# Universal Acceptance Compliance (UAC) Analyser Tool

## Requirements Document

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# Contents

# 1. Introduction

The UAC Analyzer will enable companies and website owners to find out the complexity involved in making their web assets Universal Acceptance Compliant. The idea behind the UAC Analyzer portal is that it will give a complexity score which will help non-technical user base to get started with the UAC journey.

This tool would only scan for links of the submitted domain and will ignore any links pointing to external sites.

Zensar would be able to help companies in making their websites UA Compliant through consulting and technical assistance.

# 2. High Level Requirements

## 2.1 Accept criteria (From UASG guide)

1. Any user interface element requiring a user to type a domain name or email address must support Unicode and strings up to 256 characters
2. Users should be allowed, but not required, to enter ASCII Compatible Encoded (aka "Punycoded") text in place of its Unicode equivalent. However, Unicode should be shown by default, with Punycoded text shown to the user only when it provides a benefit.

## 2.2 Validate criteria (From UASG guide)

1. Validations should not occur unless required for the operation of the application or service. This is the easiest way to ensure that all valid domain names are accepted into systems.
2. If validation is required, consider the following:
   - Verify the TLD portion of a domain name against an authoritative table:
     http://www.internic.net/domain/root.zone
     http://www.dns.icann.org/services/authoritative-dns/index.html
     http://data.iana.org/TLD/tlds-alpha-by-domain.txt See also SAC070:
     https://tinyurl.com/sac070.
   - Query the domain name against the Domain Name System (DNS).
   - Require repeated entry of an email address to preclude typing errors.
   - Validate the characters in labels only to the extent of determining that the U-label does not contain "DISALLOWED" code points or code points that are unassigned in its version of Unicode. Visit: https://tools.ietf.org/html/rfc5892.
   - Limit validation of labels to a small number of whole-label rules defined in the Request for Comments (RFCs). Visit: https://tools.ietf.org/html/rfc5894.
   - If a string resembling a domain name contains the ideographic full stop character '。', it should be converted it to a '.' before validation is performed.

## 2.3 Crawl/Analysis criteria

The UAC Crawler will search for the following criteria:
   - It will scan for only links of submitted domain. External links will be ignored.
   - It will scan for complete domain even if the submitted URL has first or second level directory.
   - The tool will respect the exclusion criteria rules provided in robots.txt.
   - Generate a list of all internal links,
     - Each occurence of a link would need to be checked that it is UA compliant.
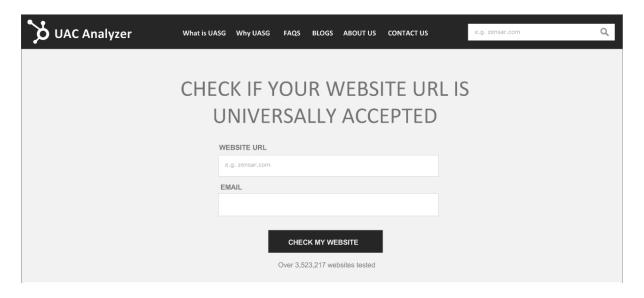
- We would need to check for validation for links submitted through web forms.
- Email entry fields
    - We would need to check for occurrences of text entry fields which are being used for submitting emails, using field labels (on-screen label or in-code field names) that have "email" or "mail"
    - Any occurrences of redisplay of an entered URL would need to be validated for UA Compliance.
- HTML that deals with emails
    - Can you identify HTML code that is sending out an email? If so, that email can have a UAC issue
- Any use of text with Unicode
- Any use of text with double byte character set.
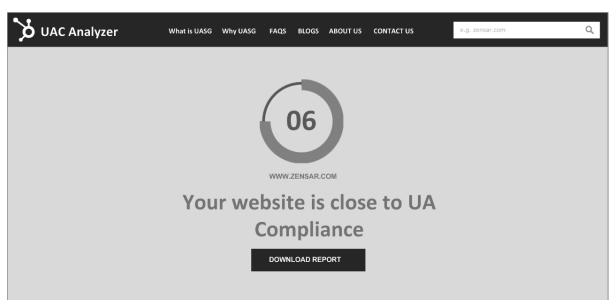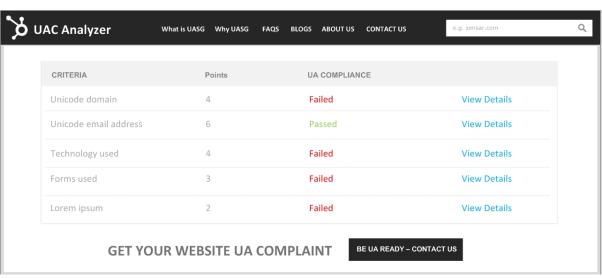
## 2.4 Report Criteria:

The tool should show the criteria listing. We would need to assign a suitable complexity factor to it and then determine the complexity level of making the site compliant

# User interface wireframe

Following wireframes are indicative only. The menus are mostly placeholders which can be changed after further discussions with different stakeholders.

What is UASG   Why UASG   FAQS   BLOGS   ABOUT US   CONTACT US

e.g. zensar.com

**06**

WWW.ZENSAR.COM

## Your website is close to UA Compliance

DOWNLOAD REPORT

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What is UASG   Why UASG   FAQS   BLOGS   ABOUT US   CONTACT US

e.g. zensar.com

| CRITERIA | Points | UA COMPLIANCE | |
|---|---|---|---|
| Unicode domain | 4 | Failed | View Details |
| Unicode email address | 6 | Passed | View Details |
| Technology used | 4 | Failed | View Details |
| Forms used | 3 | Failed | View Details |
| Lorem ipsum | 2 | Failed | View Details |

## GET YOUR WEBSITE UA COMPLAINT     BE UA READY – CONTACT US

# Appendix – UASG Use Cases

The UASG (Universal Acceptance Steering Group) has, through ICANN, registered a variety of domain names to use for testing. The
UASG will use these names to develop testing environments:
The names will include:

- Domain Names
- Domain Names with a Unicode extension
- ASCII local part email addresses with each domain
- Unicode local part email addresses with each domain

| ascii.ascii | | Registered | Working |
|---|---|---|---|
| Ascii.new | ua-test.link | Yes | Yes |
| Ascii.long | ua-test.technology | Yes | Yes |
| Idn.ascii | 普遍接受-测试.top | Yes | Yes |
| Ascii.idn | ua-test.世界 | Yes | Yes |
| Idn.idn | 普遍接受-测试.世界 | Yes | Yes |
| Ascii.punycode | ua-test.xn--rhqv96g | Yes | Yes |
| Punycode.ascii | xn----f38am99bqvcd5liy1cxsg.top | Yes | Yes |
| Punycode.punycode | xn----f38am99bqvcd5liy1cxsg.xn--rhqv96g | Yes | Yes |
| Ascii.RTL$_1$ | | | |
| RTL.ascii | اخ ت بار-ال ق بولال عال مي.top | Yes | Yes |
| RTL.RTL | ال ق بولال عال مي.ش بكة-اخ ت بار | Yes | Yes |