

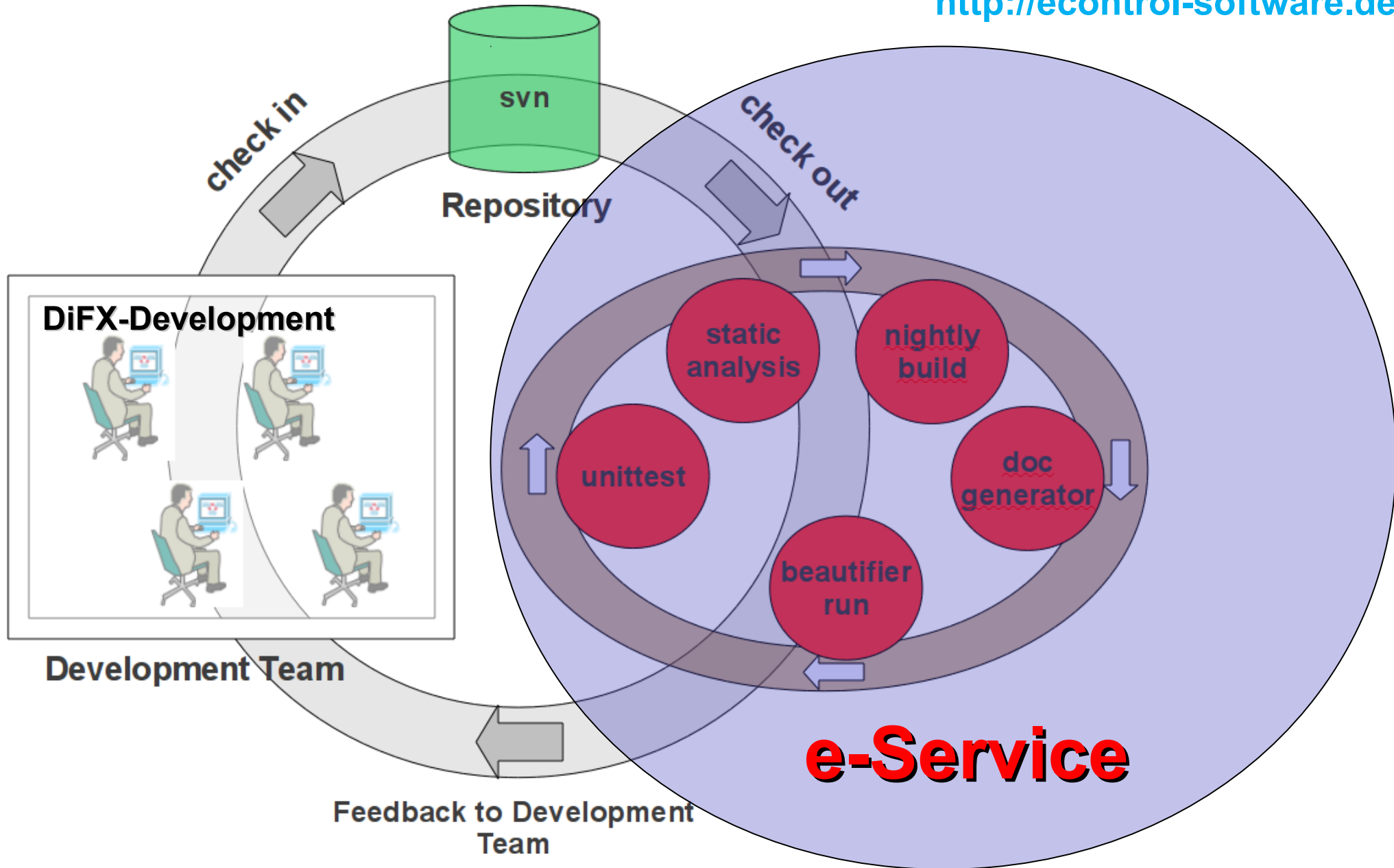
# e-Service for DiFX correlator software



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**e-Service  
for  
continuous integration during software development**





## e-service: continuous integration

- Check sourcecode against possible programming mistakes, such as:
  - memory leaks
  - resource leaks
  - buffer access out of bounds
  - ...
- Provide usefull information about the svn-repository
  - file statistics
  - commit logs
  - ...

All checks based on open source tools

## e-service: open source tools

### From open source tools:

- Static program analysis based on [cppcheck](#)
- Spell check of program and text files based on [codespell](#)
- Extracting development information, based on [StatSVN](#)
- Find non-reentrant functions in code, based on [nsiqcppstyle](#)
- Find security issues based on [flawfinder](#)
- Detect common *printf/scanf* format issues based on [pscan](#)
- Automatically create developer documentation using [doxygen](#)

### Own development:

- Detect redundant files in repository

# e-service: DiFX Results

<http://econtrol-software.de/>



Service

Information

Access to results

## e-service: DiFX Results

<http://econtrol-software.de/>

Link to project

Link to repository information

Checking result overview and link to results

The screenshot shows the 'e-control' web interface. At the top, there are logos for TUM, FGS, and FESG. Below the navigation bar, there is a sidebar with links for 'e-Service', 'Introduction', and 'Data checks'. The main content area displays a table titled 'Automated DiFX' with columns for 'Project', 'TUM Instance (Status)', 'Full check (Success?)', 'Detailed code analysis (Success?)', 'Executable files (MD5-sum)', 'Log-relevant functions (Success?)', 'Security Issues (Classified)', 'print format checks (Success)', 'A website', and 'Unit tests'. The table lists several projects with their respective status icons (red, yellow, green) and links.

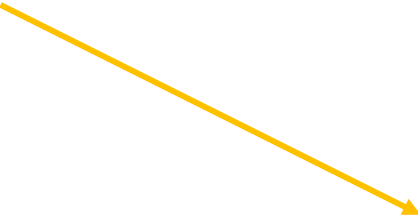
Project	TUM Instance (Status)	Daily analysis							Web-Content (2014)	
		Full check (Success?)	Detailed code analysis (Success?)	Executable files (MD5-sum)	Log-relevant functions (Success?)	Security Issues (Classified)	print format checks (Success)	A website	Unit tests	
test1	Status	no	no	no	yes	no	no	no	n.a.	n.a.
test2	Status	no	yes	no	yes	no	yes	yes	n.a.	n.a.
testserver_test	Status	no	no	no	yes	no	yes	yes	n.a.	n.a.
testfile_test	Status	n.a.	yes	no	yes	no	no	no	n.a.	n.a.
testserver_test	Status	n.a.	no	no	no	no	yes	yes	n.a.	n.a.
test	Status	n.a.	no	no	yes	no	yes	yes	n.a.	n.a.



# e-service: DiFX Results

<http://econtrol-software.de/>

Link to file where the issue was detected



```
← → ↻ 🏠 🔍 econtrol-software.de/900Services/difx/codechecks/difxfilterbank_trunk/cppcheck/result.html
```

## Automatic cppcheck report:

<https://svn.atnf.csiro.au/difx/applications/difxfilterbank/trunk>

Generated: Tue Nov 29 10:56:01 CET 2011

Cppcheck version: Cppcheck 1.51

### Start of static checking

```
[ https://svn.atnf.csiro.au/difx/applications/difxfilterbank/trunk/transient_daemon/recorr.h ]: (performance) at line 30 Function parameter 'file' should be passed by reference.
[ https://svn.atnf.csiro.au/difx/applications/difxfilterbank/trunk/transient_daemon/recorr.cpp ]: (performance) at line 13 Function parameter 'file' should be passed by reference.
[ https://svn.atnf.csiro.au/difx/applications/difxfilterbank/trunk/transient_daemon/recorr.cpp ]: (performance) at line 121 Prefer prefix ++/-- operators for non-primitive types.
[ https://svn.atnf.csiro.au/difx/applications/difxfilterbank/trunk/src/difxfilterbank.cpp ]: (style) at line 120 Found obsolete function 'usleep'. It is recommended that new applications use the 'nanosleep' function.
[ https://svn.atnf.csiro.au/difx/applications/difxfilterbank/trunk/transient_wrapper/monitor.cpp ]: (style) at line 52 Variable 'v' is assigned a value that is never used
[ https://svn.atnf.csiro.au/difx/applications/difxfilterbank/trunk/transient_daemon/transient_daemon.cpp ]: (style) at line 551 Variable 'v' is assigned a value that is never used
[ https://svn.atnf.csiro.au/difx/applications/difxfilterbank/trunk/transient_daemon/transient_daemon.cpp ]: (error) at line 400 Resource leak: in
[ https://svn.atnf.csiro.au/difx/applications/difxfilterbank/trunk/transient_wrapper/transient_wrapper_data.cpp ]: (style) at line 184 Variable 'v' is assigned a value that is never used
[ https://svn.atnf.csiro.au/difx/applications/difxfilterbank/trunk/transient_daemon/transient_daemon.cpp ]: (style) at line 846 Found obsolete function 'usleep'. It is recommended that new applications use the 'nanosleep' function.
[ https://svn.atnf.csiro.au/difx/applications/difxfilterbank/trunk/utilities/difx2fb.cpp ]: (style) at line 22 Unused variable: badvisibility
[ https://svn.atnf.csiro.au/difx/applications/difxfilterbank/trunk/utilities/difx2fb.cpp ]: (style) at line 31 Variable 'visibilities' is allocated memory that is never used
[ https://svn.atnf.csiro.au/difx/applications/difxfilterbank/trunk/transient_wrapper/transient_wrapper_data.cpp ]: (error) at line 622 Resource leak: in
[ https://svn.atnf.csiro.au/difx/applications/difxfilterbank/trunk/utilities/difx2fb.cpp ]: (error) at line 114 Memory leak: visibilities
[ https://svn.atnf.csiro.au/difx/applications/difxfilterbank/trunk/utilities/filterbank2screen.cpp ]: (style) at line 62 Found obsolete function 'usleep'. It is recommended that new applications use the 'nanosleep' function.
[ https://svn.atnf.csiro.au/difx/applications/difxfilterbank/trunk/utilities/readConfig.c ]: (error) at line 103 Resource leak: fp
[ https://svn.atnf.csiro.au/difx/applications/difxfilterbank/trunk/utilities/fb_reorder.cpp ]: (style) at line 766 Variable 'have_non_zero' is assigned a value that is never used
[ https://svn.atnf.csiro.au/difx/applications/difxfilterbank/trunk/utilities/fb_reorder.cpp ]: (warning) at line 255 Comparison of a boolean with a non-zero integer
```

### End of static checking

#### Statistic:

Statistic



```
error.....: 4
warning.....: 1
portability.....: 0
style.....: 9
performance.....: 3
information.....: 0
```





**Thank you !  
Feedback is welcome  
([ettl@fs.wettzell.de](mailto:ettl@fs.wettzell.de) or [neidhardt@fs.wettzell.de](mailto:neidhardt@fs.wettzell.de))**