2014-07-11

Work summary

Today, I have:

- Published a set of Tizen 3.0/Intel RPMs;
- Investigated, re-investigated, and finally managed—with the help of Bob and some MonoDevelop folks—to get `MonoDevel.Tizen` published in the Community Add-in Repository:

  http://addins.monodevelop.com/Project/Index/125
- Added an explicit `screen.size.all` annotation to `HelloMonoTizenOSP`, as the Samsung store was rejecting Bob's submission without it;
- Re-built `.tpk`s based on the change above;
- Re-built and cleaned up the GBS patch set in preparation for submitting it to the Tizen community process; pushed it there:

  https://github.com/kitsilanosoftware/mono/tree/tizen-gbs-2014-07-11
- Re-built a set of Tizen 2.2.1/Intel RPMs via GBS to confirm that the patchset hasn't regressed;
- Tried re-building a set of Tizen 2.2.1/ARM RPMs via GBS to confirm that the build was failing as expected;
- Filed an issue to Philippe Coval regarding QEMU user emulation in GBS/ARM:

  https://bugs.tizen.org/jira/browse/DEVT-192
- Started building a set of Tizen 3.0 Common/ARM RPMs via GBS. The bundled `glibc` is more recent, and Mono can rely on some of its features rather than poking the environment... and is later able to bootstrap successfully!

  The build hummed along for a while, and compiled most if not all of the assemblies, for each of the .NET profiles. Not bad!

  And just when I was getting hopeful, this happened:

  ```
  MDOC    [net_4_5] netdocs.tree
  MDOC    [net_4_5] Mono.tree
  Stacktrace:

    at <unknown> <0xffffffff>
    at Monodoc.HelpSource..ctor (string,bool) <0x00113>
  ```

```
at Mono.Documentation.MDocAssembler.Run                \
    (System.Collections.Generic.IEnumerable`1<string>) \
    <0x00a57>
```

No idea of why *that* particular invocation of `MDOC` crashed, but… it's dead.

- Continued investigating Mono AOT, and built a first fully-AOTed, statically linked, ARM executable by manually tweaking the `HelloMonoTizenOSP` example:

  ```
  $ ls -lh *.exe
  -rwxr-xr-x  1 dash  staff    31M 12 Jul 02:16 HelloTizen.exe
  ```

  It starts and crashes in the VM because we are missing a graphical display. Fair enough.

  It seems to start, but never gets to display anything, on the Samsung Z device from the remote testing lab. I don't think we're very far from a first result, but more experimentation is required.

Later, I plan to:

- Submit the GBS branch to the Tizen community process;
- Re-run the Tizen 3.0 GBS/ARM build;
- Try Mono full static AOT on the Tizen 2.2/Intel emulator.