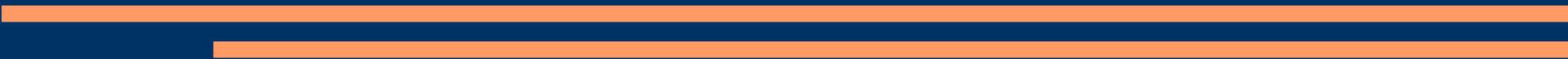


Clips ES Development

Jonathan Hurst



What is CLIPS?

- C Language Integrated Production System
 - CLIPS is a productive development and delivery expert system tool
 - Provides a complete environment for the construction of rule and/or object based expert systems
 - Created in 1985
 - Now widely used in government, industry, and academia
 - DYNACLIPS - a set of blackboard, dynamicknowledge exchange, and agent tools for CLIPS
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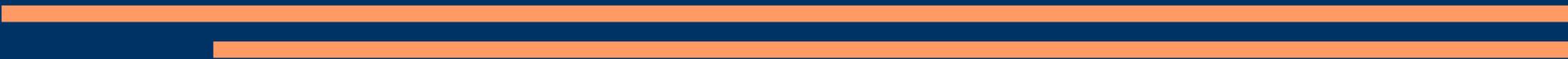
Where did CLIPS come from?

- Dates back to 1984 at NASA's Johnson Space Center
 - In part failed due to the extensive use of LISP at the time
 - Prototype actually developed in just a little over 2 months
 - Went under development after finally proving itself to NASA
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Features

- Knowledge Representation
 - Portability
 - Integration/Extensibility
 - Interactive Development
 - Verification/Validation
 - Fully Documented
 - And obviously free
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Flavors

- AdaCLIPS
 - FuzzyCLIPS
 - PerlCLIPS
 - Python/CLIPS integration
 - CLIPS Object Oriented Language (COOL)
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Code Example

```
CLIPS> (assert (light green)) ;this is how to create a fact
CLIPS> (defrule go ; this is how to create a rule
(light green) ; if light is green
=> ; then
(printout t "go" crlf)) ; print "go"
CLIPS> (defrule stop
(light red)
=>
(printout t "stop" crlf))
CLIPS> (defrule red
(light red)
=>
(retract *) ; retract all facts
(assert (light green))) ; and assert the (light green) fact
CLIPS> (defrule green
(light green)
=>
(retract *)
(assert (light red)))
(run)
CLIPS> stop
Go
Stop
Go
Stop
)
)
```

CLIPS vs JESS

- More stable
 - Performs better on “classic” applications
 - CLIPS generally gets new advancements incorporated first
 - Been around longer, hence larger following of programmers
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