

# Stand-Alone Objects



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# Problem

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- Want to use `<file_object>` in different tests
  - file effective rights
  - text file contents
  - xml file contents
- Need to repeat the object definition
  - would be nice if we could just reuse the existing `<file_object>`



# Proposal – Shared Objects

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- Have objects stand on their own
  - separate from the test definitions
- Each test would refer to one or more objects
- Behaviors are shared
  - and therefore in-sync



# Advantages

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- Less objects defined
  - smaller schema files
- Easy to see the different types of objects
  - only one file obj as opposed to ten
- Behaviors are not repeated



# Example

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```
<regkeyauditedpermissions_test>
  <object object_ref="oval:example:obj:123" />
  <state>
</regkeyauditedpermissions_test>
<regkeyauditedpermissions_object>
  <hive>
  <key>
  <trustee_sid>
</regkeyauditedpermissions_object>
```

```
<regkeyauditedpermissions_test>
  <object>
    <registry_object_ref>oval:example:obj:456</registry_object_ref>
    <sid_object_ref>oval:example:obj:789</sid_object_ref>
  </object>
  </state>
</regkeyauditedpermissions_test>
```



# Example

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```
<textfilecontents_test>
  <object object_ref="oval:example:obj:123" />
  <state>
</textfilecontents_test>
<textfilecontents_object>
  <path>
  <filename>
  <pattern>
  <instance>
</textfilecontent_object>
```

```
<textfilecontents_test>
  <object>
    <file_object_ref>oval:example:obj:123</file_object_ref>
    <textpattern_object_ref>oval:example:obj:234</textpattern_object_ref>
  </object>
  <state/>
</textfilecontents_test>
```



- object extension
  - textfilecontents object extends the file object
- still have an object for each type of test
  - easier maintenance
    - when something changes in the file path section you don't need to change the textfilecontents object



# Sets

- Work the same way as currently designed
  - define sets of the same object types

```
<regkeyauditedpermissions_test>
  <object_set set_operator='UNION'>
    <object>
      <registry_object_ref>oval:example:obj:456</registry_object_ref>
      <sid_object_ref>oval:example:obj:789</sid_object_ref>
    </object>
    <object>
      <registry_object_ref>oval:example:obj:654</registry_object_ref>
      <sid_object_ref>oval:example:obj:987</sid_object_ref>
    </object>
  </object_set>
</state>
</regkeyauditedpermissions_test>
```



# Another Example

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```
<file_test>
  <object>
    <behaviors>
      <max_depth>3</max_depth>
      <recurse_direction>down</recurse_direction>
    </behaviors>
    <file_object_ref>oval:example:obj:123</file_object_ref>
  </object>
  <state/>
</file_test>
```