

CLIPS-04

CLIPS Functions

By Gwo-Jen Hwang

- **Flow of Control Functions**

(defrule continue-check

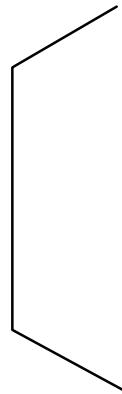
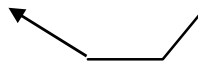
 ?phase <- (phase check-continue)

=>

 (retract ?phase)

 (printout t "continue?")

 (bind ?answer (read))



 (If (or (eq ?answer Y)

 (eq ?answer yes)

)

 then (assert (phase continue))

 else (assert (phase halt))

)

)

- “while” function

(defrule continue-check

 ?phase <- (phase check-continue)

=>

(retract ?phase)

(printout t “Continue ?”)

(bind ?answer (read))

(**while** (and (neq ?answer yes)
 (neq ?answer no))

Do

 (printout t “continue ?”)

 (bind ?answer (read))

)

(If (eq ?answer yes)

 then (assert (phase continue))

 else (assert (phase halt))

)

)

call **halt** function

- “Halt” function

(defrule halt-the-system

 ?phase <- (phase halt)

=>

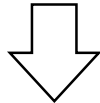
(retract ?phase)

(halt)

)



halt execution



**If there are rules left in AGENDA,
the user can use**

(run)

to continue the execution

- File I/O functions and logical names

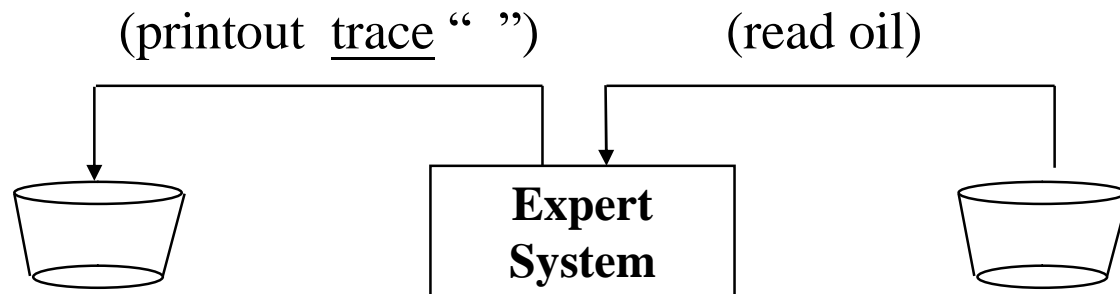
```

(defrule open-files
  =>
  (open "oil.dat" oil "r")
  (open "trace.txt" trace "w")
  (assert (phase read-oil-pressure))
)

```

Diagram illustrating the mapping of file names to logical names in the CLIPS rule:

- input file name* points to the string literals "oil.dat" and "trace.txt".
- output file name* points to the logical names oil and trace.
- logical name* points to the logical names oil and trace.



```
(defrule read-data
  ?phase <- (phase read-oil-pressure)
=>
  (retract ?phase)
  (bind ?value (read oil))
  (if (eq ?value EOF)
    then (assert (phase close-files))
    else (assert (oil-value ?value)))
  )
)
```

```
(defrule close-files
  ?phase <- (phase close-files)
=>
  (retract ?phase)
  (close oil)
  (close trace)
)
```

```
(defrule good-oil-value
```

```
  ?data <- (oil-value ?pressure&:(>= ?pressure 60))
```

```
=>
```

```
(retract ?data)
```

```
(printout t "Oil pressure" ?pressure "is good!" crlf)
```

```
(printout trace ?pressure "good" crlf)
```

```
(assert (phase read-oil-pressure))
```

```
)
```

*send messages to
terminal*

*save to file
TRACE.TXT*