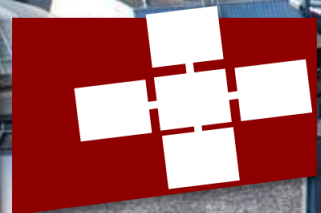


Alexandru Calotoiu

DaFIEx



F2DaCe – DaCe integration

- CI / CD
- Test suites
- PR preparation in progress
- Fparser handling improvements for readability

```

    1: Type_Declaration Stmt(Intrinsic_Type_Spec('INTEGER', None), None, En
    > special variables
    > function variables
    children: (Intrinsic_Type_Spec(...ER', None), None, Entity_Decl_List('
    > special variables
    > function variables
    > 0: Intrinsic_Type_Spec('INTEGER', None)
        1: None
    > 2: Entity_Decl_List(',', (Entity_Decl(Name('a'), None, None, None), E

```

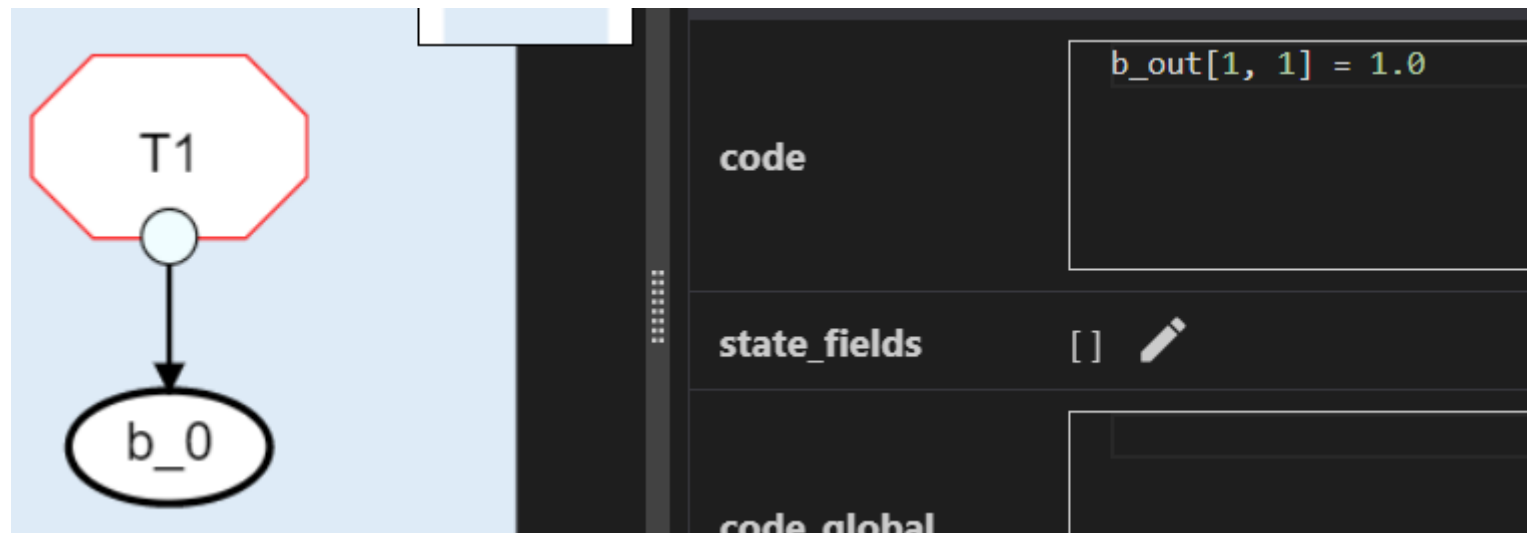
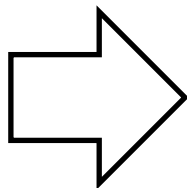
Python tasklets

- Better integration
- Analysis of tasklet content possible!

```
PROGRAM CLOUDPROGRAM
implicit none
!INTEGER, PARAMETER :: JPRB
!REAL(KIND=JPRB) :: RPI
!INTEGER, PARAMETER :: b(3)
INTEGER a
REAL :: b(4,6)

b(1,1) = 1.0
!a=7
!call CLOUDSC2(a)

end
```



Operation order

Data Type	Rank
BYTE or LOGICAL*1	1 (Weakest)
LOGICAL*2	2
LOGICAL*4	3
INTEGER*2	4
INTEGER*4	5
INTEGER*8	6
LOGICAL*8	6
REAL*4 (REAL)	6
REAL*8 (DOUBLE PRECISION)	7
REAL*16 (QUAD PRECISION) (SPARC only)	8
COMPLEX*8 (COMPLEX)	9
COMPLEX*16 (DOUBLE COMPLEX)	10
COMPLEX*32 (QUAD COMPLEX) (SPARC only)	11 (Strongest)

From: <https://docs.oracle.com/cd/E19957-01/805-4939/z400073a2265/index.html>

Function contexts

- Containers
- Container subsets
- Symbols
- Literals
- Expressions!
- ... so more work is needed!

Python memlets

