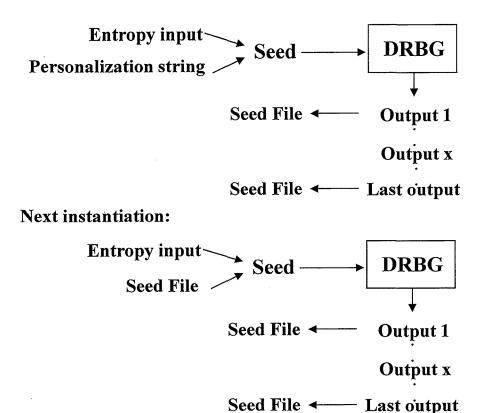
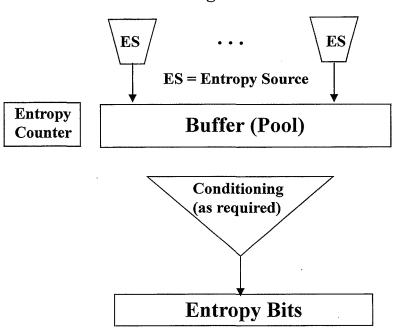
#### 1. Seed File Use



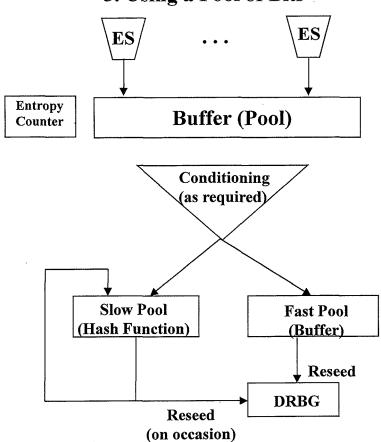
- 1. Initial instantiation: Use entropy input and (opt.) personalization string to form the seed.
- 2. Save 1st output in a seed file; replace seed file with last output.
- 3. New instantiation: Use entropy input and current seed file to form a seed.
- 4. Go to step 2.

### 2. Using a Pool of Bits



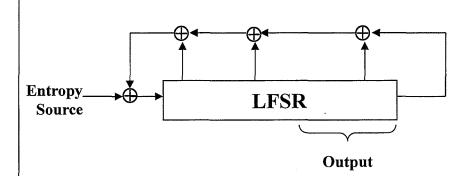
- 1. Collect entropy in a pool.
- 2. Perform conditioning when sufficient entropy has been obtained (as determined by the output buffer).
- 3. Output has full entropy.

#### 3. Using a Pool of Bits



- 1. Collect entropy in a pool.
- 2. When sufficient entropy has collected, perform conditioning.
- 3. Place conditioned bits in the fast pool (a buffer); entropy estimate is best/expected amount.
- 4. Also place conditioned bits in the fast pool, but hash with previous contents of the fast pool; entropy estimate is conservative (e.g., a fraction of the expected amount).
- 5. Reseed the DRBG from each fast pool replacement.
- 6. Reseed the DRBG from the slow pool when the conservative estimate is sufficient.

# 4. Using a CRC



## 5. Non-persistent State

