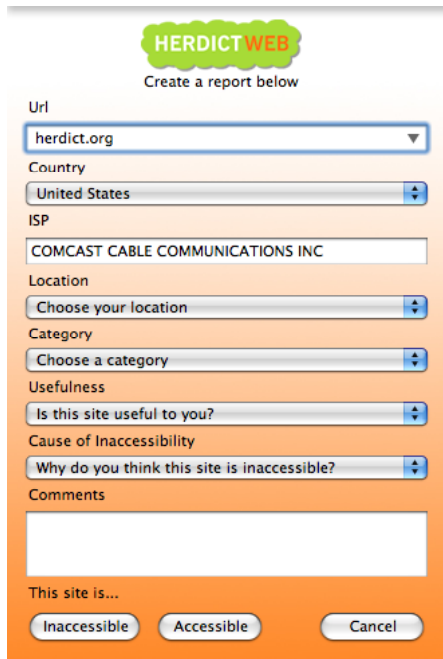# Herdict Plugin API

1. Background

The Herdict plugins allow users to report inaccessible or accessible sites as they browse, without having to go the Herdict website. There are currently two plugins – an Internet Explorer toolbar and a Firefox extension. Although these plugins use different technologies, they use the same interface to interact with the Herdict website. This document describes that interface, and is intended as a guide for anyone developing a plugin for another platform or browser.

2. Transaction Overview

This is the general sequence of transactions for a plugin

- Browser startup / initialization
    a. Get categories (T01)
    b. Get countries (T02)
    c. Get locations (T03)
    d. Get interests (T04)
    e. Get reasons (T05)
    f. Get current location (T06)
    g. Check current version (T09)
- User views a new website
    a. Get site summary (T07)
- User reports a page as accessible or inaccessible
    a. Report page (T08)
- Periodically update location
    a. Get current location (T06)

3. Browser startup / initialization

There are many optional and required fields that a user can submit along with their report. This screenshot of the Firefox extension shows the complete list. The Country, Location, Category, Usefulness, and Cause of Inaccessibility are all dropdown lists populated with reference data from the server. The values for these lists are retrieved using transactions T01-T05. The labels and values are localized into the user's language, based on the preferred locale in the header of the HTTP request.

The user's ISP and default country are also retrieved from the server, based on a reference table that does a lookup based on the user's IP address. This information is retrieved using transaction T06. Finally, a version check on the plugin is done using T09. The form of this transaction is platform-dependent.

4. User views a new website

When a user browses to a new website, the plugin sends the current location and site to the server and receives a summary of accessibility reports for that site, both globally and in the user's country. This is done using T07.

The plugin can then display this back to the user. The IE and Firefox plugins do this using a colored sheep icon and tool tip. To reduce load on the server, the summary should only be retrieved for a site only once in each browser session.

5. User reports a page as accessible or inaccessible

When a user reports a page as inaccessible or accessible the plugin may collect additional information from the user, and then submits a report to the server, as described in T08

6. Periodically update location

As a user may change their location without restarting the browser (for example, putting a laptop to sleep at work, and then bringing it home), the plugin may periodically update the user's location using T06.

7. T01 – Get categories

Request:

http://www.herdict.org/web/action/ajax/plugin/init-categories/{version}

Example:

```
http://www.herdict.org/web/action/ajax/plugin/init-categories/FF0.9
```

Response:

JSON formatted array of dictionaries with "value" and "label" tags

Example:

```
[{"value":"tag.news","label":"News/Information"},{"value":"tag.entert
ainment","label":"Entertainment/Gaming"},{"value":"tag.politics","lab
el":"Politics"},{"value":"tag.humanrights","label":"Human
Rights"},{"value":"tag.communities","label":"Social
networks/communities"},{"value":"tag.sexual","label":"Sexually
explicit"},{"value":"tag.health","label":"Health"},{"value":"tag.blog
s","label":"Blogs/blogging
platforms"},{"value":"tag.religion","label":"Religion"},{"value":"tag
.internettools","label":"Internet
tools/proxies"},{"value":"tag.filesharing","label":"P2P/bittorrent/fi
le-sharing"}]
```

8. T02 – Get countries

Request:

http://www.herdict.org/web/action/ajax/plugin/init-countries/{version}

Example:

```
http://www.herdict.org/web/action/ajax/plugin/init-countries/FF0.9
```

Response:

JSON formatted array of dictionaries with "value" and "label" tags

Example:

```
[{"value":"AF","label":"Afghanistan"},{"value":"AX","label":"Aland
Islands"},{"value":"AL","label":"Albania"},{"value":"DZ","label":"Alg
eria"},{"value":"AS","label":"American
Samoa"},{"value":"AD","label":"Andorra"},{"value":"AO","label":"Angol
a"},{"value":"AI","label":"Anguilla"},{"value":"AQ","label":"Antarcti
ca"},{"value":"AG","label":"Antigua and
Barbuda"},{"value":"AR","label":"Argentina"},{"value":"AM","label":"A
rmenia"}, [more]
```

9. T03 – Get locations

Request:

http://www.herdict.org/web/action/ajax/plugin/init-locations/{version}

Example:

```
http://www.herdict.org/web/action/ajax/plugin/init-categories/FF1.0
```

Response:

JSON formatted array of dictionaries with "value" and "label" tags

Example:

```
[{"value":"location.home","label":"Home"},{"value":"location.work","l
abel":"Work"},{"value":"location.school","label":"School"},{"value":"
location.library","label":"Library"},{"value":"location.cybercafe","l
abel":"Cybercafe"},{"value":"location.publicwifi","label":"Public
wifi"},{"value":"location.other","label":"Other"}]
```

10. T04 – Get interests

Request:

http://www.herdict.org/web/action/ajax/plugin/init-interests/{version}

Example:

```
http://www.herdict.org/web/action/ajax/plugin/init-interests/FF1.0
```

Response:

JSON formatted array of dictionaries with "value" and "label" tags

Example:

```
[{"value":"interest.low","label":"Not very
useful"},{"value":"interest.medium","label":"Moderately
useful"},{"value":"interest.high","label":"Very
useful"},{"value":"interest.dontunderstand","label":"Site is in a
language I don't understand"}]
```

11. T05 – Get reasons

Request:

http://www.herdict.org/web/action/ajax/plugin/init-reasons/{version}

Example:

```
http://www.herdict.org/web/action/ajax/plugin/init-reasons/FF1.0
```

Response:

JSON formatted array of dictionaries with "value" and "label" tags

Example:

```
[{"value":"reason.accessible","label":"This site is
accessible"},{"value":"reason.error","label":"Unintentional network
or server error"},{"value":"reason.dead","label":"Dead site / bad
URL"},{"value":"reason.geolocation","label":"Geolocational
filtering"},{"value":"reason.govispfilter","label":"Government or ISP
filtering"},{"value":"reason.institutionfilter","label":"Institutiona
l filtering"}]
```

12. T06 – Get current location

Request:

http://www.herdict.org/web/action/ajax/plugin/init-reasons/{version}

Example:

```
http://www.herdict.org/web/action/ajax/plugin/init-
currentLocation/FF1.0
```

Response:
JSON formatted dictionary with country name, ISP name, and the IP range in the
database that was used to retrieve this information

Example:

```
{"countryLong":"United
States","ipTo":417005567,"countryShort":"US","ipFrom":416940032,"ispN
ame":"COMCAST CABLE COMMUNICATIONS HOLDINGS INC"}
```

13. T07 – Get site summary

Since some countries block content based on strings in the URL, including the name
of an inaccessible in the URL can lead to the site summary request itself being
blocked. Therefore, the server supports ROT13 encoding for site summary requests.

Request:
http://www.herdict.org/web/action/ajax/plugin/site/{encoded_url}/{country}/{encodi
ng}/{version}

Example 1 (New York Times in Iran, no encoding):

```
http://www.herdict.org/web/action/ajax/plugin/site/nytimes.com/IR/non
e/FF1.0
```

Example 2 (New York Times in US, ROT13 encoding):

```
http://www.herdict.org/web/action/ajax/plugin/site/
algvzrf.pbz/US/ROT13/FF1.0
```

Response:
JSON formatted dictionary with sheep color indicator (0 = green, 1 = yellow, 2 =
orange), total global inaccessible reports, total inaccessible reports in the requested
country, Herdict site id, url, country.

Example:

```
{"sheepColor":0,"globalInaccessibleCount":3,"siteId":2480,"countryIna
ccessibleCount":0,"url":"nytimes.com","countryCode":"IR"}
```

14. T08 – Report page

This transaction reports a site as accessible or inaccessible to Herdict. The fields are:

report_type: siteAccessible | siteInaccessible
report.url: encoded url to be reported
report.country.shortName: two-letter code for the country of the report, as selected by
the user
report.ispName: name of the user's ISP, as selected by the user
report.location: value from the label/value pair returned by T03
report.interest: value from the label/value pair returned by T04
report.reason: value from the label/value pair returned by T05
report.sourceID: 1 for Firefox add-one, 2 for IE toolbar

report.tag: either the value from the label/value pair returned by T01, or a value entered by the user

report.comments: user comments

defaultCountryCode: two-letter code for the country of the report, as retrieved by T06

defaultISPName: name of the user's ISP, as retrieved by T06

encoding: ROT13 if the URL is ROT13 encoded, any other value otherwise

Request:

http://www.herdict.org/web/action/ajax/plugin/report?{report_type}&report.url={report.url}&report.country.shortName={report.country.shortName}&report.ispName={report.ispName}&report.location={report.location}&report.interest={report.interest}&report.reason={report.reason}&report.sourceId={report.sourceId}&report.tag={report.tag}&report.comments={report.comments}&defaultCountryCode={defaultCountryCode}&defaultISPName={defaultISPName }&encoding={encoding}

Example:

```
http://www.herdict.org/web/action/ajax/plugin/report?siteInaccessible
&report.url=algvzrf.pbz&report.country.shortName=US&report.ispName=CO
MCAST&report.location=location.school&report.interest=interest.high&r
eport.reason=reason.dead&report.sourceId=1&report.tag=tag.news&report
.comments=&defaultCountryCode=US&defaultISPName=COMCAST&encoding=ROT1
3
```

Response:

The string "SUCCESS" if successful, or an HTTP Error 500 on failure

Example:

```
SUCCESS
```

15. T09 – Check current version

The purpose of this transaction is to check whether there is a more recent version of the plugin, and take the necessary action. It is platform specific.

For the Firefox plugin, we use the standard Firefox update mechanism, using the RDF file at http://www.herdict.org/web/assets/update.rdf.

For the IE Toolbar, we check the contents of the file at http://www.herdict.org/web/assets/ie-version.txt, and check to see if the version string in that file is more recent than the version of the currently running toolbar

16. Version History

Date	Updated By	Changes made
July 20, 2009	Jeffrey Licht (jeff@podconsulting.com)	Initial version
December 24, 2009	Jeffrey Licht	Extracted Herdict API-specific information into a separate document
January 4, 2010	Jeffrey Licht	Formatting changes