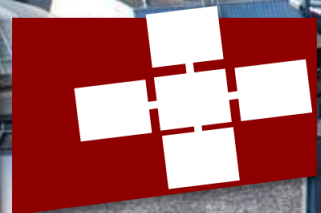
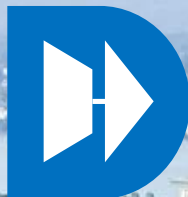


Alexandru Calotoiu

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

```

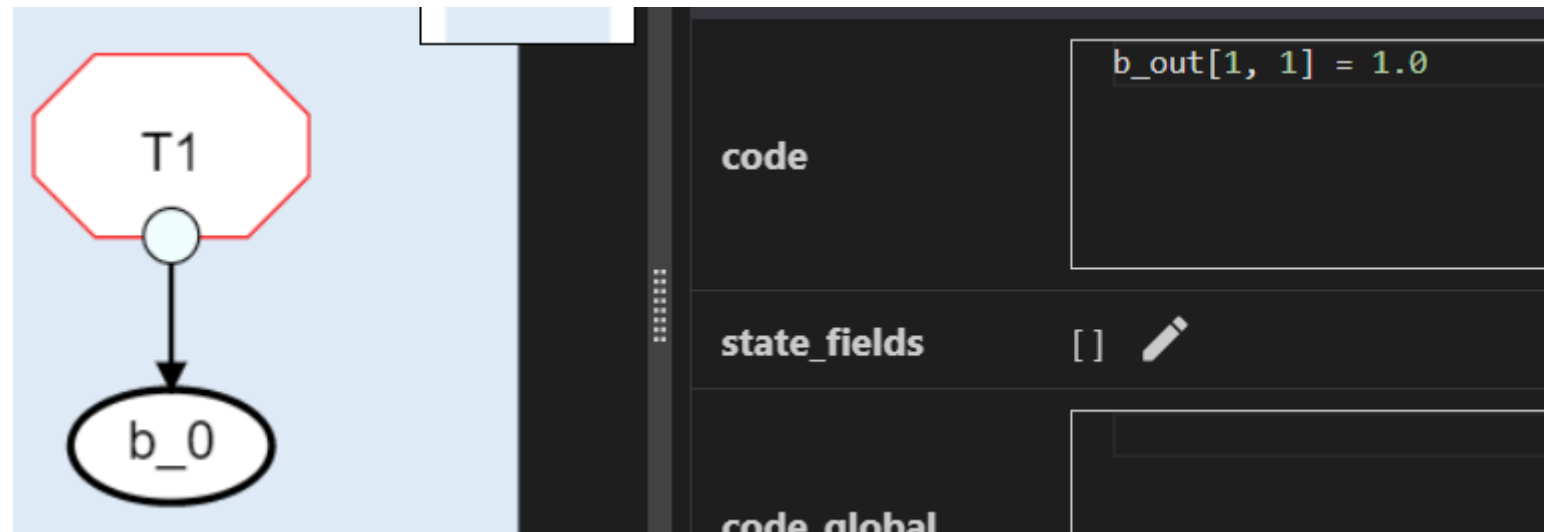
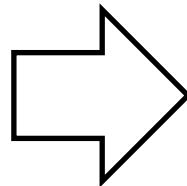
Python tasklets

- Better integration
- Analysis of tasklet content possible!

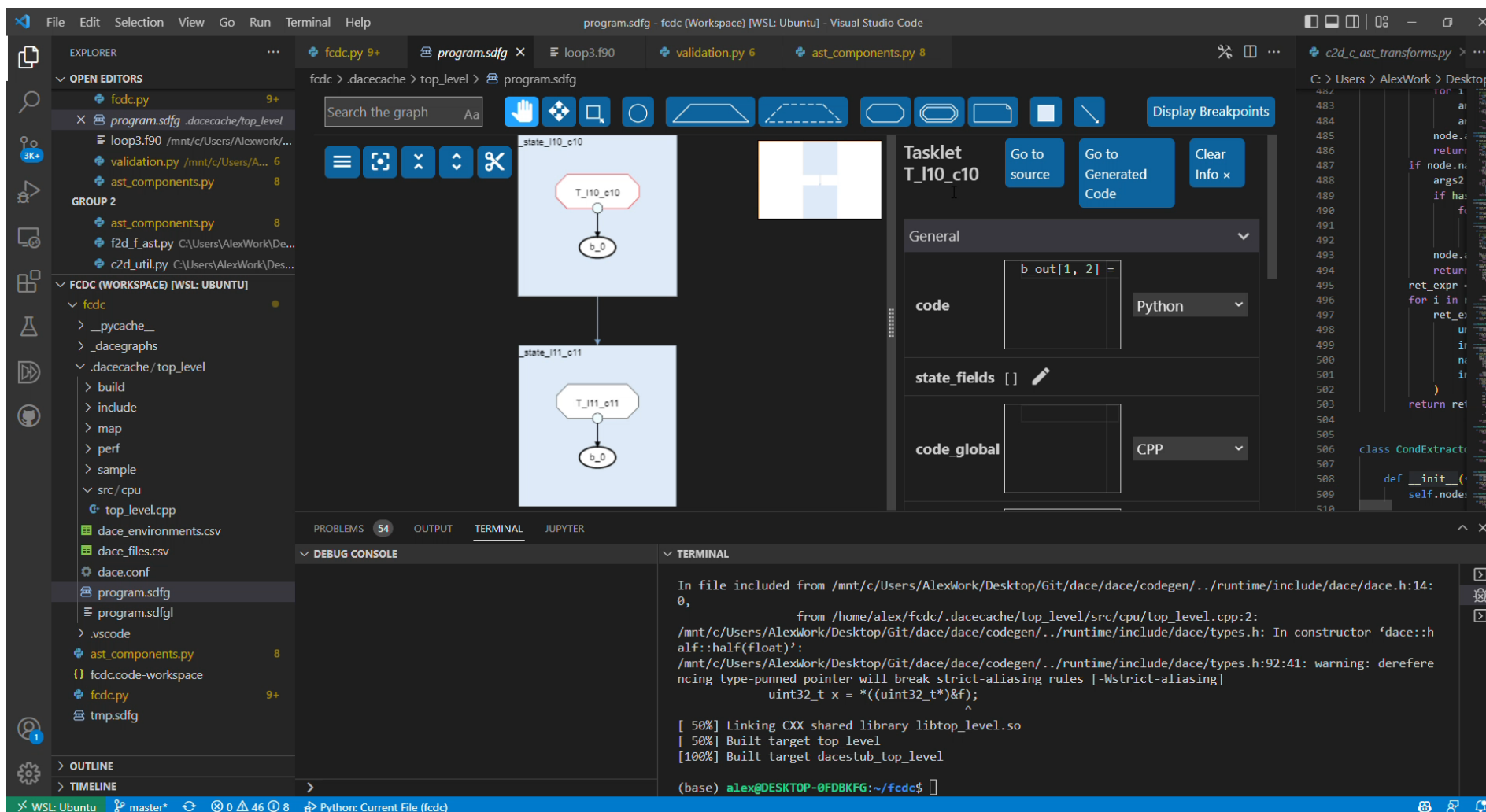
```
PROGRAM CLOUDPROGRAM
implicit none
!INTEGER, PARAMETER :: JPRB
!REAL(KIND=JPRB) :: RPI
!INTEGER, PARAMETER :: b(3)
INTEGER a
REAL :: b(4,6)

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

end
```



Debug information



The screenshot shows the Visual Studio Code interface with a DACE workspace. The Explorer panel on the left shows the file structure, including the `program.sdfg` file. The main editor displays a tasklet graph for `tasklet T_I10_c10`, which is connected to a state `_state_i10_c10` and a block `b_0`. The right sidebar shows the 'Tasklet' details for `T_I10_c10`, including the 'code' field with a Python snippet: `b_out[1, 2] =`. The bottom panel shows the 'TERMINAL' window with the following output:

```
In file included from /mnt/c/Users/AlexWork/Desktop/Git/dace/dace/codegen/./runtime/include/dace/dace.h:14:
0,
    from /home/alex/fcdc/.dacecache/top_level/src/cpu/top_level.cpp:2:
/mnt/c/Users/AlexWork/Desktop/Git/dace/dace/codegen/./runtime/include/dace/types.h: In constructor 'dace::h
alf:half(float)':
/mnt/c/Users/AlexWork/Desktop/Git/dace/dace/codegen/./runtime/include/dace/types.h:92:41: warning: dereferen
cing type-punned pointer will break strict-aliasing rules [-Wstrict-aliasing]
    uint32_t x = *((uint32_t*)&f);
                    ^
[ 50%] Linking CXX shared library libtop_level.so
[ 50%] Built target top_level
[100%] Built target dacestub_top_level

(base) alex@DESKTOP-0FDBKFG:~/fcdc$
```