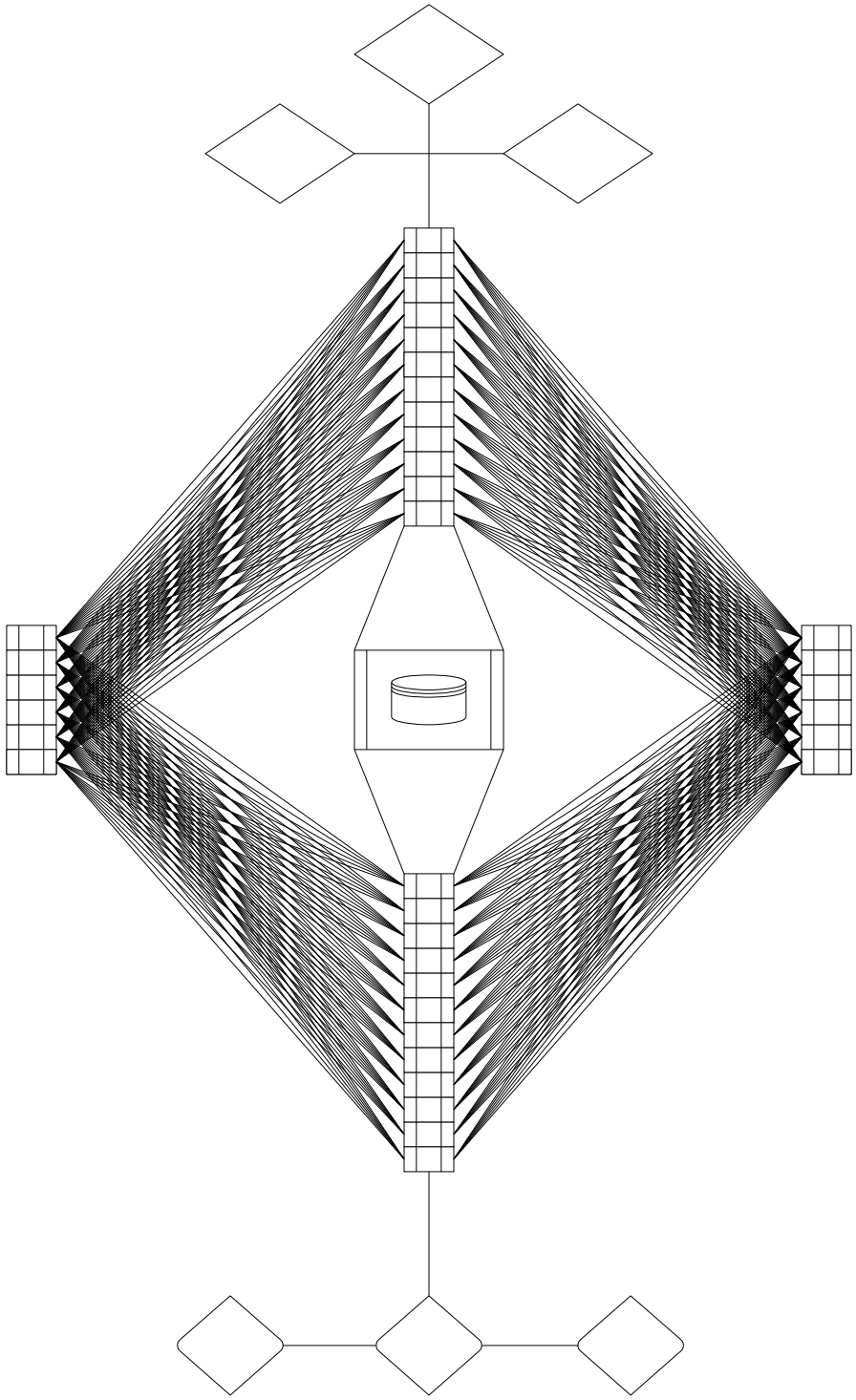
THE ANATOMICAL WORKING SYSTEMS of UPPER LEVEL PROCESSES
and
CHART OF PROCEDURES



(XXVII)
BACKWARD CHAINING SEQUENCES

SEQUENCE, VALUES (20)

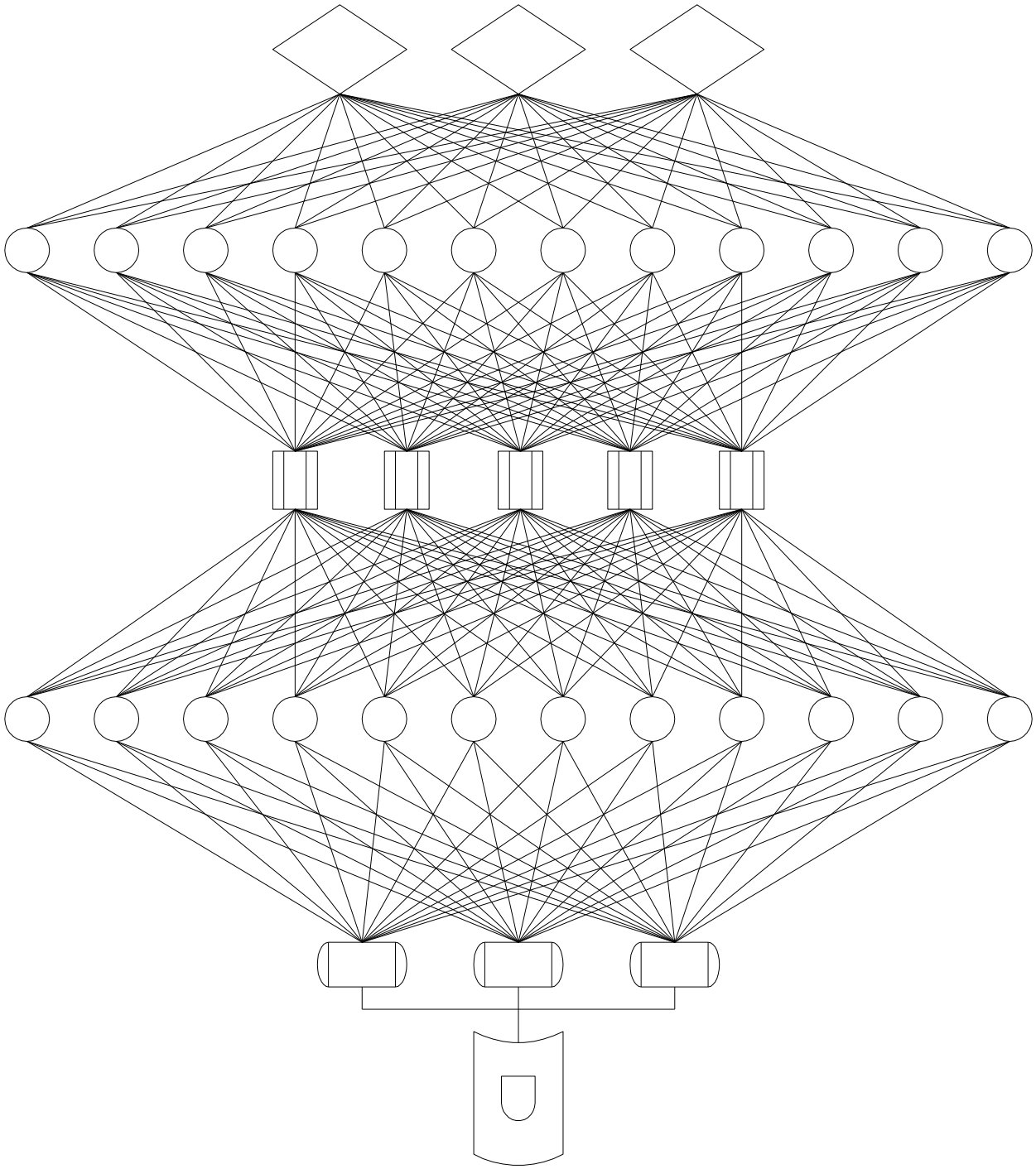
THE ANATOMICAL WORKING SYSTEMS of LOWER LEVEL PROCESSES
and
CHART OF PROCEDURES



(XXVIII)
FORWARD CHAINING SEQUENCES

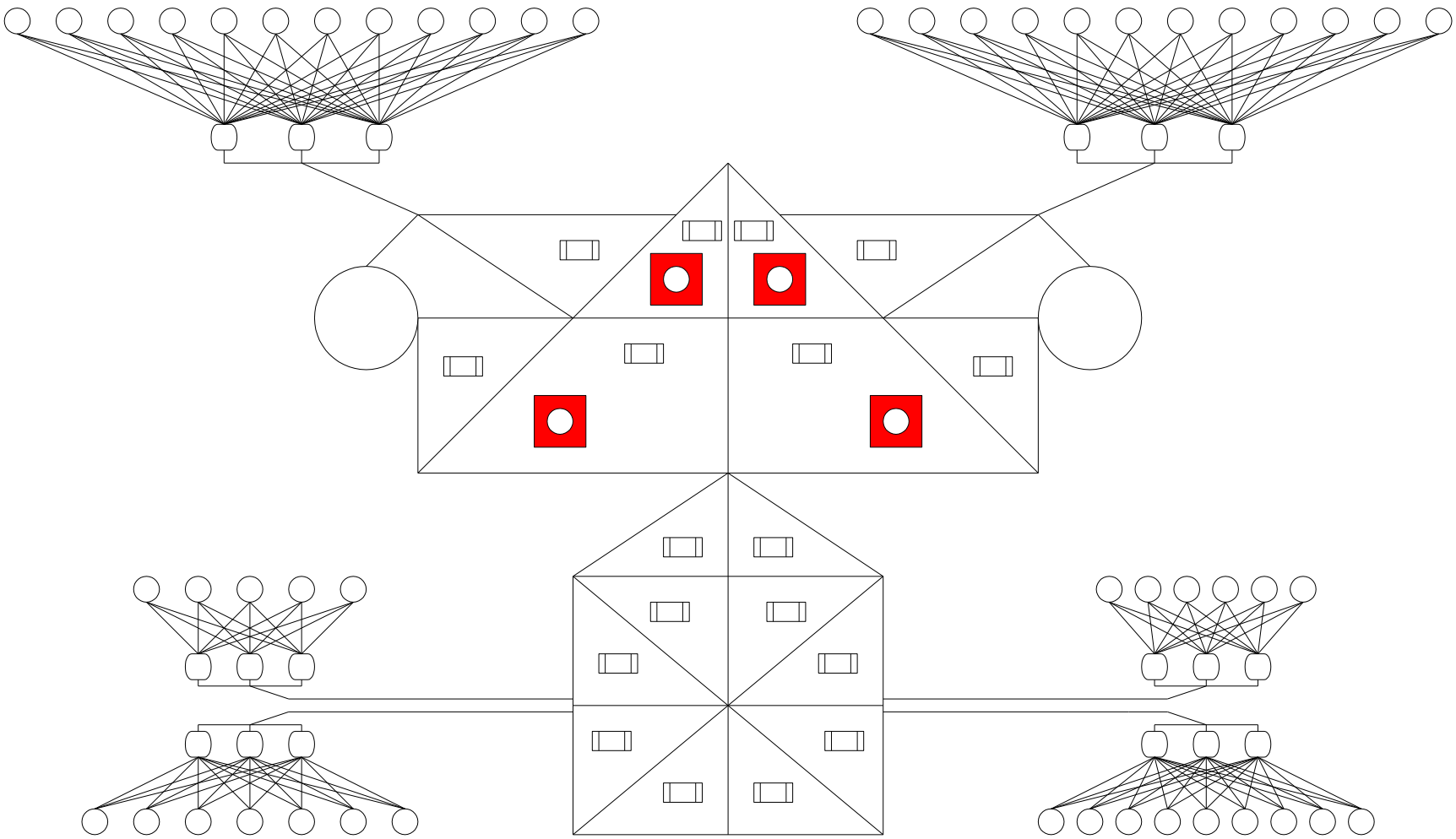
PRESERVE an IMAGE (VII)

THE ANATOMICAL WORKING SYSTEMS of LOWER LEVEL PROCESSES
and
CHART OF PROCEDURES



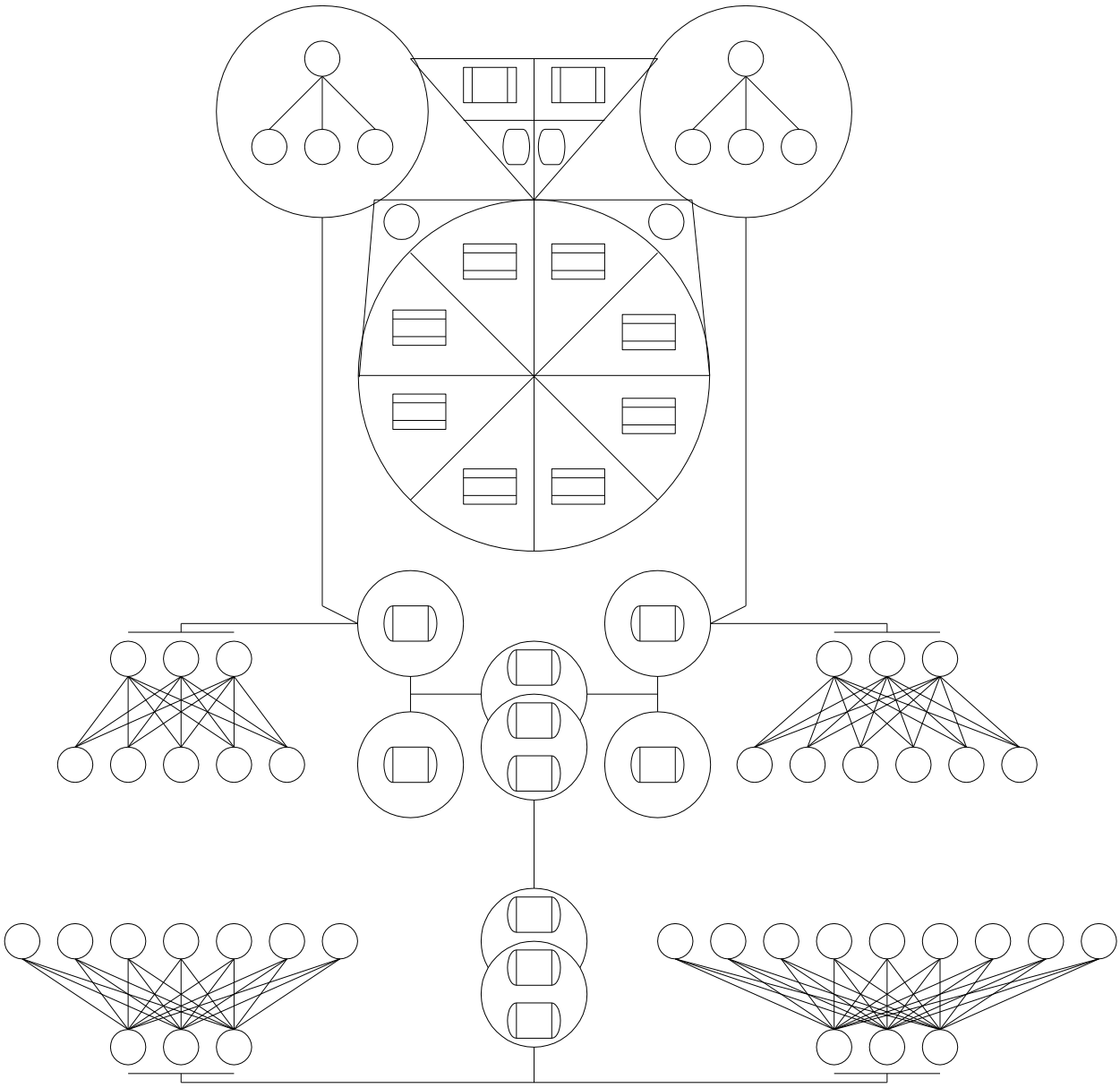
(XXVIII)
BACKWARD CHAINING SEQUENCES

HUMAN AGENTS, INTERFACE (35)



(XXIX)
FORWARD CHAINING SEQUENCES

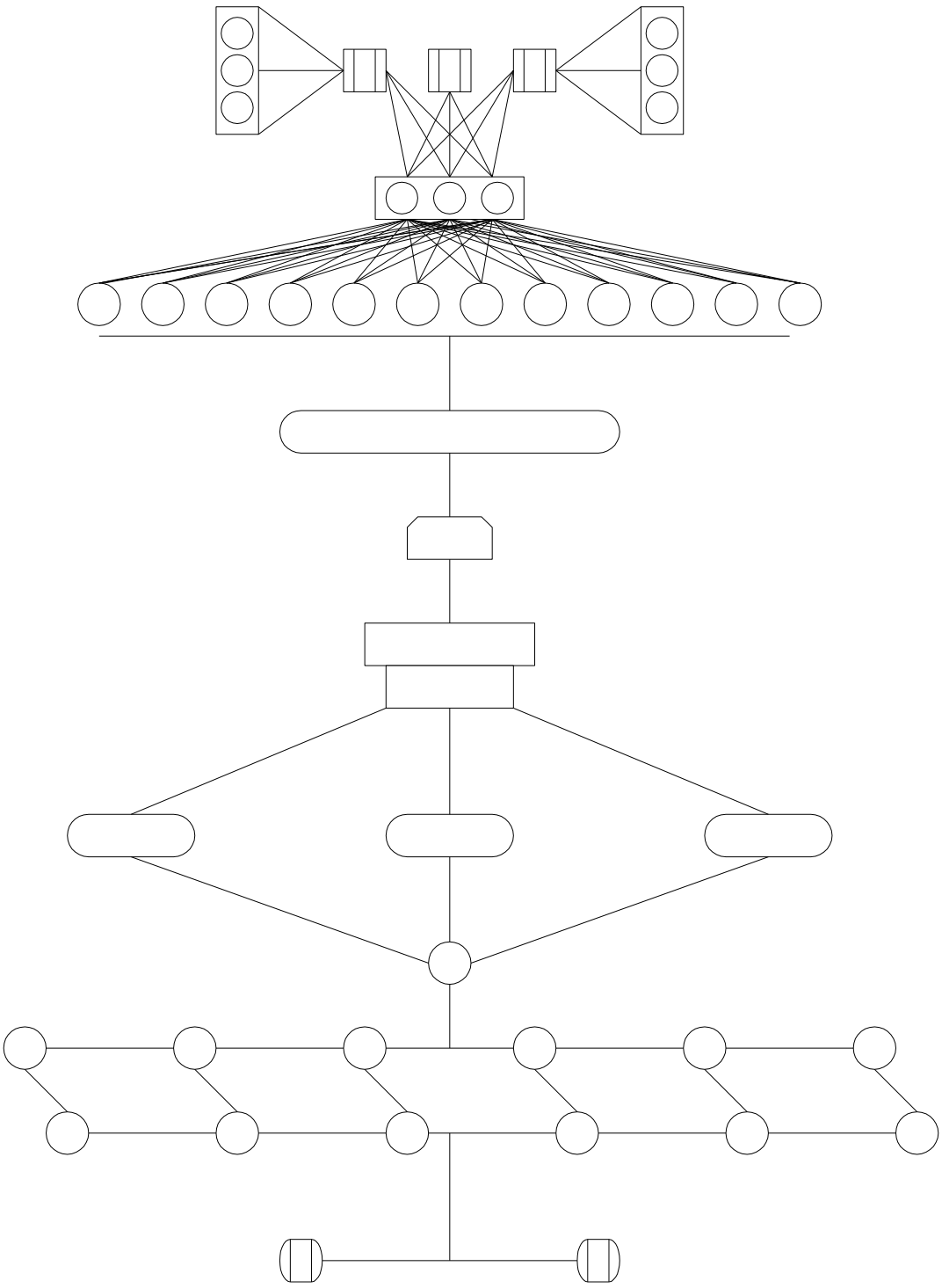
ANALYZE JOB METHODS & MOTIONS (I)



(XXIX)
BACKWARD CHAINING SEQUENCES

INPUTS, VALUES (8)

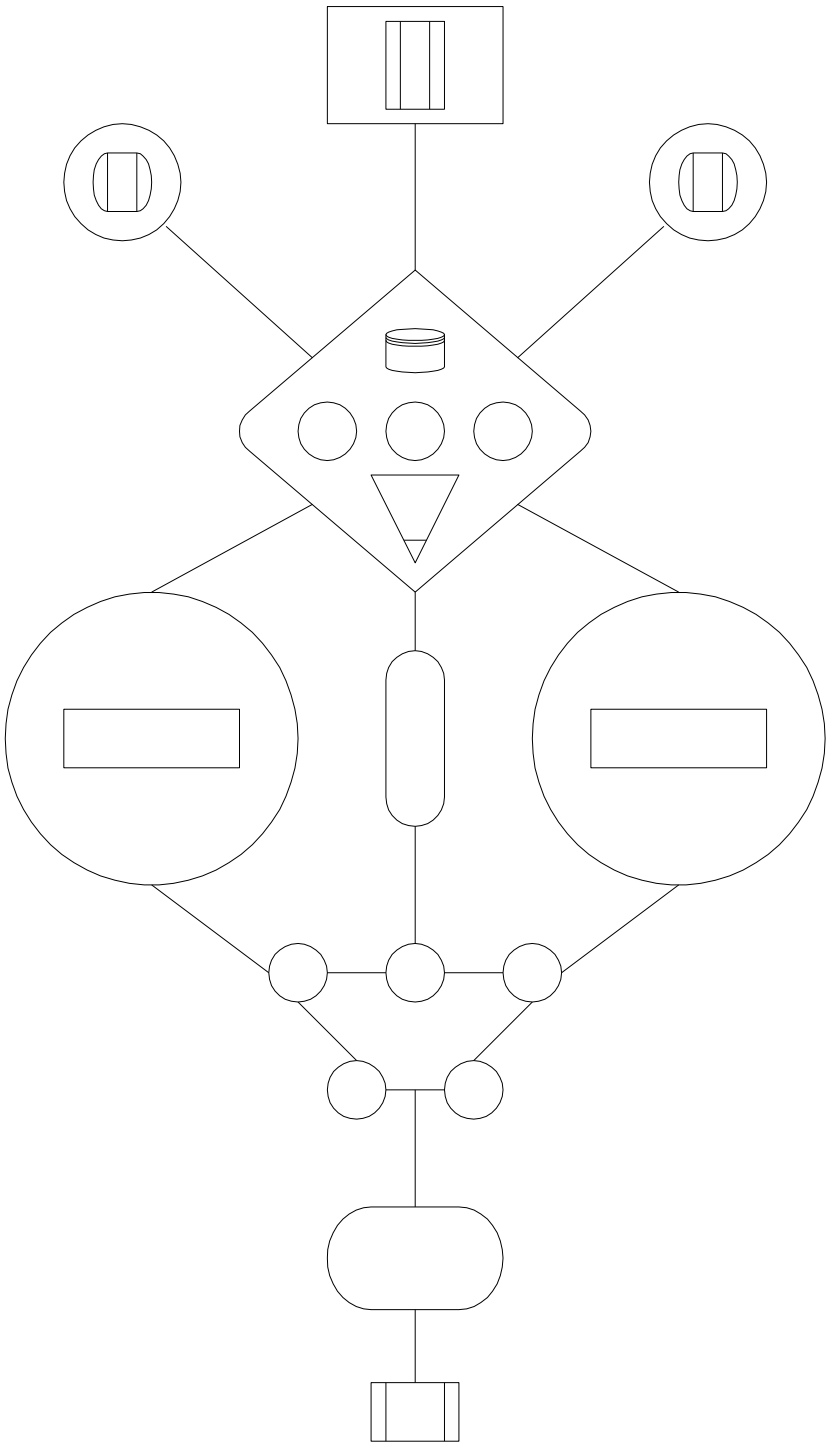
THE CASCADING AUTONOMOUS AGENT PROCESSES, SYSTEMS
and
CHART OF PROCEDURES



(XXX)
FORWARD CHAINING SEQUENCES

APPRAISE/ASSESS PROJECTS (II)

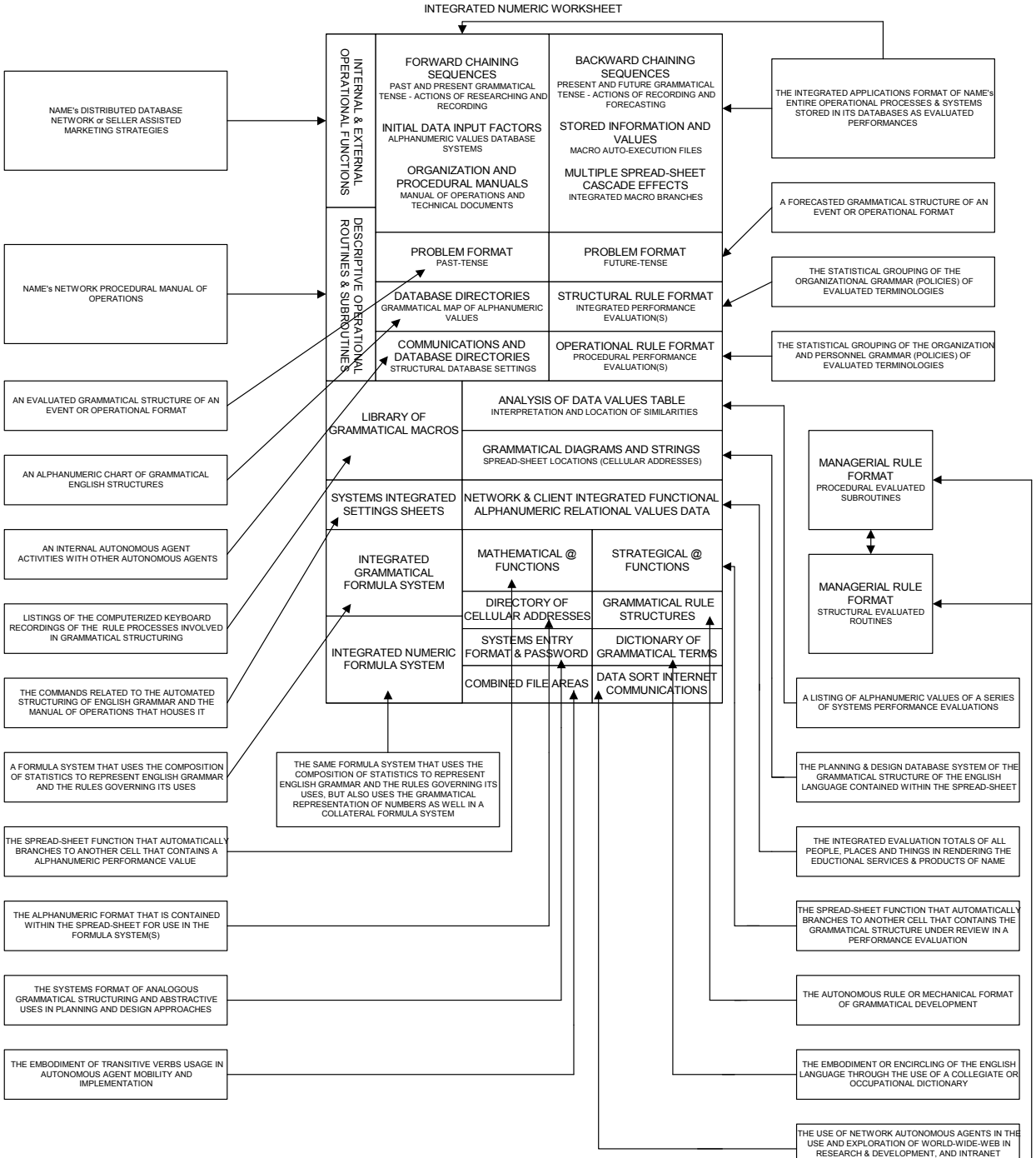
THE CASCADING AUTONOMOUS AGENT PROCESSES, SYSTEMS
and
CHART OF PROCEDURES



(XXX)
BACKWARD CHAINING SEQUENCES

INFORMATION AIDS, VALUES (44)

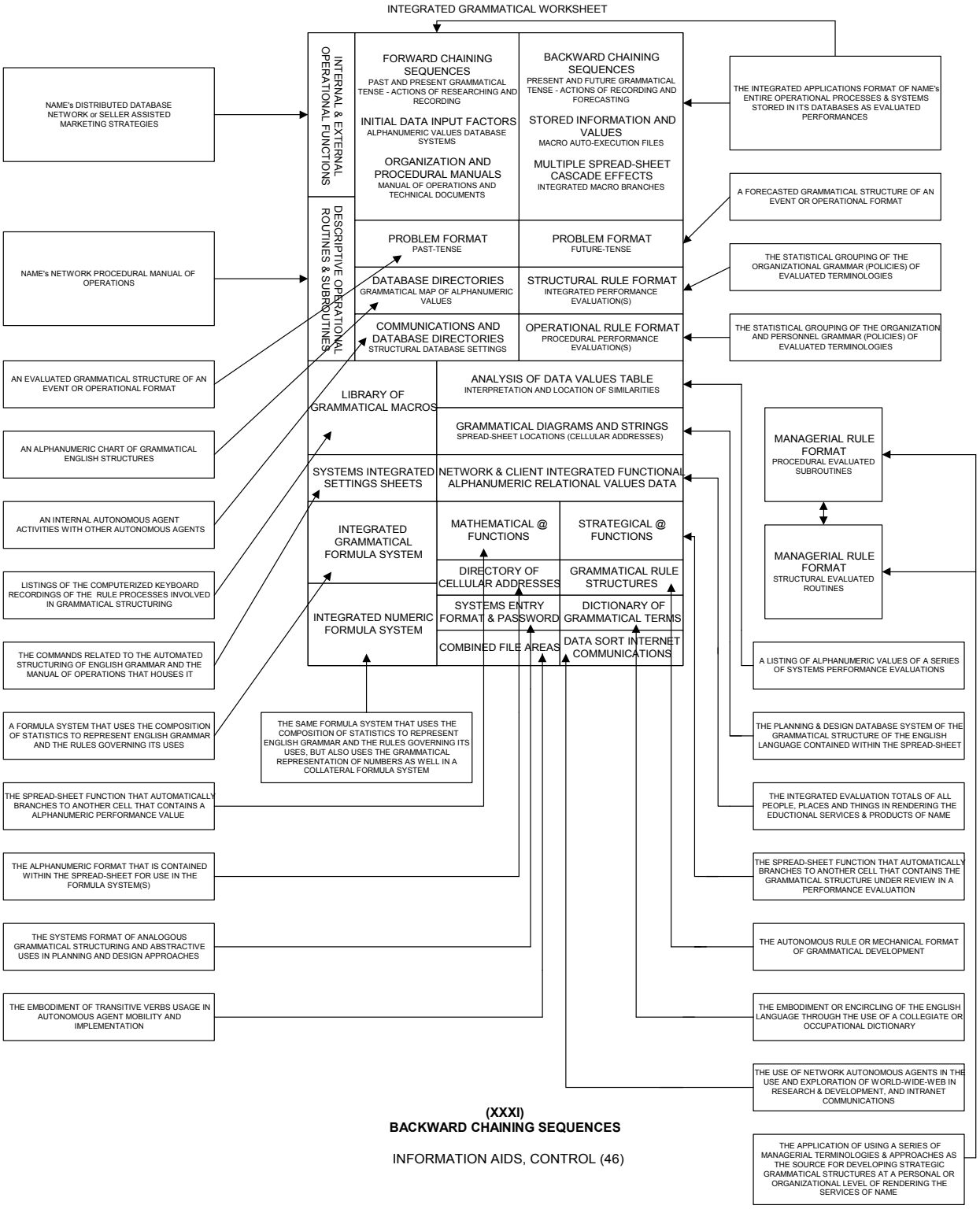
THE AUTONOMOUS AGENT WORKSHEET of INTERNAL PROCESSES, SYSTEMS
and
CHART OF PROCEDURES



(XXXI)
FORWARD CHAINING SEQUENCES

ANALYZE PROJECTS (II)

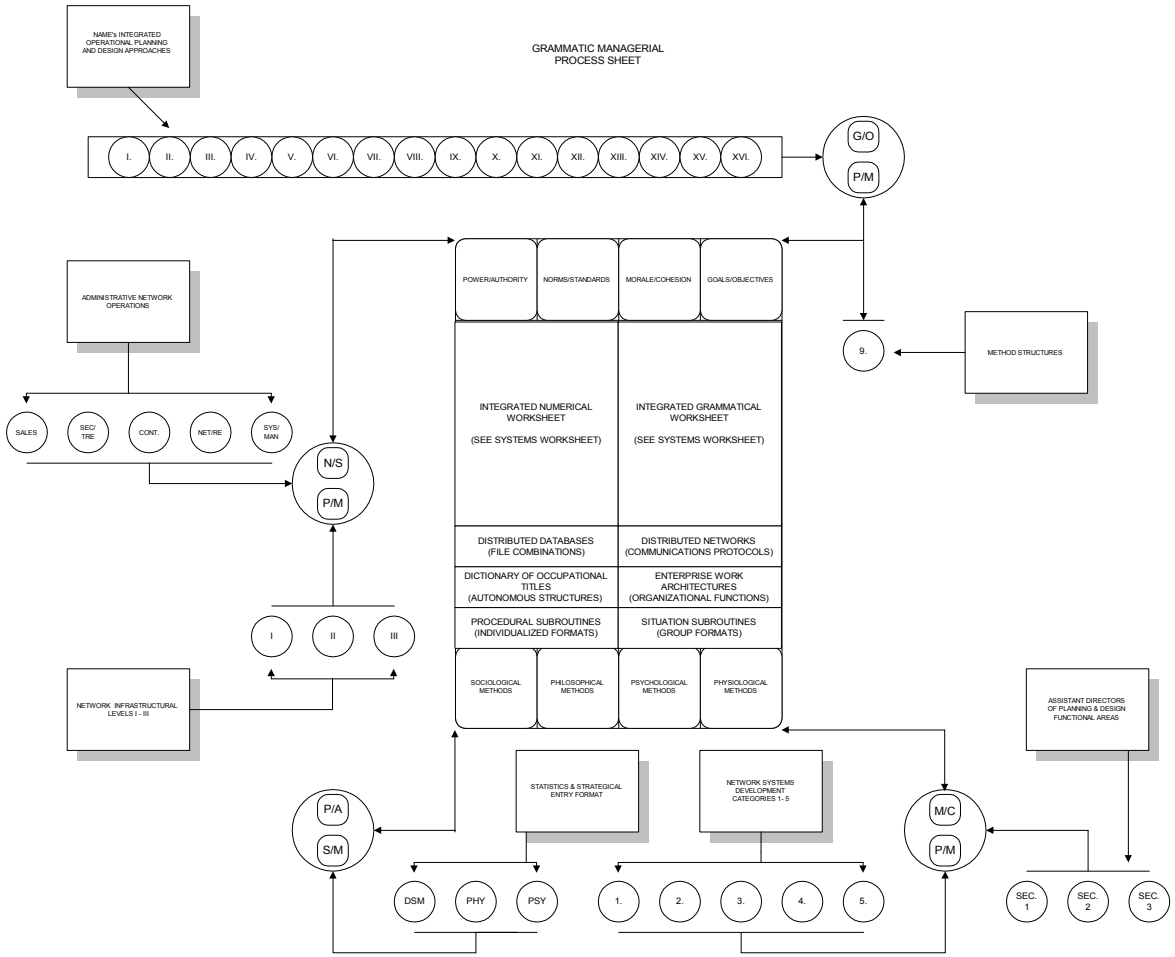
THE AUTONOMOUS AGENT WORKSHEET of INTERNAL PROCESSES, SYSTEMS
and
CHART OF PROCEDURES



(XXXI)
BACKWARD CHAINING SEQUENCES

INFORMATION AIDS, CONTROL (46)

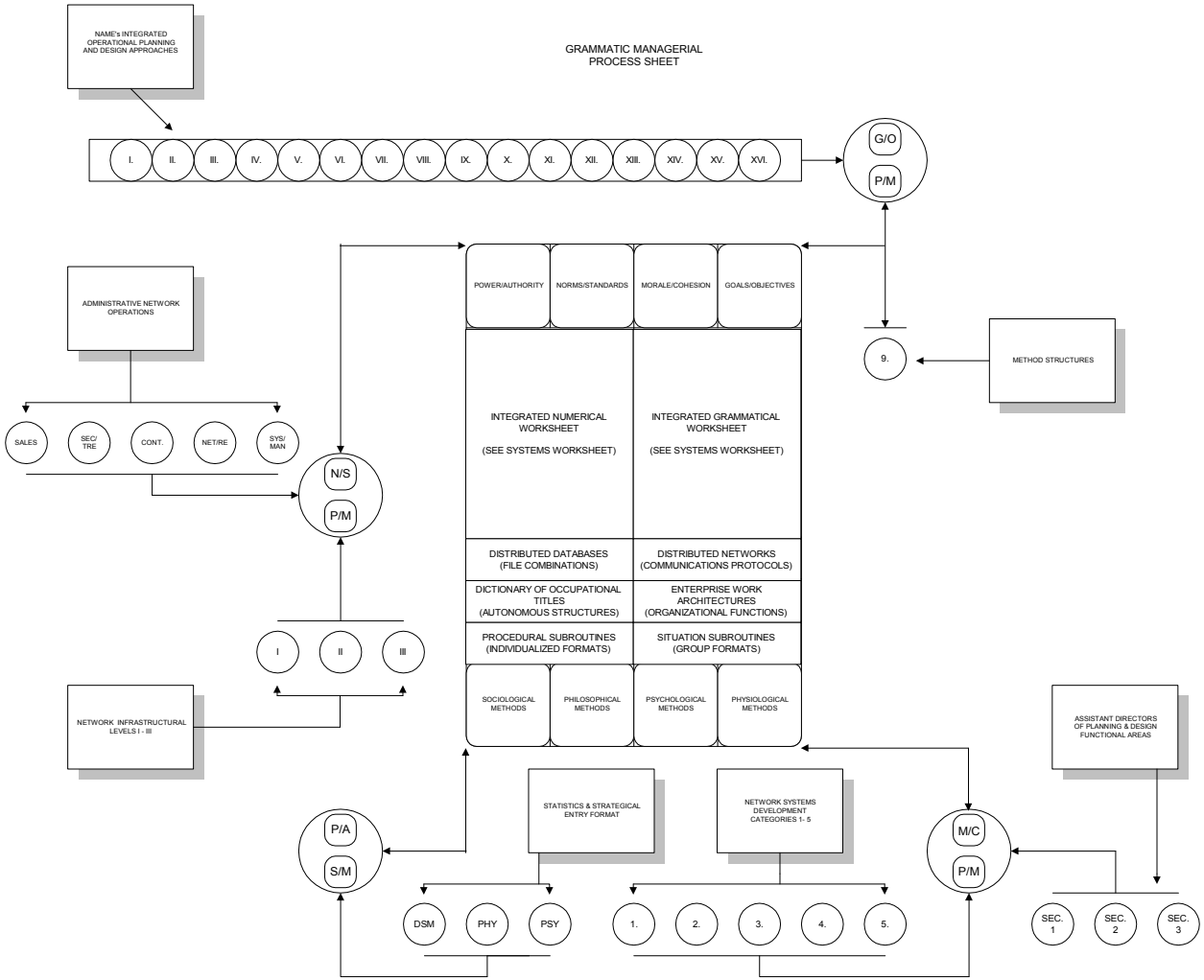
THE AUTONOMOUS AGENT MANAGERIAL PROCESSES SHEET, SYSTEMS
and
CHART OF PROCEDURES



(XXXII)
FORWARD CHAINING SEQUENCES

IDENTIFY MANAGEMENT STYLES (V)

THE AUTONOMOUS AGENT MANAGERIAL PROCESSES SHEET, SYSTEMS
and
CHART OF PROCEDURES

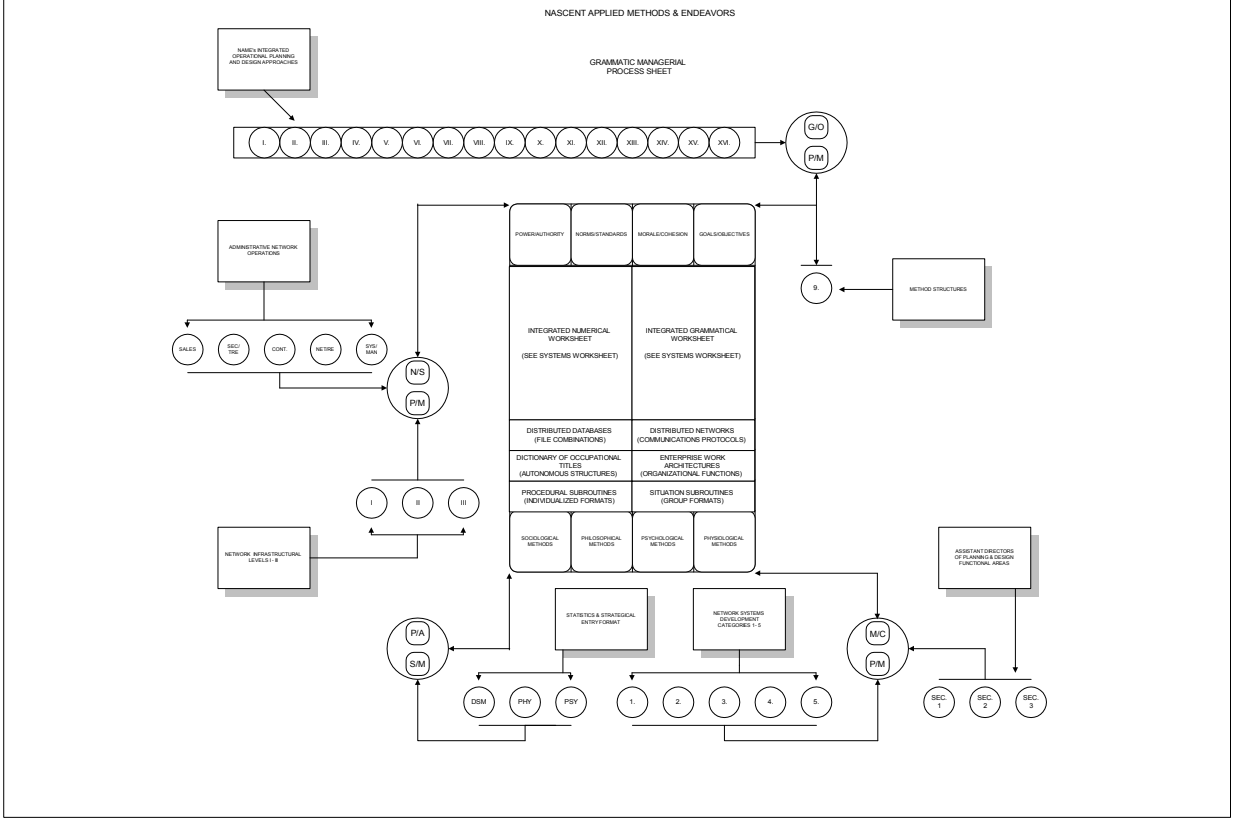


(XXXII)
BACKWARD CHAINING SEQUENCES

ENVIRONMENT, CONTROL (28)

AUTONOMOUS AGENT DATABASE STRUCTURE

INDIVIDUAL DEVELOPMENT FORMAT				ORGANIZATIONAL DEVELOPMENT FORMAT			
AAAC	TAAC	IAAC	IIAAC	AAAC	TAAC	IAAC	IIAAC
SAAAC	DDAAC	AACC	AADDC	SAAAC	DDAAC	AACC	AADDC



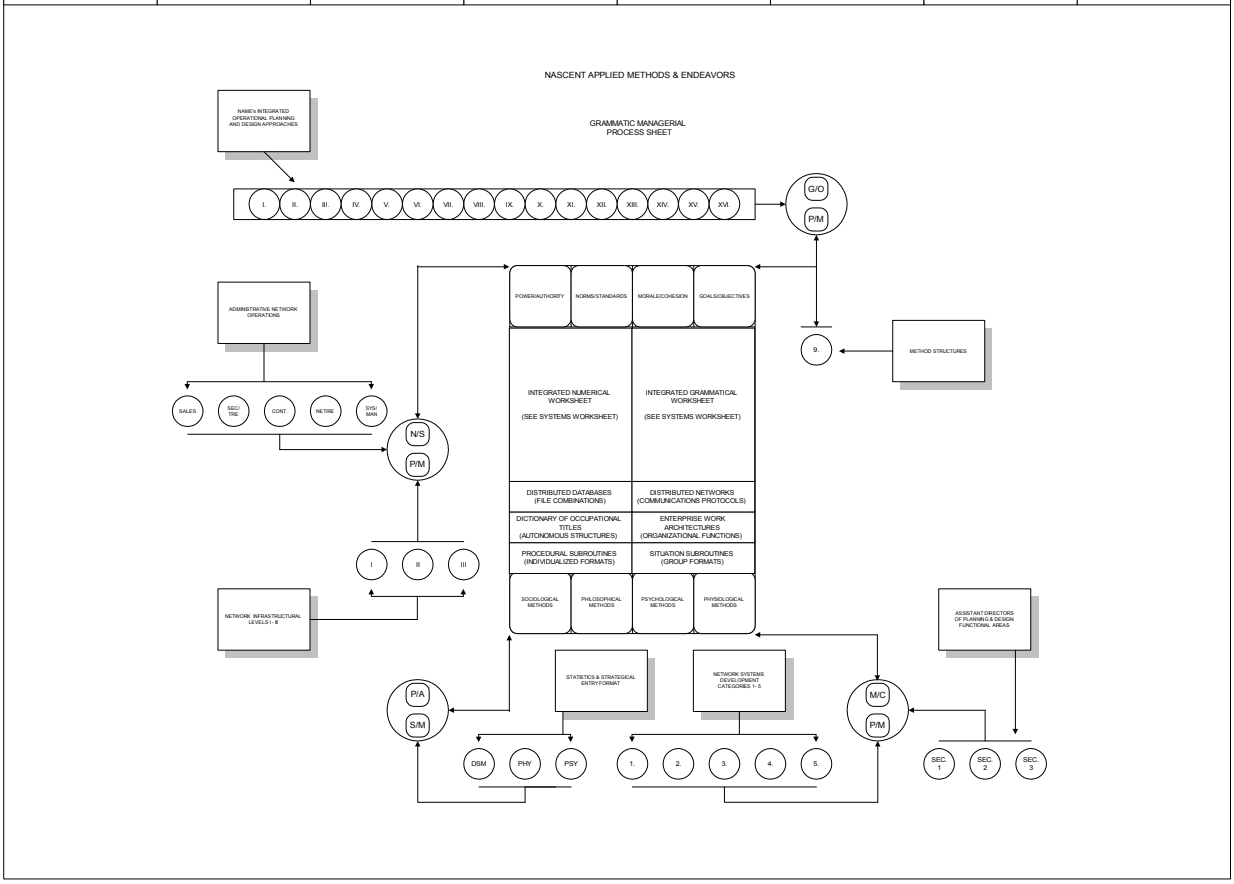
(XXXIII)
FORWARD CHAINING SEQUENCES

MEASURE PROJECTS PROGRESS & PERFORMANCE (III)

THE AUTONOMOUS AGENT TIMELINE PERFORMANCE, MEASURING, PROCESS SYSTEMS
and
CHART OF PROCEDURES

AUTONOMOUS AGENT DATABASE STRUCTURE

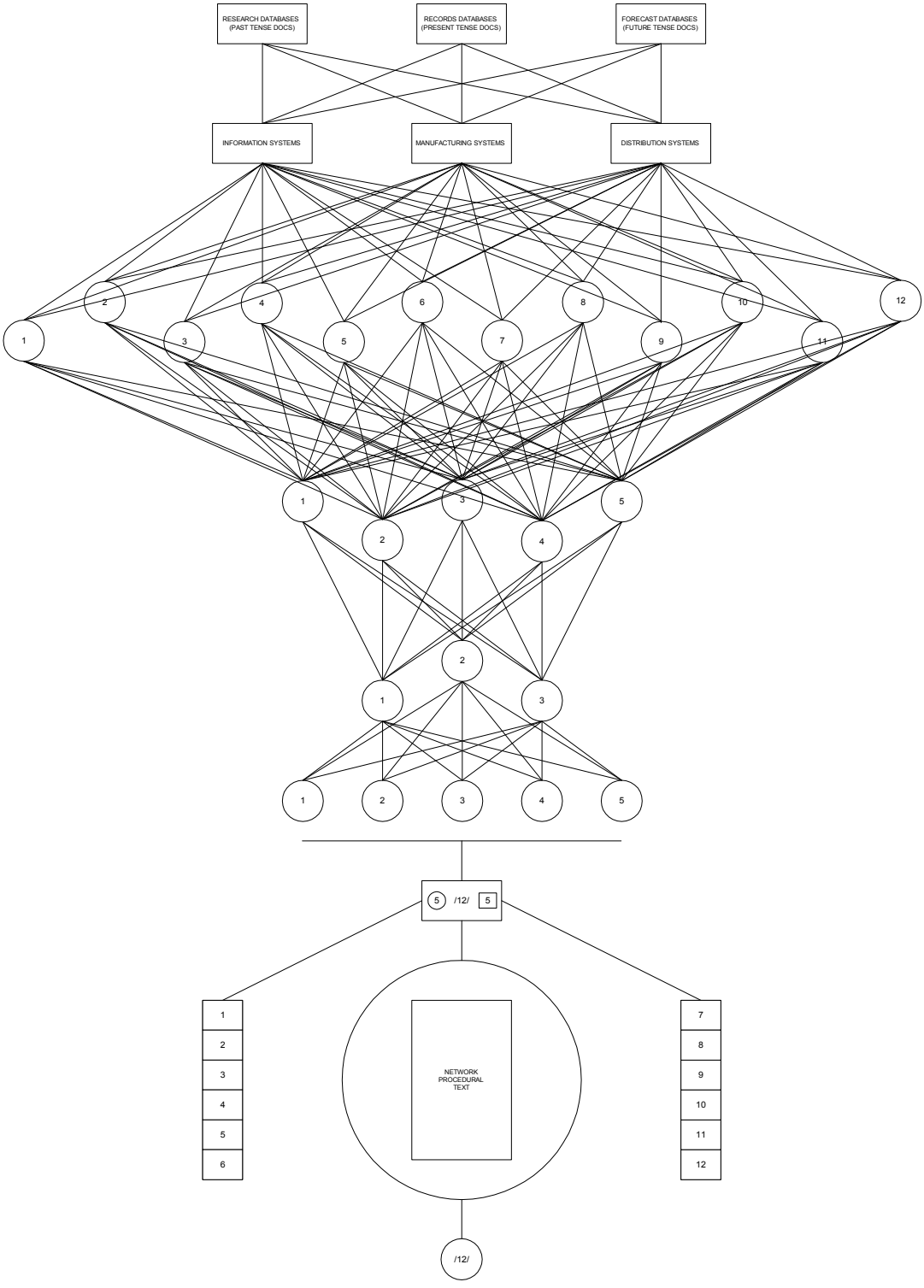
INDIVIDUAL DEVELOPMENT FORMAT				ORGANIZATIONAL DEVELOPMENT FORMAT			
AAAC	TAAC	IAAC	IIAAC	AAAC	TAAC	IAAC	IIAAC
SAAAC	DDAAC	AACC	AADDC	SAAAC	DDAAC	AACC	AADDC



(XXXIII)
BACKWARD CHAINING SEQUENCES

INFORMATION AIDS, MEASURES (45)

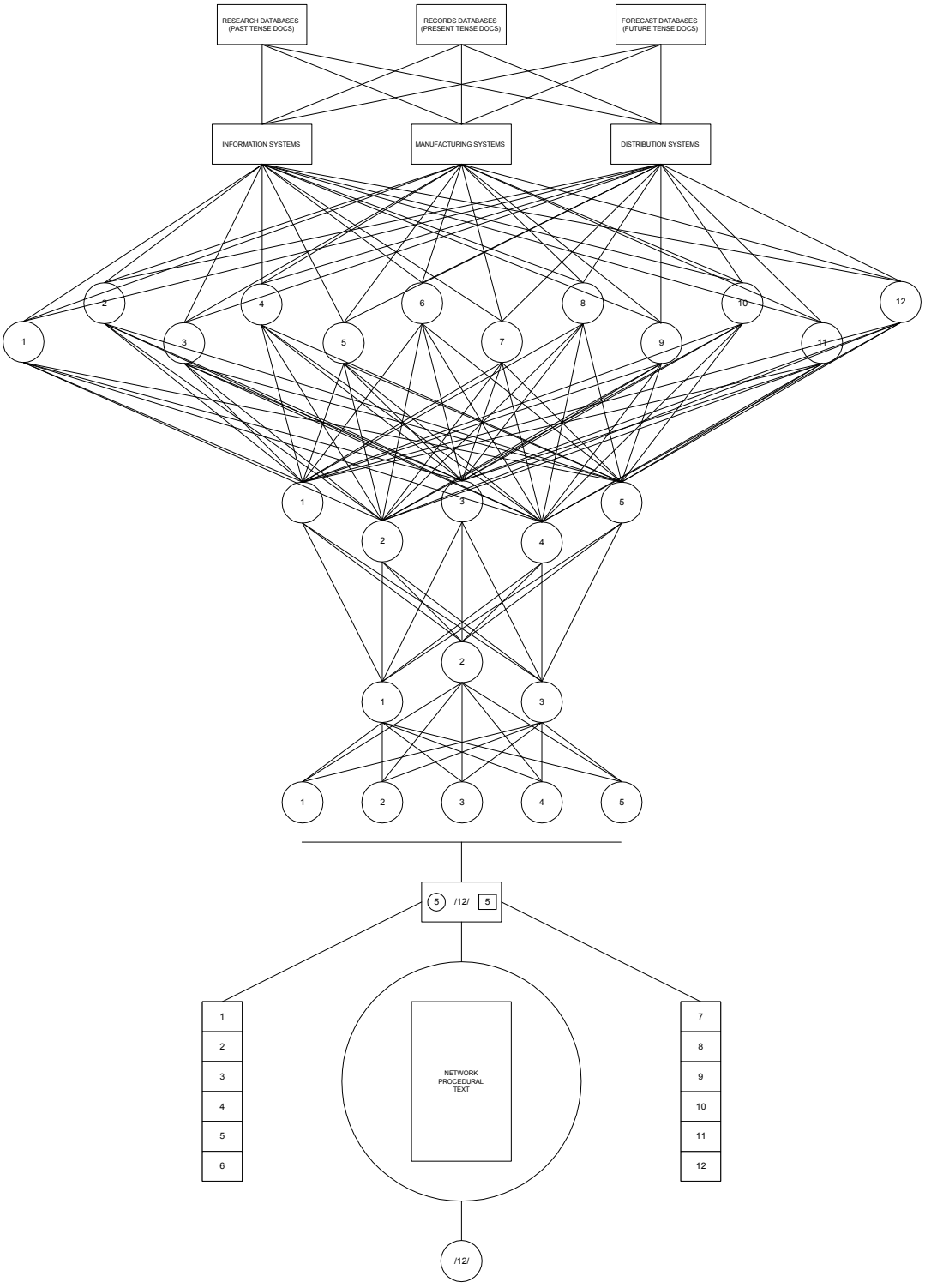
THE PROCEDURAL SYSTEMS ORGANIZATIONAL MANUALS, STRUCTURES, DATABASES
and
CHART OF PROCEDURES



(XXXIV)
FORWARD CHAINING SEQUENCES

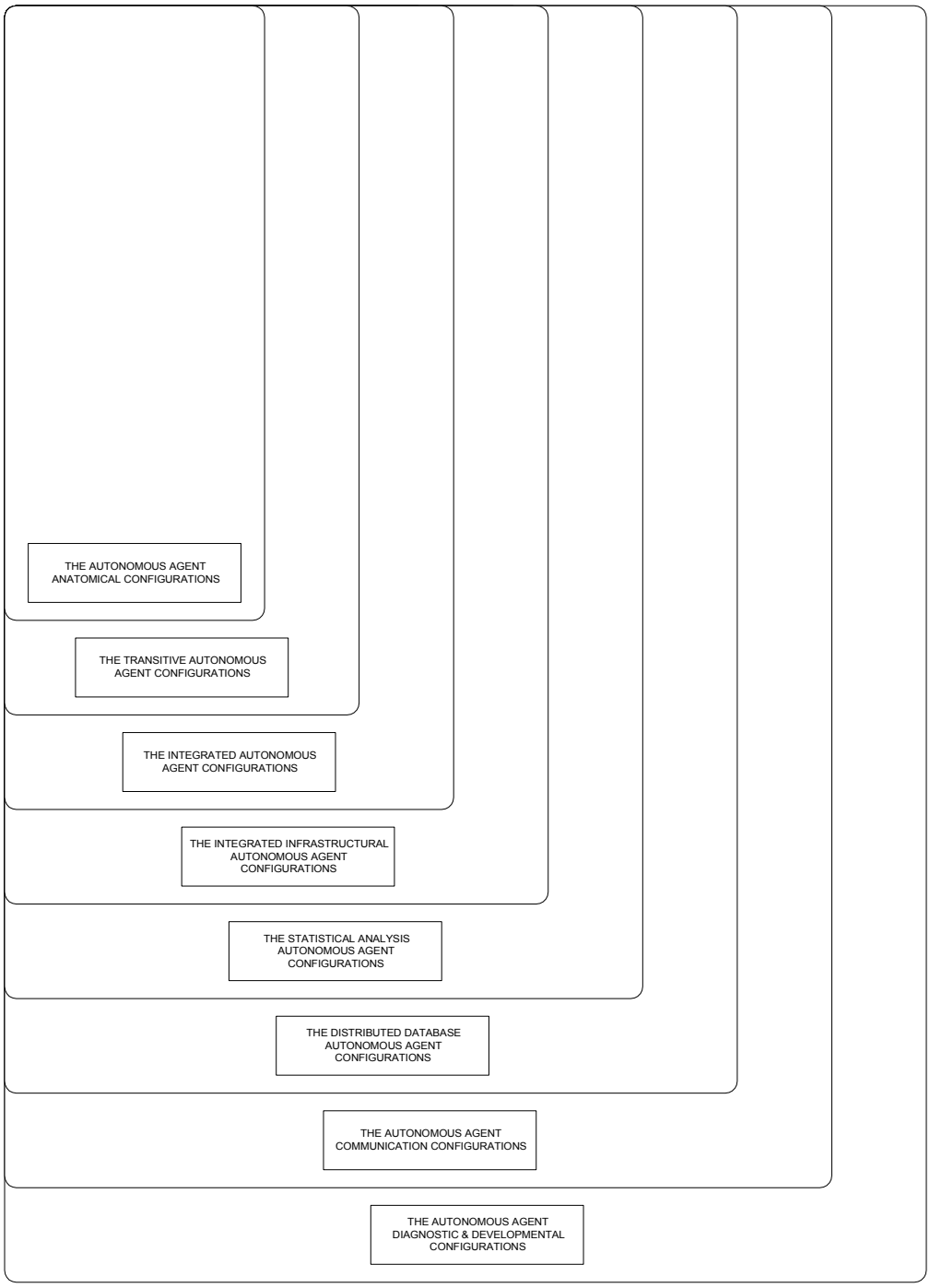
PREDICT FUTURE CONDITIONS (XI)

THE PROCEDURAL SYSTEMS ORGANIZATIONAL MANUALS, STRUCTURES, DATABASES
and
CHART OF PROCEDURES



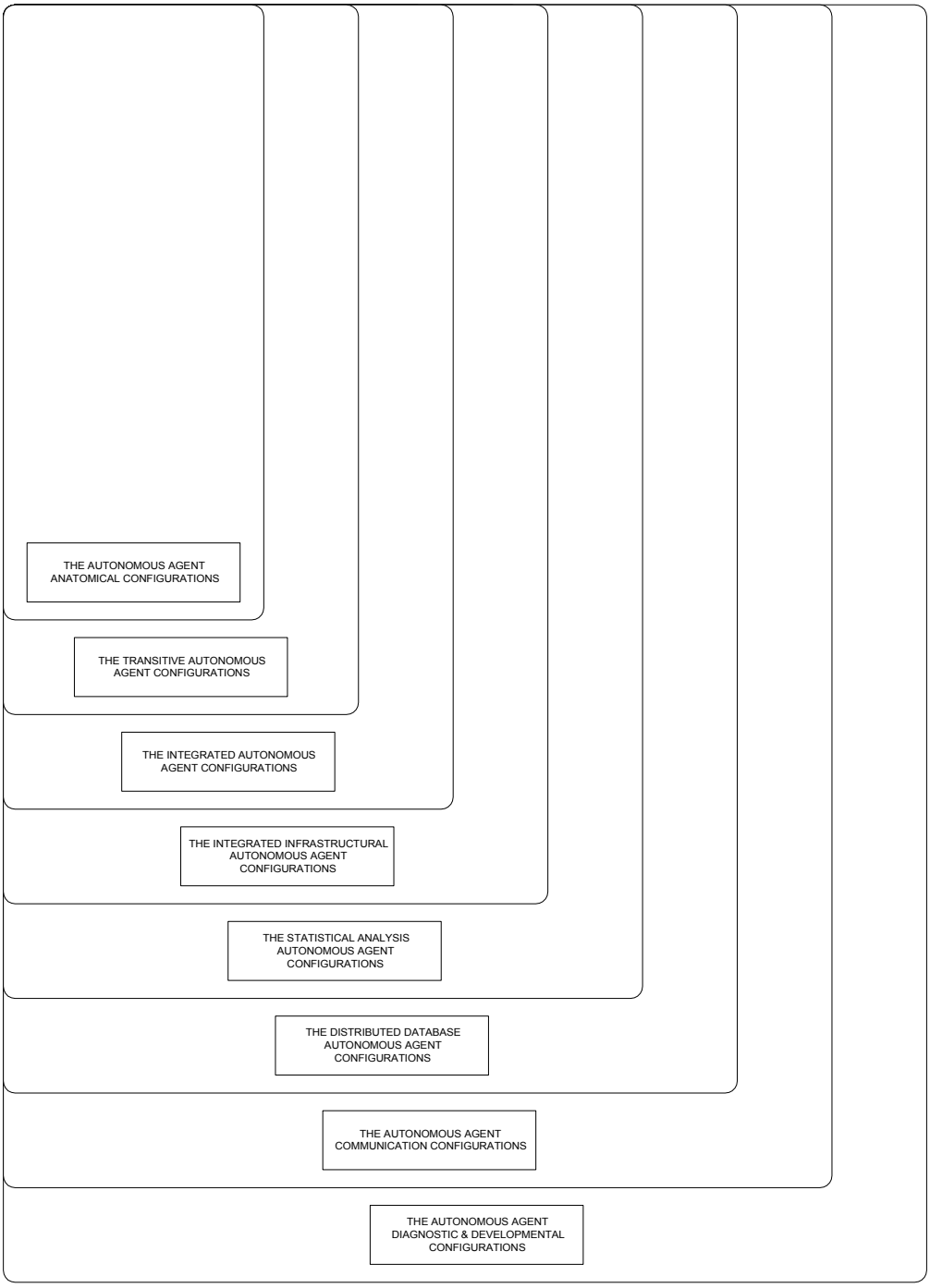
(XXXIV)
BACKWARD CHAINING SEQUENCES

SEQUENCE, FUNDAMENTAL (19)



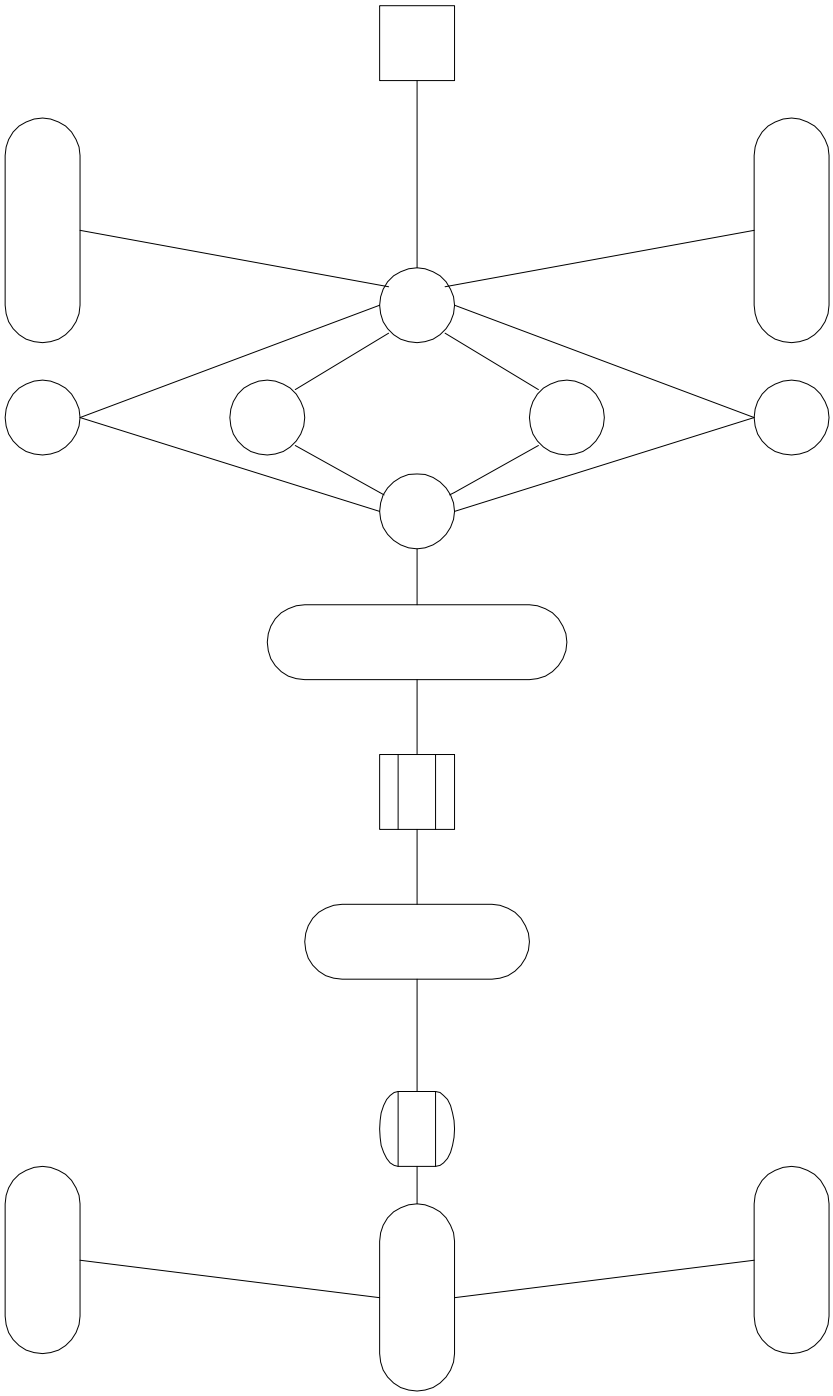
(XXXV)
FORWARD CHAINING SEQUENCES

IDENTIFY NEW PRODUCT QUALITY (I)



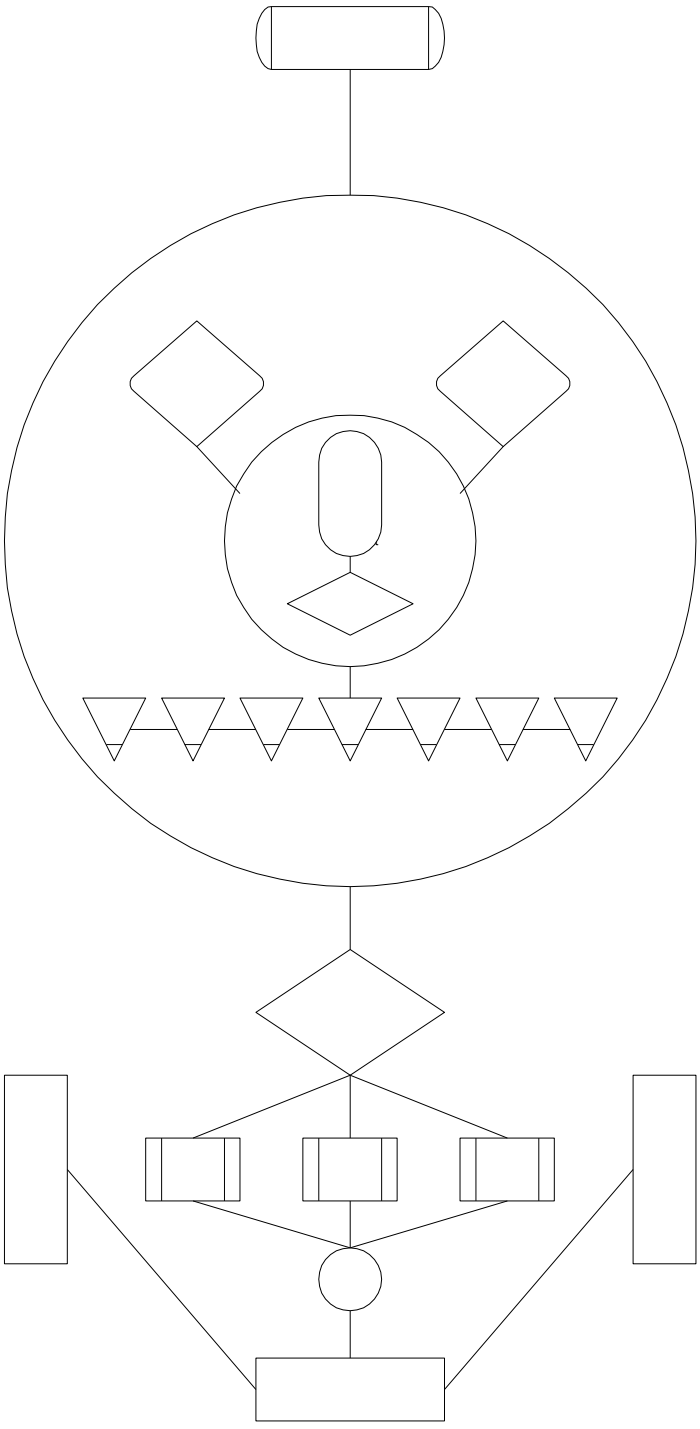
(XXXV)
BACKWARD CHAINING SEQUENCES

PURPOSE, FUTURE (6)



(XXXVI)
FORWARD CHAINING SEQUENCES

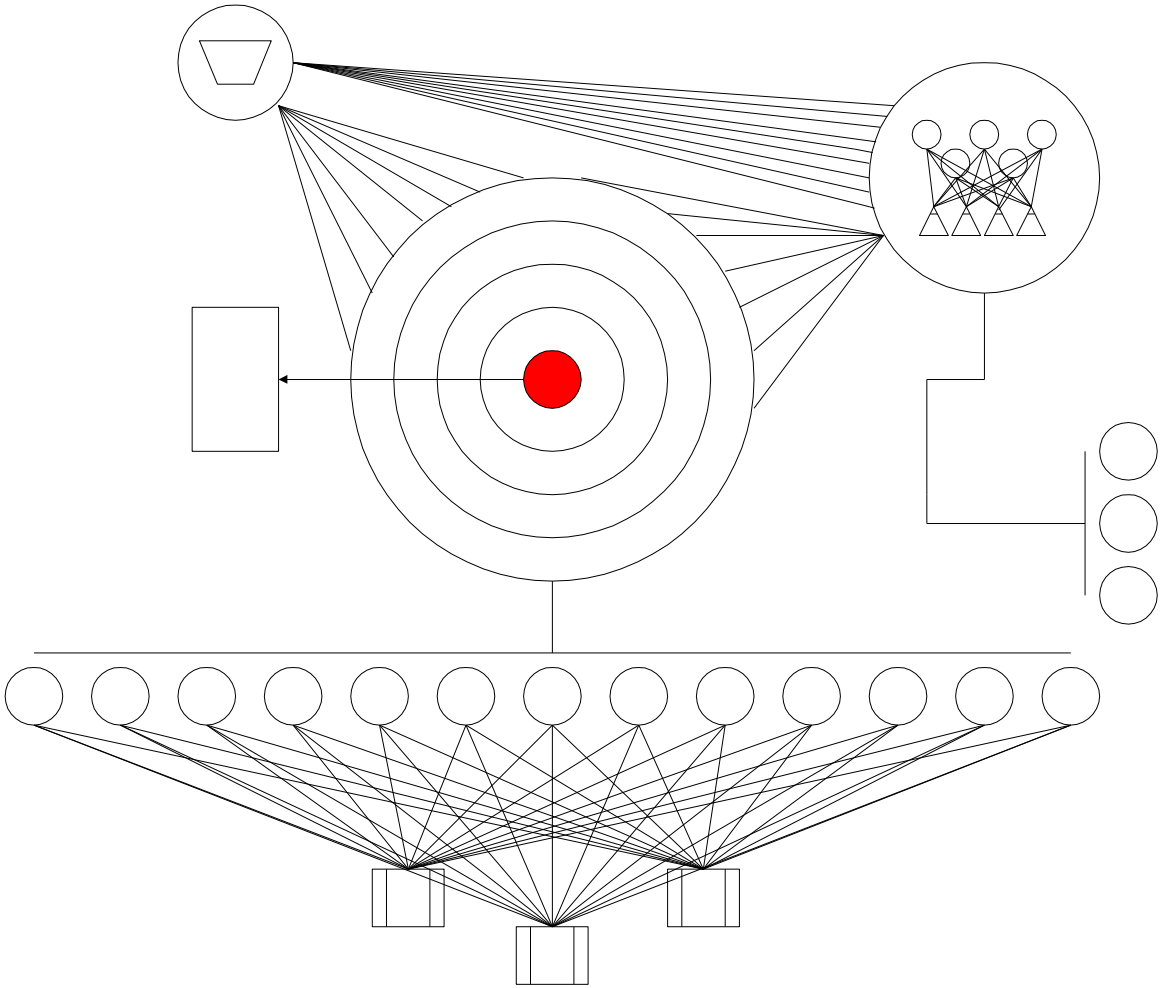
PRODUCE CONSENSUS (XIII)



(XXXVI)
BACKWARD CHAINING SEQUENCES

SEQUENCE, CONTROL (22)

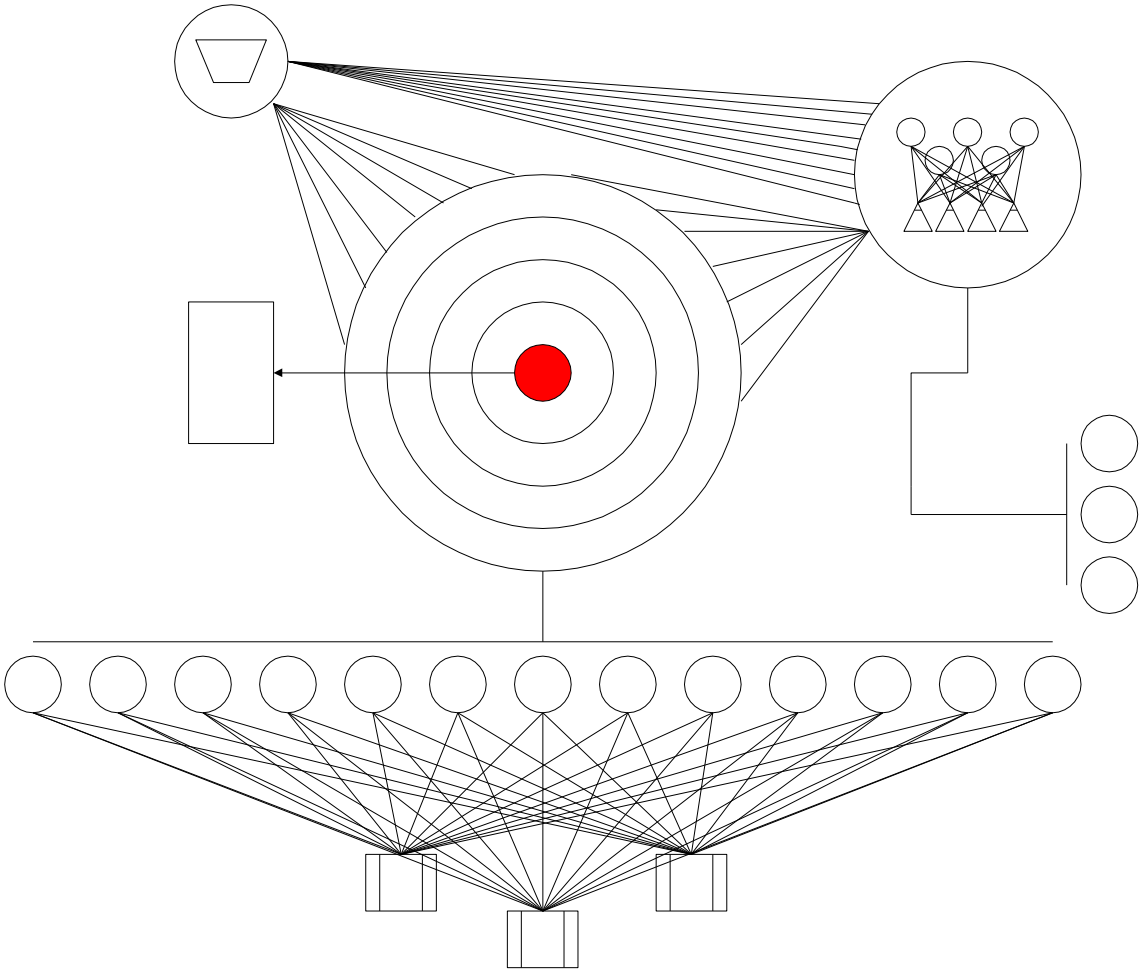
THE PHYSIOLOGICAL PROCESS MATRIX
and
CHART OF PROCEDURES



(XXXVII)
FORWARD CHAINING SEQUENCES

STIMULATE CREATIVITY of PEOPLE (XIII)

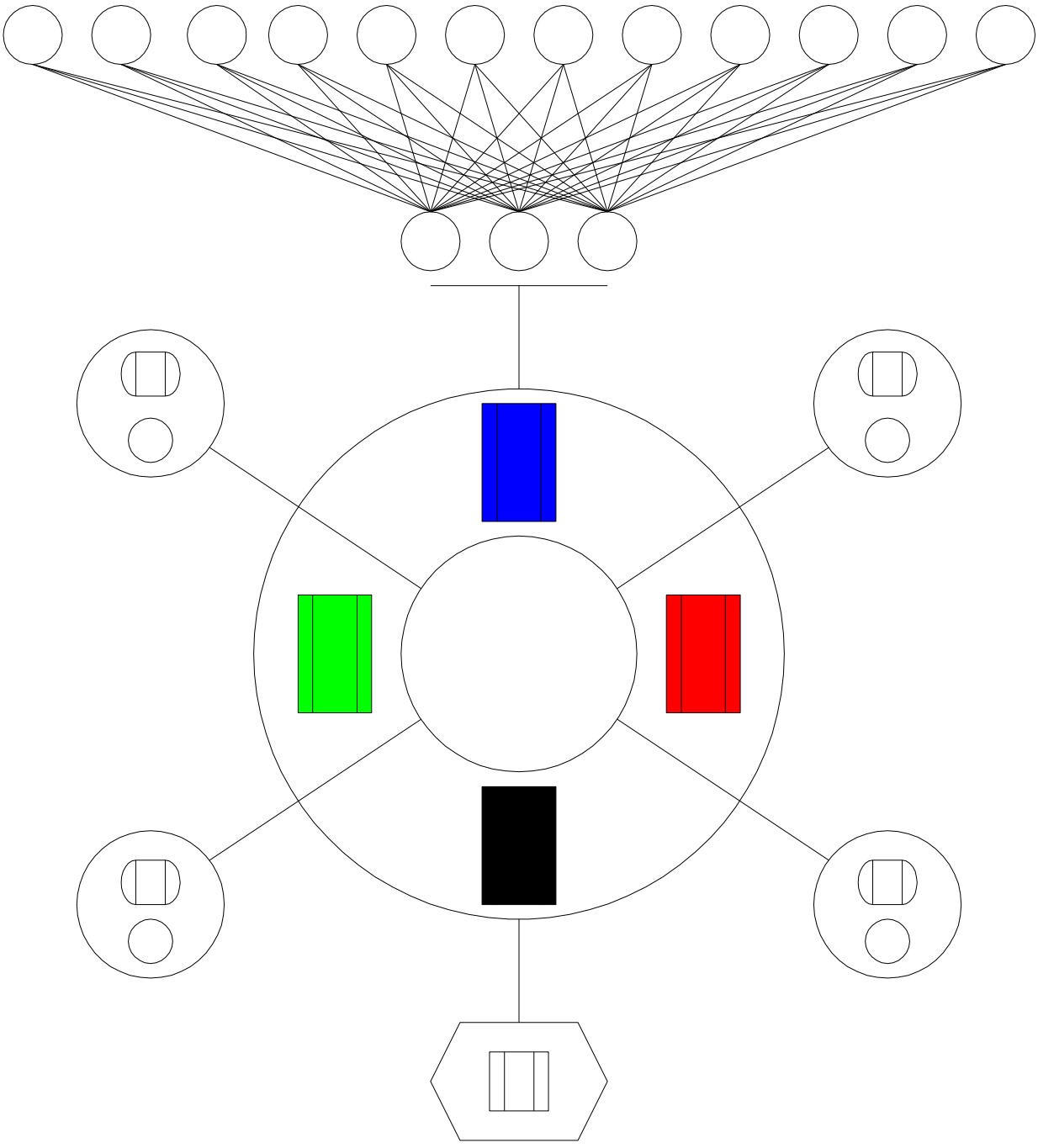
THE PHYSIOLOGICAL PROCESS MATRIX
and
CHART OF PROCEDURES



(XXXVII)
BACKWARD CHAINING SEQUENCES

SEQUENCE, INTERFACE (23)

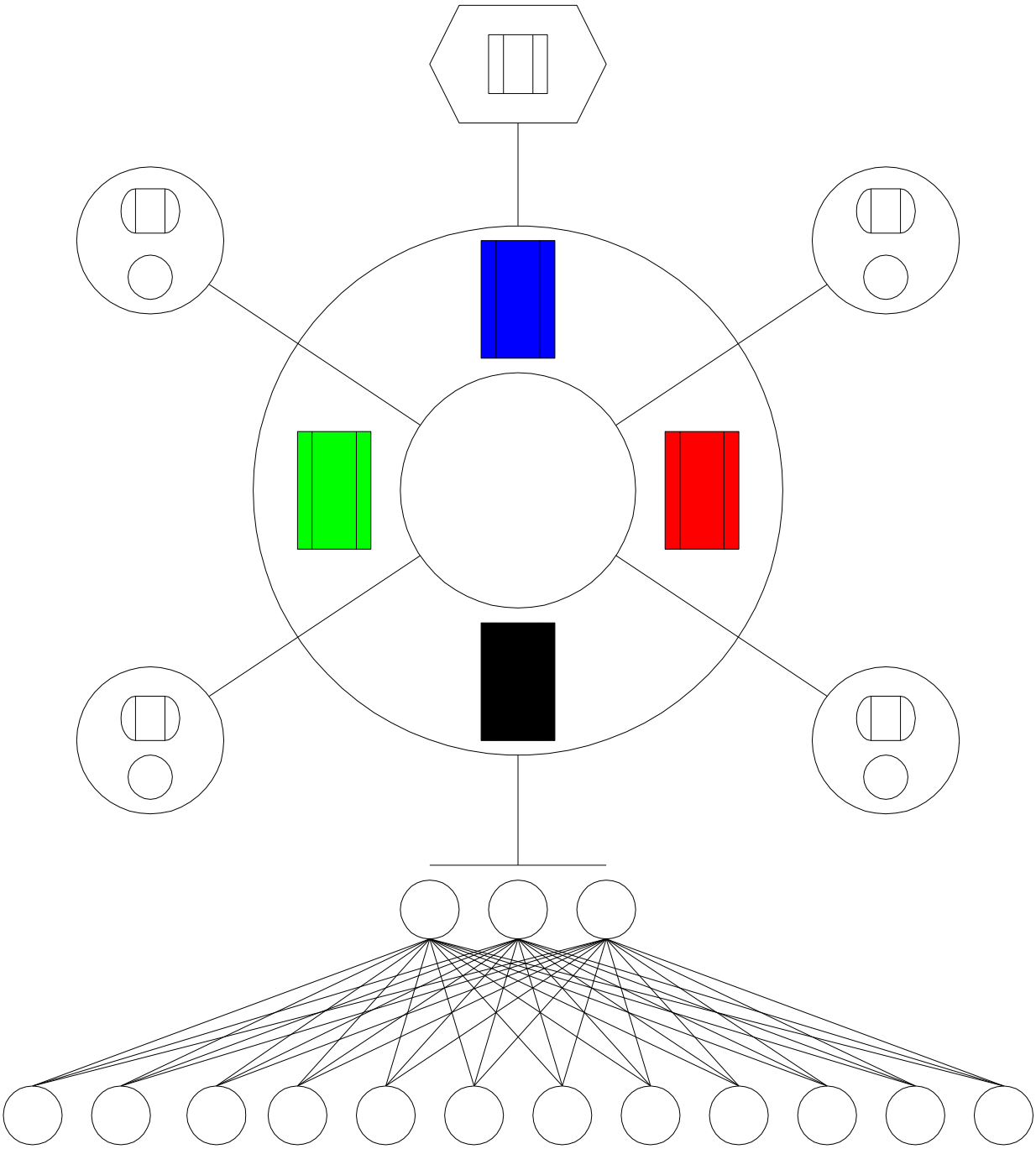
THE GENETIC FORMAT, SYSTEMS
and
CHART OF PROCEDURES**(A)**
(THE PHYSICAL FACTORS IN GOALS/OBJECTIVES)



(XXXVIII)
FORWARD CHAINING SEQUENCES

RATE CONDITIONS (VIII)

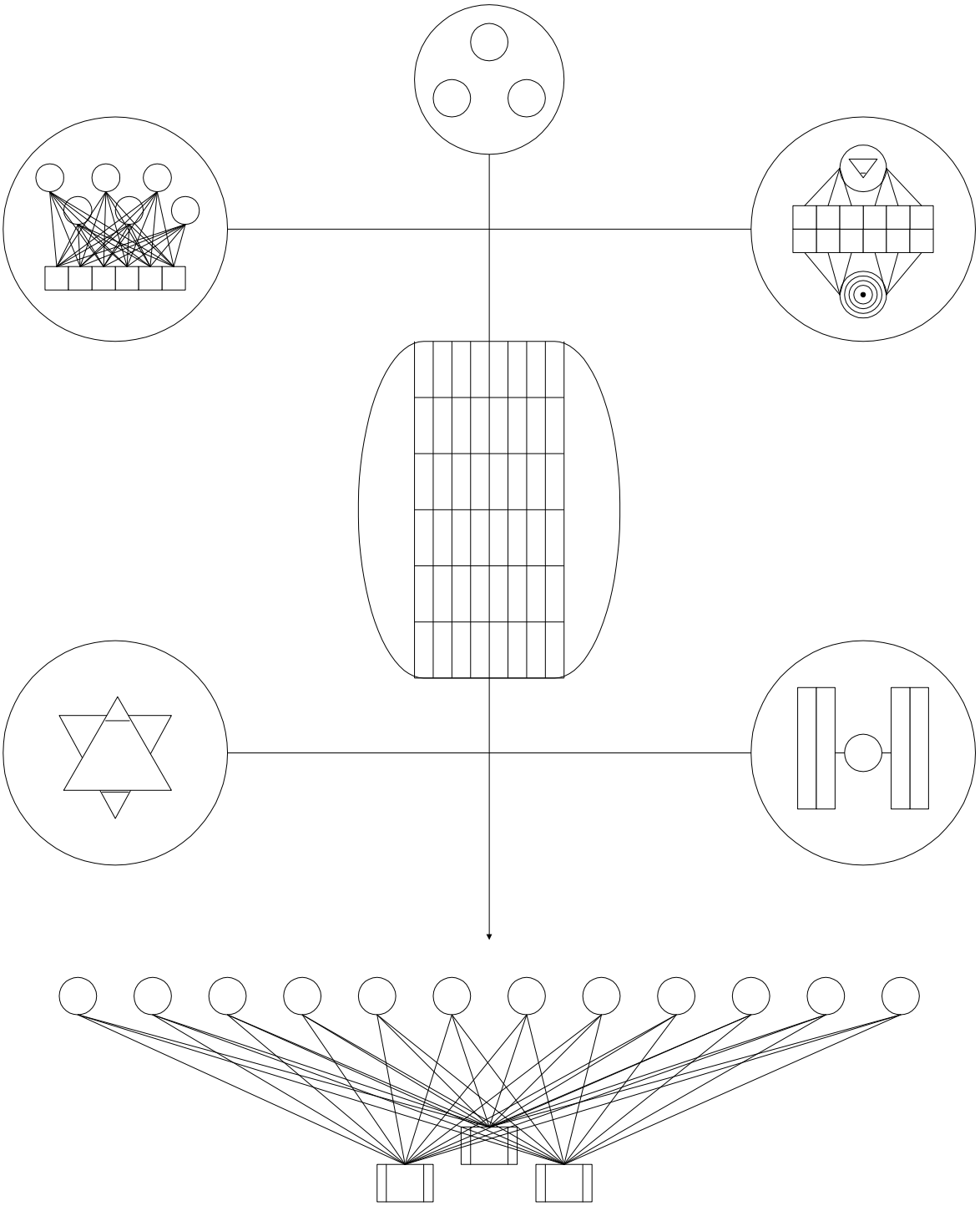
THE GENETIC FORMAT, SYSTEMS
and
CHART OF PROCEDURES**(A)**
(THE PHYSICAL FACTORS IN GOALS/OBJECTIVES)



(XXXVIII)
BACKWARD CHAINING SEQUENCES

OUTPUTS, CONTROLS (16)

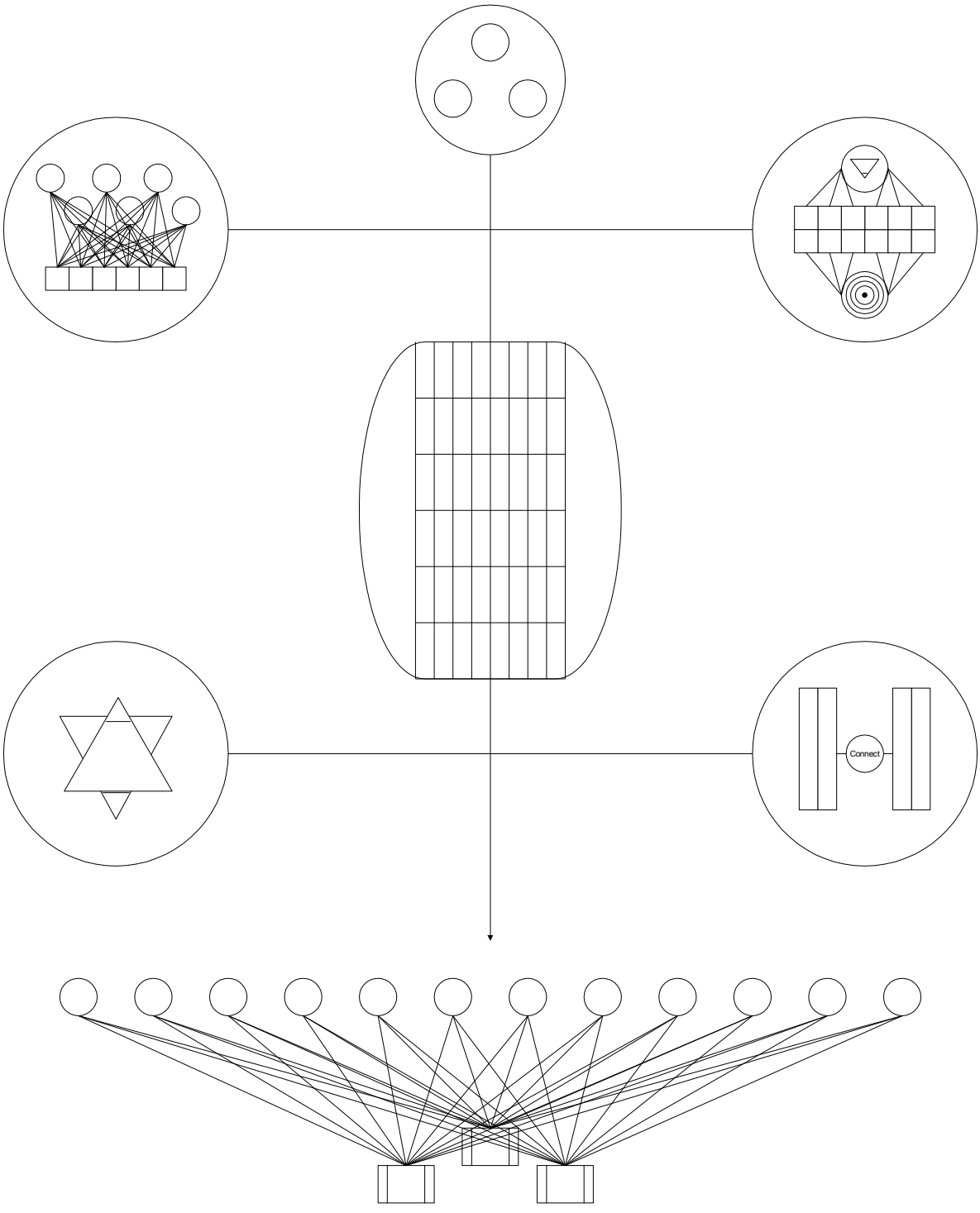
THE GENETIC FORMAT, SYSTEMS
and
CHART OF PROCEDURES**(B)**
(THE STRATEGICAL FACTORS IN POWER/AUTHORITY)



(XXXIX)
FORWARD CHAINING SEQUENCES

WEIGHT CRITERIA or FACTORS (VI)

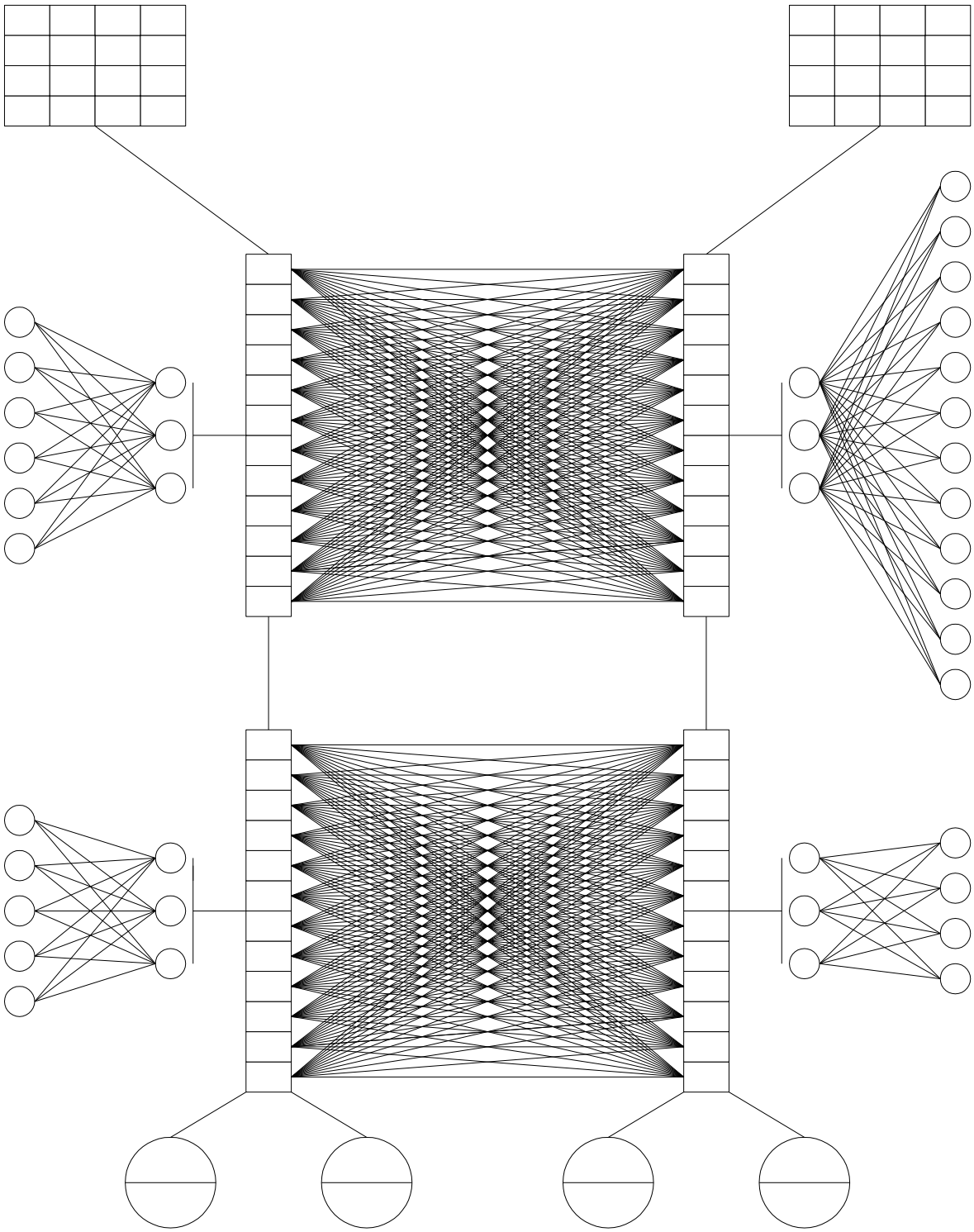
THE GENETIC FORMAT, SYSTEMS
and
CHART OF PROCEDURES **(B)**
(THE STRATEGICAL FACTORS IN POWER/AUTHORITY)



(XXXIX)
BACKWARD CHAINING SEQUENCES

PHYSICAL CATALYSTS, INTERFACE (41)

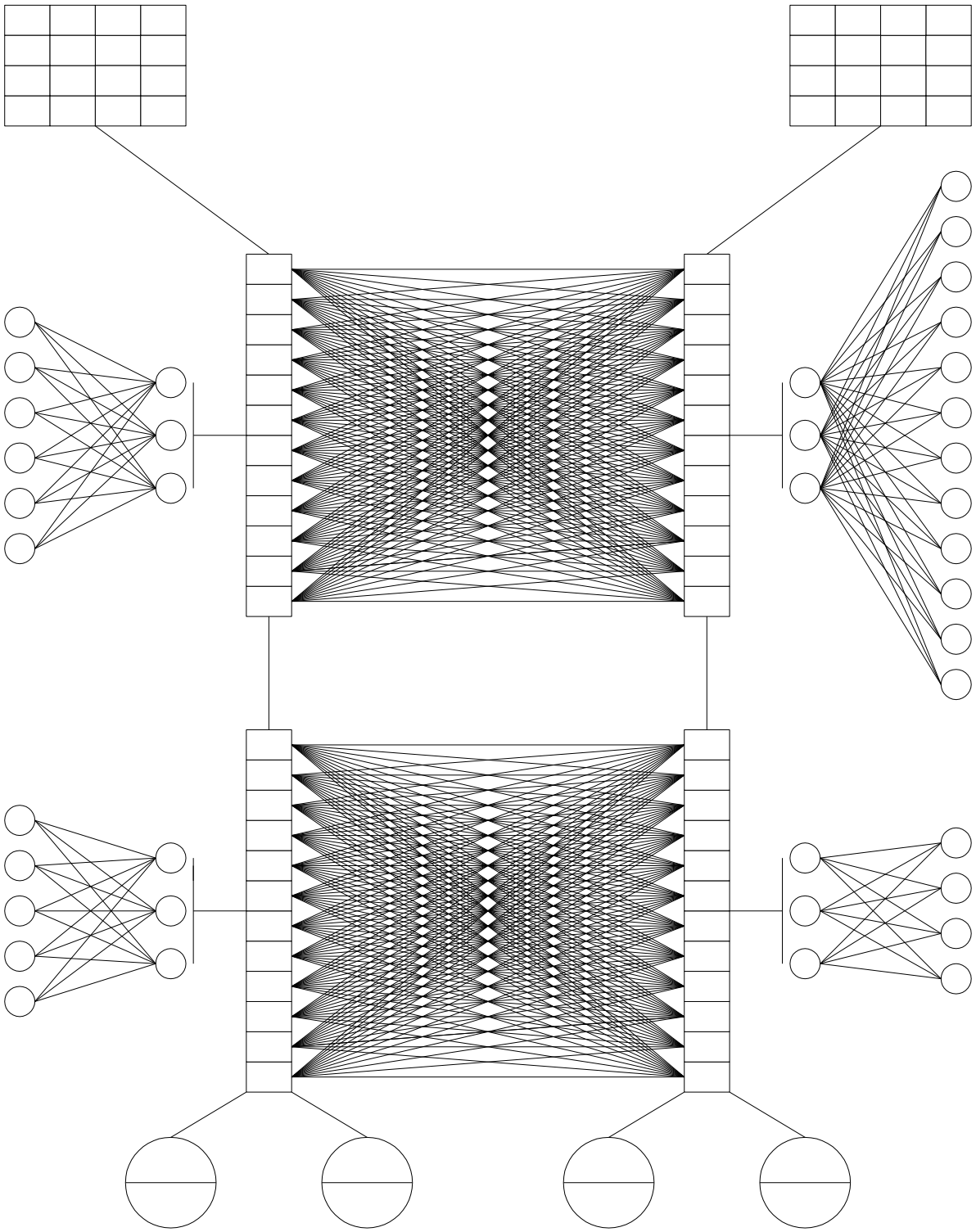
THE GENETIC FORMAT, SYSTEMS
and
CHART OF PROCEDURES **(C)**
(THE ALPHANUMERIC FACTORS IN NORMS/STANDARDS)



(XL)
FORWARD CHAINING SEQUENCES

MEASURES ERRORS (XVI)

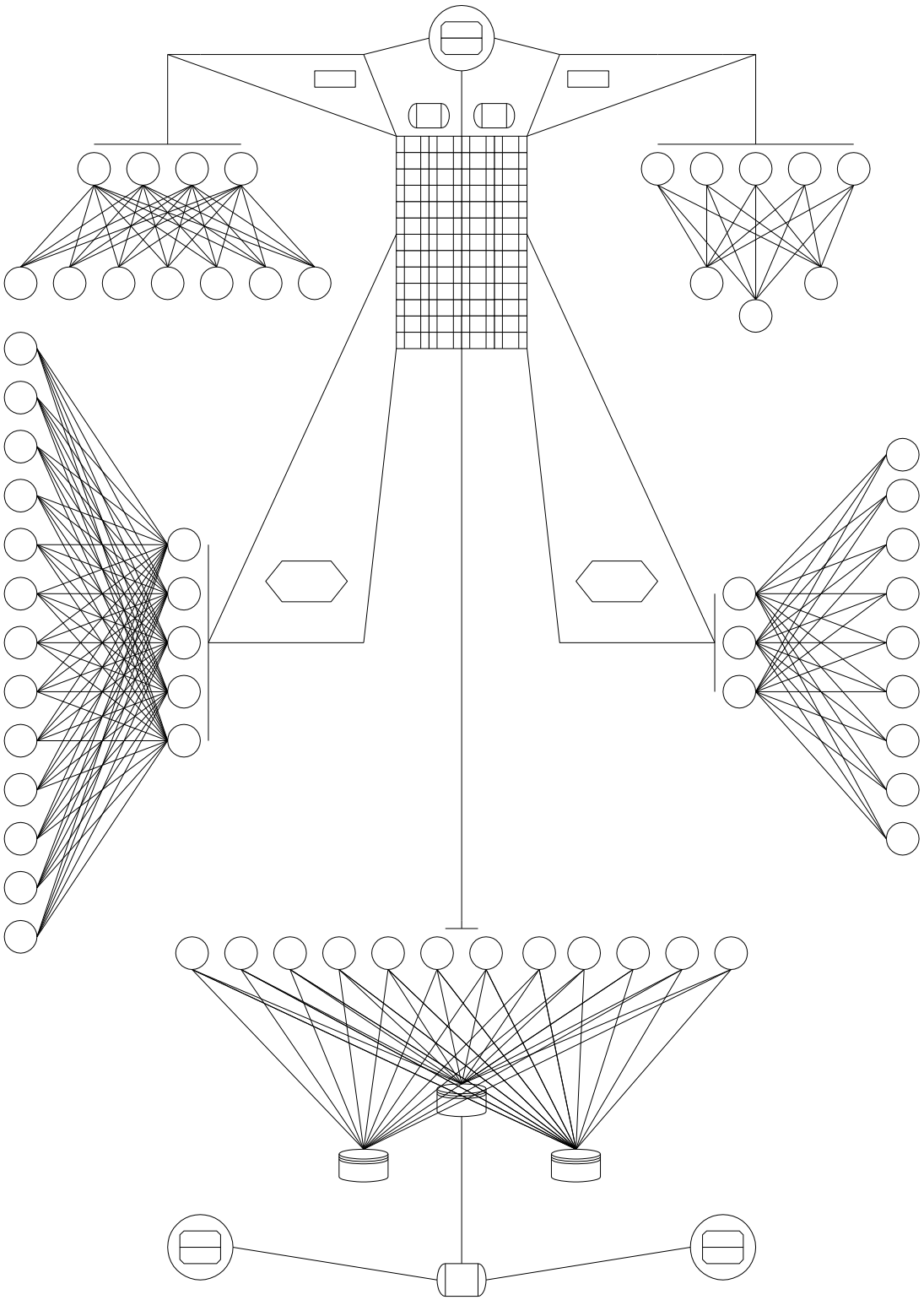
THE GENETIC FORMAT, SYSTEMS
and
CHART OF PROCEDURES **(C)**
(THE ALPHANUMERIC FACTORS IN NORMS/STANDARDS)



(XL)
BACKWARD CHAINING SEQUENCES

PHYSICAL CATALYSTS, VALUES (38)

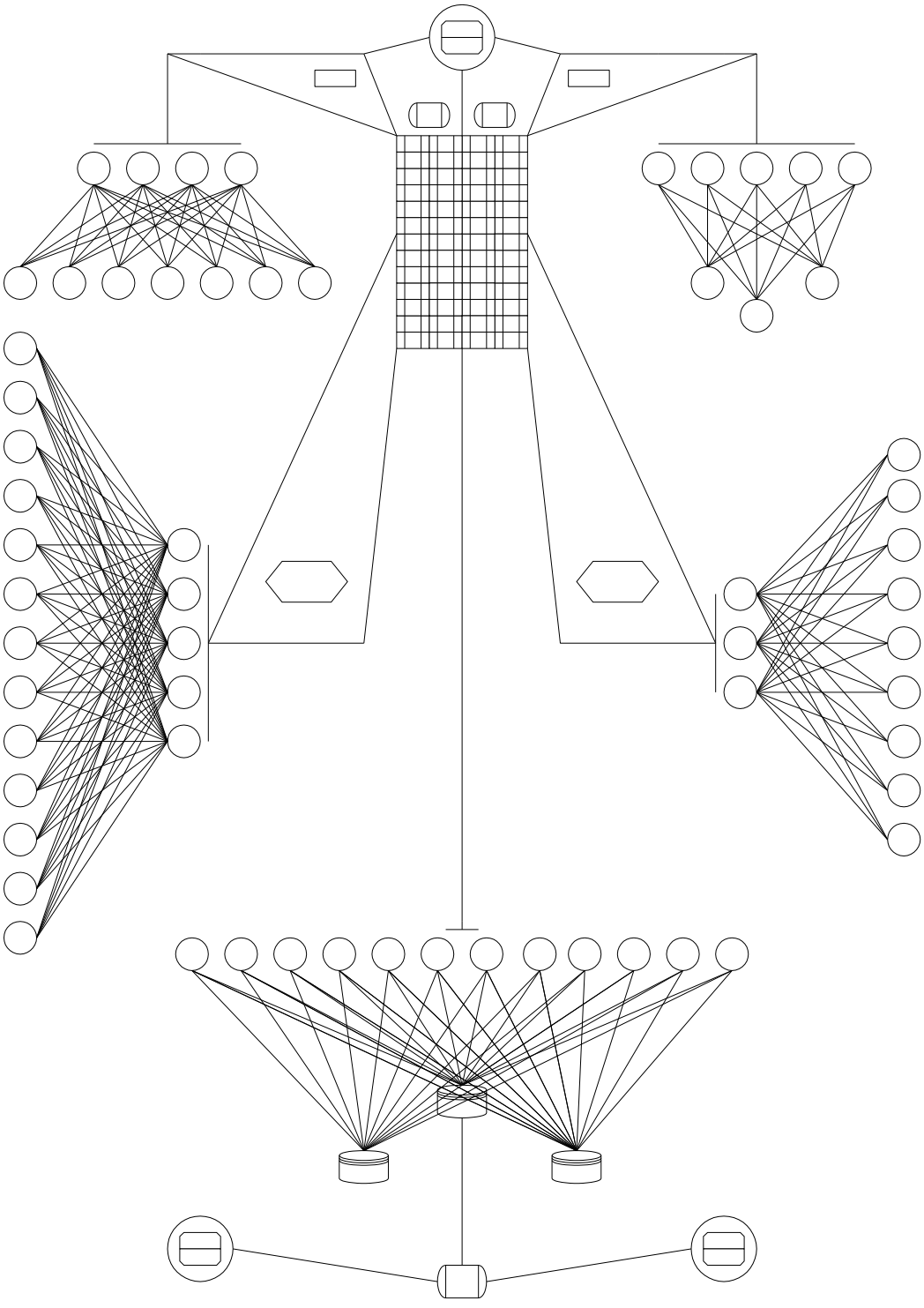
THE GENETIC FORMAT, SYSTEMS
and
CHART OF PROCEDURES**(D)**
(THE SYSTEMS THEORY FACTORS IN MORALE/COHESION)



(XLI)
FORWARD CHAINING SEQUENCES

DETAIL PROPOSED SOLUTION (XI)

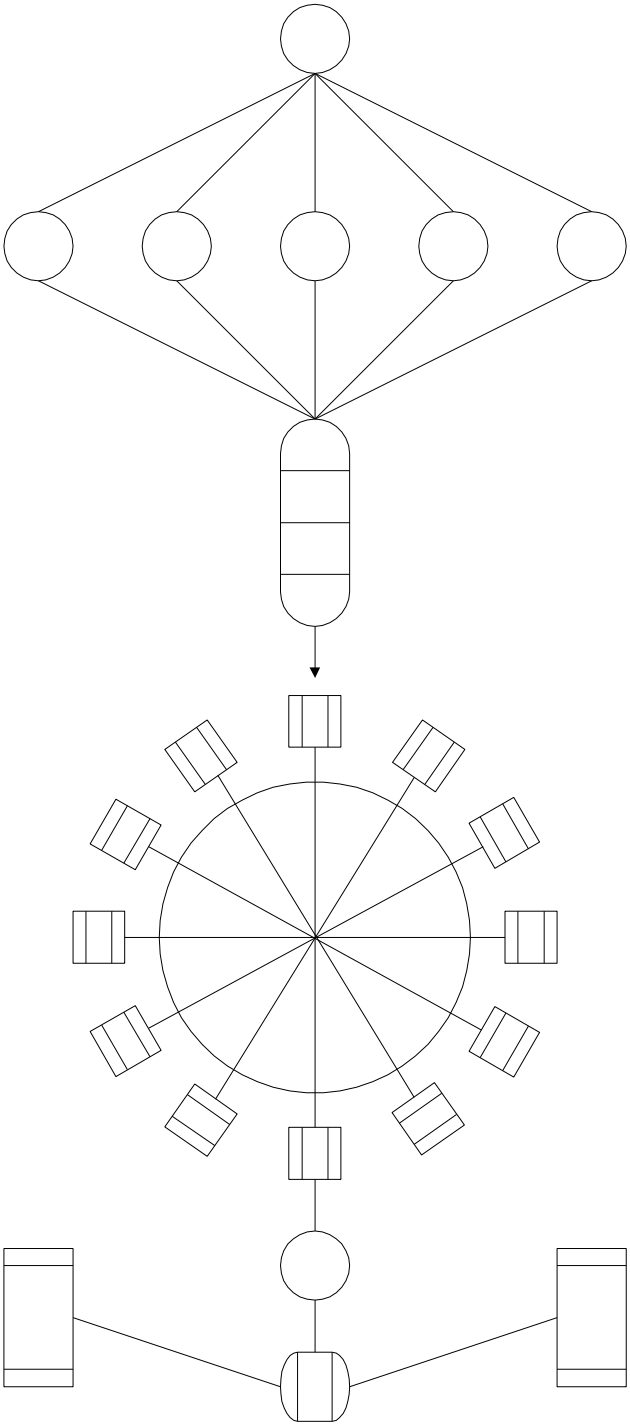
THE GENETIC FORMAT, SYSTEMS
and
CHART OF PROCEDURES**(D)**
(THE SYSTEMS THEORY FACTORS IN MORALE/COHESION)



(XLI)
BACKWARD CHAINING SEQUENCES

ENVIRONMENT, VALUES (26)

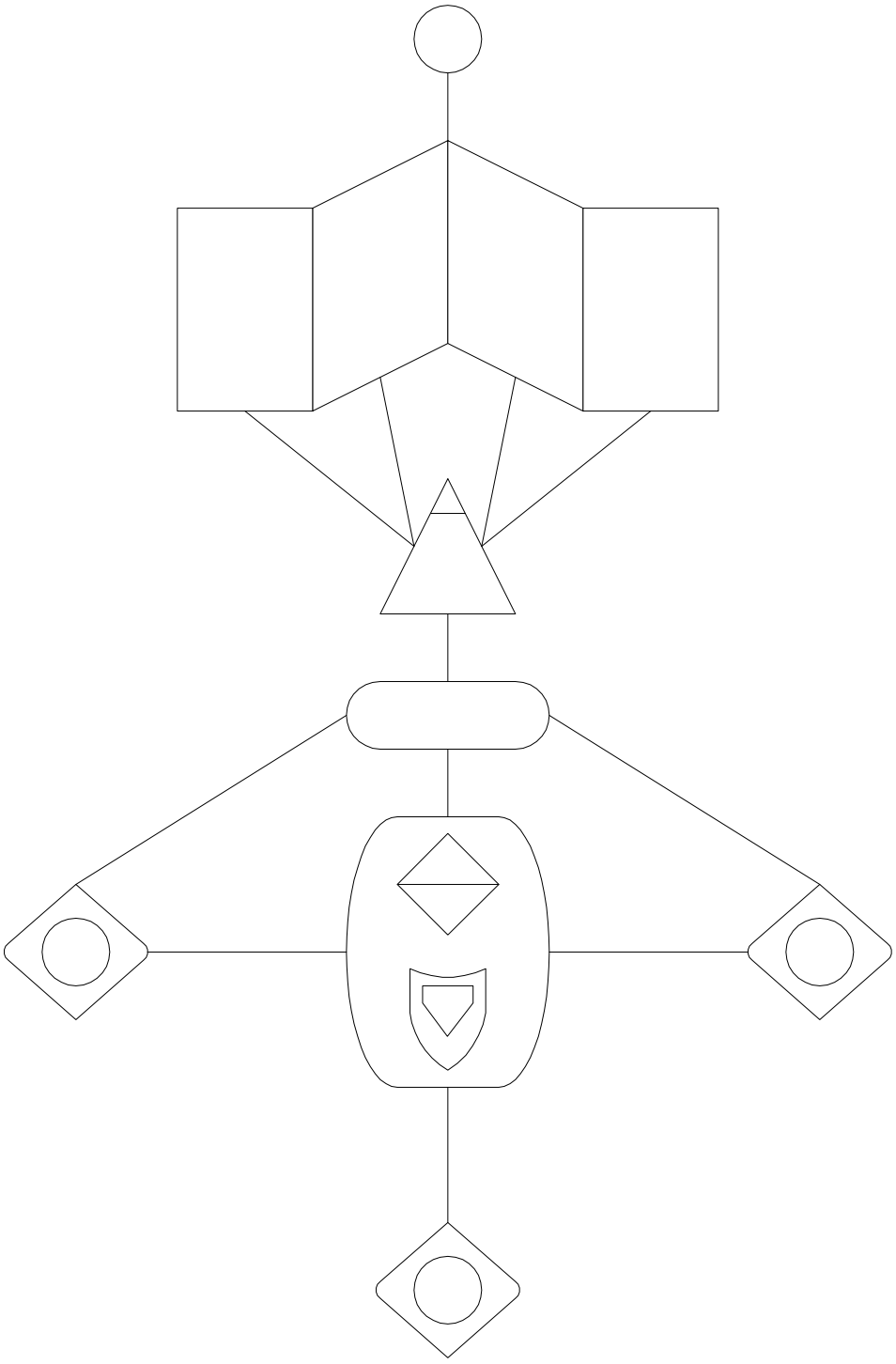
THE CONCURRENT MANAGERIAL INPUT & OUTPUT PROCESSES
and
CHART OF PROCEDURES



(XLII)
FORWARD CHAINING SEQUENCES

COLLECT and/or ORGANIZES PERFORMANCE INFORMATION (I)

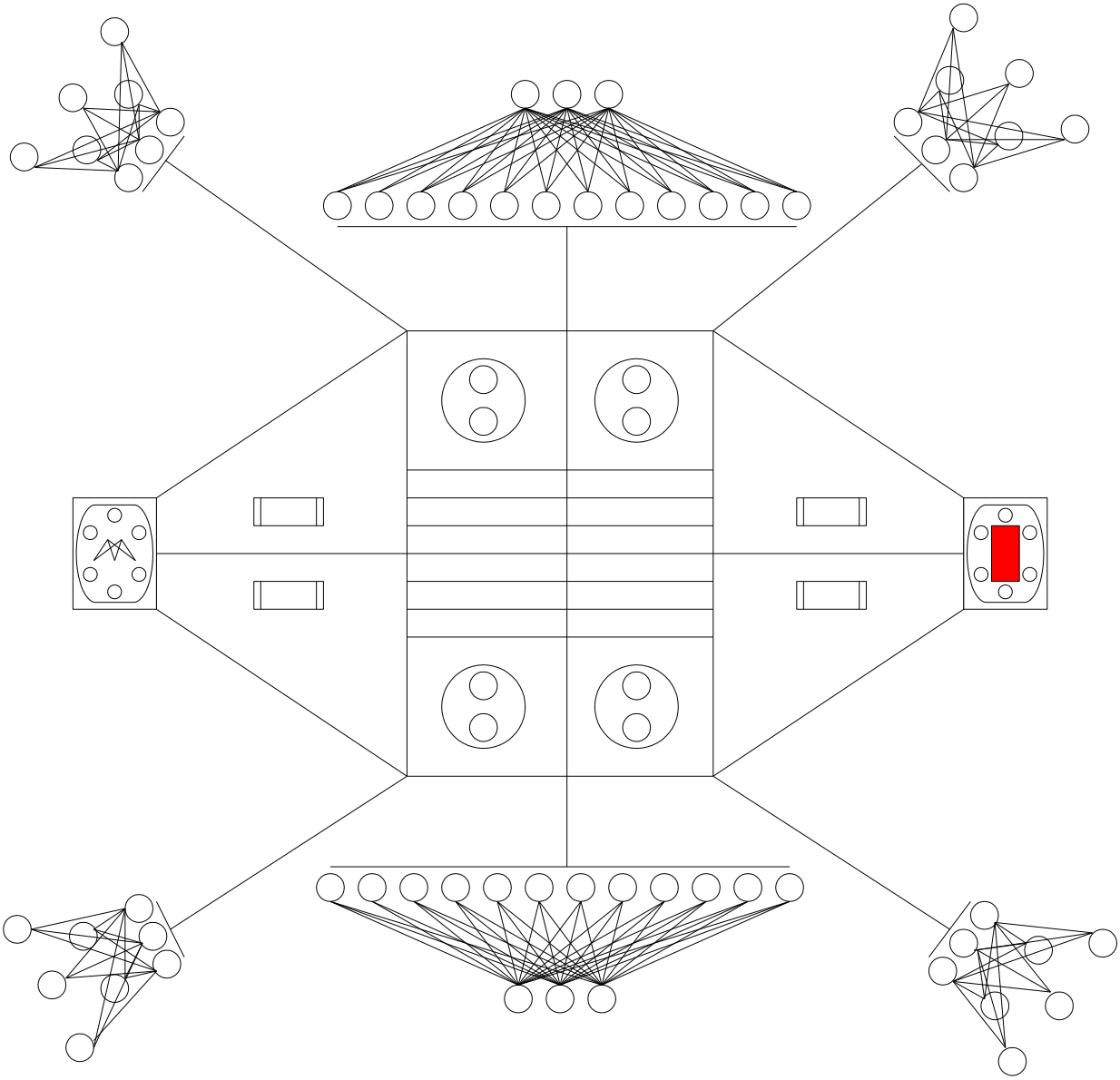
THE CONCURRENT MANAGERIAL INPUT & OUTPUT PROCESSES
and
CHART OF PROCEDURES



(XLII)
BACKWARD CHAINING SEQUENCES

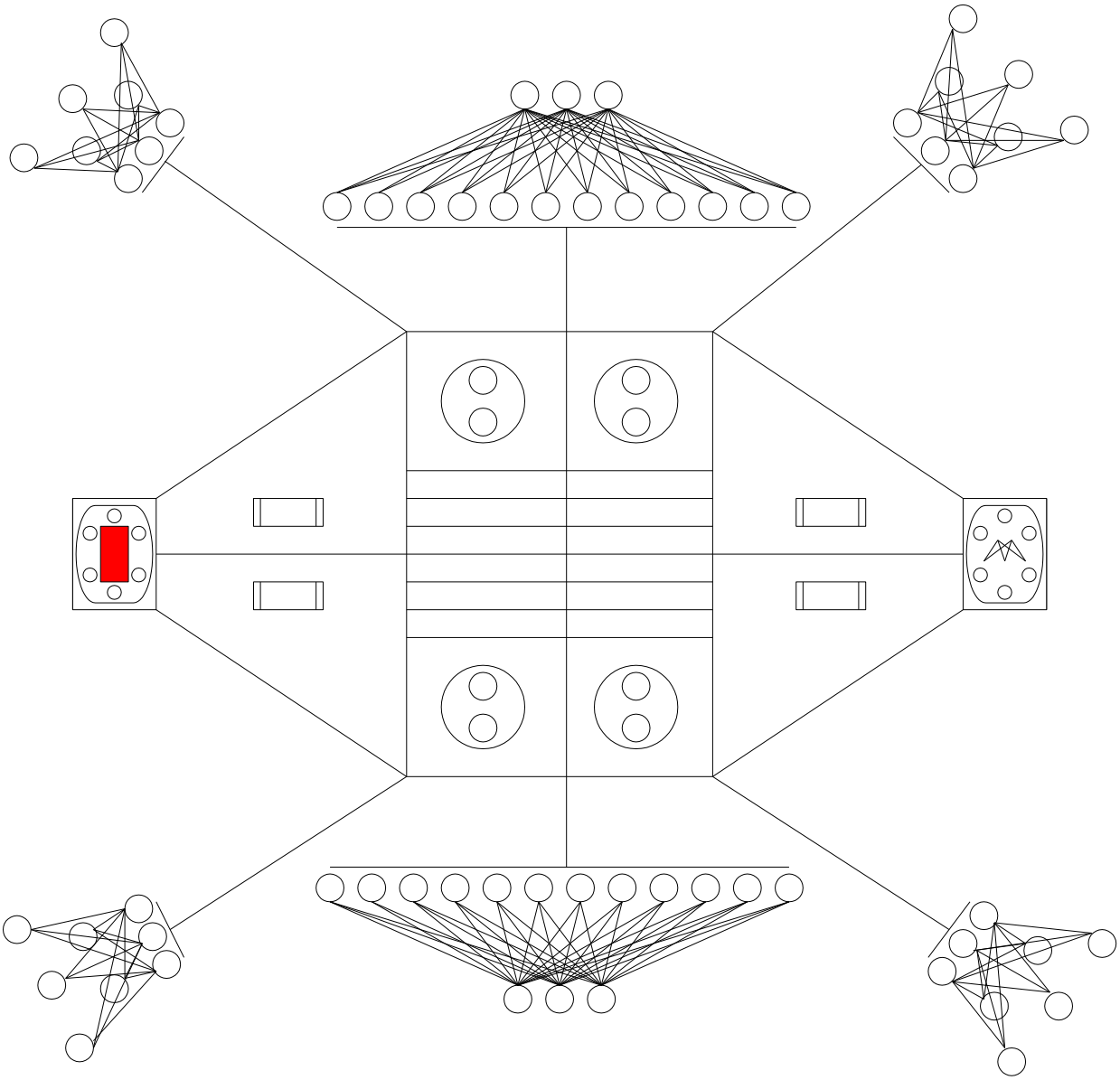
PURPOSE, INTERFACE (5)

THE GRAMMATICAL & TEXTUAL FORMAT of OPERATING MANAGEMENT SYSTEMS
and
CHART OF PROCEDURES



(XLIII)
FORWARD CHAINING SEQUENCES

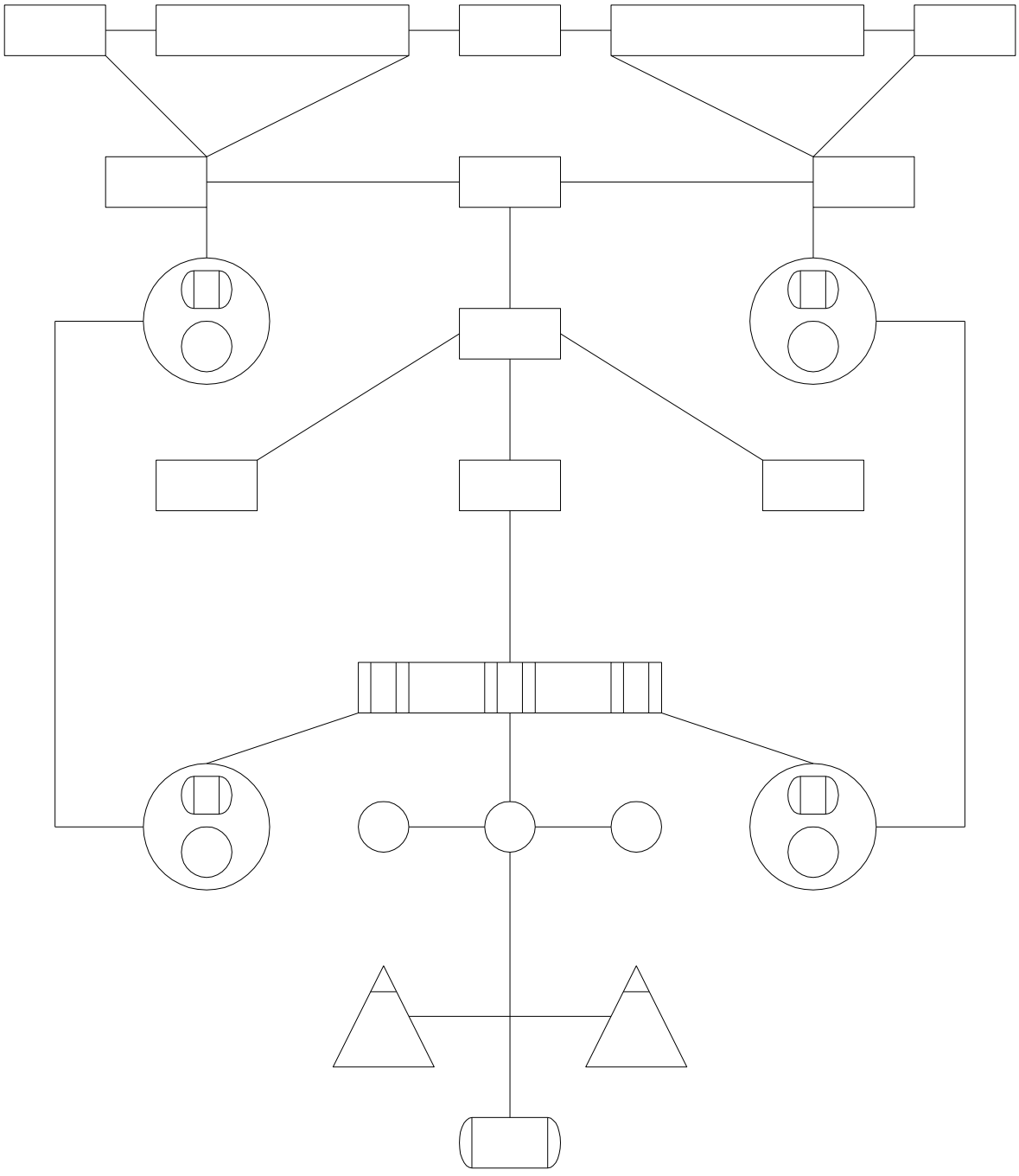
DETERMINE HUMAN ABILITY & SKILL REQUIREMENTS for TASKS (XI)



(XLIII)
BACKWARD CHAINING SEQUENCES

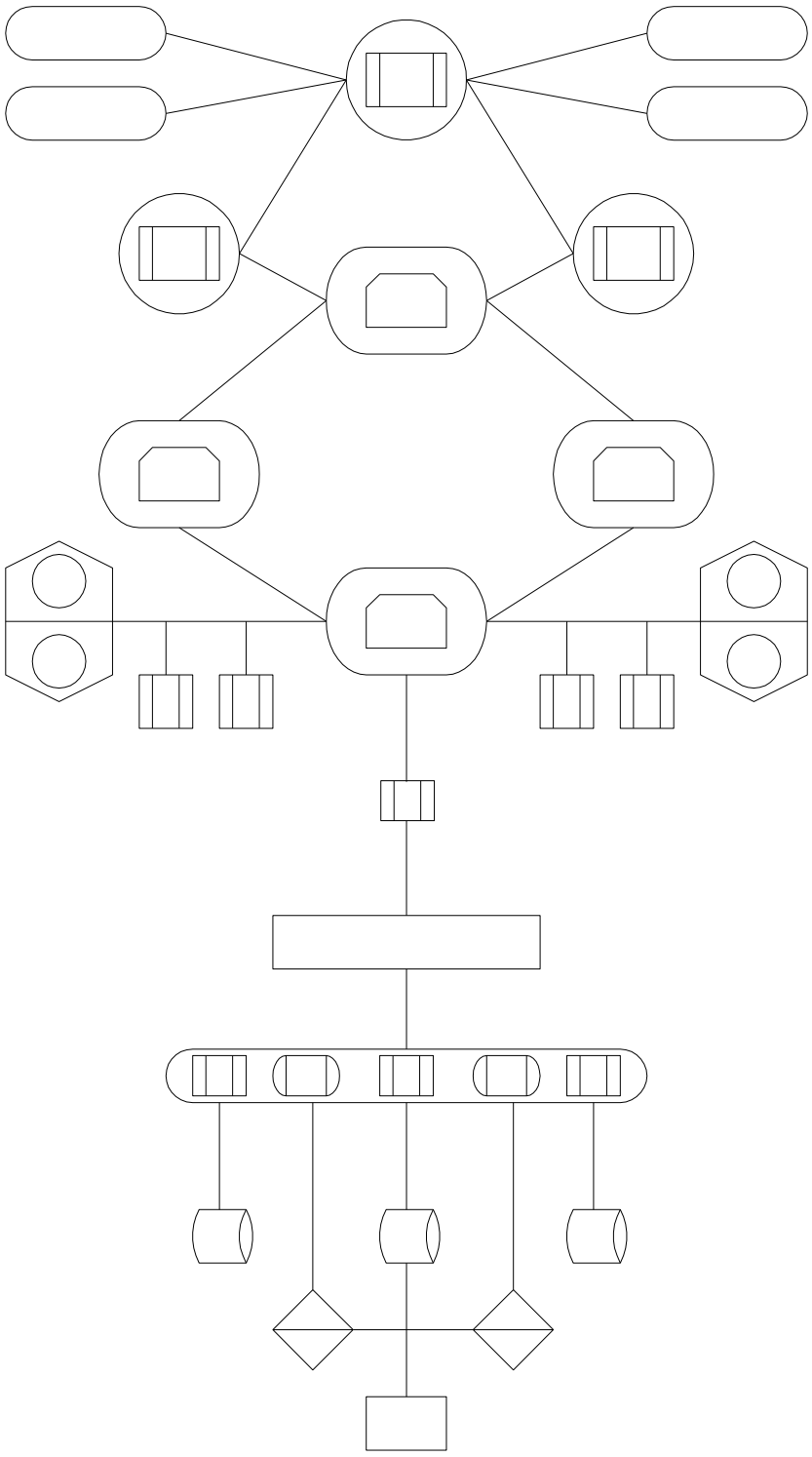
INFORMATION AIDS, FUNDAMENTAL (43)

THE OPERATIONAL THEORIES of GROUP, BUSINESS or SOCIAL SYSTEMS
and
CHART OF PROCEDURES



(XLIV)
FORWARD CHAINING SEQUENCES

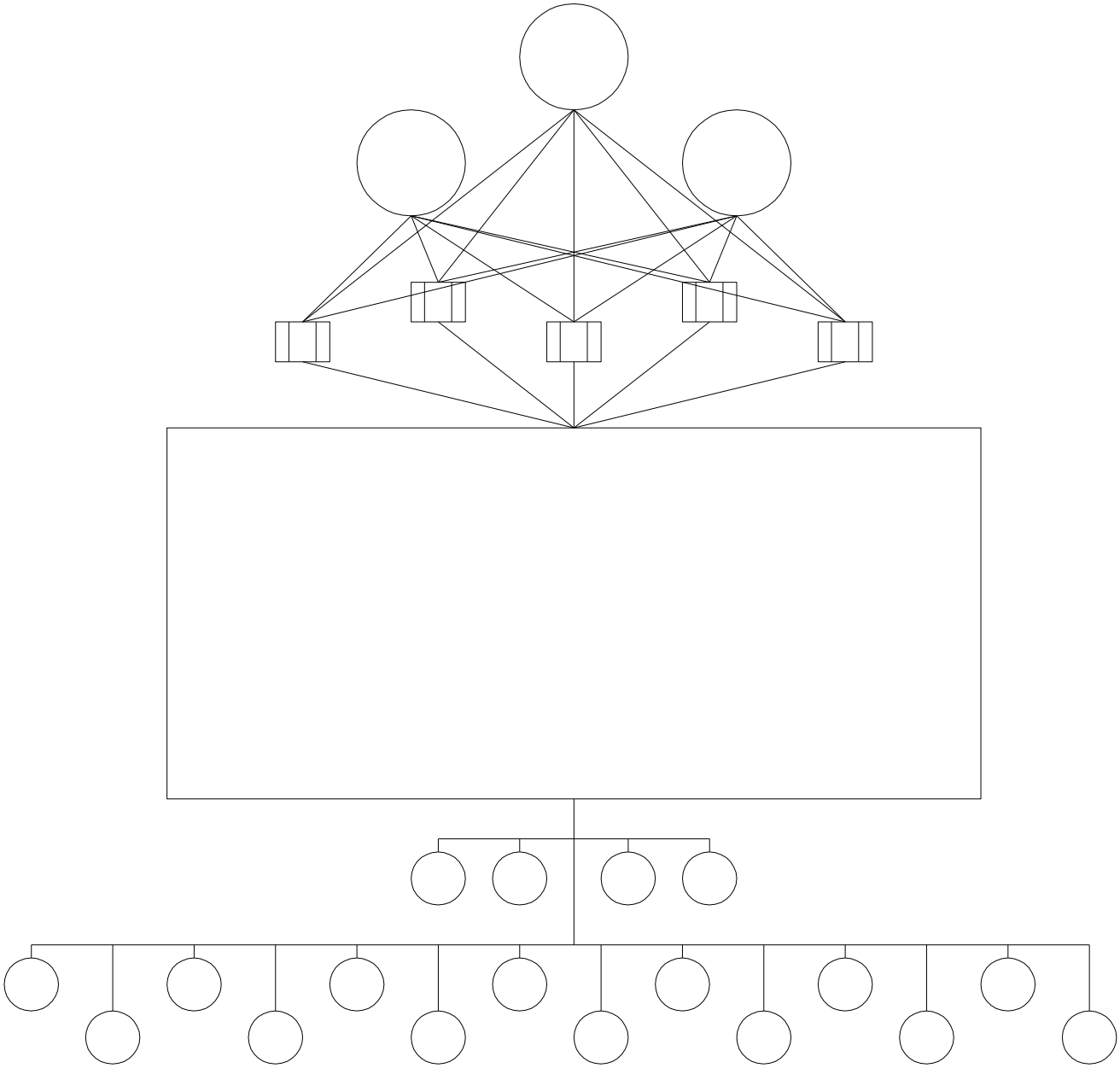
ANALYZE ALTERNATIVE OPTIONS/PLANS/POLICIES/PROGRAMS/
CONTINGENCIES/FUNCTIONS (IX)



(XLIV)
BACKWARD CHAINING SEQUENCES

INPUTS, INTERFACE (II)

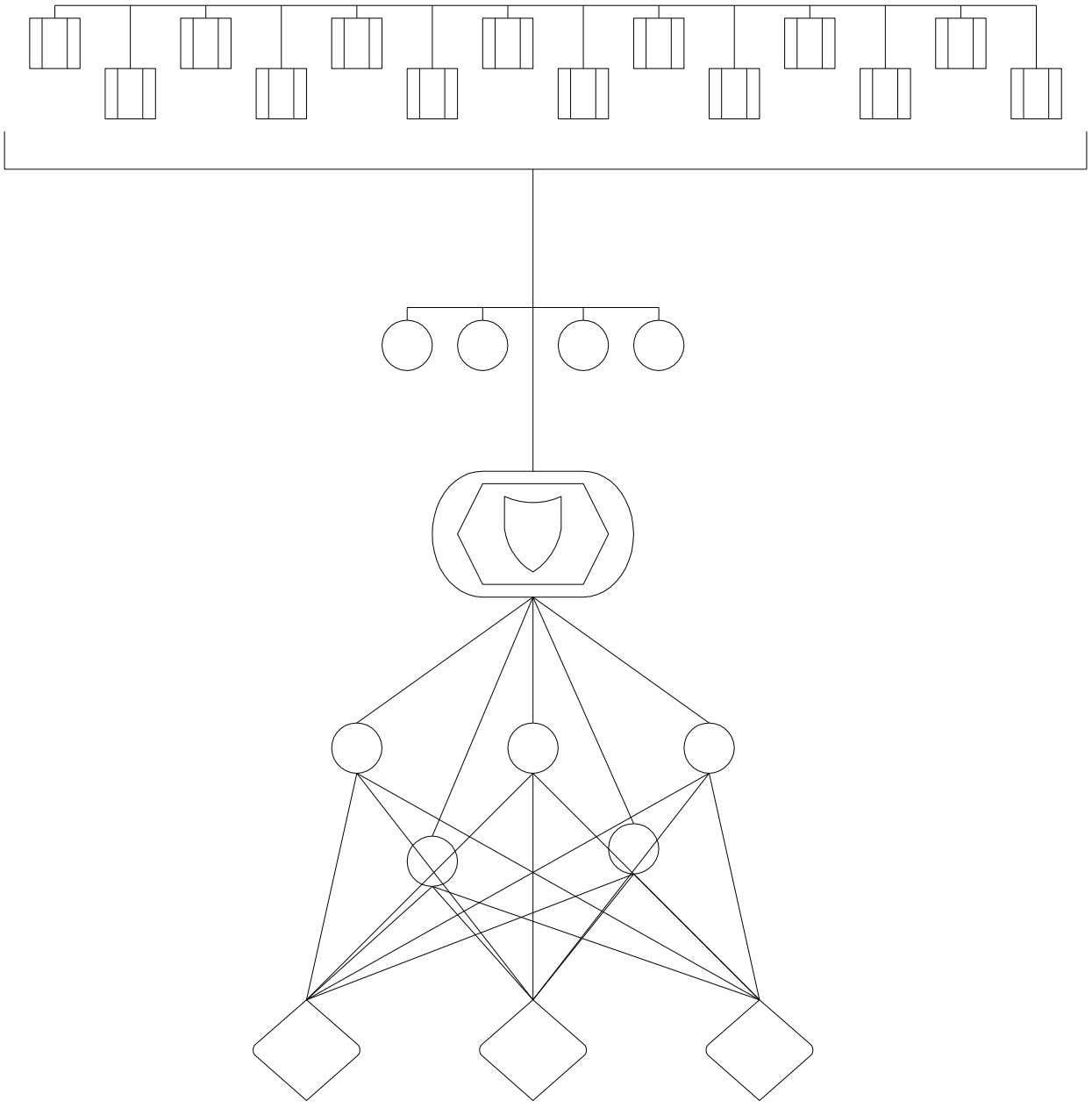
THE AUTONOMOUS SYSTEMS of SOCIAL STRUCTURES, LAWS, ECONOMICS
and
CHART OF PROCEDURES



(XLV)
FORWARD CHAINING SEQUENCES

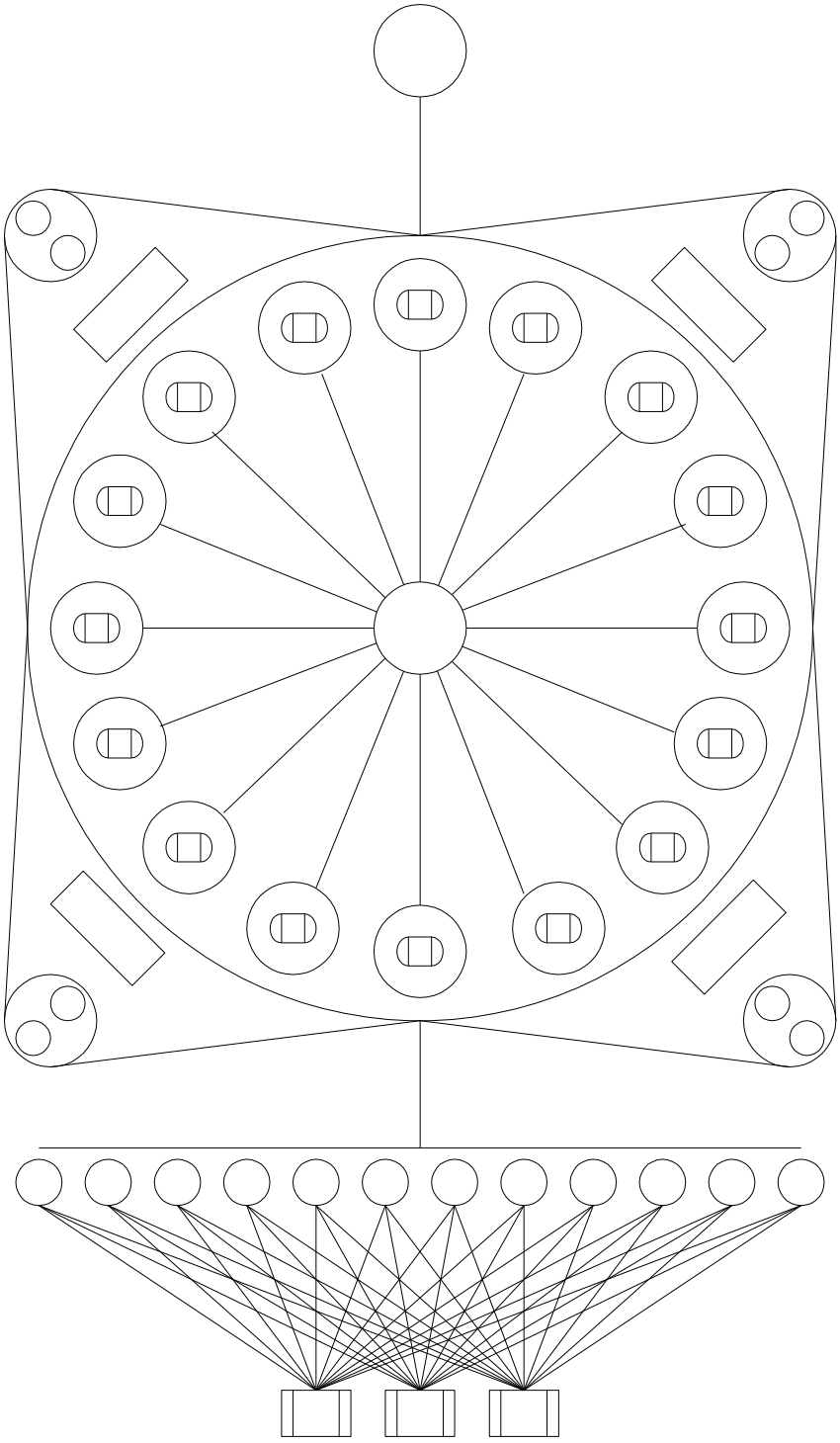
DEVELOP & ANALYZE STRUCTURE (IX)

THE AUTONOMOUS SYSTEMS of SOCIAL STRUCTURES, LAWS, ECONOMICS
and
CHART OF PROCEDURES



(XLV)
BACKWARD CHAINING SEQUENCES

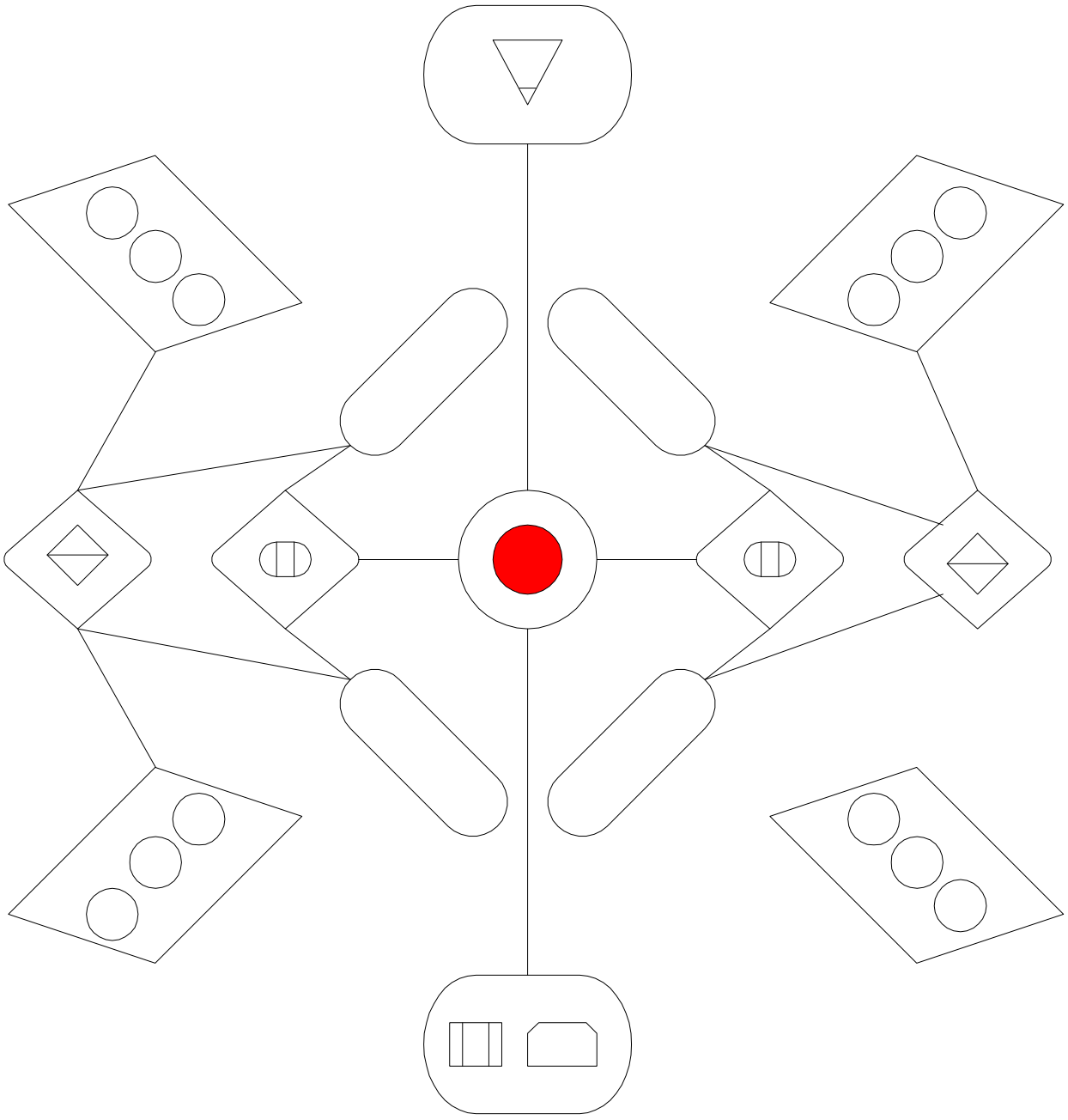
ENVIRONMENT, FUNDAMENTAL (25)



(XLVI)
FORWARD CHAINING SEQUENCES

GENERATE ALTERNATIVE/IDEAS (XII)

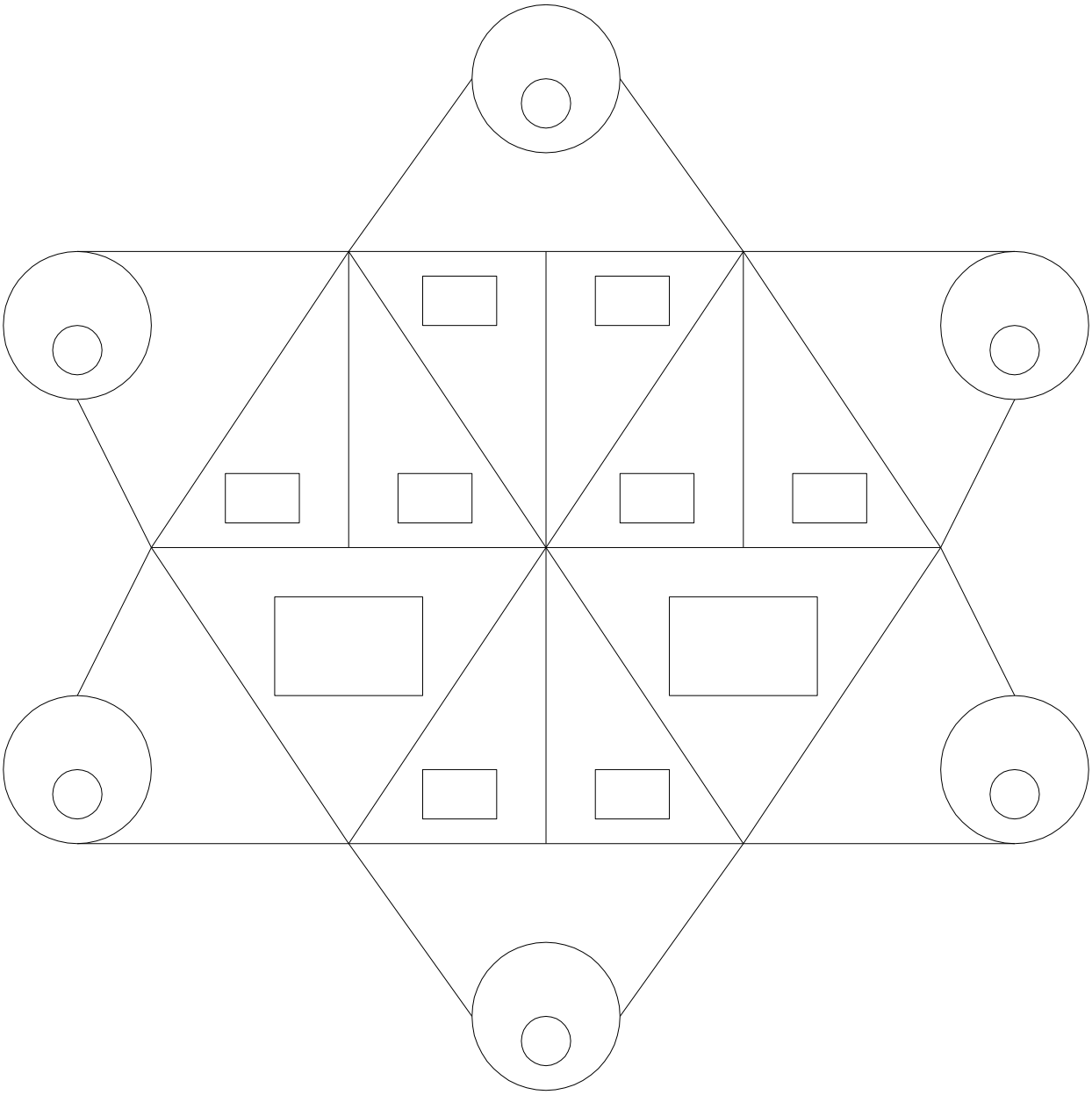
THE ANALOGOUS GRAMMATICAL PROCESS SYSTEMS
and
CHART OF PROCEDURES



(XLVI)
BACKWARD CHAINING SEQUENCES

PHYSICAL CATALYSTS, FUTURE (42)

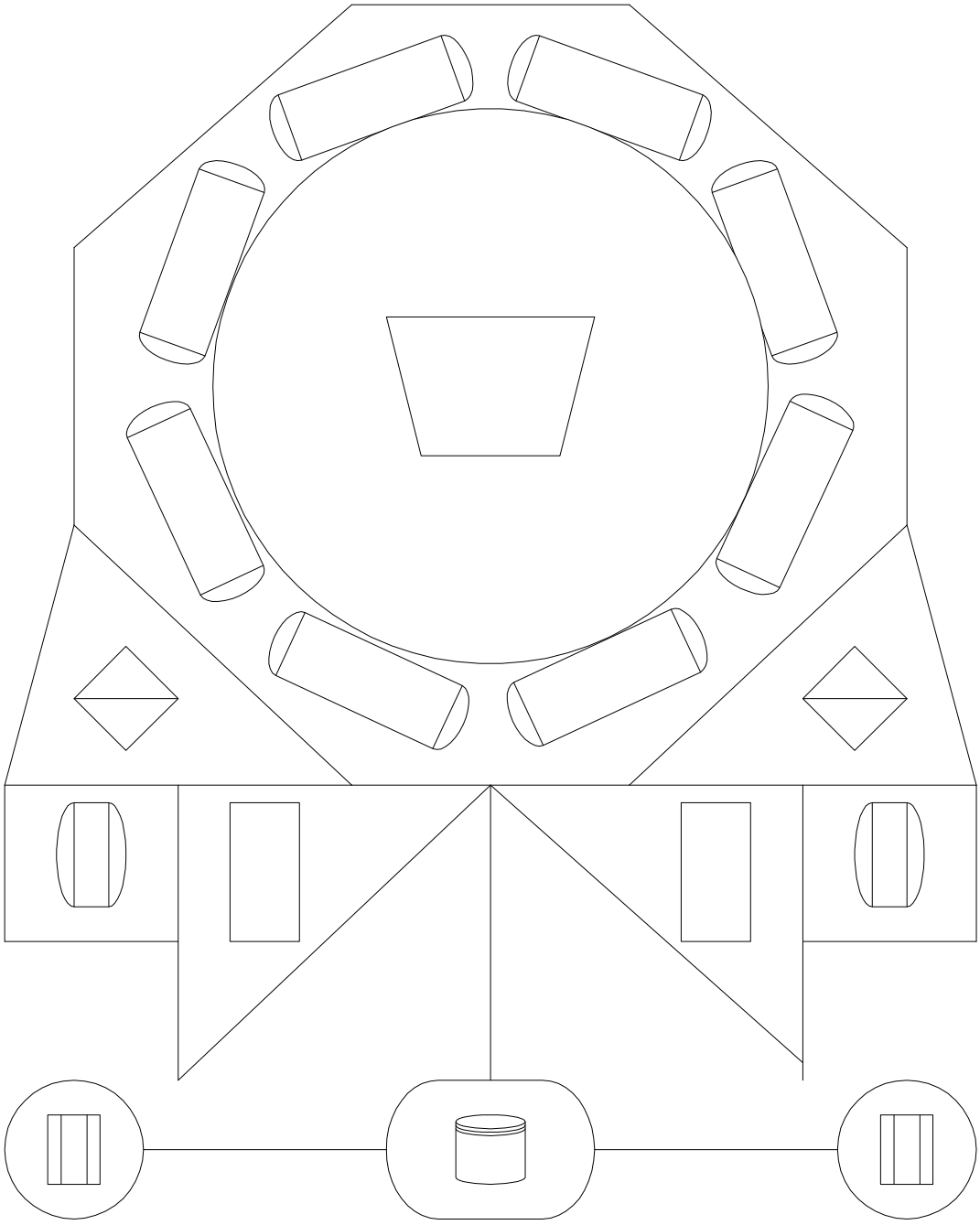
THE NUMERICAL ANALYZES PROCESS SYSTEMS
and
CHART OF PROCEDURES



(XLVII)
FORWARD CHAINING SEQUENCES

PLOT & ANALYZE DATA about the PERFORMANCE
of an EXISTING INSTALLATION (VII)

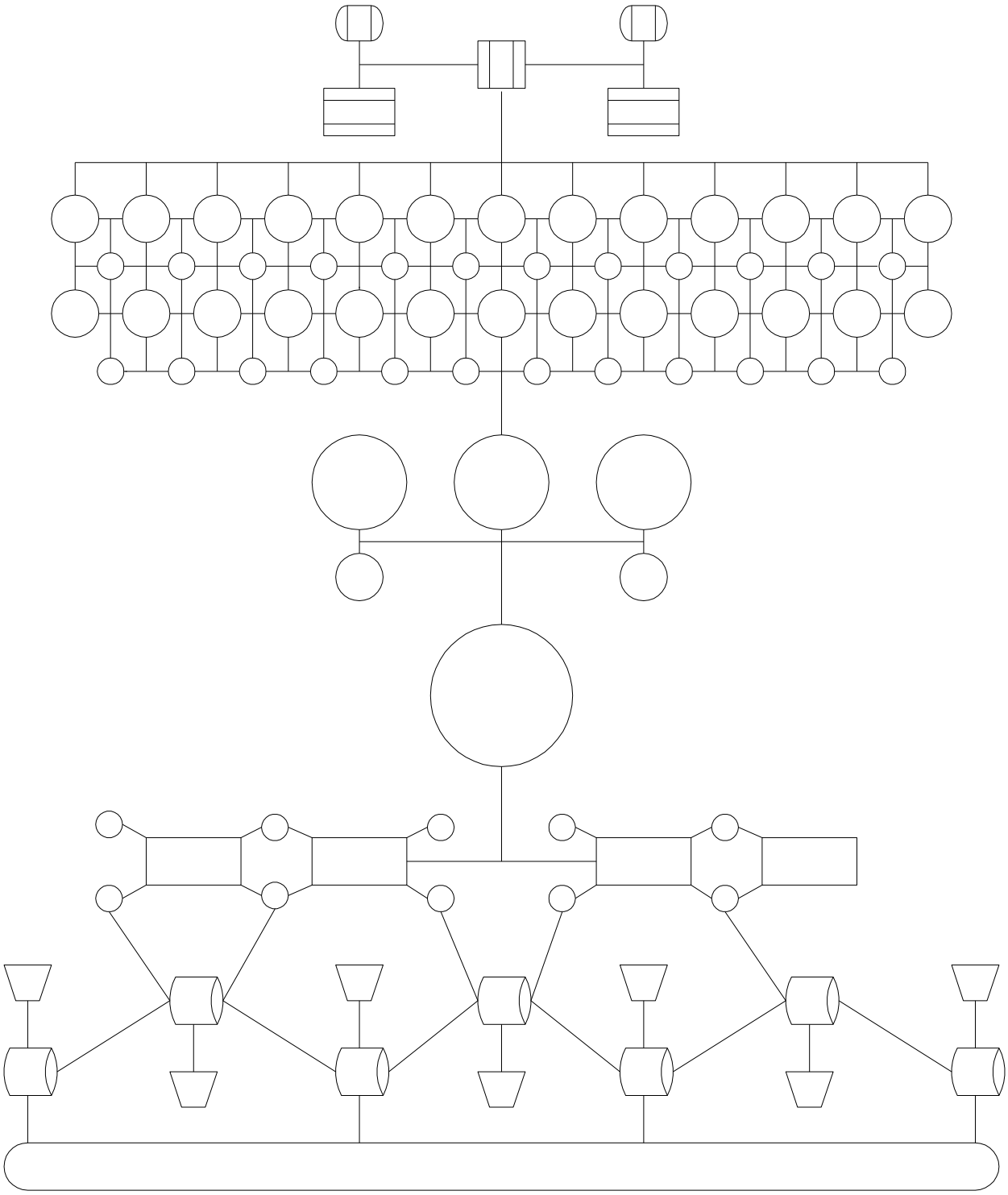
THE NUMERICAL ANALYZES PROCESS SYSTEMS
and
CHART OF PROCEDURES



(XLVII)
BACKWARD CHAINING SEQUENCES

INPUTS, FUTURE (12)

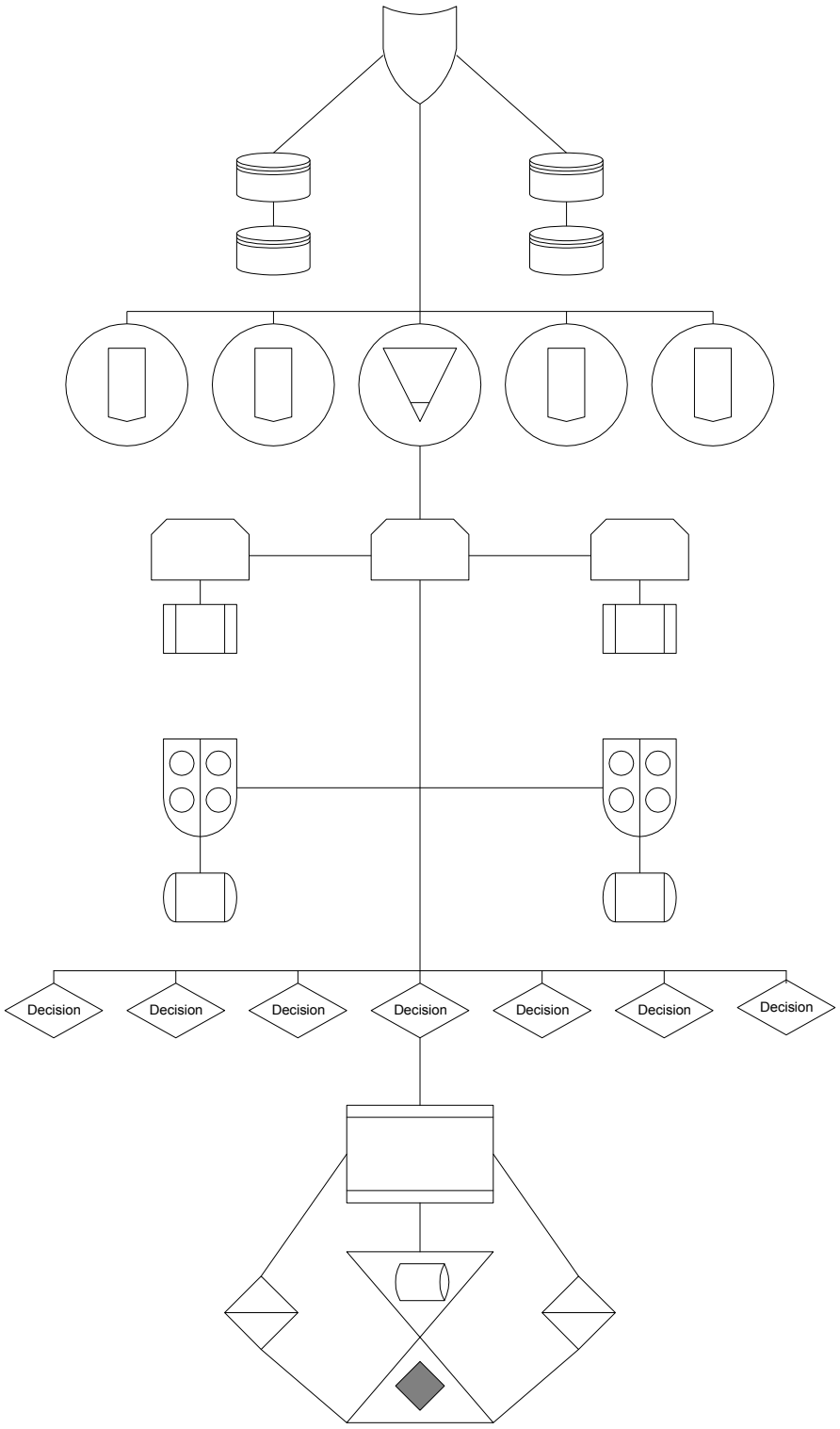
THE SYSTEMS THEORY INFRASTRUCTURAL PROCESS
and
CHART OF PROCEDURES



(XLVIII)
FORWARD CHAINING SEQUENCES

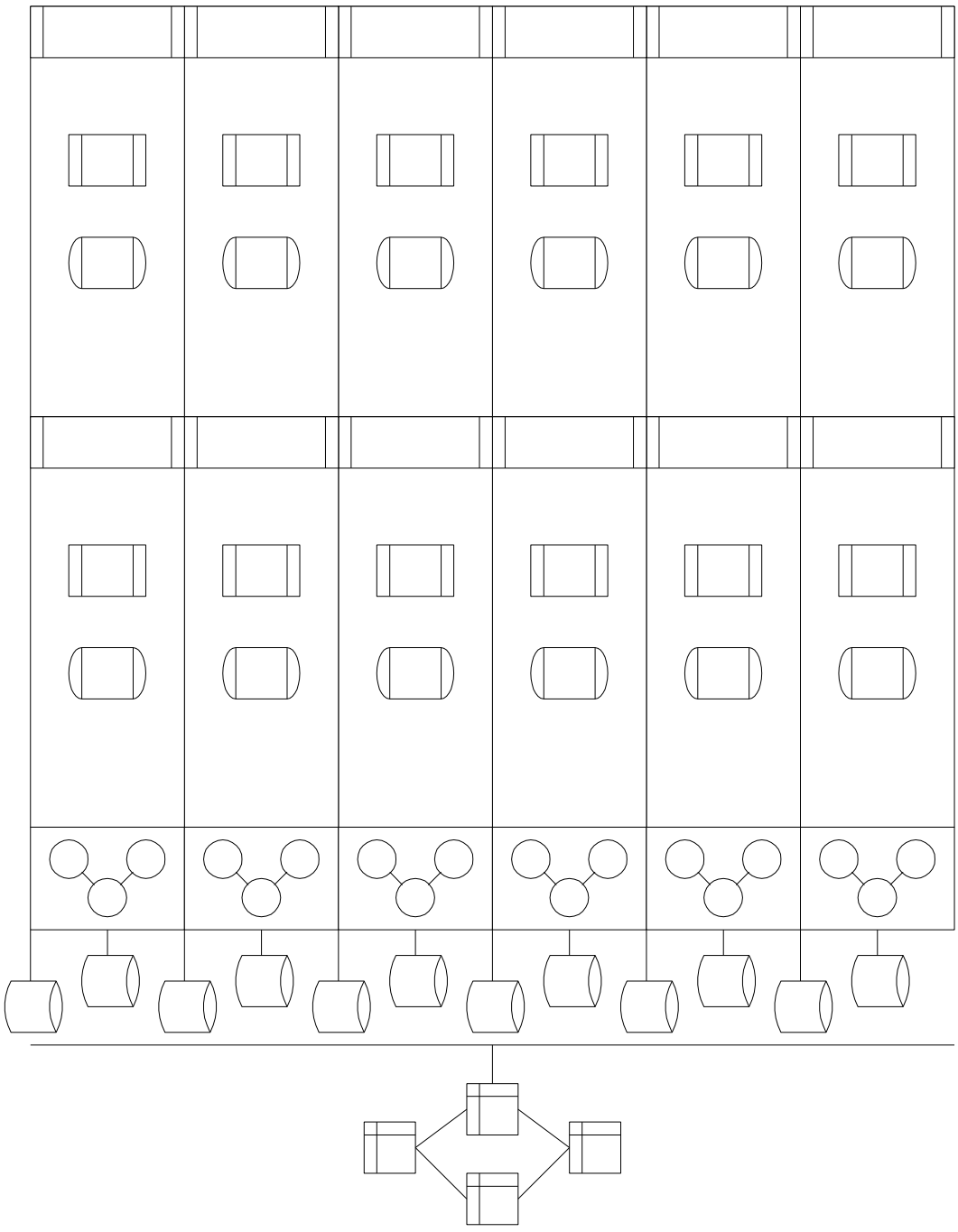
APPRAISE/ASSESS SYSTEMS (IV)

THE SYSTEMS THEORY INFRASTRUCTURAL PROCESS
and
CHART OF PROCEDURES



(XLVIII)
BACKWARD CHAINING SEQUENCES

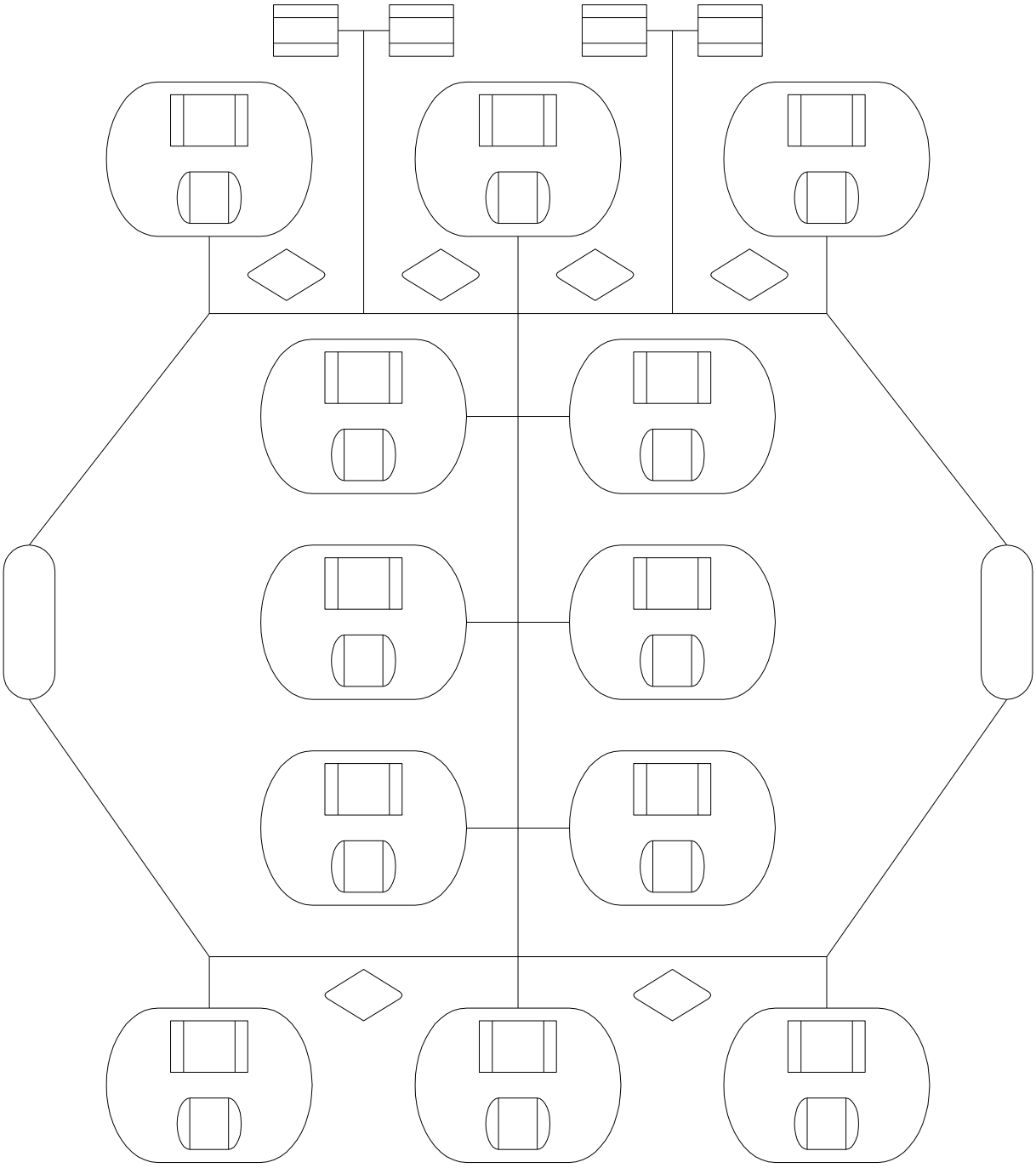
INFORMATION AIDS, INTERFACE (47)



(XLVIL)
FORWARD CHAINING SEQUENCES

PROVIDE GRAPHIC REPRESENTATIONS (VII)

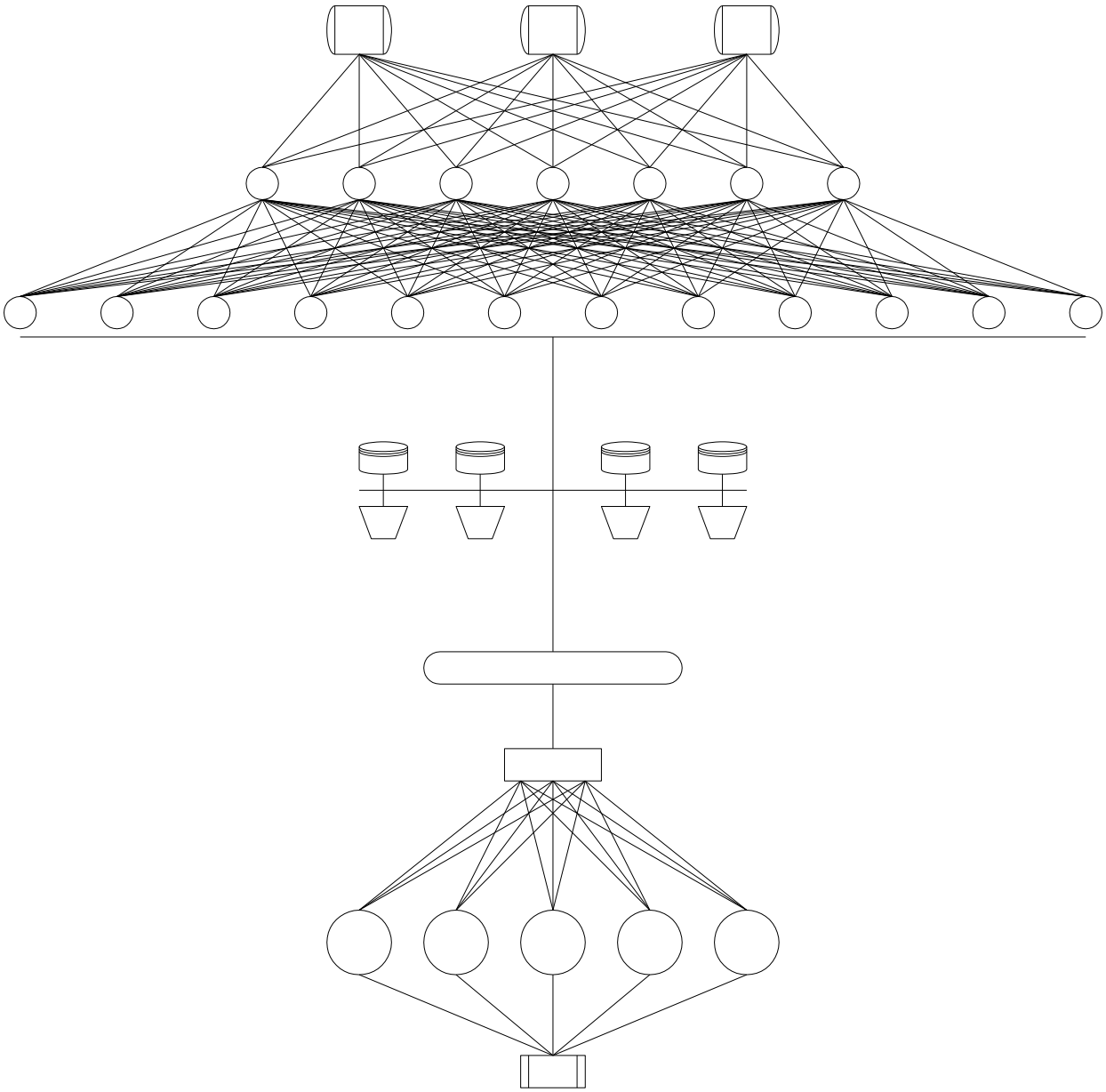
THE GRAPHICAL REPRESENTATIVE PROCESS SYSTEMS
and
CHART OF PROCEDURES



(XLVIL)
BACKWARD CHAINING SEQUENCES

PHYSICAL CATALYSTS, FUNDAMENTAL
(37)

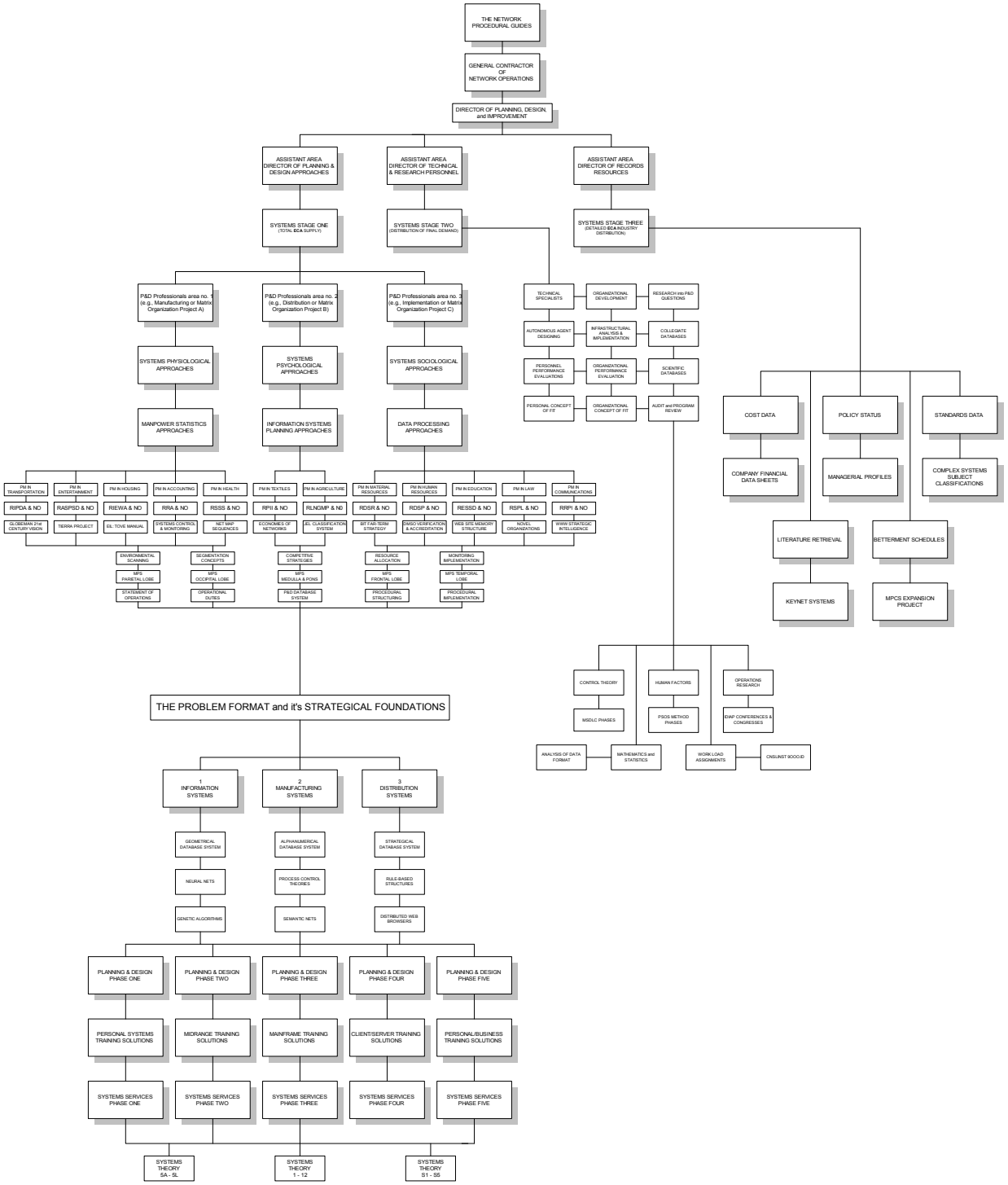
THE UNITARY SYSTEMS THEORY INFRASTRUCTURAL PROCESS
and
CHART OF PROCEDURES



(L)
FORWARD CHAINING SEQUENCES

ANALYZE SYSTEMS (IV)

THE UNITARY SYSTEMS THEORY INFRASTRUCTURAL PROCESS
and
CHART OF PROCEDURES



(L)
BACKWARD CHAINING SEQUENCES

HUMAN AGENTS, FUTURE (36)