

Tech Moment

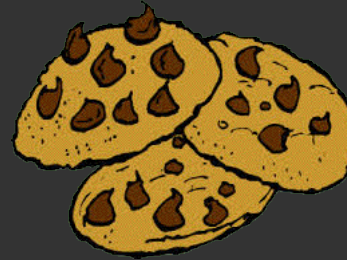
Cookies (and Milk)

By Tom Thorpe

Milk has been consumed for about 7,500 years



Cookies for only 1400 years



Computer cookies since 1994

- Antique technology
- Great browser compatibility
- Enabled on over 97% of all browsers

What are they?

- They are small plain text files
- They contain no executable code
- Your web browser manages them

How are they created?

- You visit a web page
- Either:
 - The web page contains an instruction to create a cookie
 - or
 - The web page contains JavaScript which creates a cookie
- When created they can be set to be removed when the browser closes or at a fixed date/time

Each cookie is associated with the domain that created it (e.g. homedepot.com)

Where are they stored?

- They are saved with your browser's preferences
- Minimum cookie specs:
 - 4k bytes maximum per cookie
 - 20 cookies per domain
 - 4k bytes maximum per domain
- Some browsers have a lot more capability

How are they deleted?

- Automatically as described above
- Or you can manually delete them (one or all)

Who sees them?

- Every time you visit a domain all of its cookies are sent to it with each web page request

Why have them?

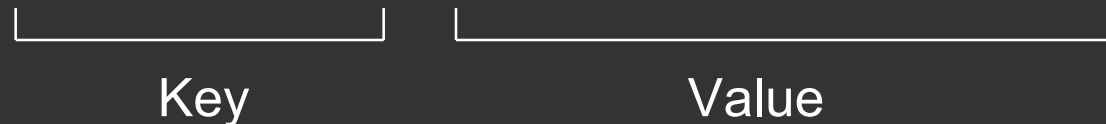
- The original purpose was to save "state"
- State is anything that needs to persist across multiple page requests
 - e.g. authentication data, user preferences, shopping carts
- Two ways to do this
 - 1) Server side
 - The cookie is tiny and contains a unique number
 - The webserver stores all state data and associates it with your unique number
 - Unlimited storage on the server
 - 2) Client side
 - All session state is stored in the cookie on your machine
 - Since cookies are limited in size, only so much state can be saved

- Good uses
 - Customize your browsing experience
e.g. Home Depot remembers your local store
 - Identify individual users
e.g. You log into a web site and stay logged in
 - Opt out of some interest-based advertising
e.g. “opt-out” at <http://www.aboutads.info/choices/>
- Bad uses
 - Tracking you?

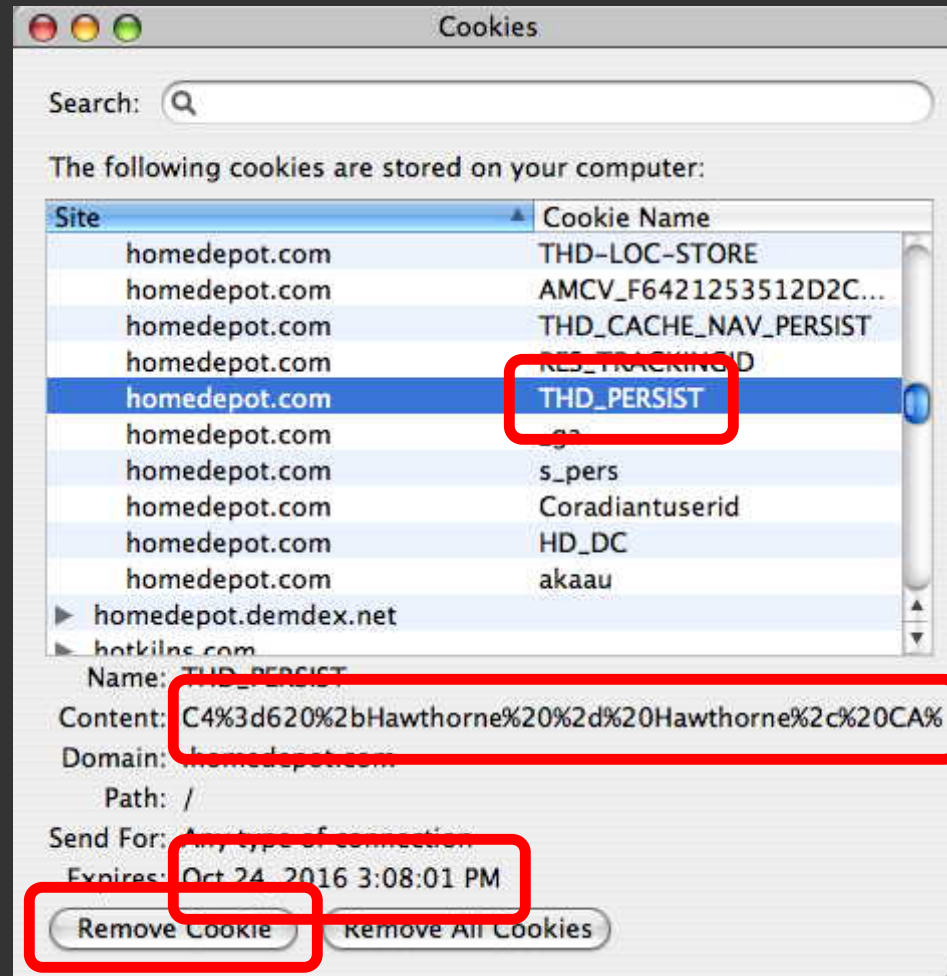
What does a cookie look like?

- To see your cookies check your browser's preferences for "Privacy" or "Security"
- What you'll see:
 - which web sites have saved cookies
 - what each cookie is named (its key)
 - and actual content of the cookie
 - when it will expire
- Each cookie is key/value pair

e.g. THD_PERSIST = C4=620+Hawthorne, CA+...



What does a cookie look like?



Third Party Cookies

- Third-party cookies belong to domains different from the one shown in the address bar
- They allow tracking an individual user across the sites of different companies

e.g. A site like google.com might have a Facebook button on a web page. That button will set a cookie that can be read by Facebook.

- Third-party cookies can be disabled
- Something like 10% of the people have them disabled

Summary

- Cookies are simple text files - no virus possible
- Cookies are set for each domain
- You can look at any cookie
- You can delete any or all cookies
 - Just be aware that if you delete cookies that the web(s) site will forget that you visited them

