Making a MC version of an existing data TCK

First, check out the head of HltTCK, and then run `iTCKsh` from the prod (or latest) version of Moore (independent of the version corresponding to the TCK you want to make an MC TCK for)

```
getpack TCK/HltTCK head
lb-run Moore iTCKsh --write TCK/HltTCK/config.cdb
```

In TCKsh import the createMCversion module and feed it your data TCK:

```
from TCKUtils.createMCversion import createMCversion
createMCversion(tck=0x11641724, cas=default_cas)
```

You'll see it dump the new TCK as well as a diff of the old with the new. If everything worked, the only differences will be AcceptFractions from the prescalers being set to 1 instead of prescaled as in data.

Check that your new MC TCK appears under the right version of Moore with

```
listConfigurations()
```

Releasing the MC TCK

Copy the `config.cdb` file somewhere and ask Rosen to commit and release it.

Once that is done, you need to add it to `AppConfig`:

```
git lb-clone-pkg AppConfig
cd AppConfig/options/Conditions
```

Copy one of the existing `TCK-*.py` files over to your TCK's name:

```
cp TCK-0x40YYYYY.py TCK-0x40XXXXX.py
```

Then edit the file to contain your TCK:

```
from Configurables import Moore
Moore().InitialTCK = '0x40XXXXXX'
```

Finally, commit your change on a new branch, push it and open a merge request

```
git checkout -b add-MC-TCK
git commit TCK-0x40YYYYY.py
git push -u origin add-MC-TCK
```

And now you need to put it into a release request for `TCK/HltTCK` You may potentially need to tag and request release of `AppConfig` - check with the simulation people first to see if they plan to commit other important updates soon.

Go here:
https://its.cern.ch/jira/browse/LHCBDEP/?selectedTab=com.atlassian.jira.jira-projects-plugin:summary-panel
Login, select Create, change the issue to "task", and specify `TCK/HltTCK` with the right version number. Not every box needs to be filled in. Once the form is filled out click submit.

Lastly, contact the production people so that they know to release a new `AppConfig` and you're done.

Adding TCKs for Moore v14 or older

The `config.cdb` files did not exist in v14 or older, so the TCKs need to be in the `config.tar` file. First add the MC TCKs to the `config.cdb` as usual and then copy them to `config.tar` following this example:

```
from TCKUtils.utils import *
from TCKUtils.backend import *

cdb_file = 'config.cdb'
tar_file = 'config.tar'

cdb_cas = ConfigCDBAccessSvc("ConfigAccessSvcSource", File=cdb_file)
tar_cas = ConfigTarFileAccessSvc("ConfigAccessSvcTarget", File=tar_file, Mode='ReadWrite')

copy(source=cdb_cas, target=tar_cas, glob='TCK/0x40a30044')
copy(source=cdb_cas, target=tar_cas, glob='TCK/0x40ac0046')
```

To check the TCKs were indeed copied, within TCKsh do:

```
cas = ConfigTarFileAccessSvc(File='config.tar')
listConfigurations(cas=cas)
```

--Main.WilliamBarter - 2016-10-05

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