

Versioning and p2

Are your users running the bits you think they are?

Andrew Niefer

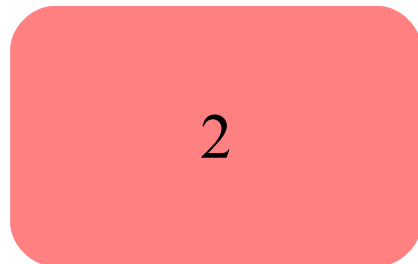
IBM Rational™ Software
Ottawa

Equinox p2 & PDE/Build Committer

Monolithic Development

- Deliver upgrades as whole wads (zips)
- Customer gets what development tested.

Development tests this



Customer runs this



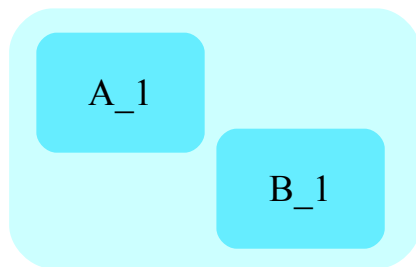
p2 content
ID + Version == 1 set of bytes

Versioning
The final bytes matter

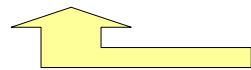
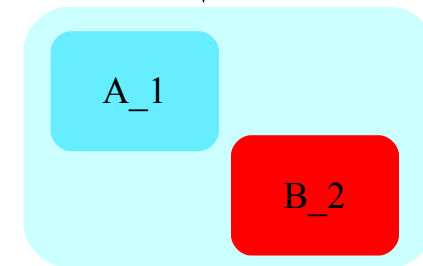
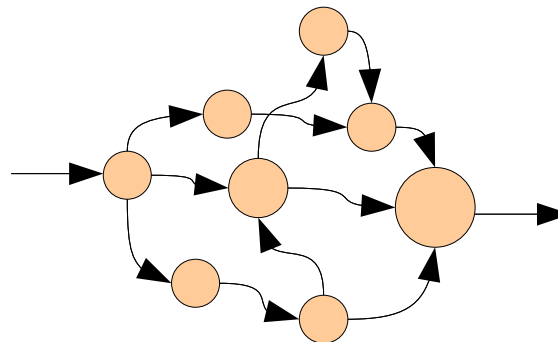
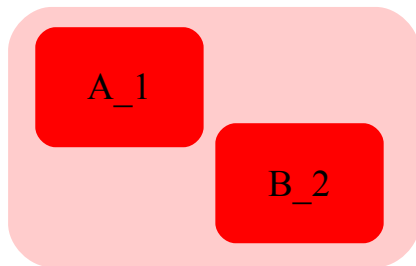
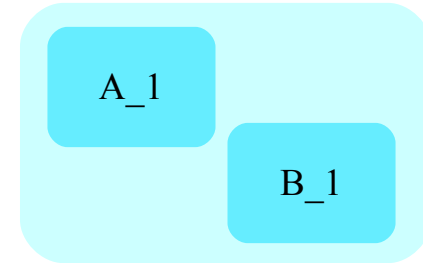
Component Development

Upgrade only the pieces with a new version number

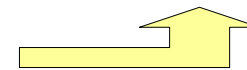
Development Tests This

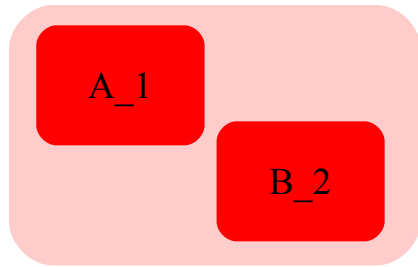


Users Runs this

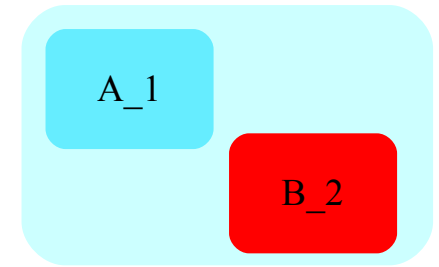


Are these the same thing?





These aren't the same



What is the difference between

 and  ?

Same

- Source code

Different

- Compiler?
- Build scripts?
- Binary dependencies?
- Phase of the Moon?

A depends on B

```
class B {  
    public void foo(Object o);  
}
```

B_1

B adds a new overloaded method

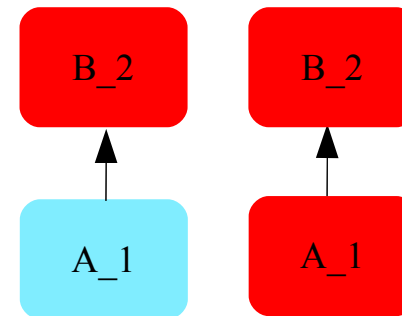
```
class B {  
    public void foo(Object o);  
    public void foo(String s);  
}
```

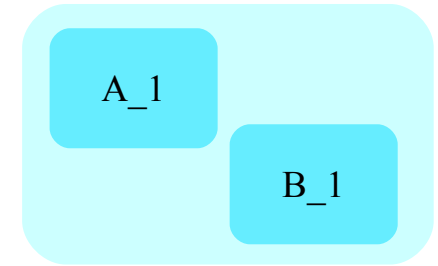
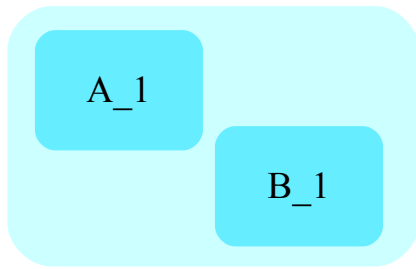
B_2

Recompiling **A** against **B_2** results in different binary

```
import B;  
  
class A {  
    public void f() {  
        B b = new B();  
        b.foo("a string");  
    }  
}
```

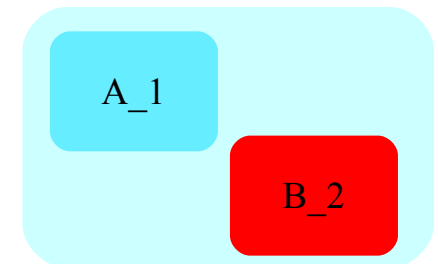
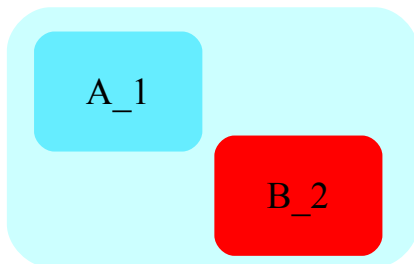
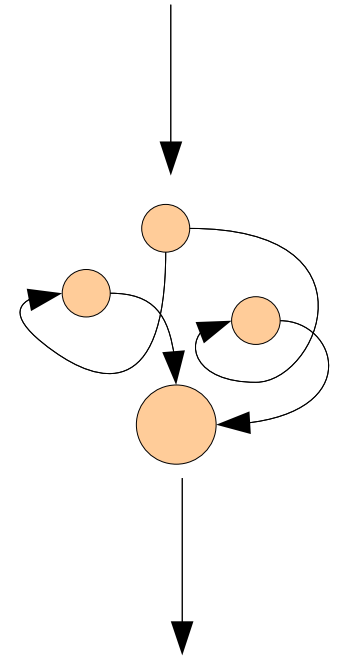
These two setups behave differently at runtime





Must ensure we test the same thing the users will be running

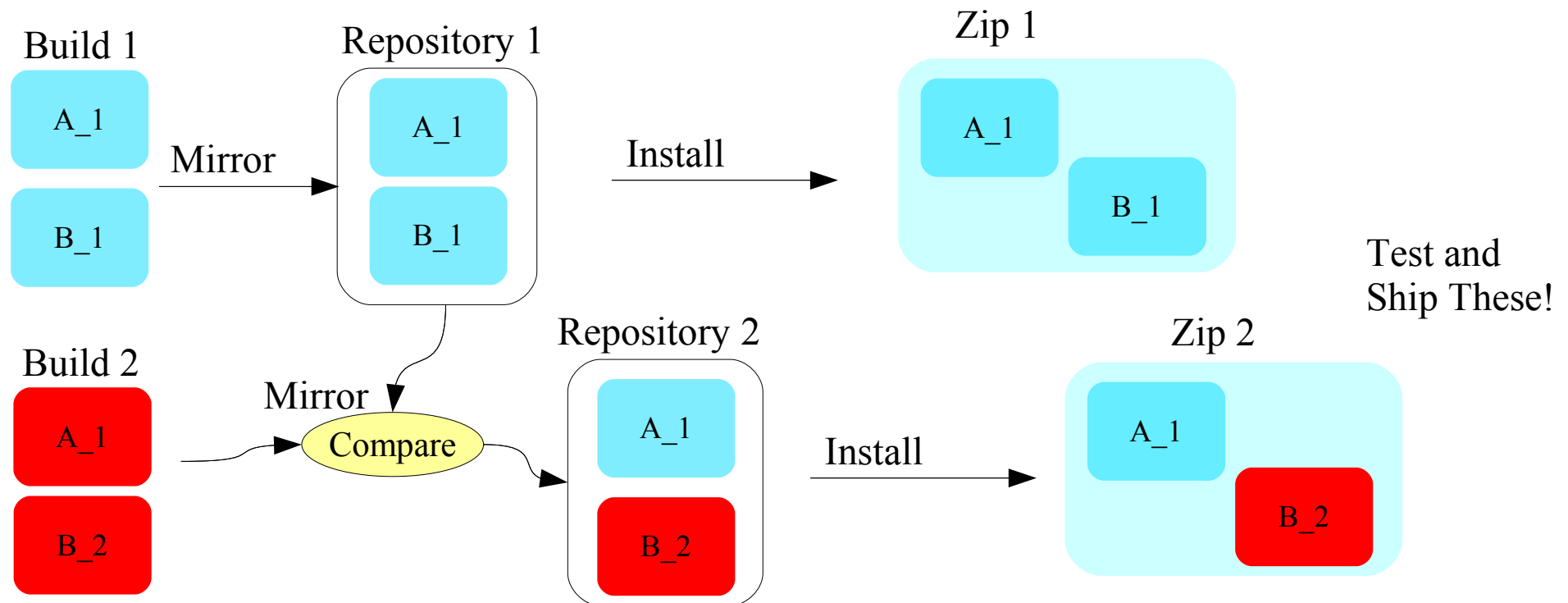
Must ensure we create zips that are equivalent to upgrading from the previous version



Mirroring with a Baseline

Artifacts with the same version will be taken from the baseline instead of the source.

Compare and warn if artifacts with the same version are different enough to warrant increasing the version.



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