Kactus2

- Modern SoCs are designed by integrating both in-house and external IP blocks.

- The plurality of vendors makes this integration difficult, as no two vendors are likely to define the metadata of their blocks in the same way.

- Enter the IP-XACT standard.

- Kactus2 is a graphical tool for "creating and reusing intellectual property".

- Homemade


```
commit 6a58bd27a48a6c523ddc8d210032df50822700b8
Author: Joni-Matti Määttä <joni-matti.maatta@tut.fi>
Date:   Mon Oct 3 07:55:17 2011 +0000

    Added base folders.

    git-svn-id: svn://svn.code.sf.net/p/kactus2/code/trunk@1 f0aa6db5-7f46-43cc-a8a5-a31efdaafa67
commit 849323f63fc0f292f1e172f92a0fd23acf711220
Author: Joni-Matti Määttä <joni-matti.maatta@tut.fi>
Date:   Mon Oct 3 19:00:08 2011 +0000

    Added the Kactus2 project.

    git-svn-id: svn://svn.code.sf.net/p/kactus2/code/trunk@2 f0aa6db5-7f46-43cc-a8a5-a31efdaafa67
```

What it does and how

- Creation of new IP-XACT components
- Import existing verilog/vhdl modules to make their IP-XACT packages
- Create hardware designs with hierarchy
- Generators can produce synthesizable code for hardware designs
- **Kactus does not do module implementation, synthesis or simulation!**

File Library View Workspace System

Default

VLNV Tree | Hierarchy

Library items
> tut.fi

Search

Library Filters

Type

Implementation

Product Hierarchy

Firmness

Correctness

IP-XACT version

2014 | 2022

Tags

+

Component Preview

Output

========= Library integrity check complete =========
Total library object count: 6
Total file count in the library: 0

Ad-hoc Port Editor

Name	Direction	Ad-hoc

Port information

Name:
Direction:
Left bound:
Right bound:

Tied value

Value:
Left bound:
Right bound:

Vendor Extensions (experimental)

Namespace	Name	Attributes

Context Help

Welcome to Kactus2

This window will give context-sensitive guidance during your use of Kactus2.

Getting started section will guide you through the basic setup for configuring your IP-XACT library and accessing

Design Parameters

Parameters

Name	Name	Display name

Ready.

```
       3620 text files.
       3420 unique files.
        540 files ignored.

github.com/AlDanial/cloc v 2.08  T=2.24 s (1526.2 files/s, 297593.6 lines/s)
-------------------------------------------------------------------------------
Language                          files          blank        comment           code
-------------------------------------------------------------------------------
C++                                1488          66549          74109         271703
C/C++ Header                       1492          36994         114864          54234
XML                                  57             62             12          21615
HTML                                116            432             54           8233
ProGuard                            168           1534           1660           3914
Text                                  7            474              0           2801
CSS                                   1            455            122           2104
MSBuild script                        3              0              0           1458
Python                               17            226             50            667
Qt Project                           26            197             70            521
Visual Studio Solution                1              1              1            391
Markdown                              4            122              0            328
SWIG                                  4             28             16            114
YAML                                  3             21             26            110
INI                                   2             11              0            107
JSON                                 22              1              0            101
JavaScript                            1             23             35             99
Bourne Shell                          2             11             11             63
Windows Resource File                 1             21             28             31
DOS Batch                             4              2             18             16
TeX                                   1              2              0             15
-------------------------------------------------------------------------------
SUM:                               3420         107166         191076         368625
-------------------------------------------------------------------------------
```

Languages

- C++ 95.8%
- QMake 2.0%
- HTML 1.6%
- CSS 0.3%
- Python 0.1%
- C 0.1%
- Other 0.1%