

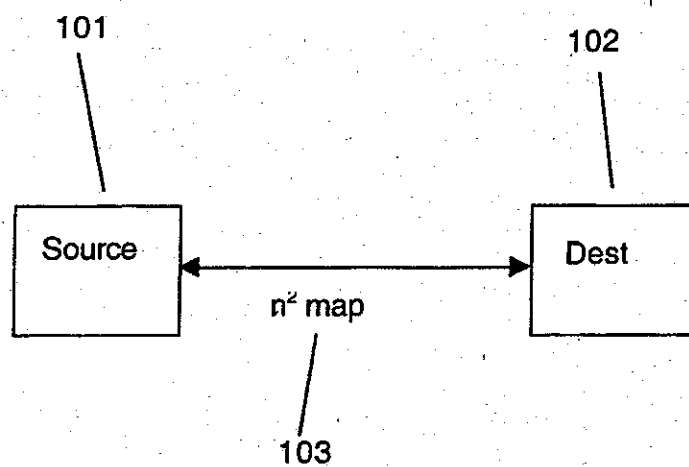
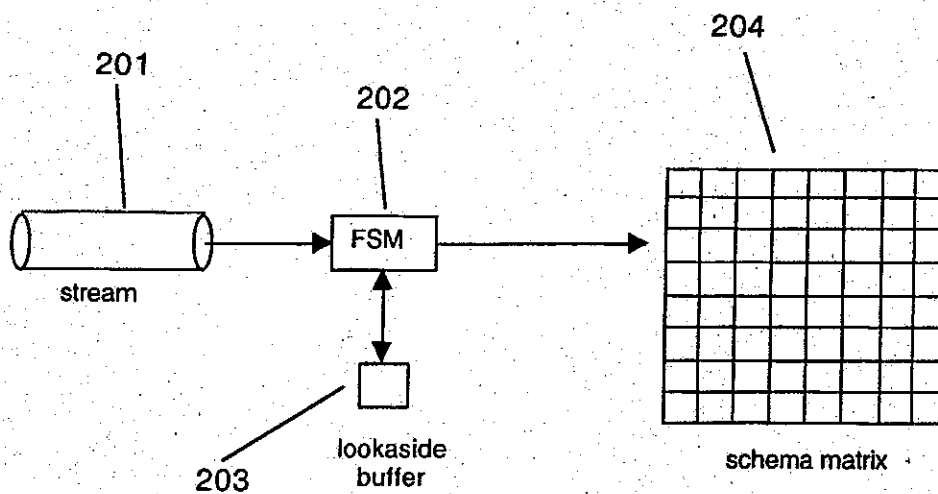


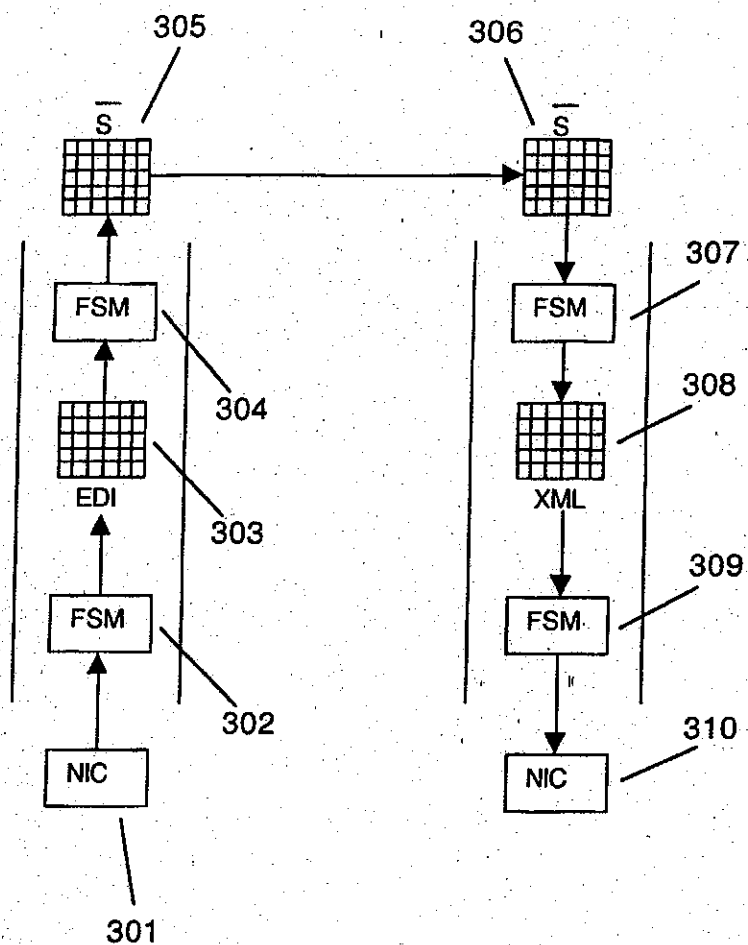
Fig. 1
Prior
Art

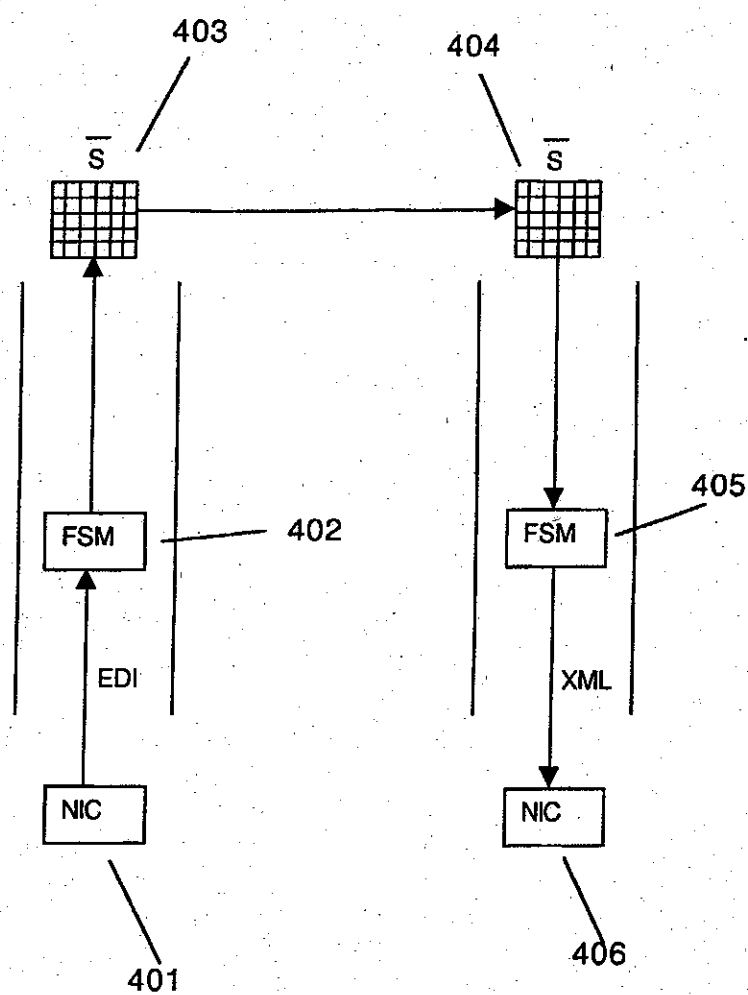


n map

Fig. 2

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Fig. 3

**Fig. 4**

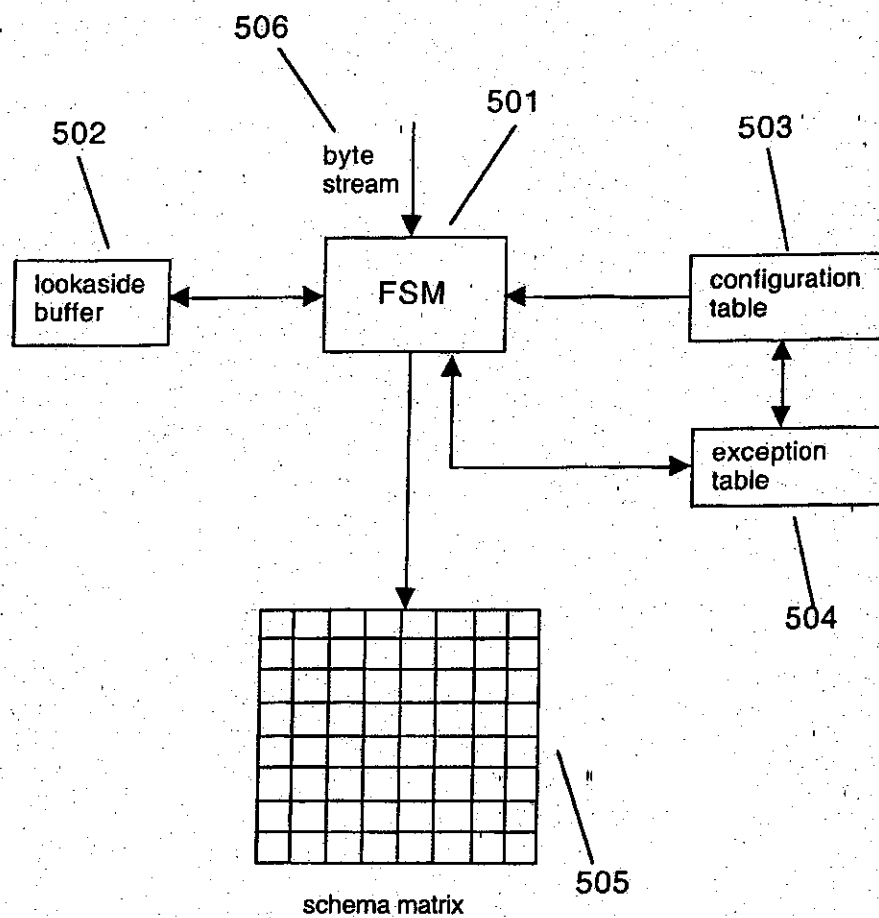
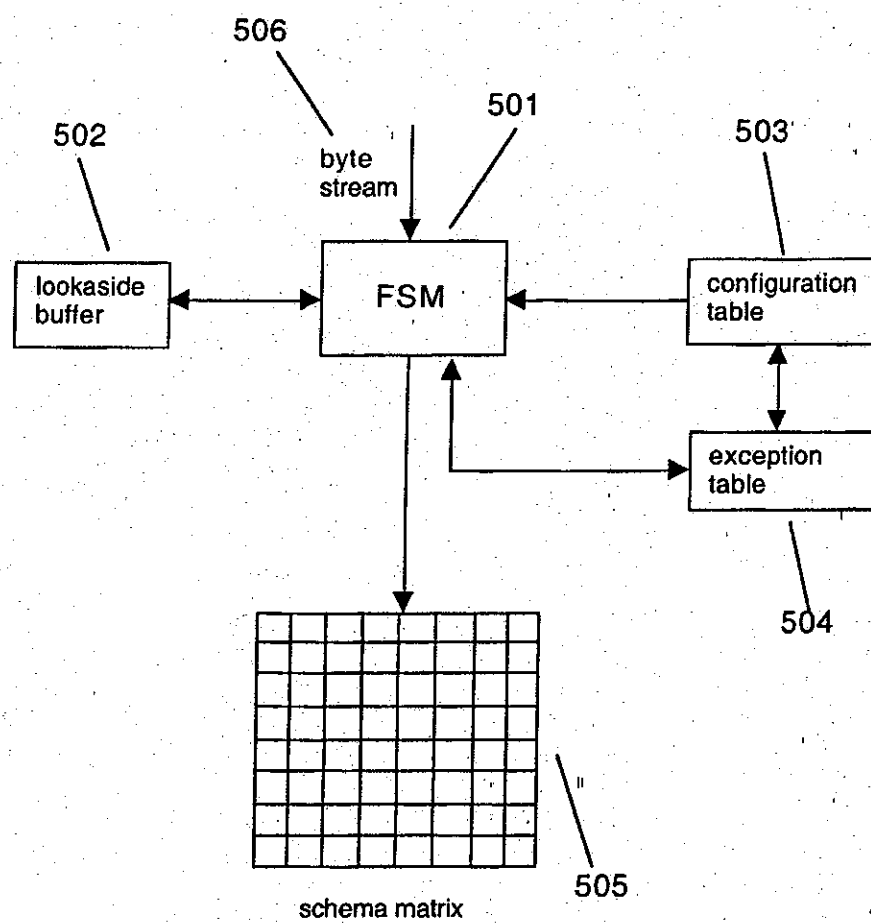
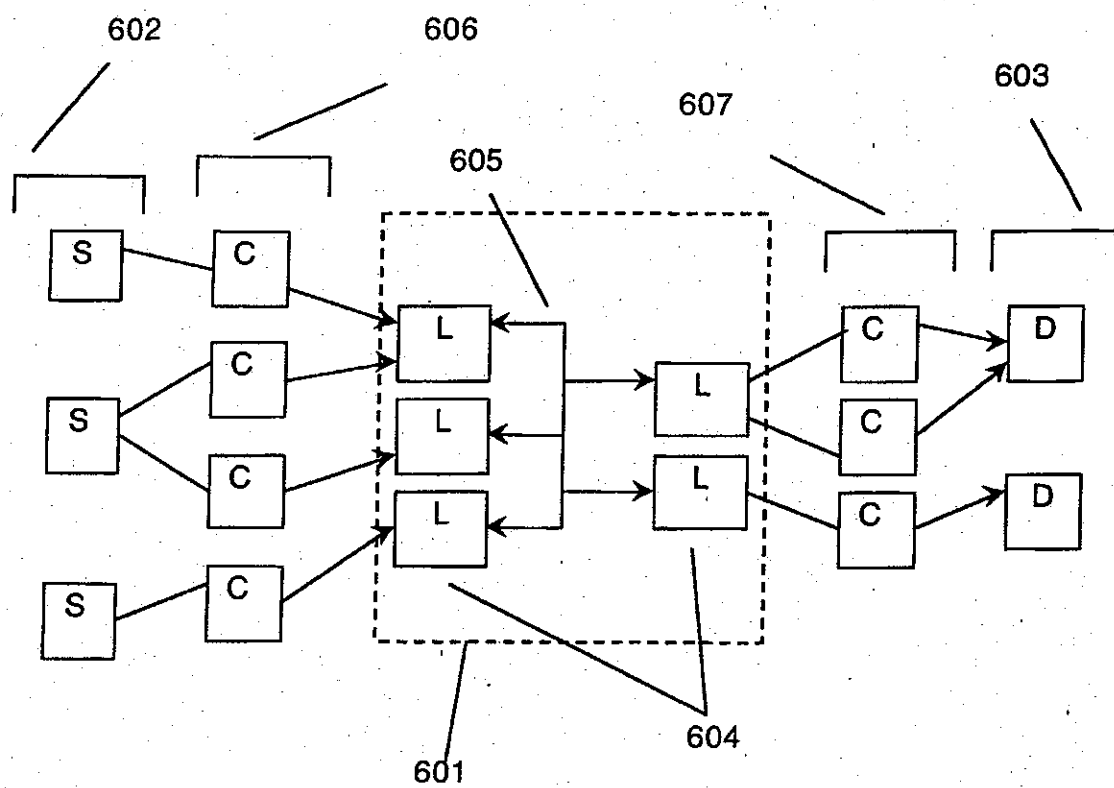
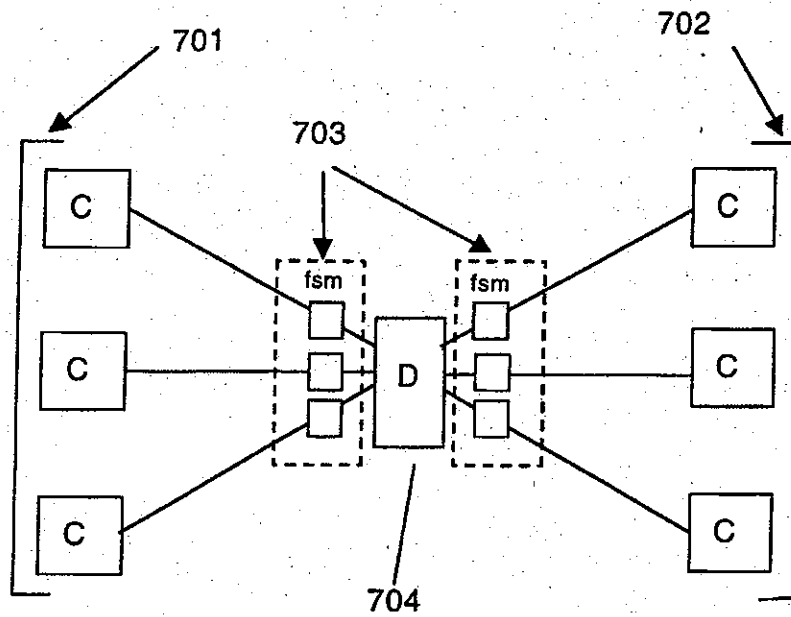
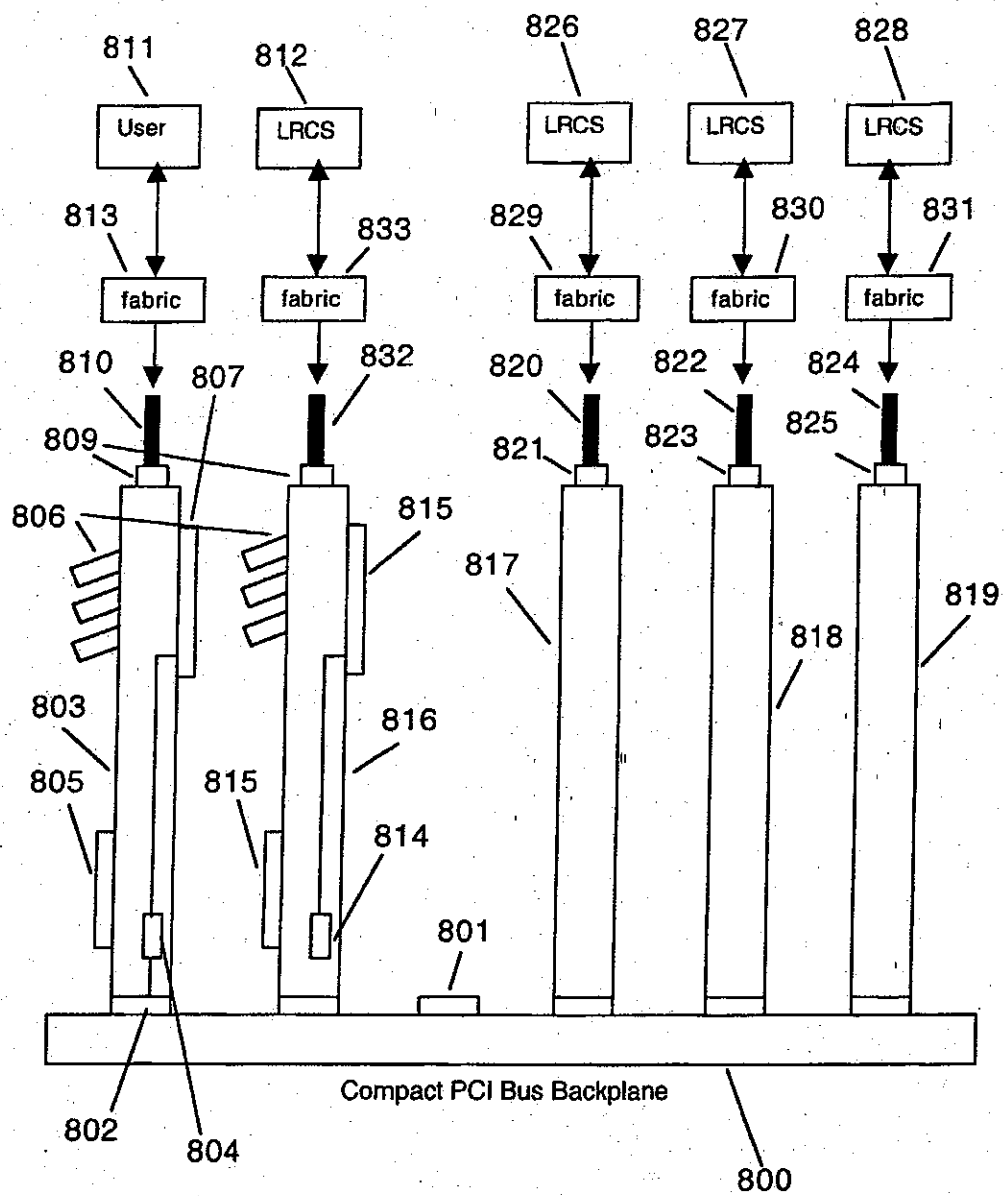


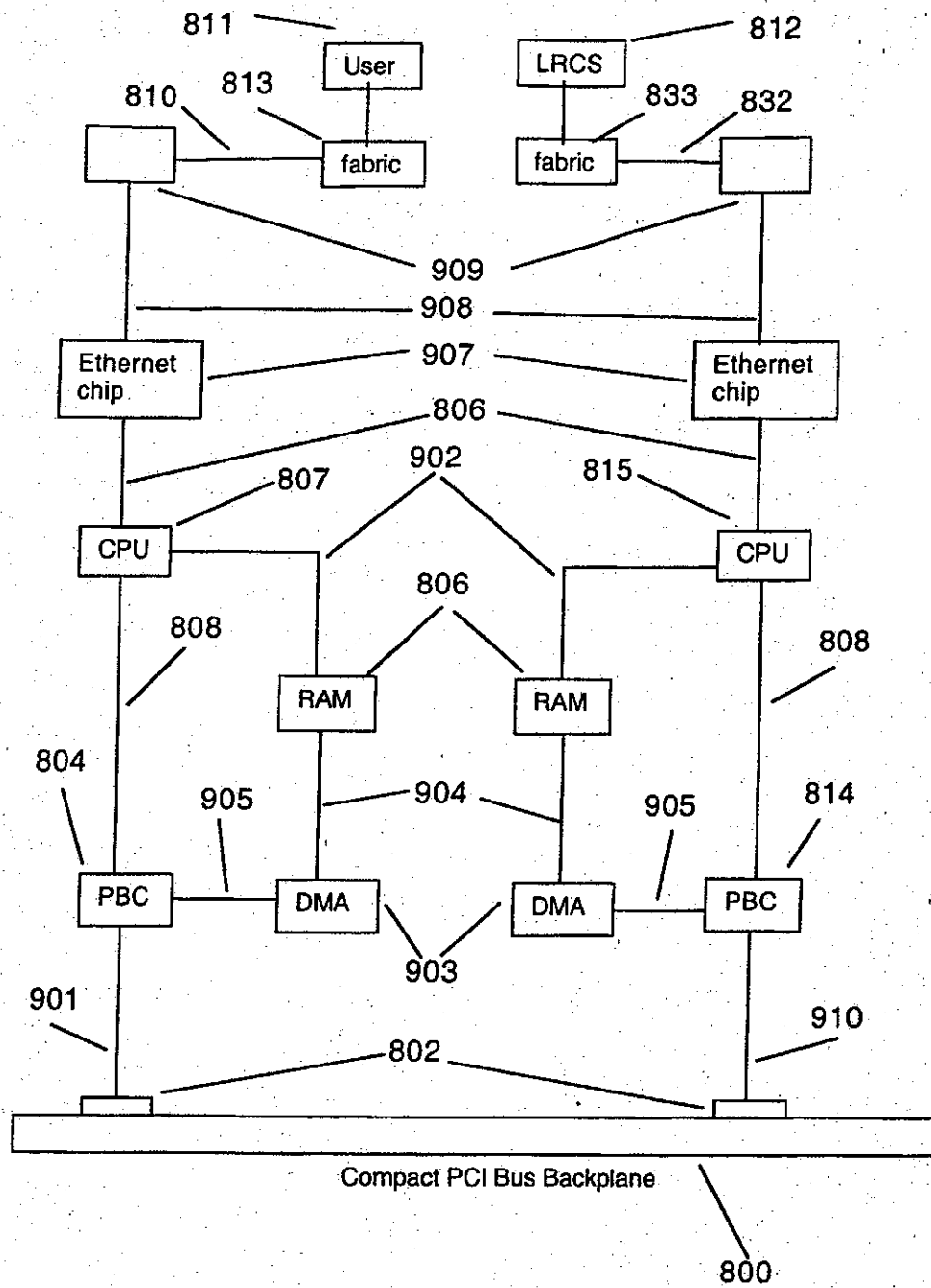
Fig. 5

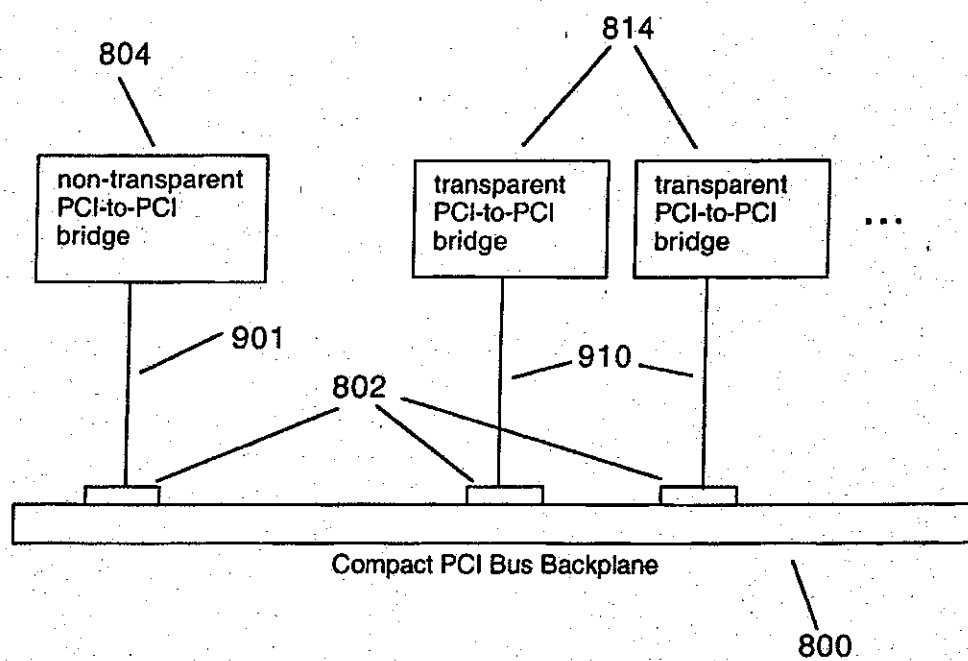
**Fig. 5**

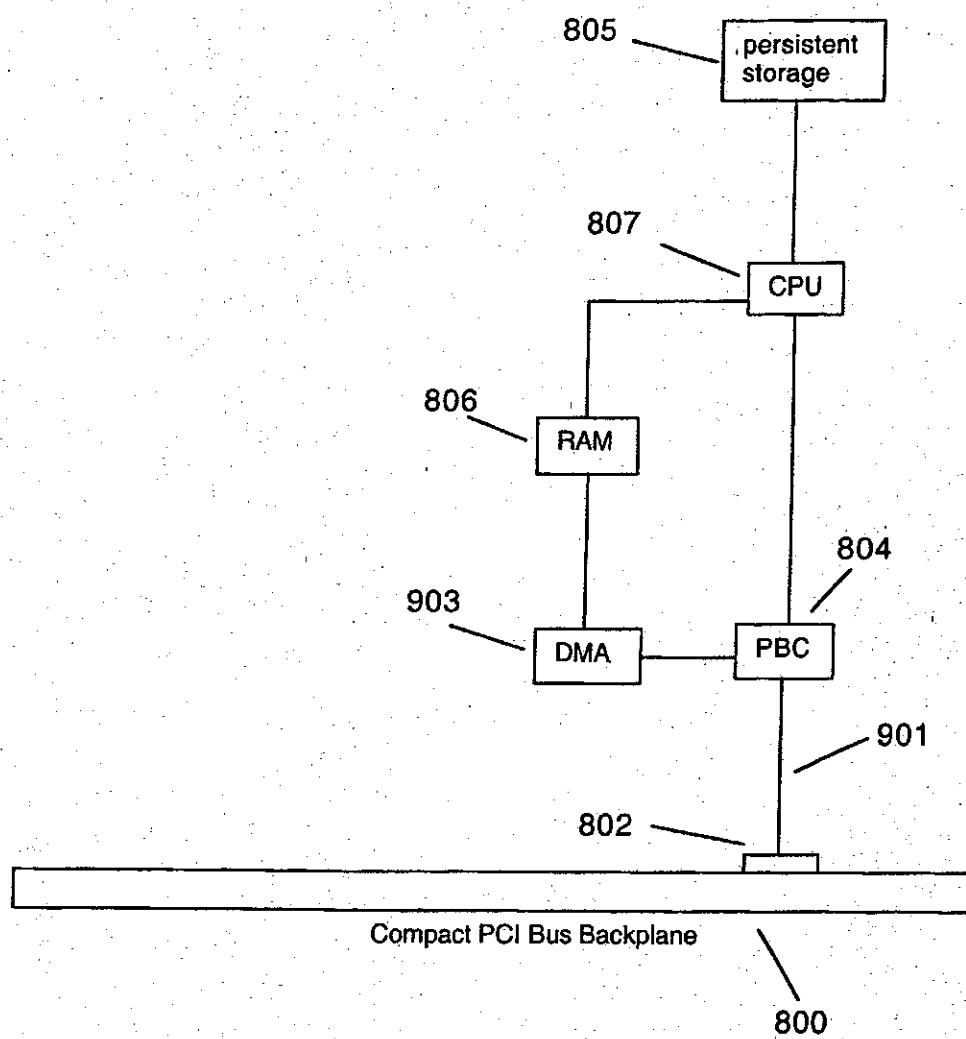
**Fig. 6**

Fig. 7

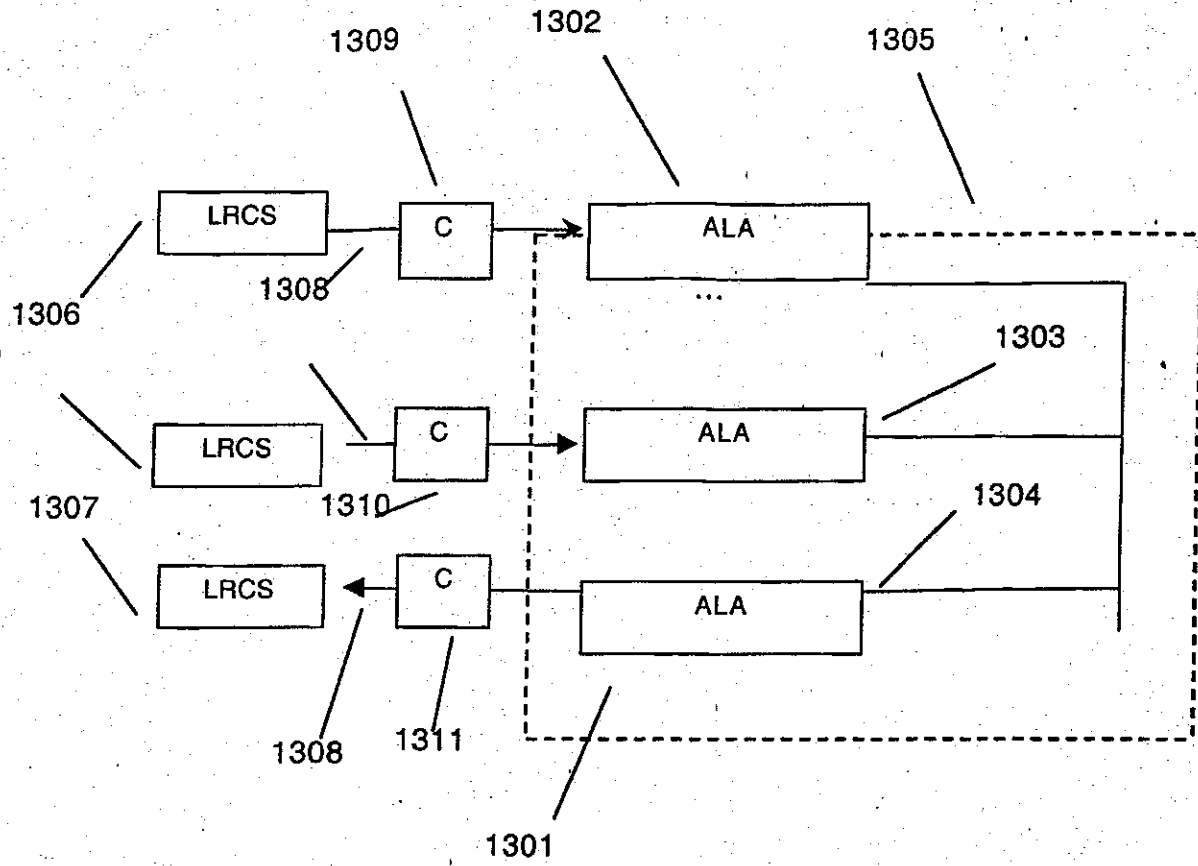
**Fig. 8**

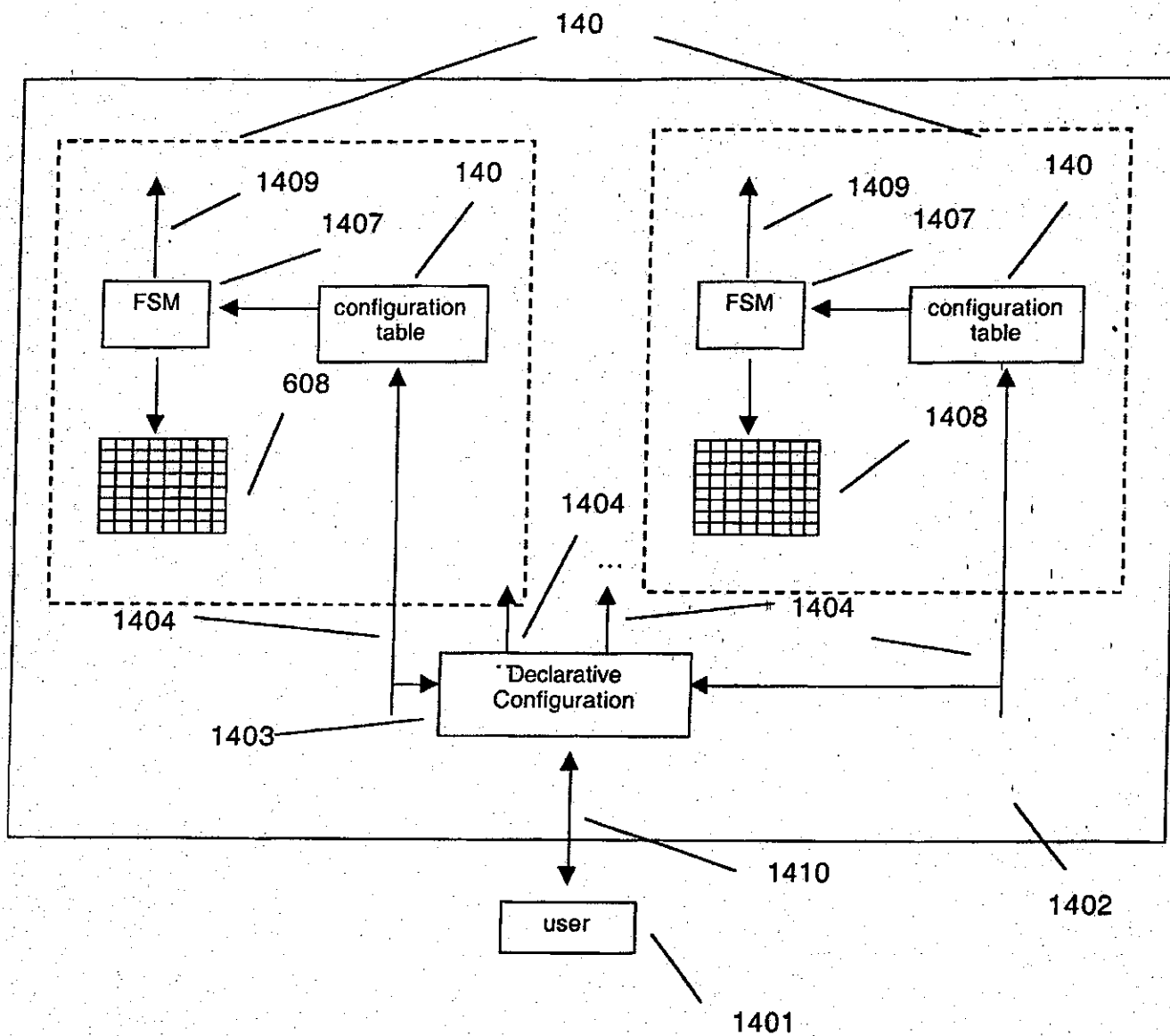
**Fig. 9**

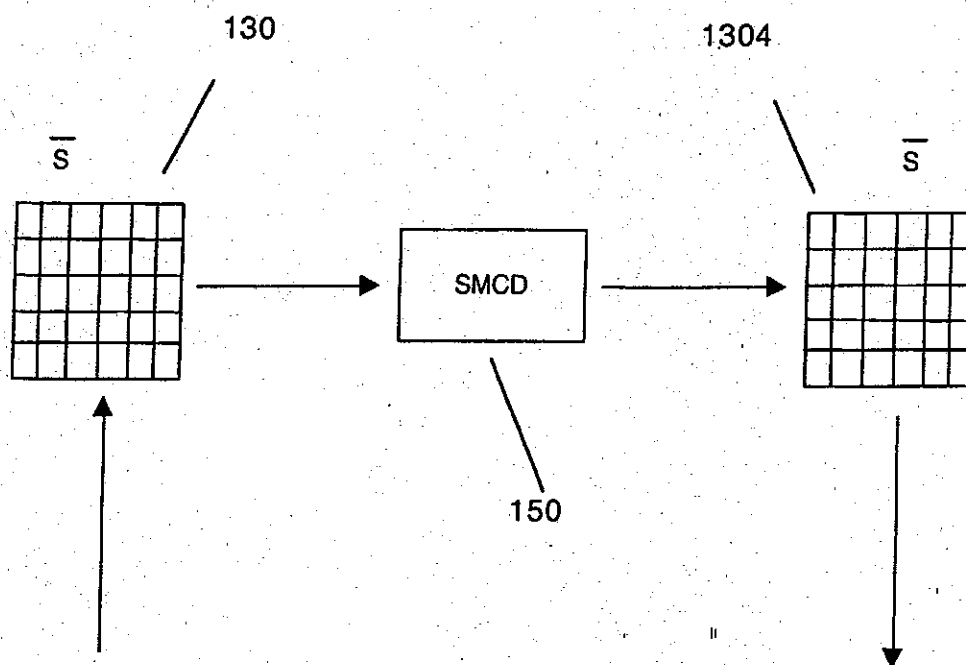
**Fig. 10**

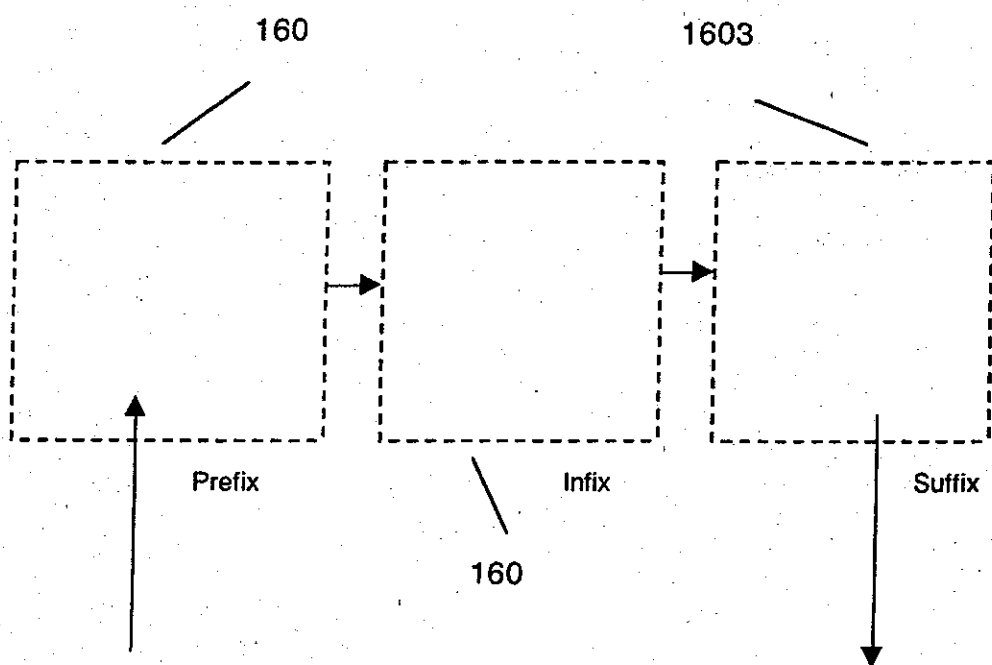
Fig. 11

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**Fig. 13**

**Fig. 14**

Fig. 15

Fig. 16

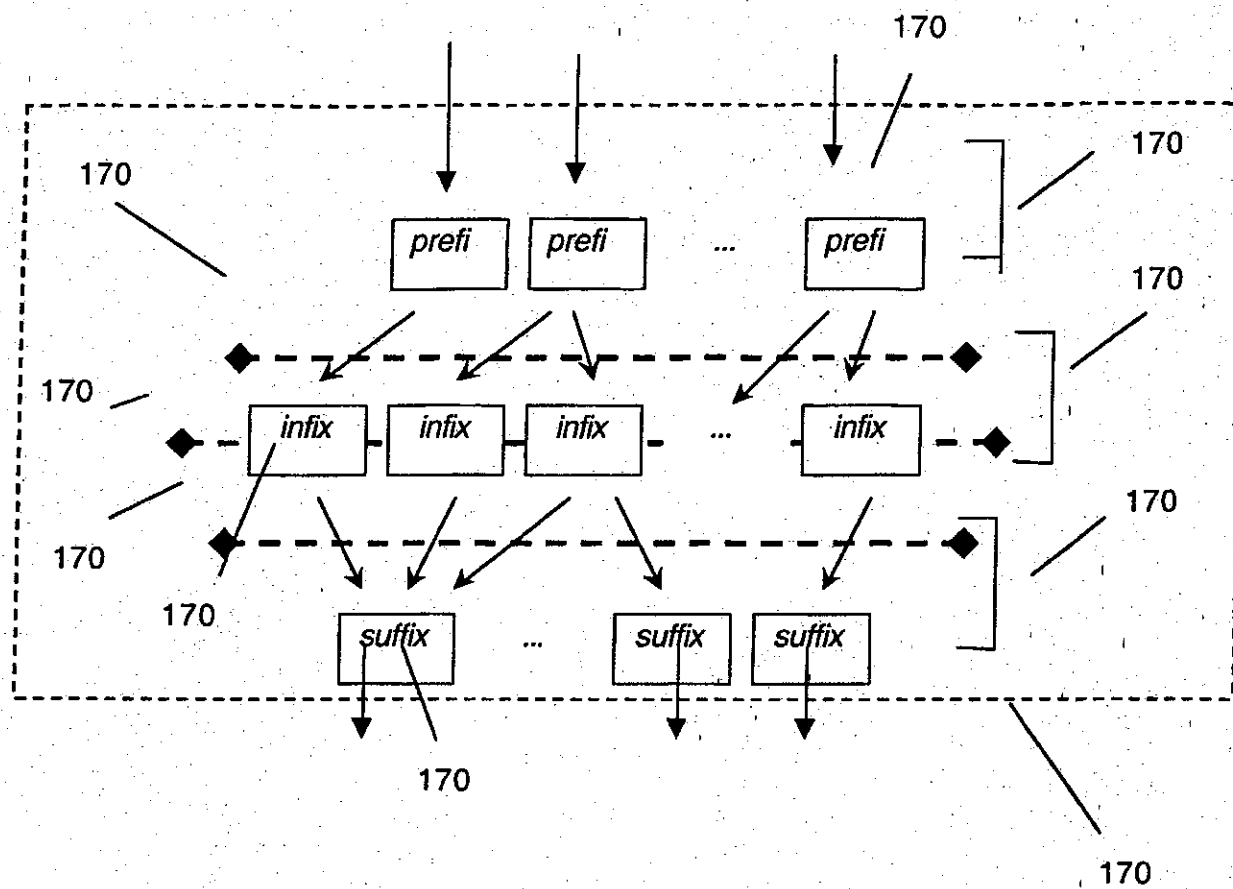


Fig. 17

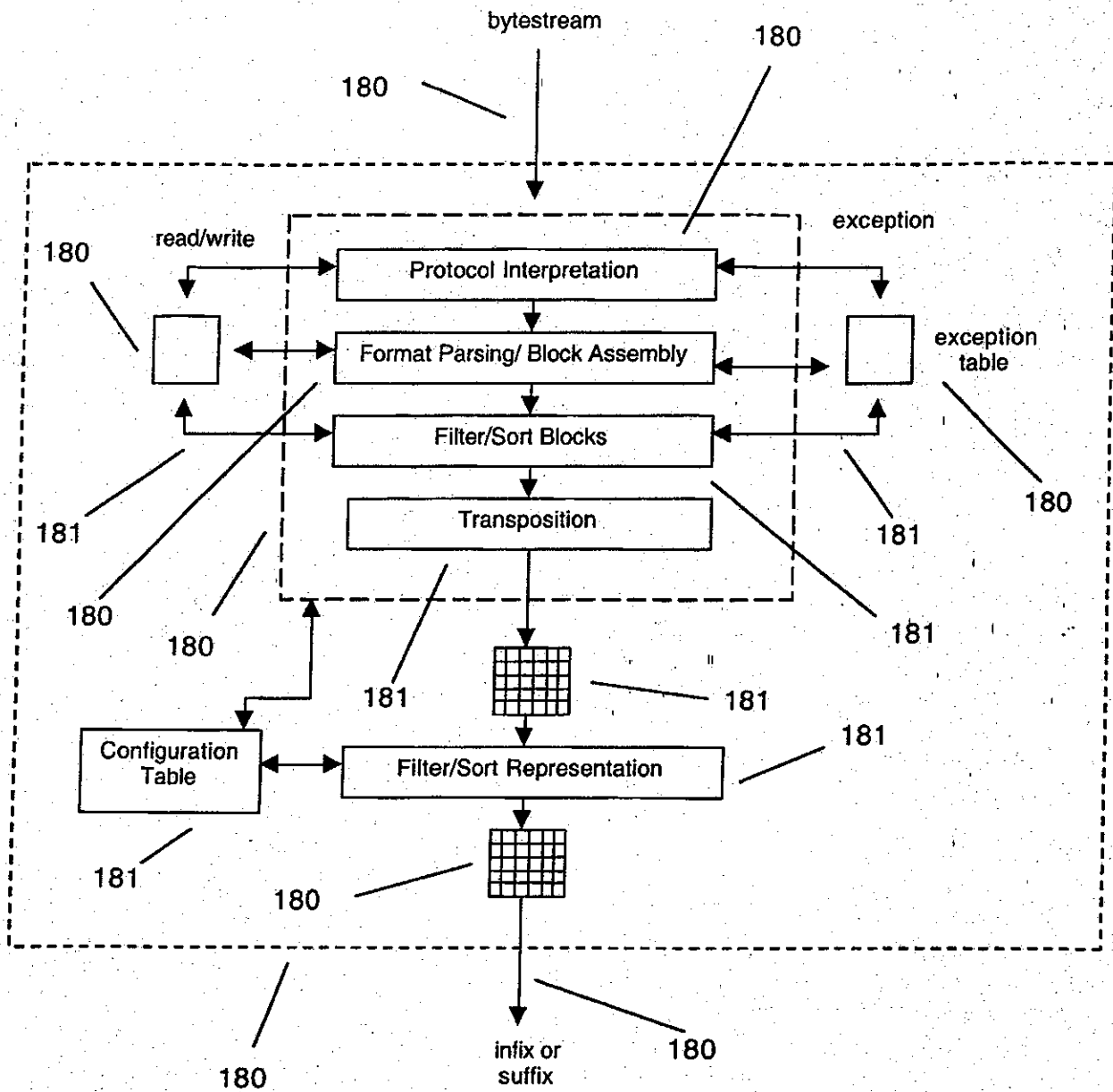


Fig. 18

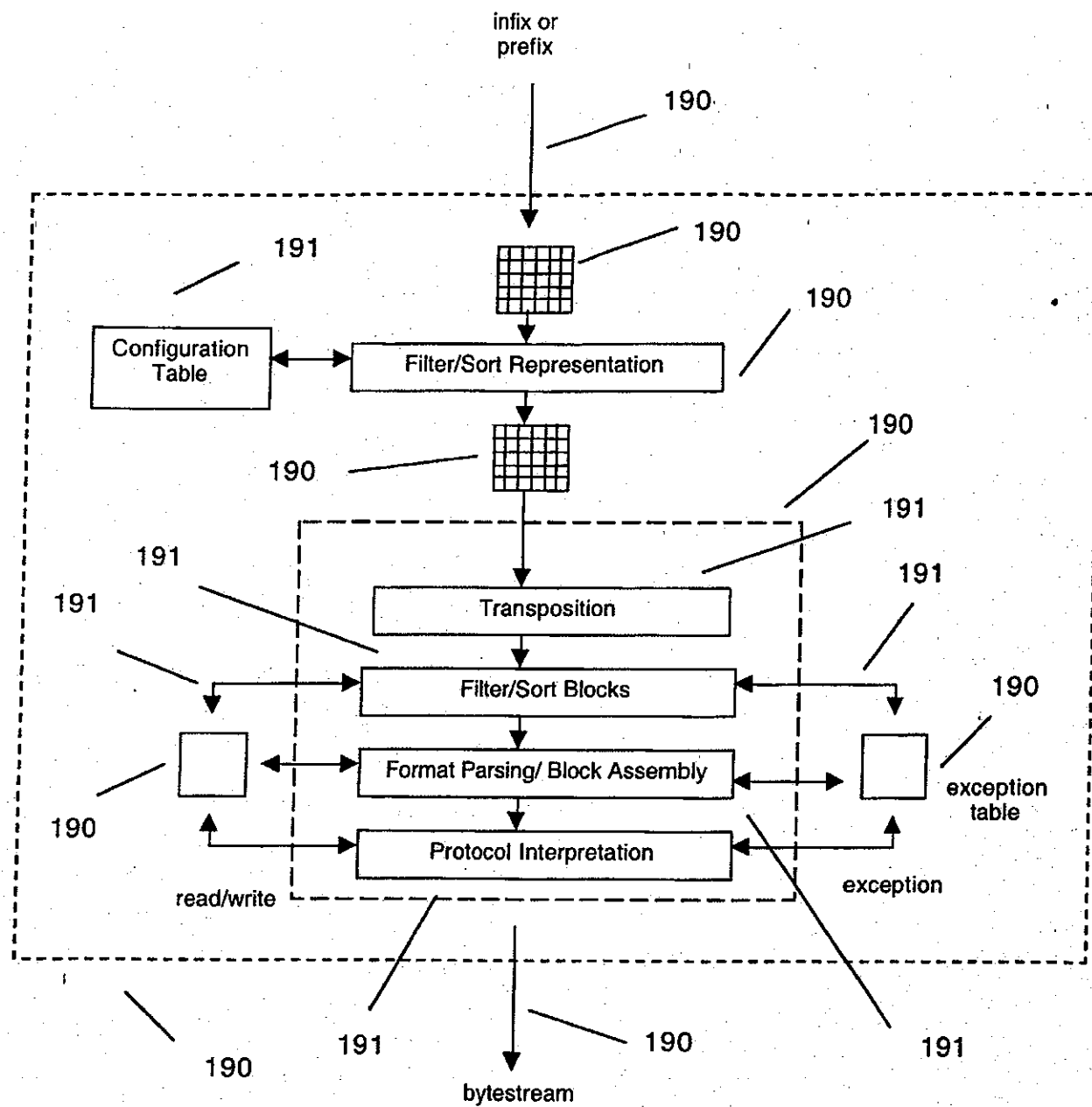


Fig. 19

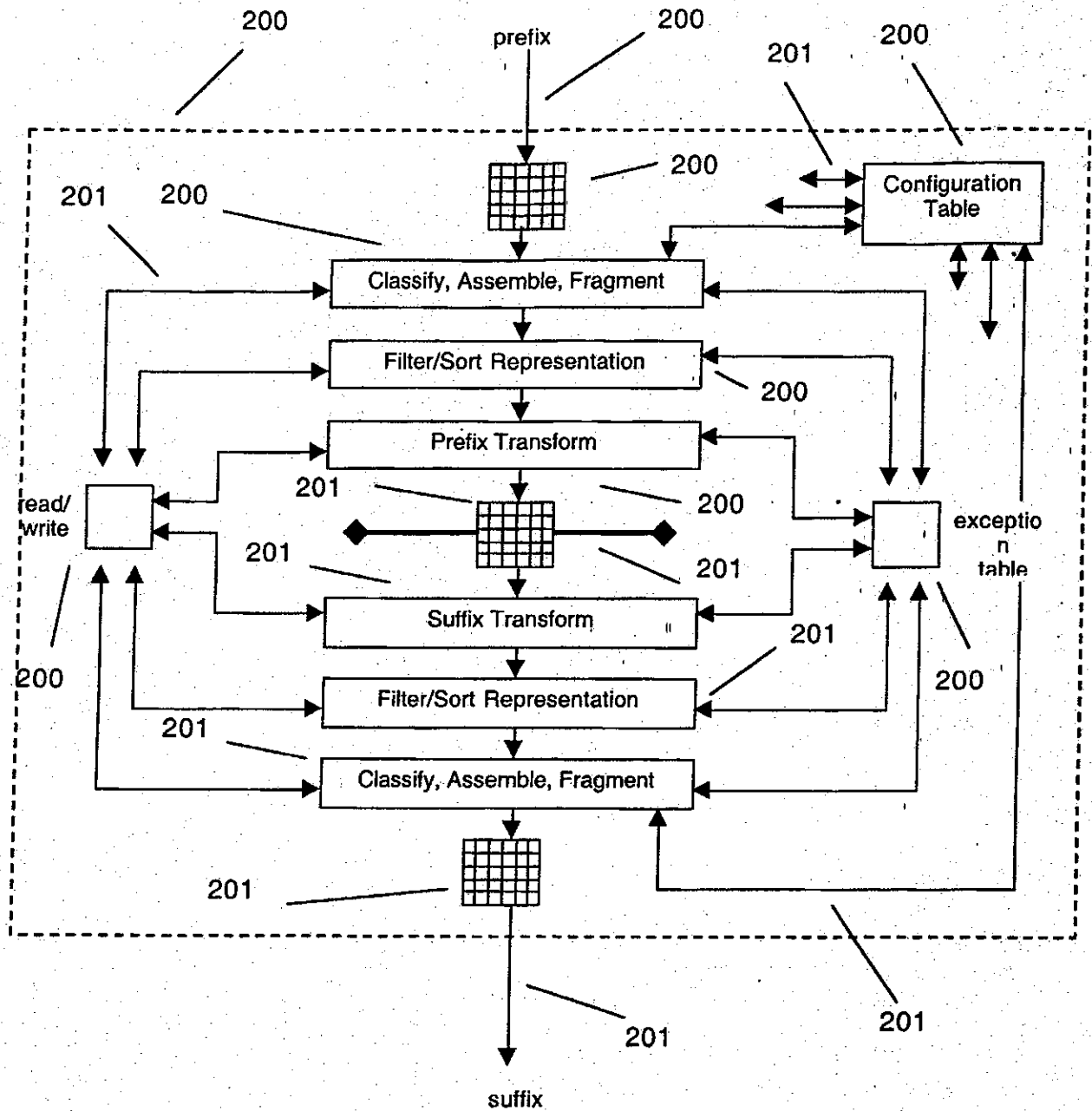


Fig. 20

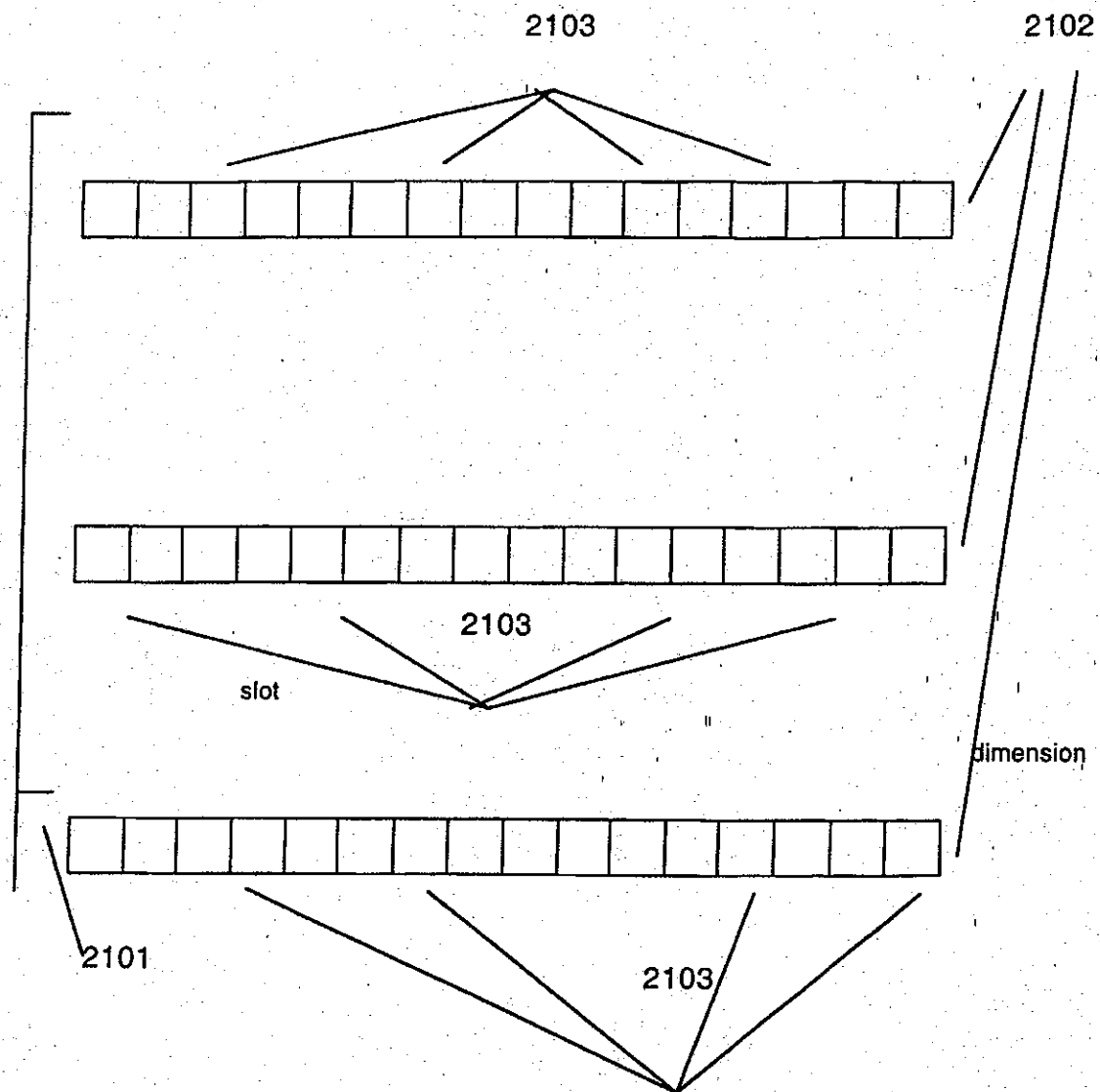
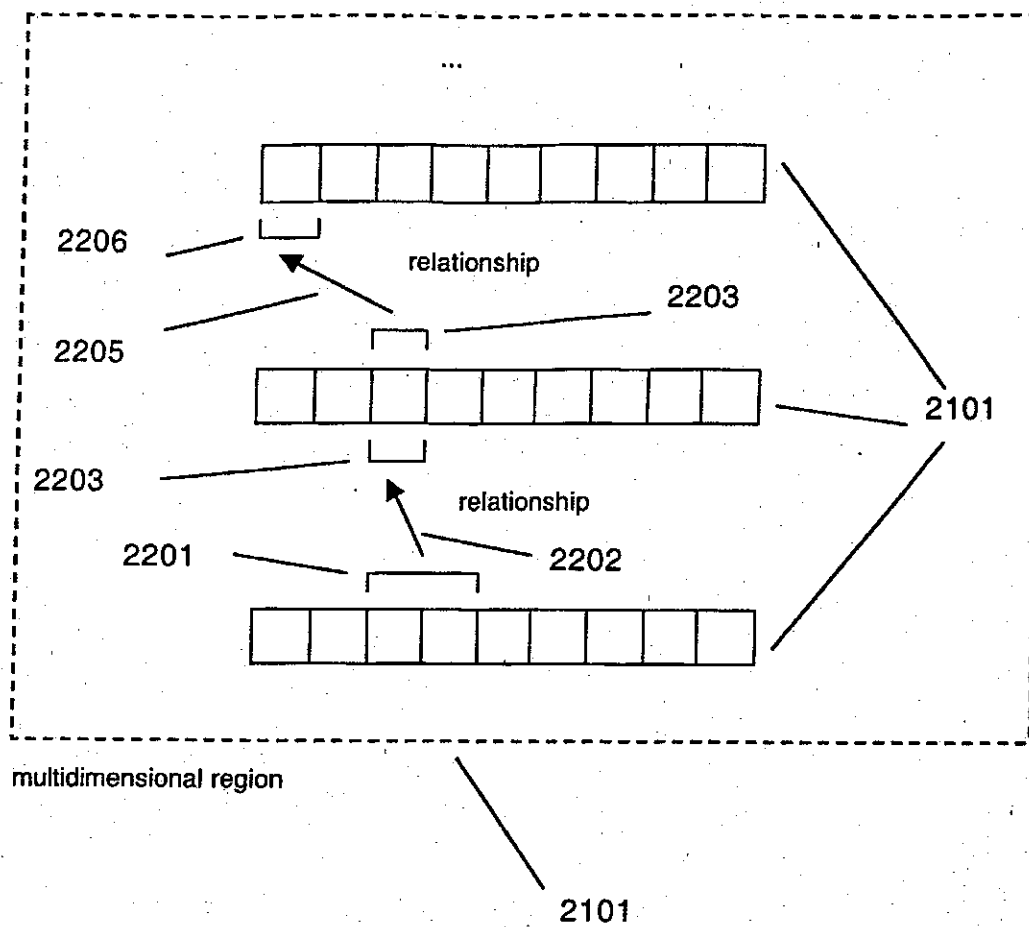
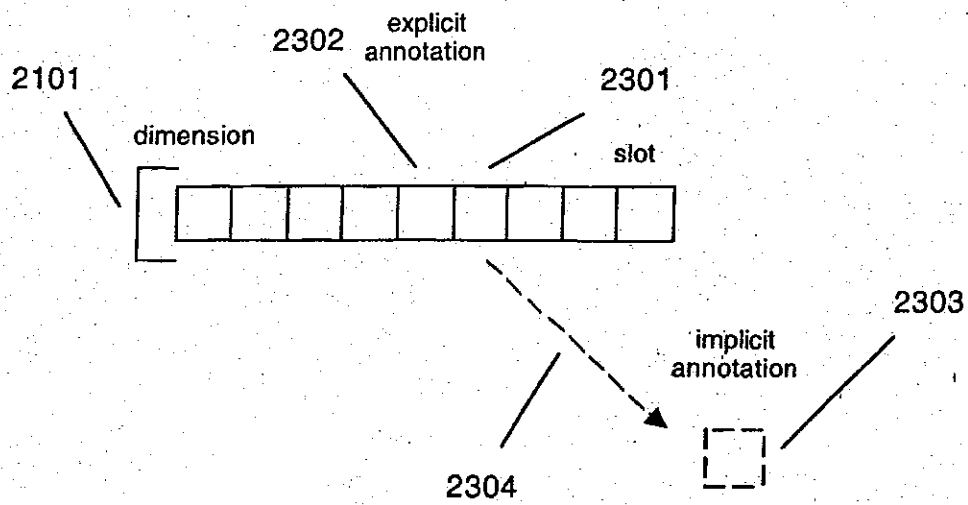
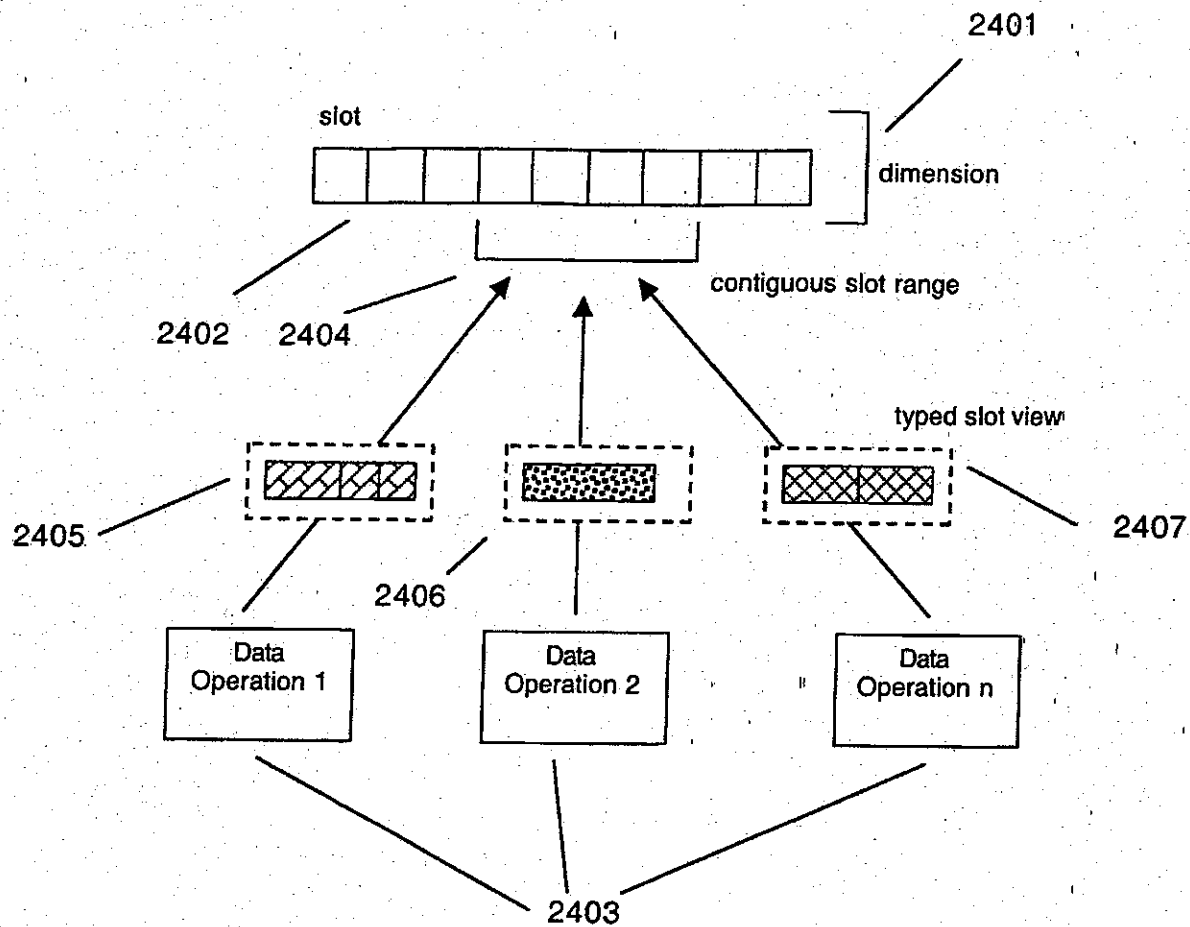


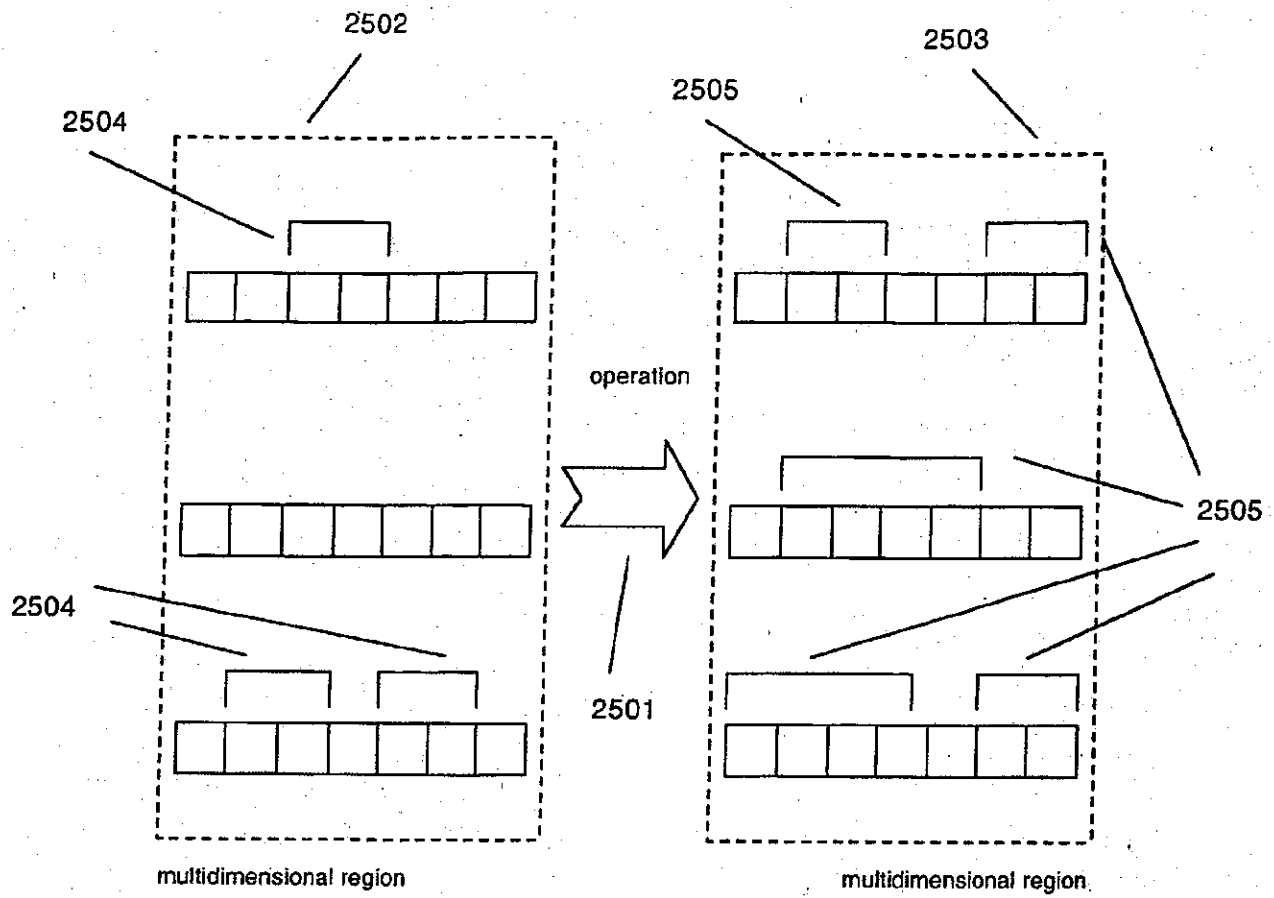
Fig. 21

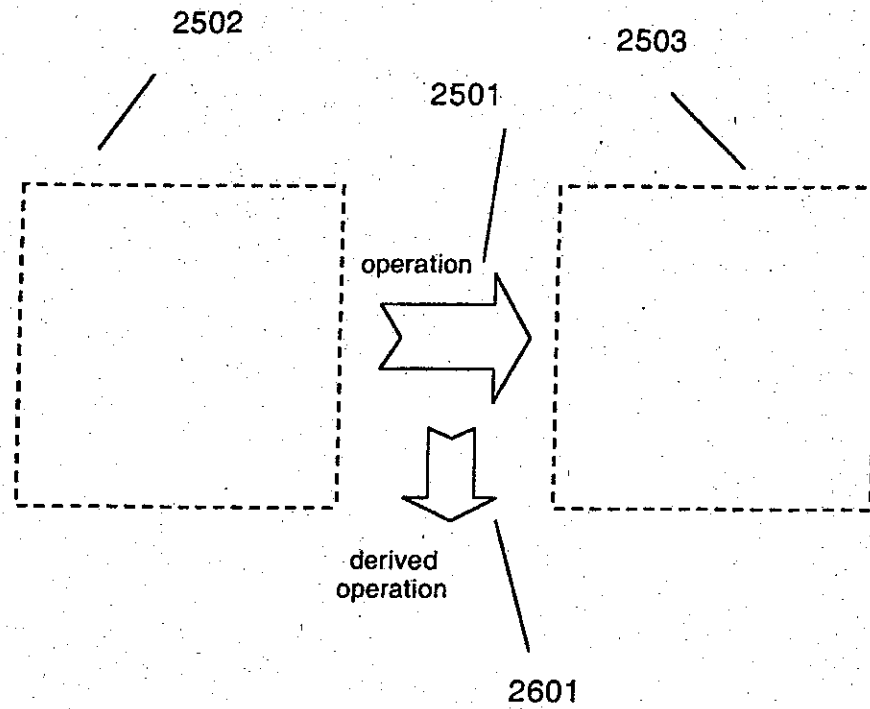
Fig. 22

**Fig. 23**

Fig. 24

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**Fig. 25**

**Fig. 26**

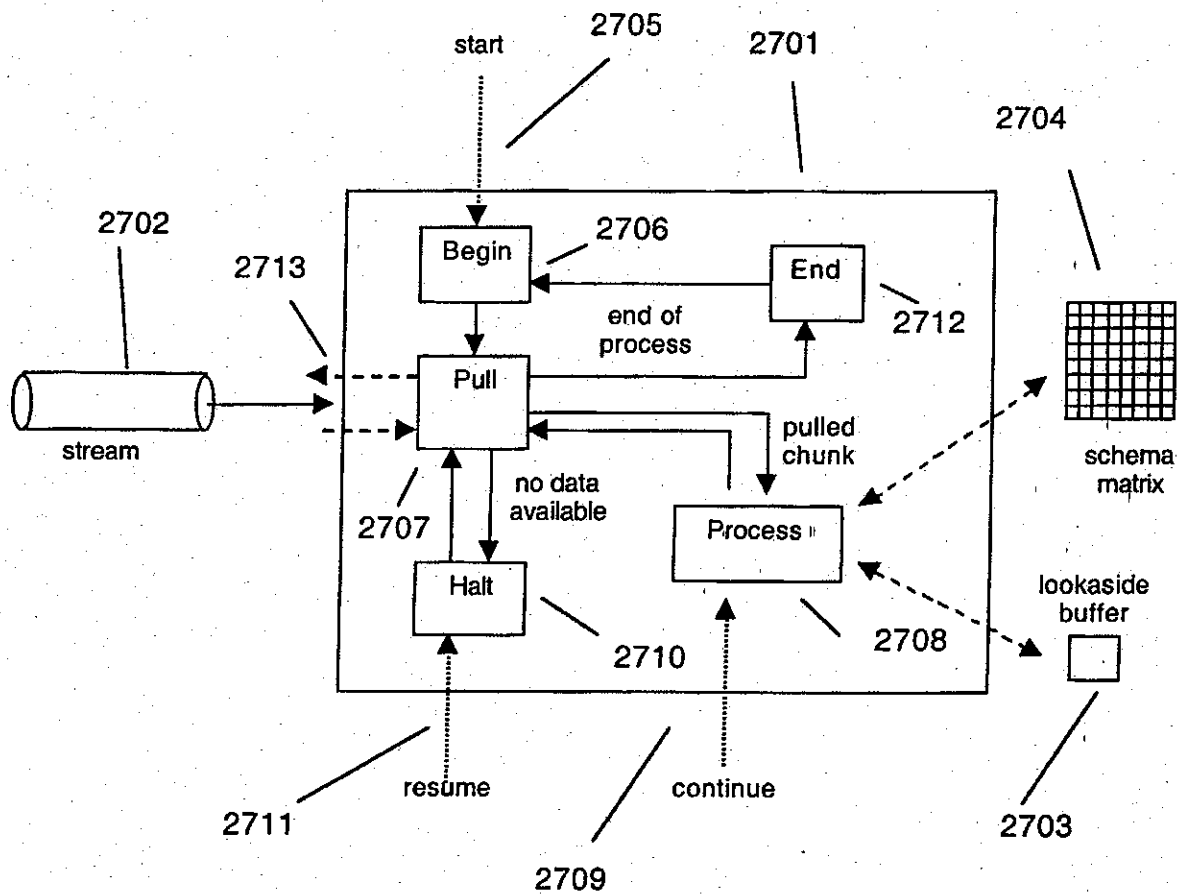
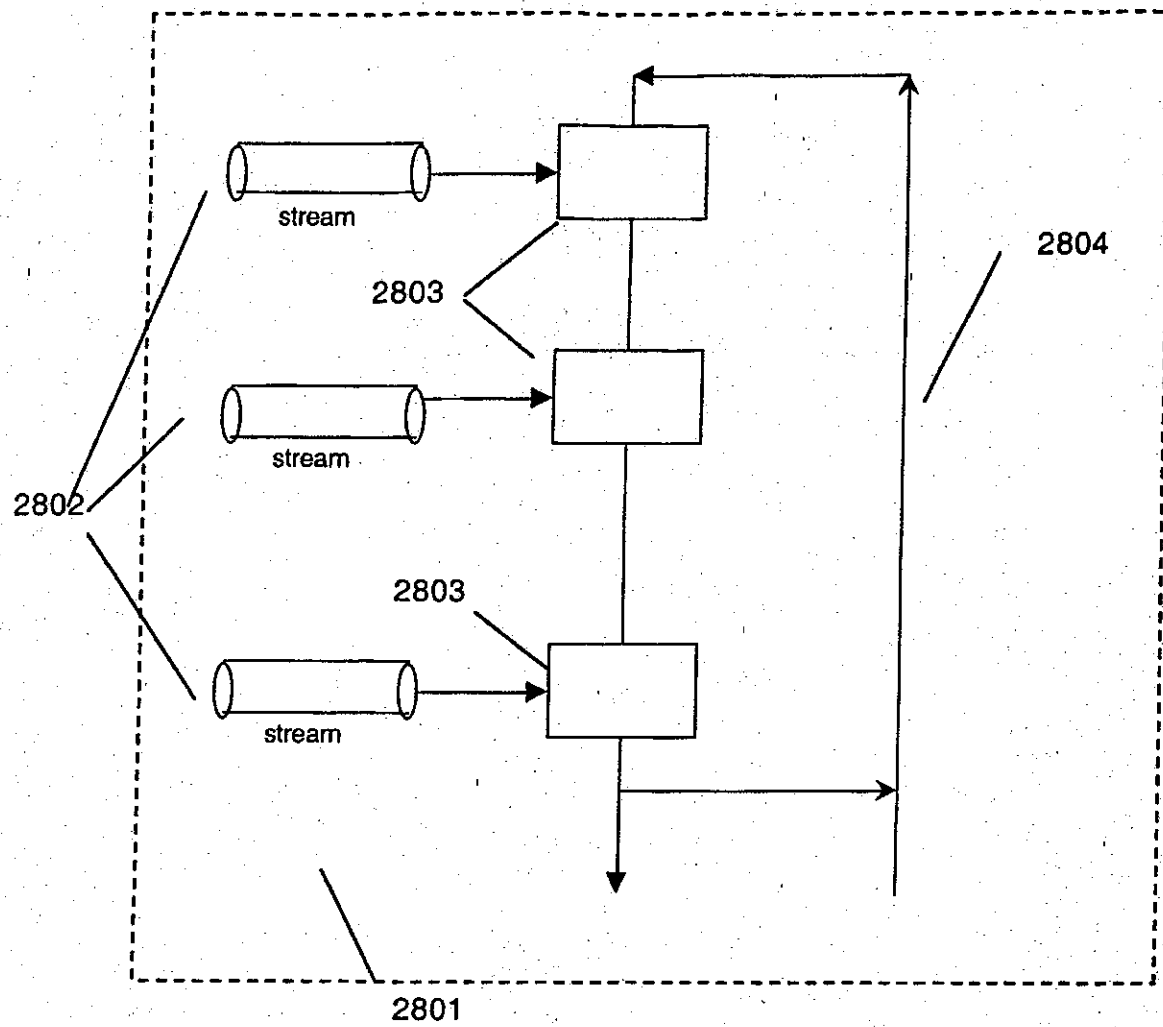
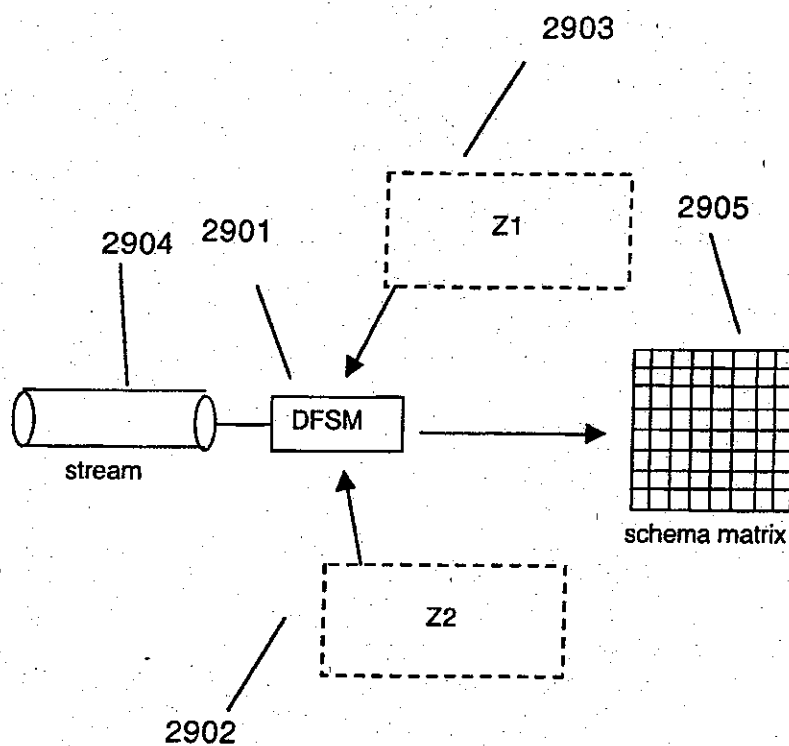


Fig. 27

**Fig. 28**

Fig. 29

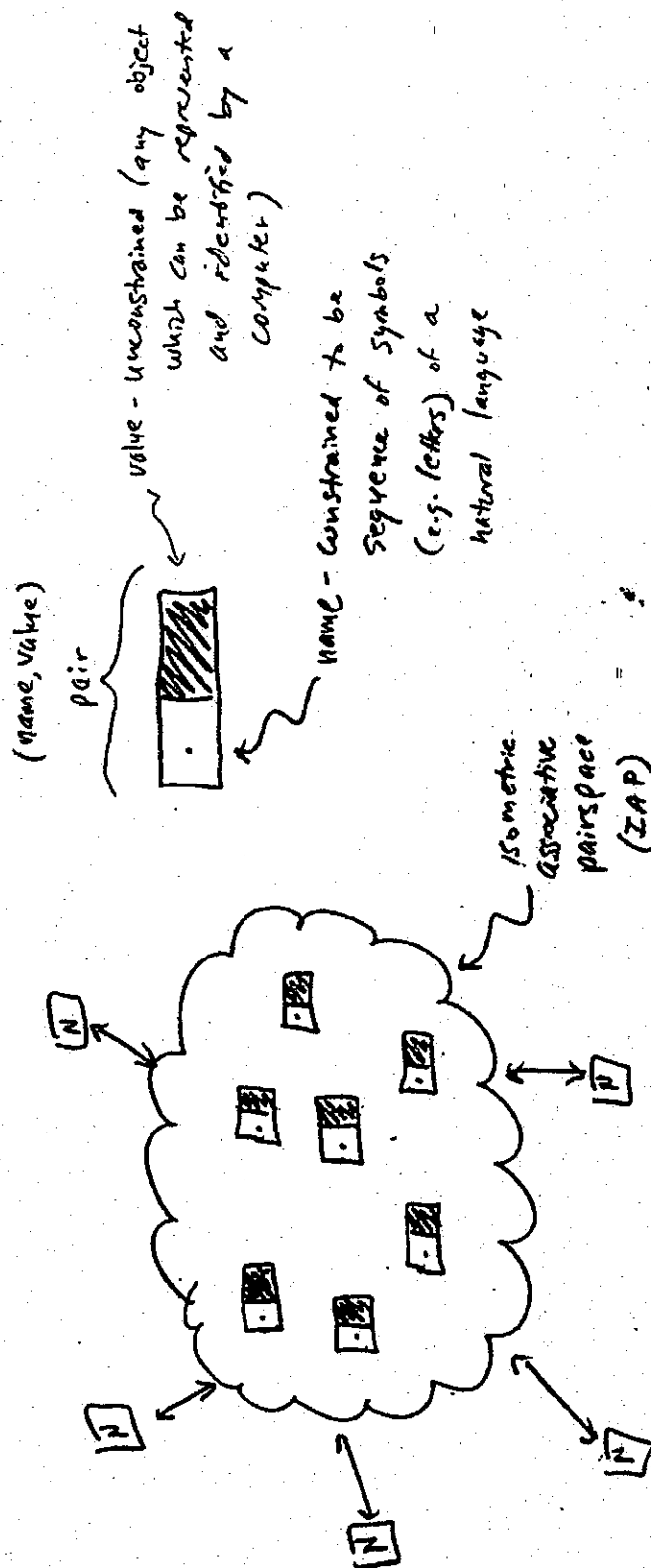


Fig. 30

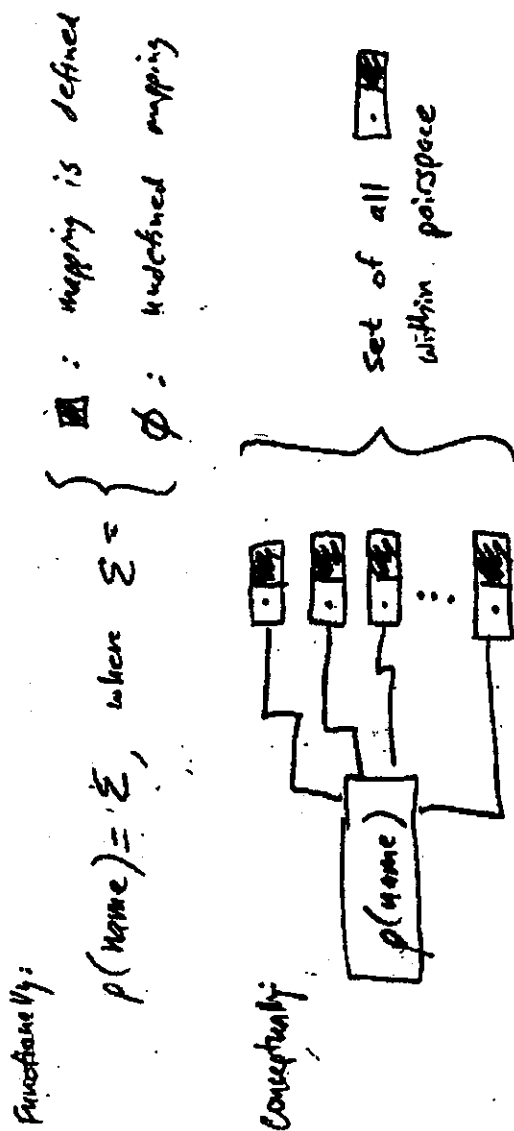
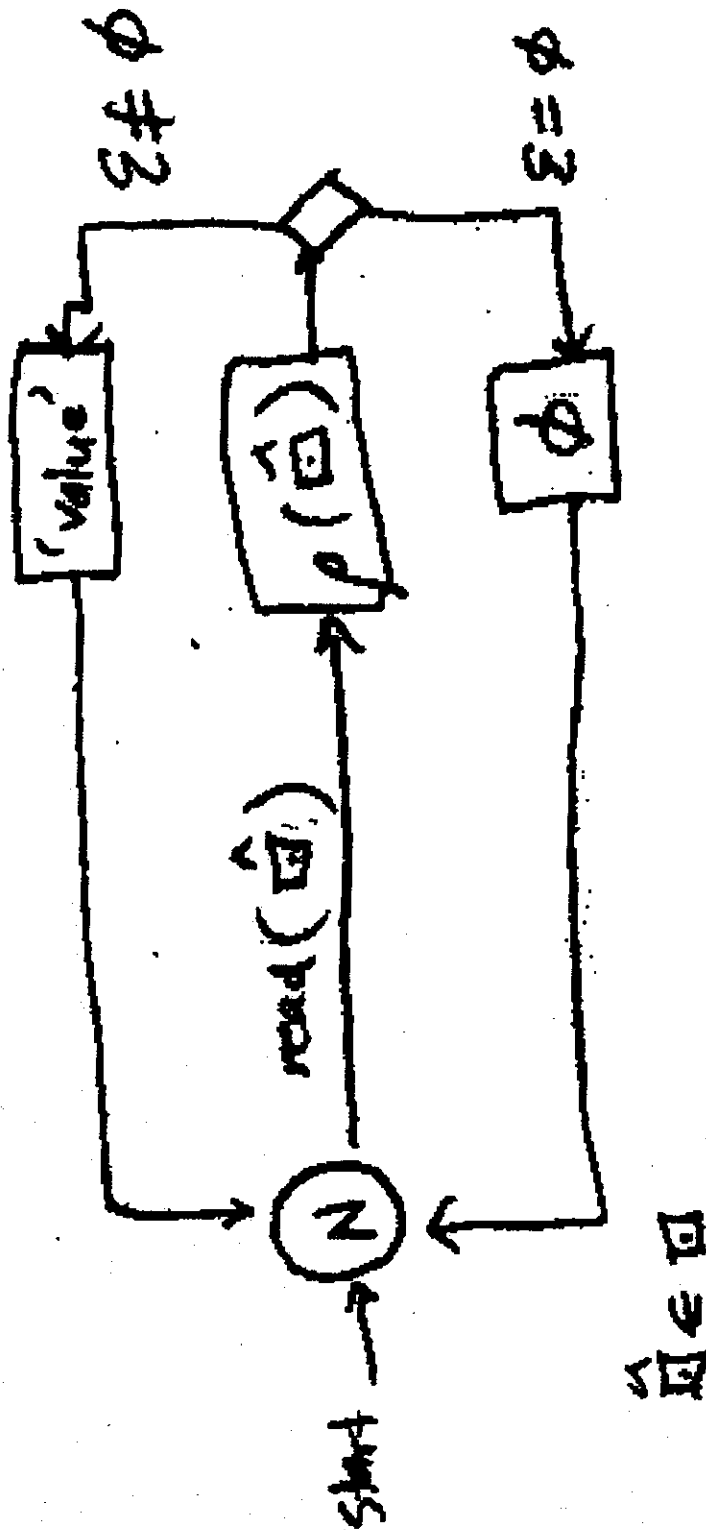


Fig. 31

Fig. 32

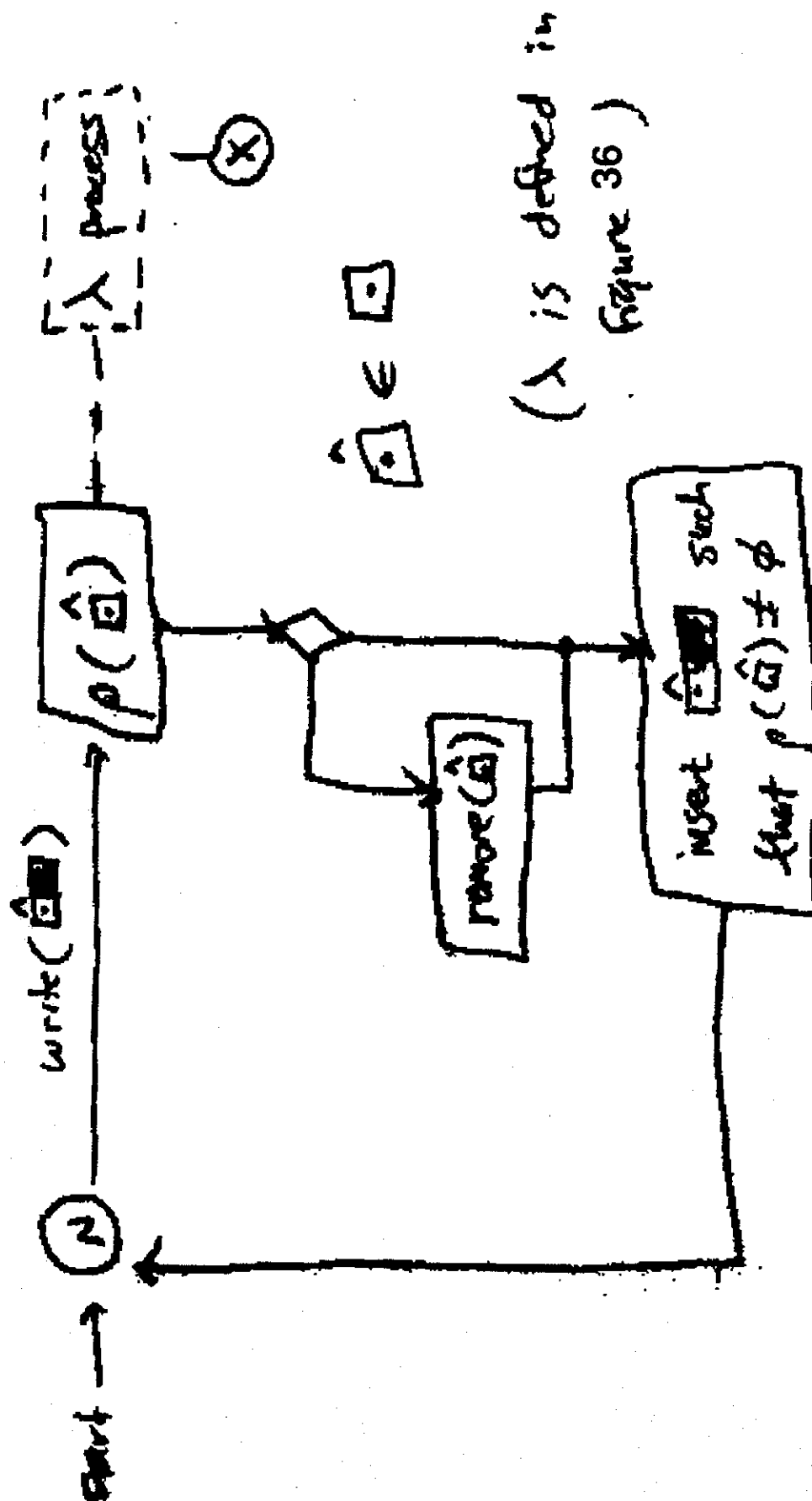


Fig. 33

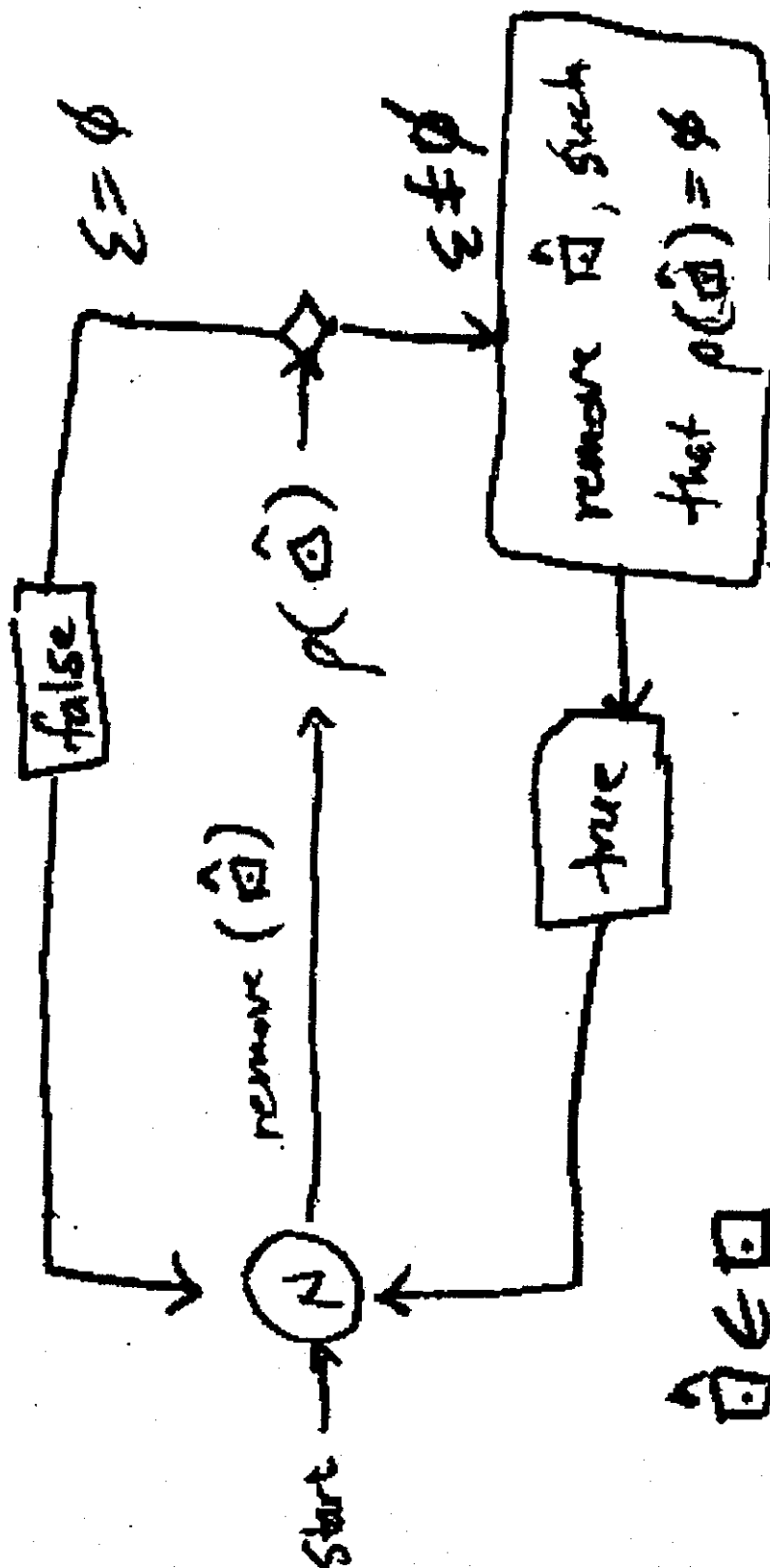
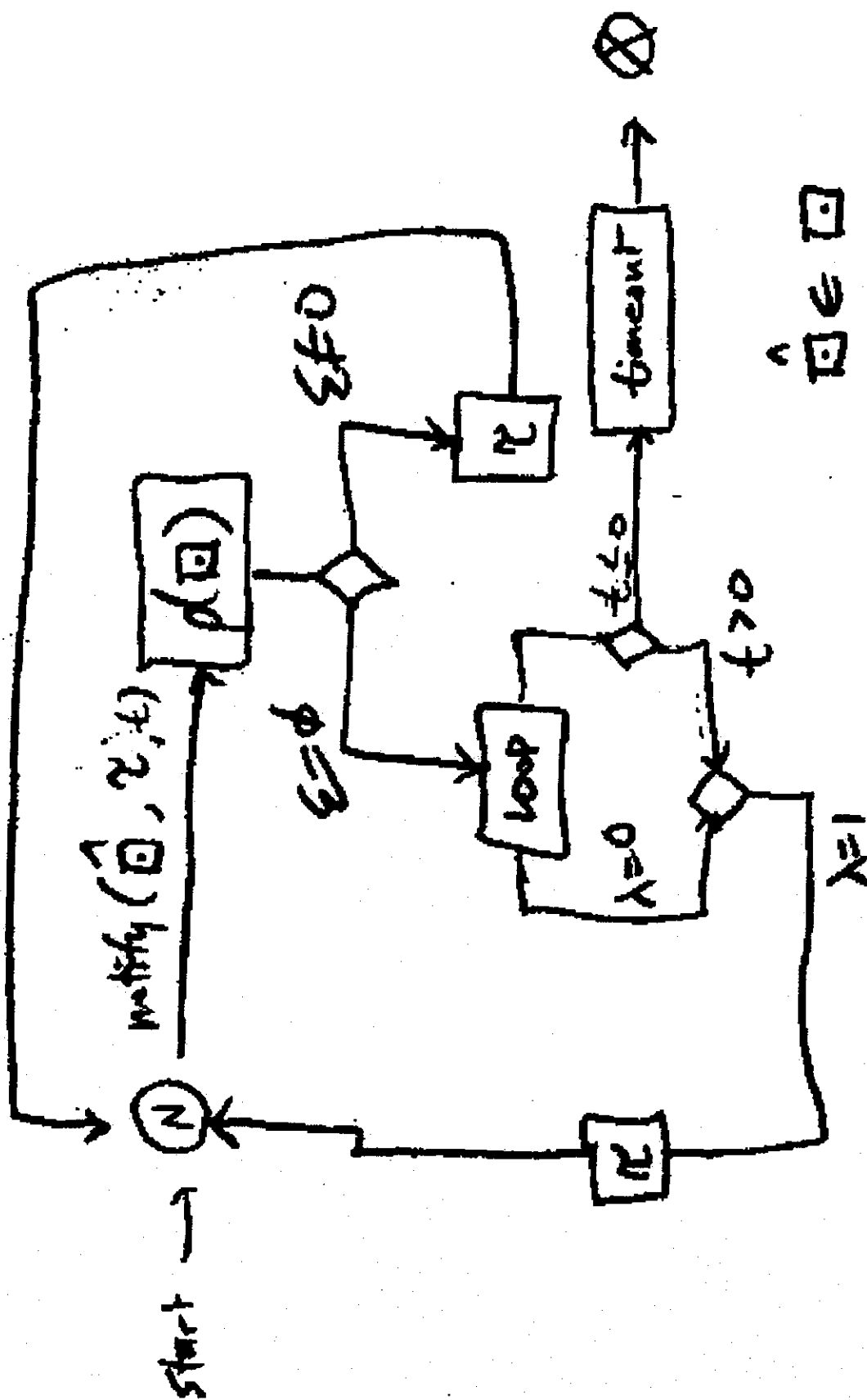


Fig. 34



— (lowercase tau) _ setting notify trigger

Fig. 35

(λ is defined in figure 36)

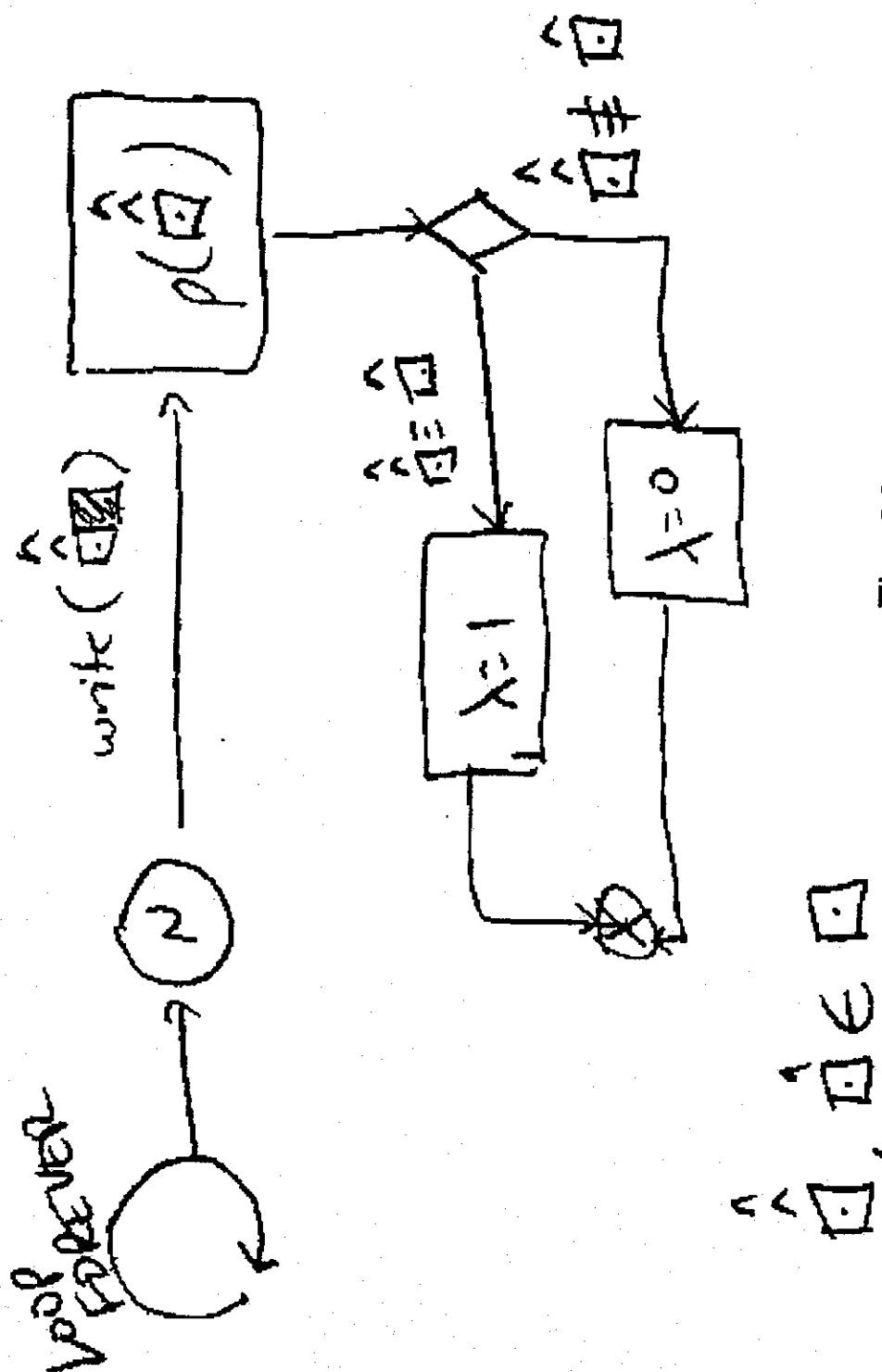


Fig. 36

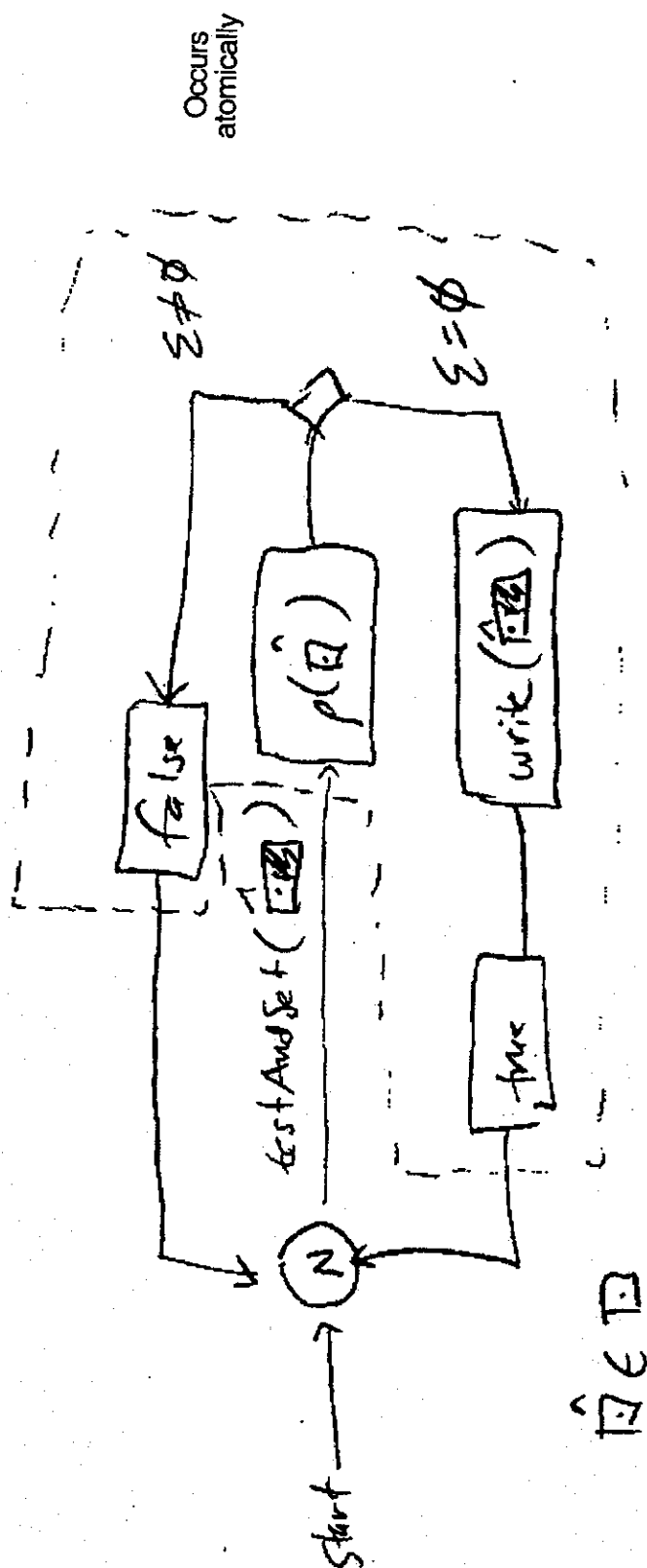
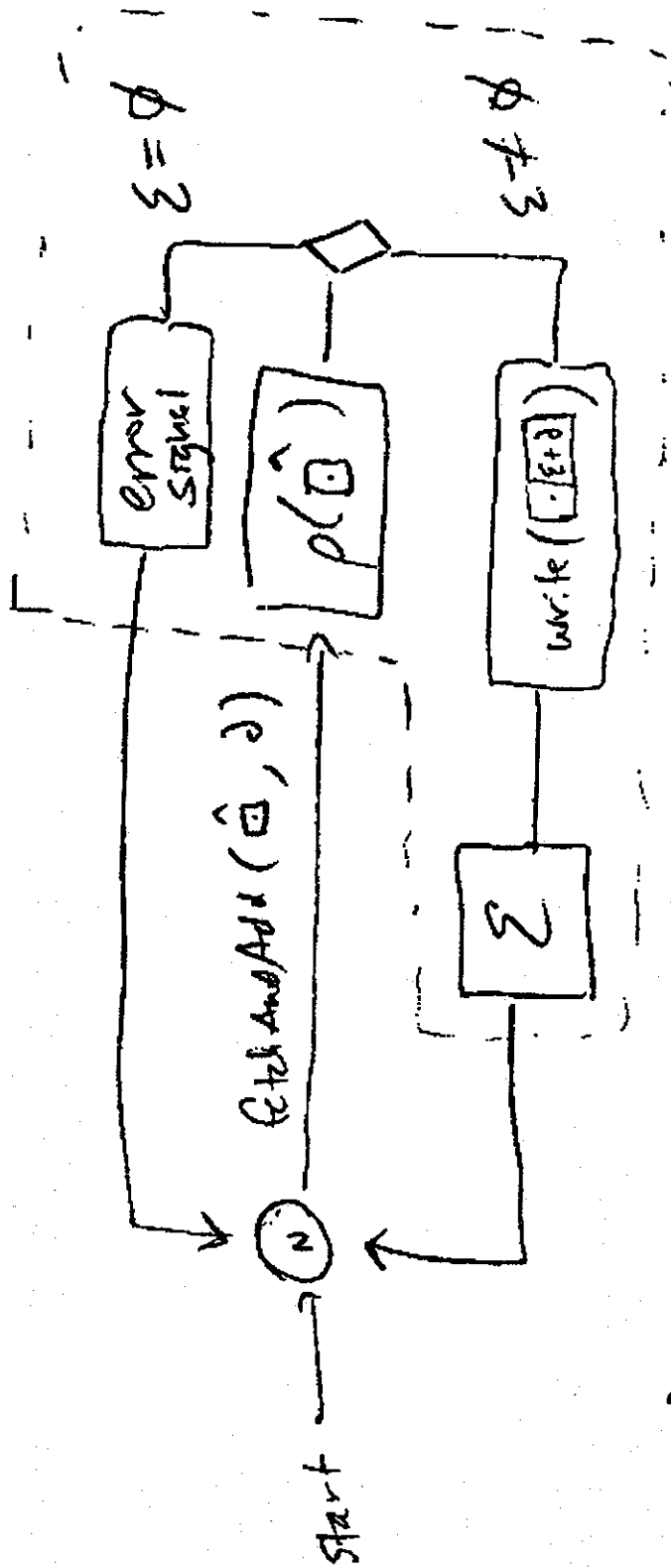


Fig. 37

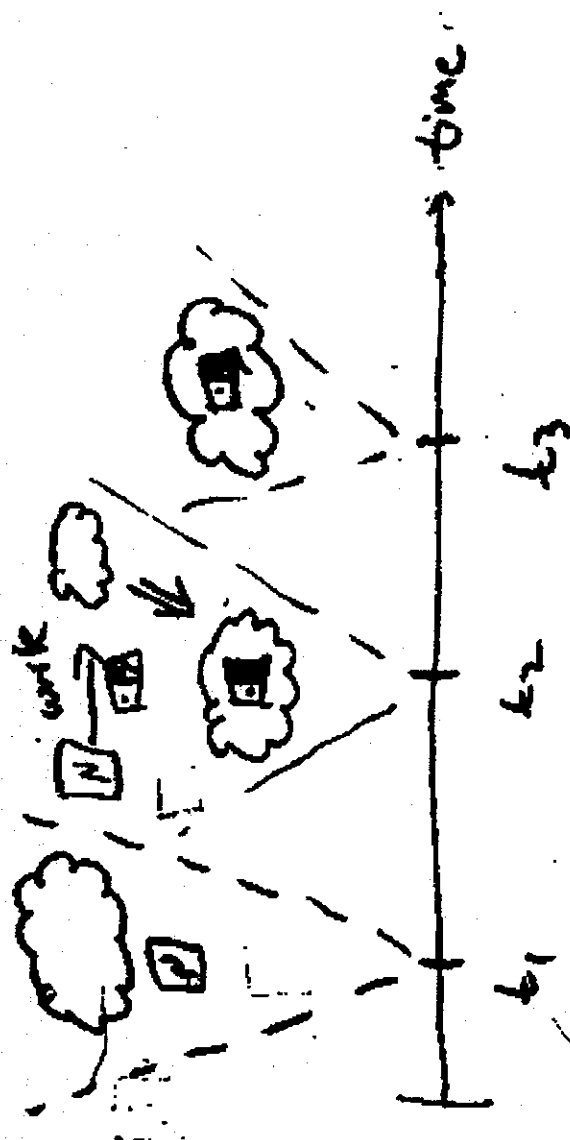
Occurs atomically



$\hat{Q} \in \mathbb{Q}; d \in \mathbb{Z}, d \neq 0$

$z \in \mathbb{Z}$

Fig. 38



at $t_1 \equiv \textcircled{N}$ participating in pairspace
 at $t_2 \equiv \textcircled{N}$ write($\textcircled{P}$) into space
 at $t_3 \equiv \textcircled{N}$ leaves space, $\textcircled{P}$ remains accessible

Fig. 39

There does not exist time t such that

$p(\vec{a}) \rightarrow \phi \Leftrightarrow \boxed{\cdot}$ exists
in the pairspace

(the verbal description describes both directions of the
if-and-only-if statement)

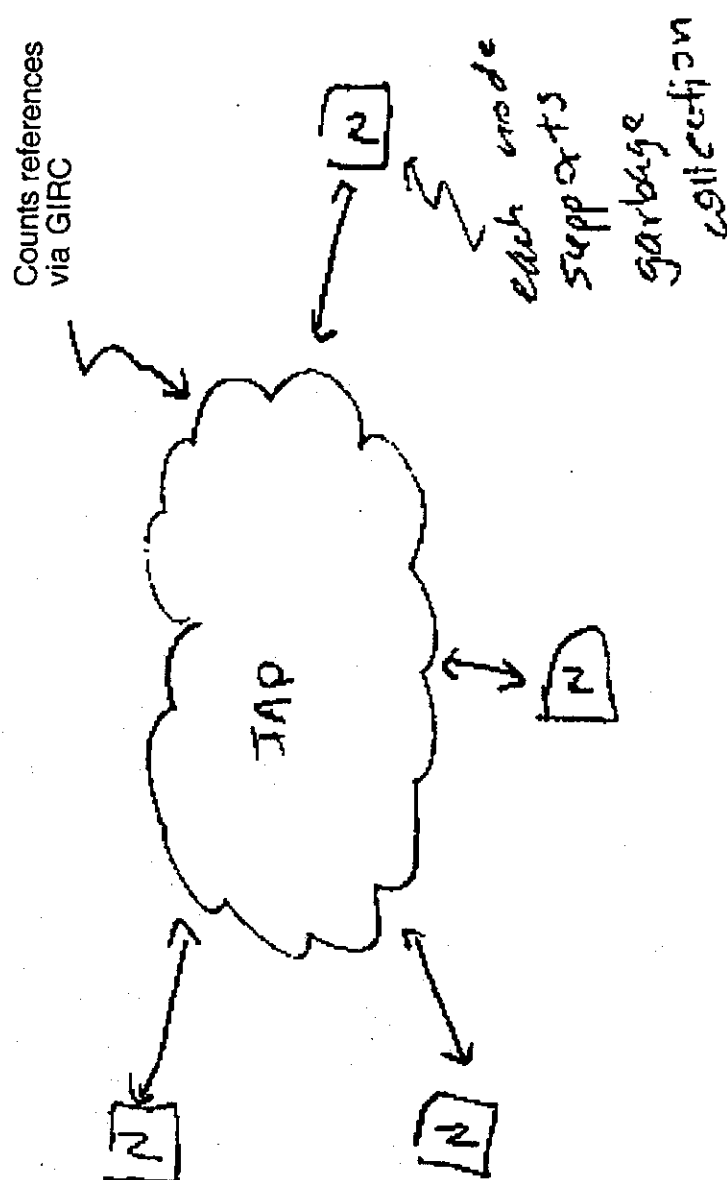
Fig. 40

$$\begin{array}{l} \text{persistent} \\ \rho(\ell) = \alpha, \quad \alpha \neq \emptyset \\ \text{pairspace is closed} \\ \rho(\ell) = \alpha \end{array} \quad \begin{array}{l} \text{time } t \\ t_{\text{inc}}(t+1) \\ t_{\text{inc}}(t+2) \end{array}$$

$$\begin{array}{l} \text{temporal} \\ \rho(\ell) \neq \emptyset, \text{ where } \ell = \{\hat{\Omega}_1, \hat{\Omega}_2, \dots, \hat{\Omega}_n\} \\ \text{pairspace is closed} \\ \rho(\ell) = \emptyset \end{array}$$

$$\begin{array}{l} \text{time } t \\ t_{\text{inc}}(t+1) \\ t_{\text{inc}}(t+2) \end{array}$$

Fig. 41

Fig. 42

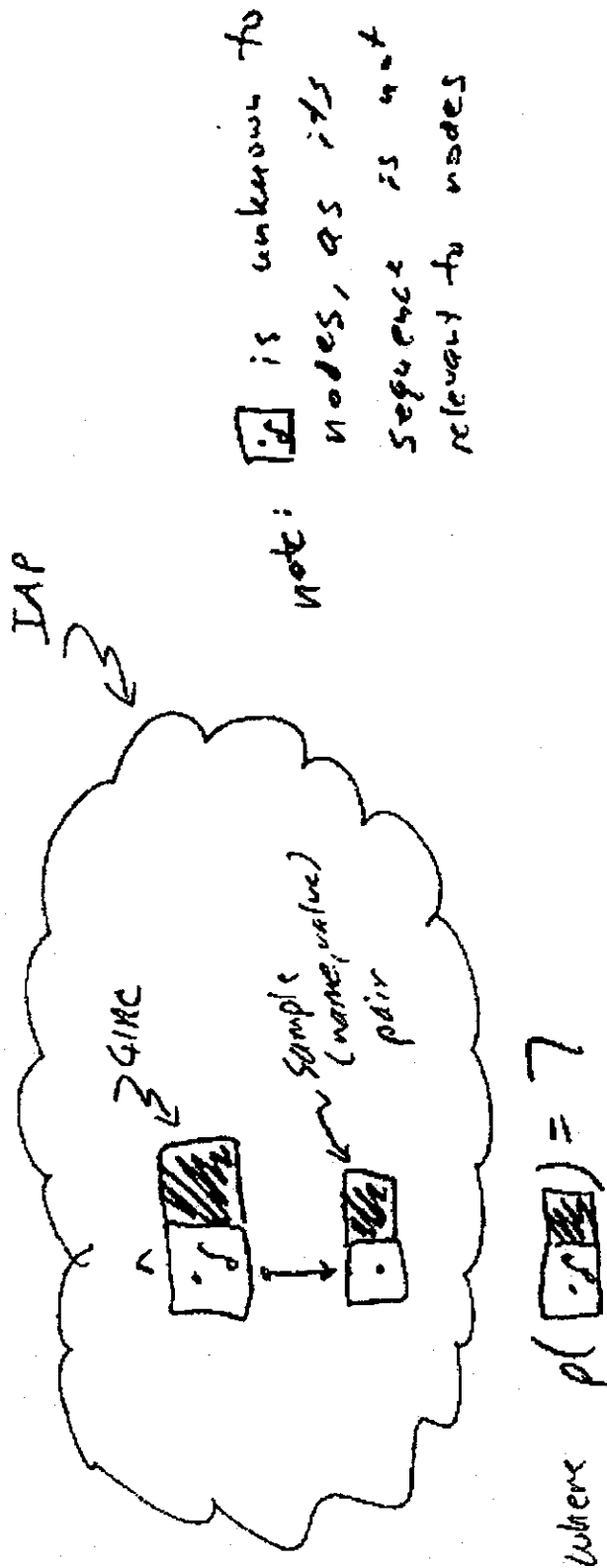
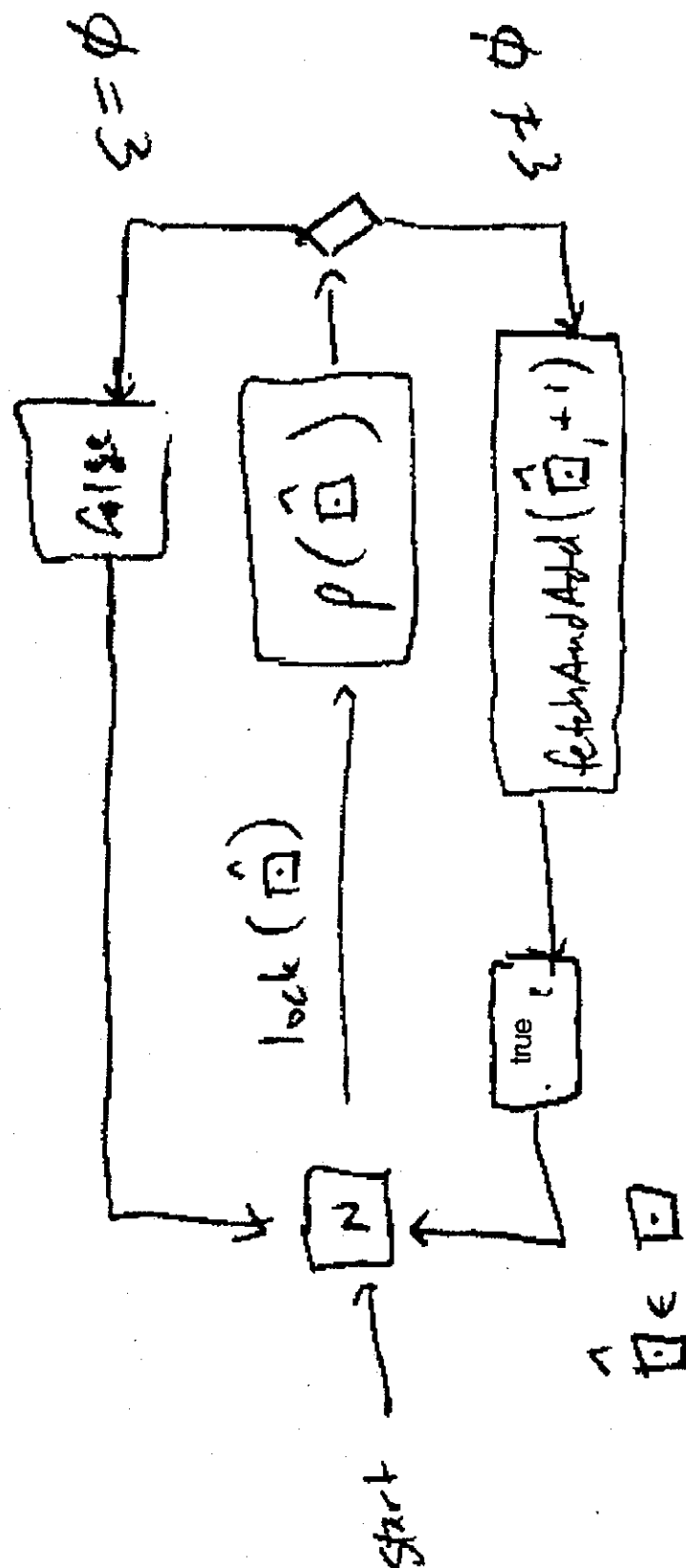
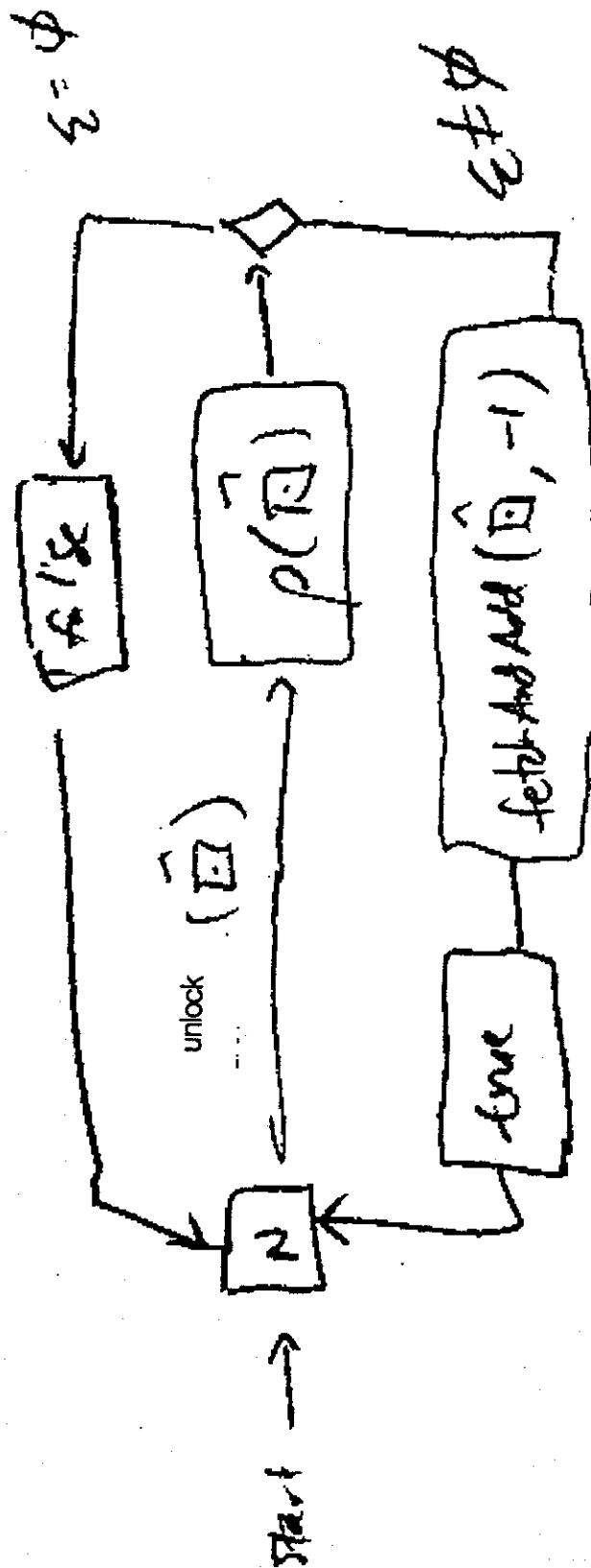


Fig. 43

Fig. 44

Fig. 45

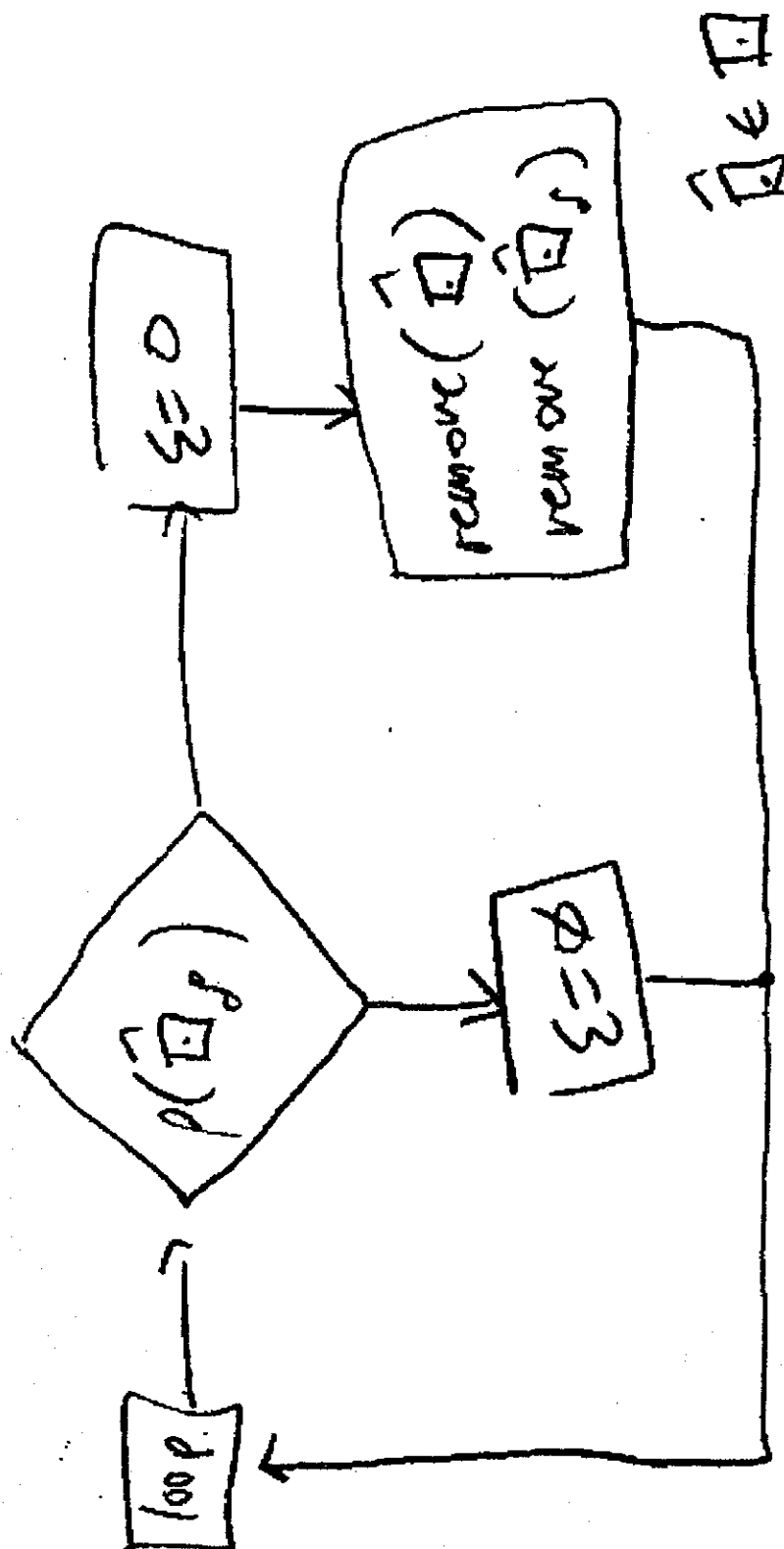
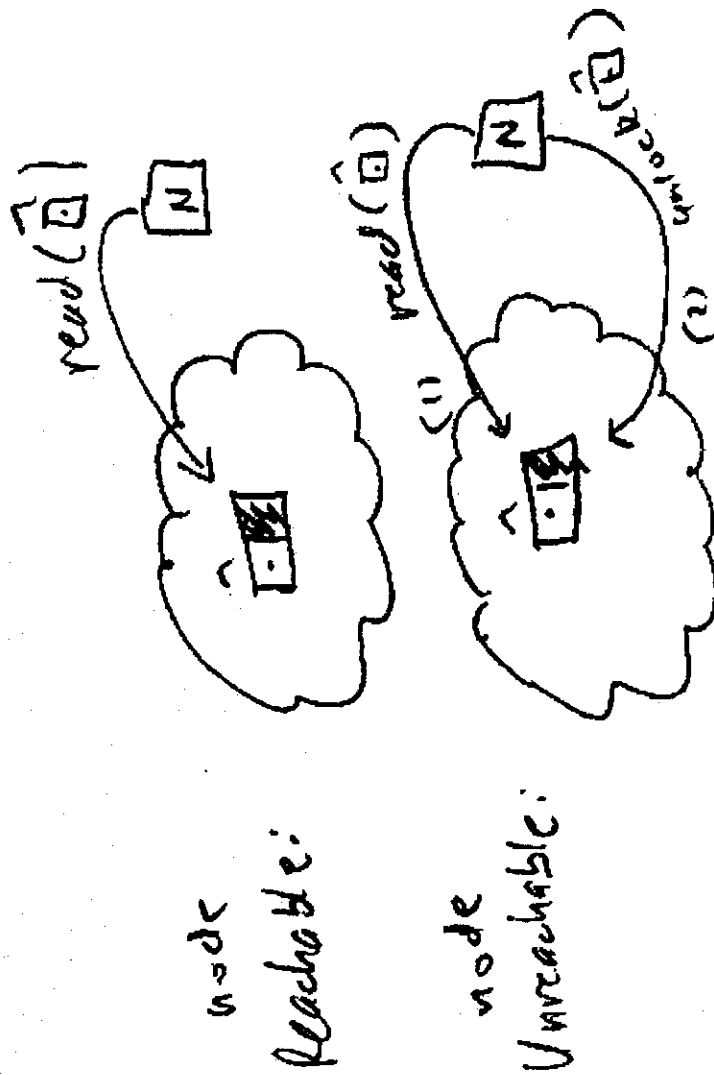


Fig. 46



thus, $\hat{E}$ becomes unreachable iff N is the last node to be node unreachable for $\hat{E}$.

Fig. 47

$\text{AFD} \equiv \underbrace{\boxed{\text{value}}}_{\text{name}} \text{ where } \boxed{\text{value}} = f_N, \text{ and } f_N \text{ is some programmer function}$

e.g. $f_N(x) = x+1$: increment AFD
 $f_N(x,y) = x+y$: addition AFD

Fig. 48

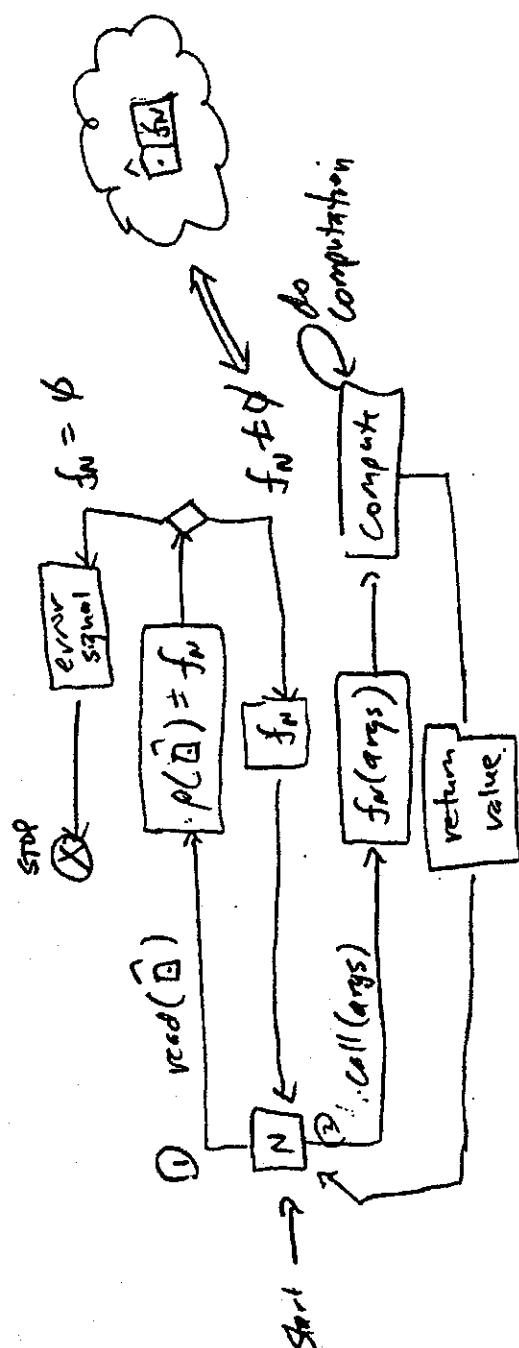


Fig. 49

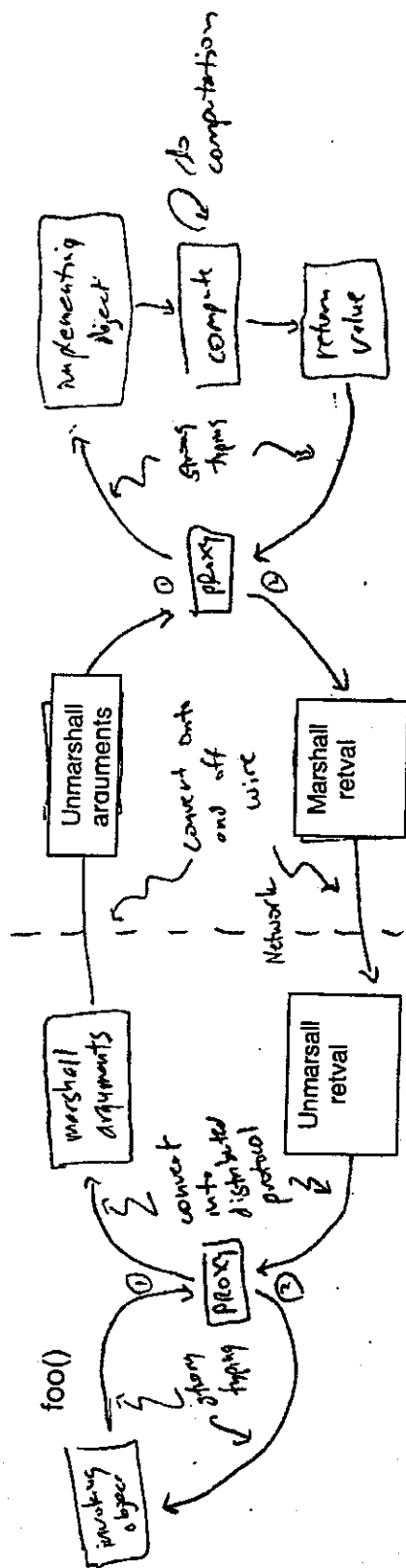
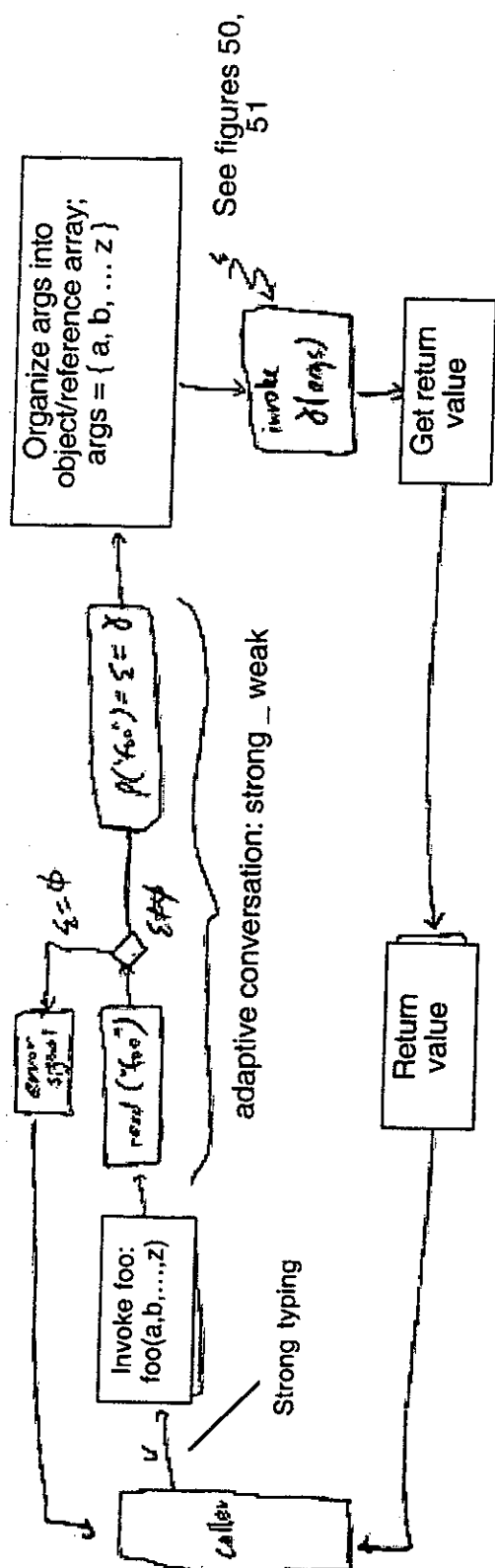
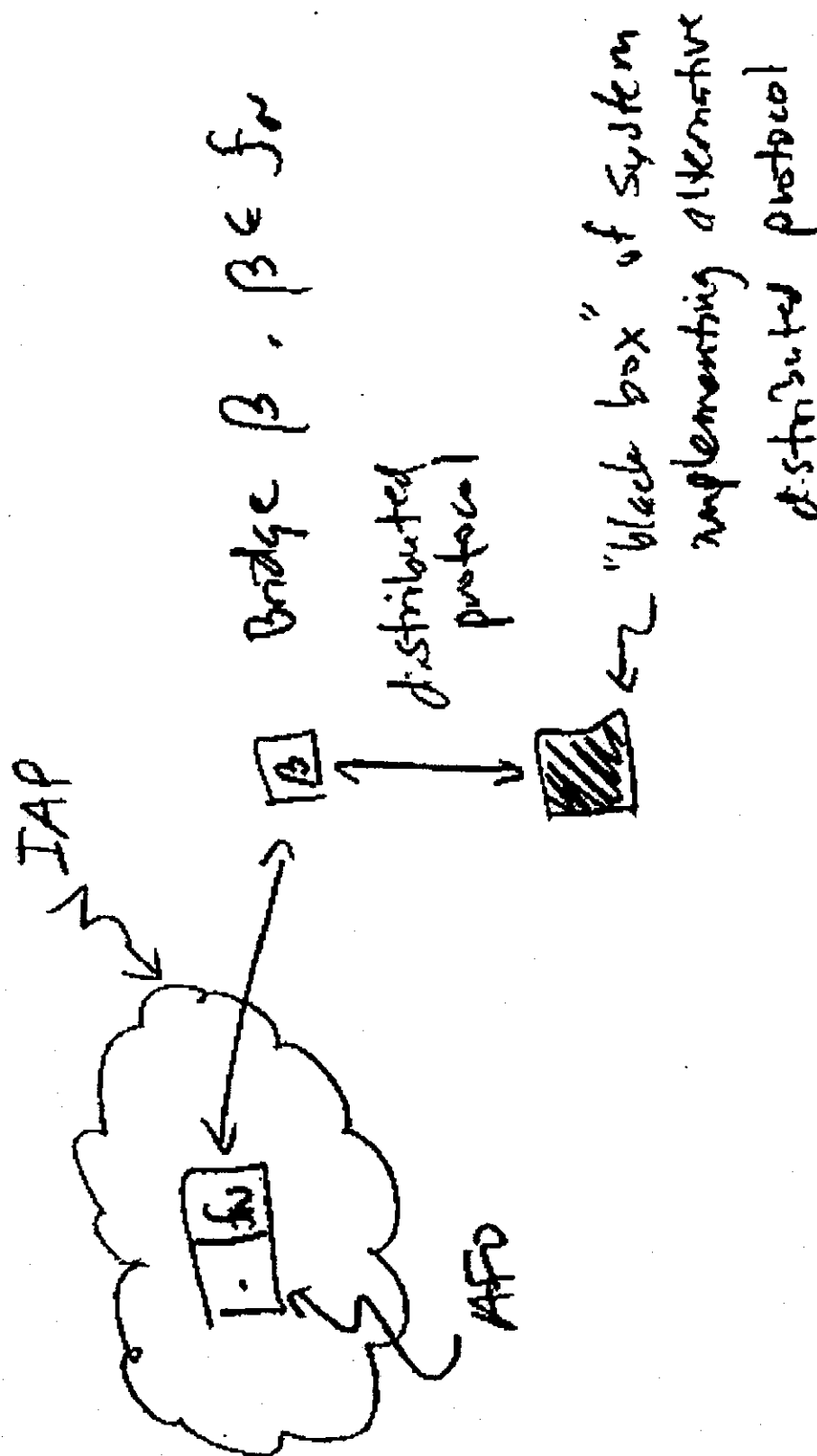


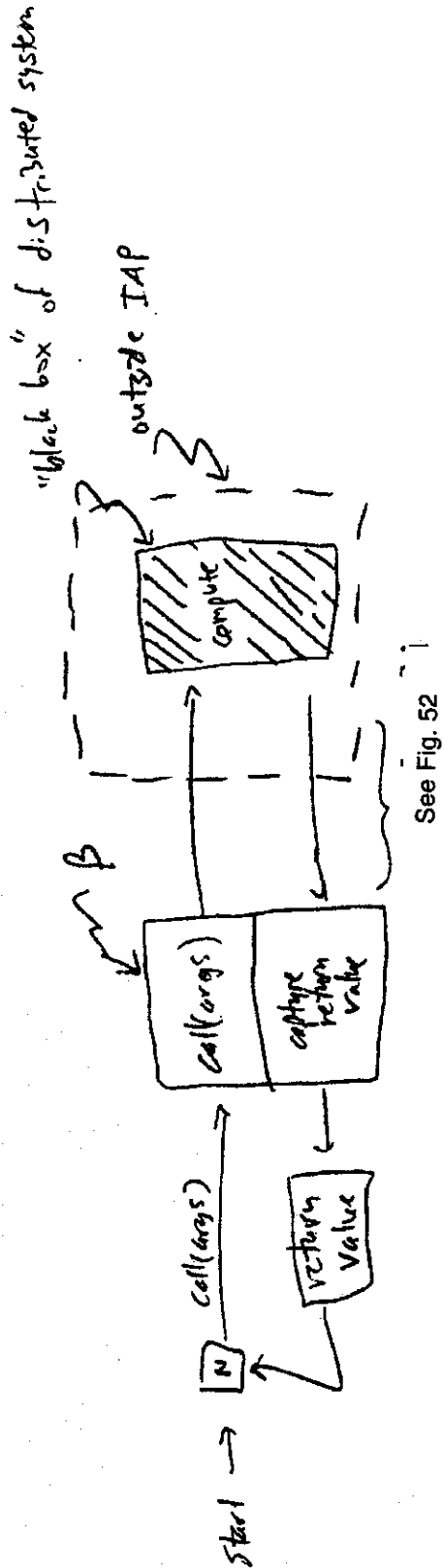
Fig. 50

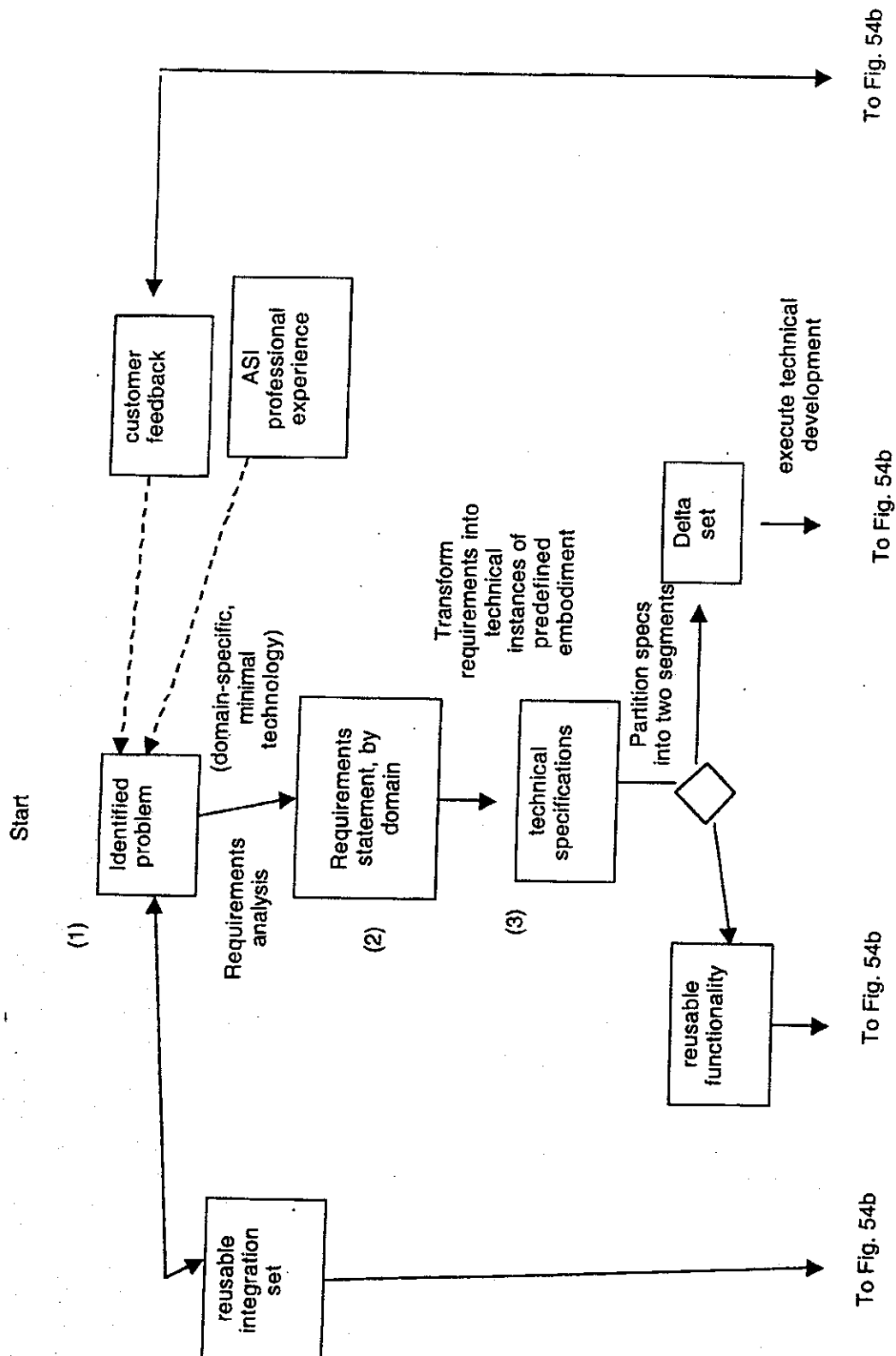
Prior

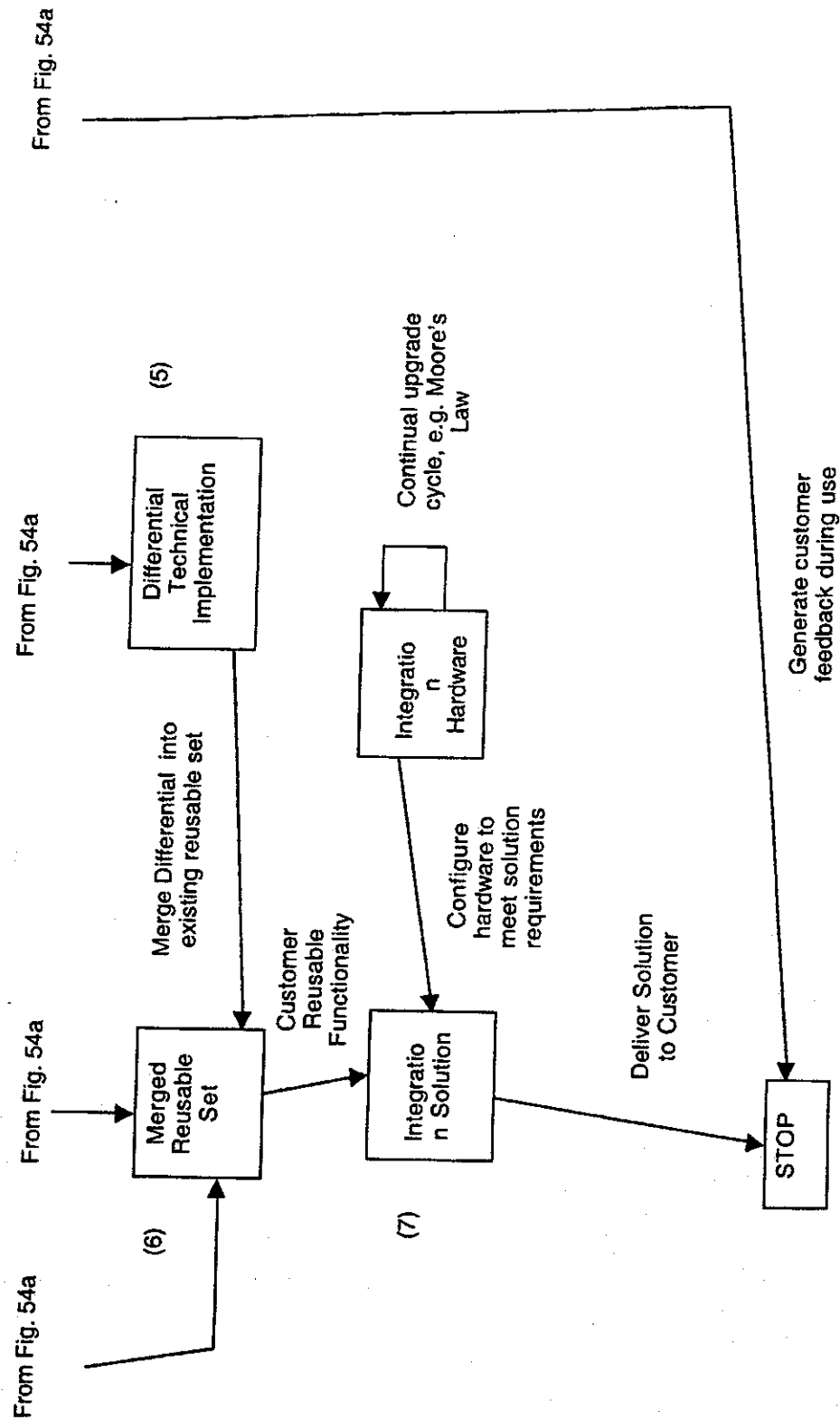
Art

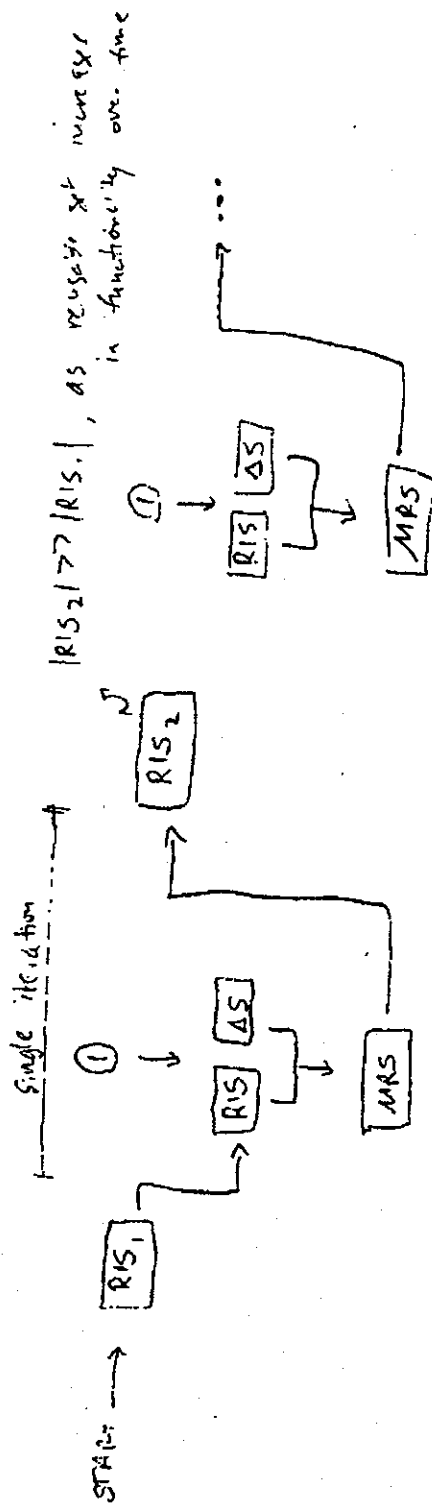
Fig. 51

Fig. 52

Fig. 53

Fig. 54a

Fig. 54b



where: RIS = reusable integration set, per iteration
 AS = delta set, per iteration
 MRS = merged reusable set (MRS = RIS ∪ AS, per iteration)
 ① = start or first step of AS procedure iteration

Fig. 55

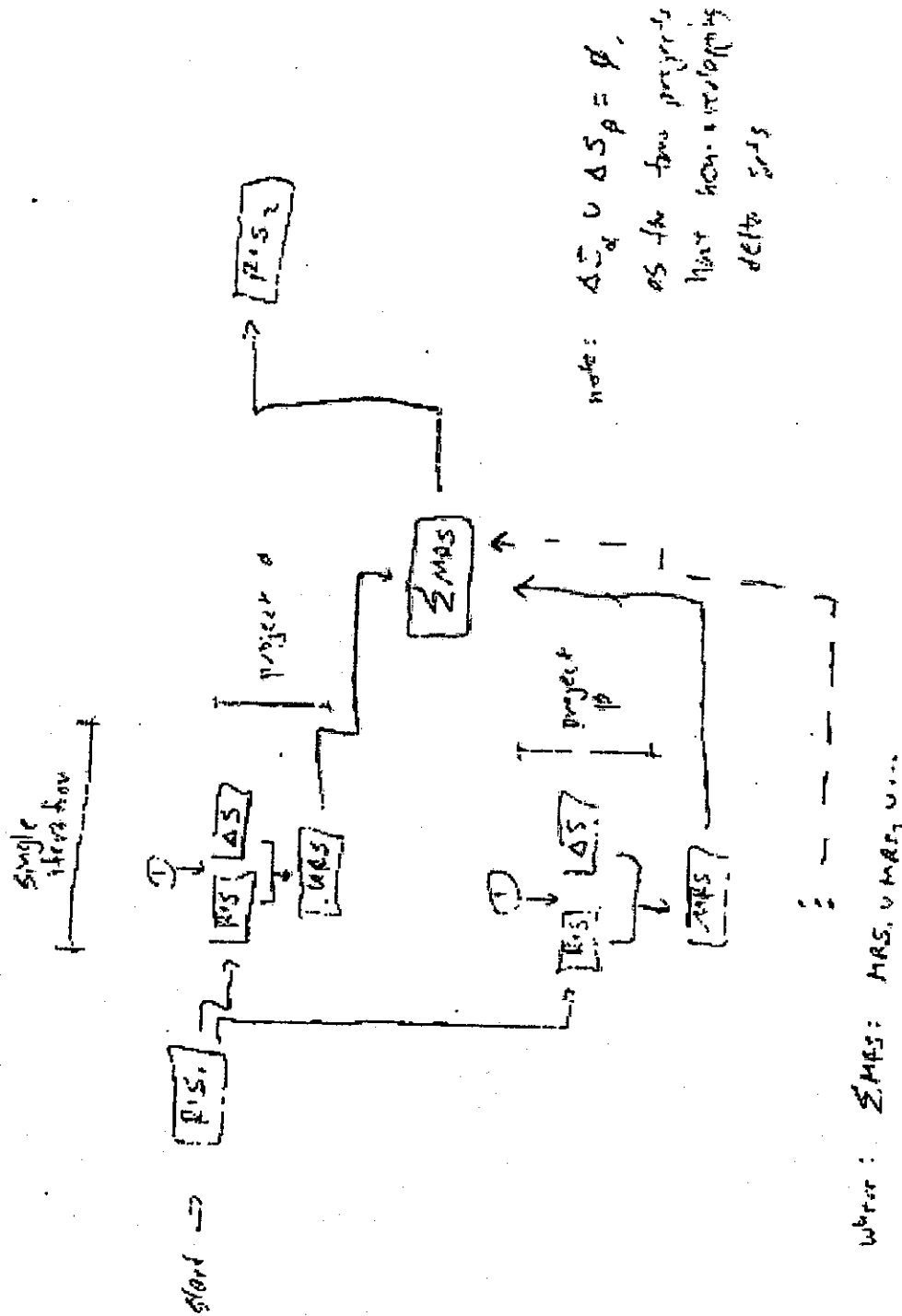


Fig. 56

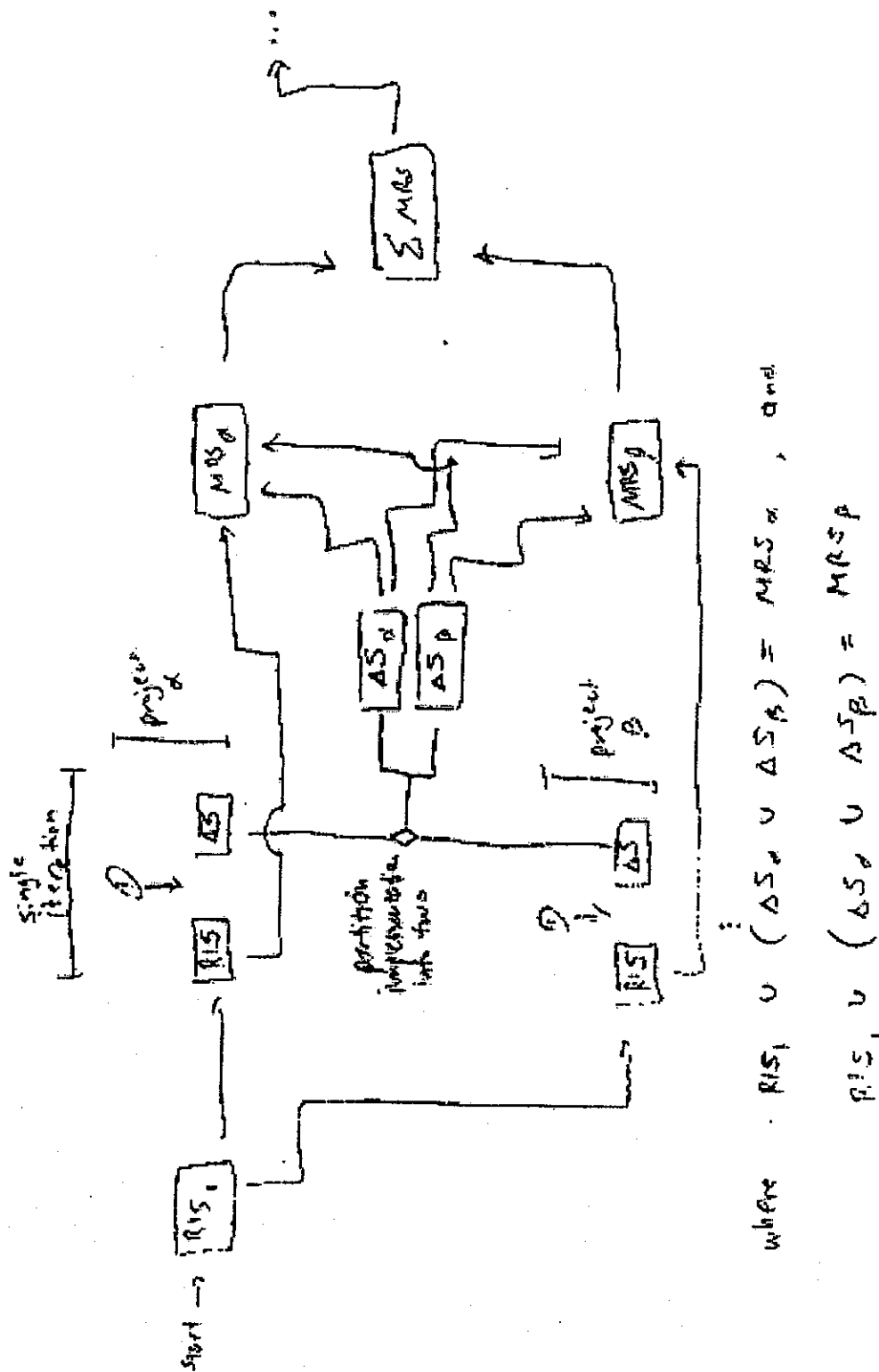
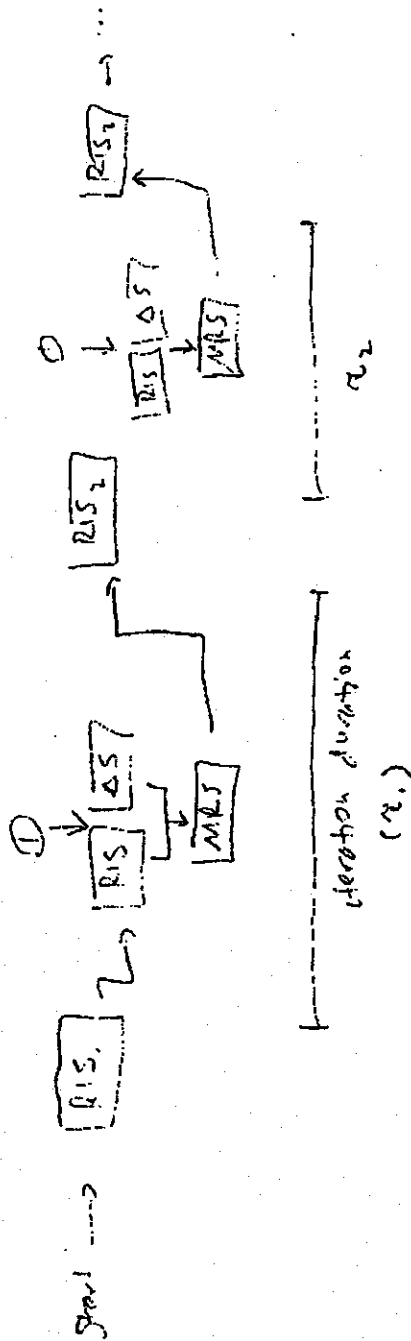


Fig. 57



time effect is iterations: $\eta_{i,t+1} < \eta_{i,t}$, for all $i > 0$, meaning that the time on two sequential projects will decrease exponentially - as $|R_{i+2}| \gg |R_{i+1}|$ increases productivity of each subsequent iteration.

Fig. 58

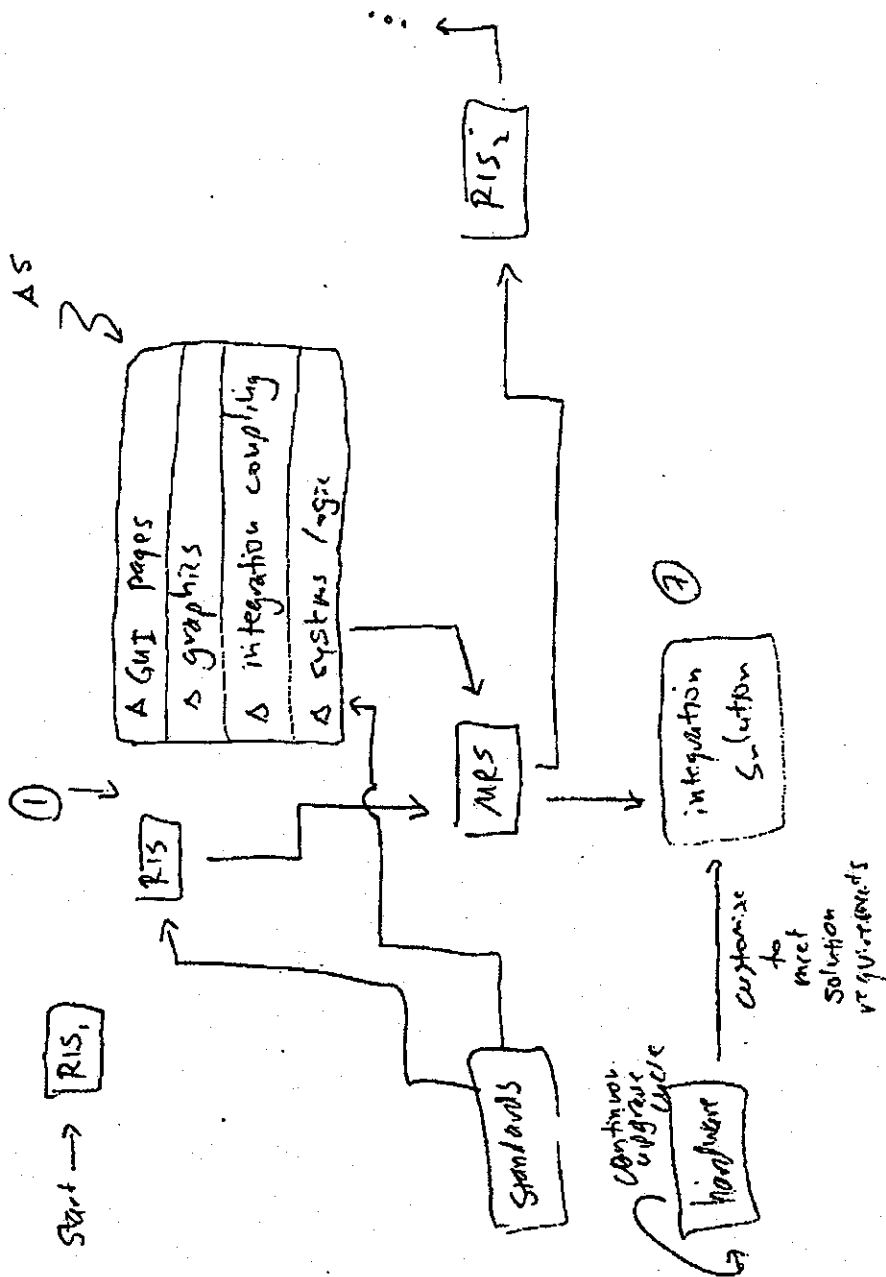
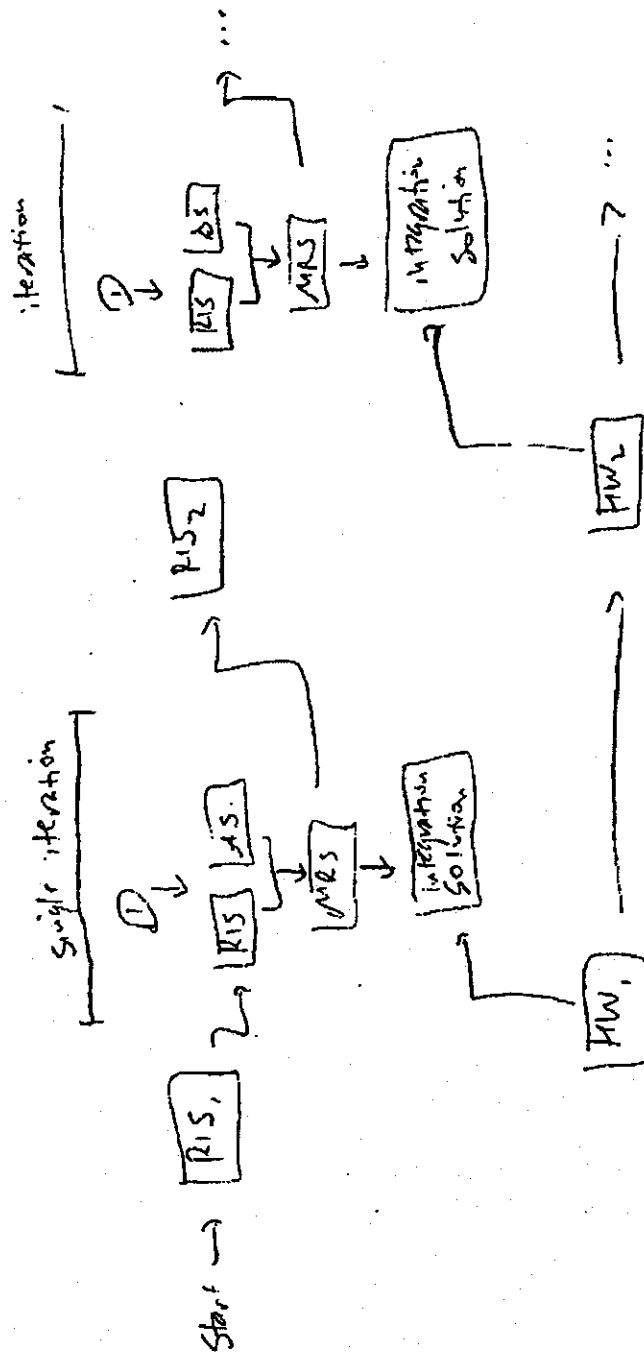


Fig. 59



Where: HW2 is related to HW1 via the governing rule of Moore's Law (performance doubling every 18 months)

Fig. 60