Proposal for Generation Panel for Japanese Label Generation Rules for the Root Zone

1. General Information

[日本語のバックグラウンド]

現代の日本語を書き表すために主に使われている文字は漢字、平仮名、片仮名、英数字である。漢字は紀元5世紀ごろに中国から輸入した。平仮名や片仮名はAD10世紀ころに漢字を崩したり漢字の一部を使って日本で作られた音節文字である。アルファベットはAD16世紀以降に西欧から入ってきたが、一般に使われるようになったのはAD19世紀以降である。

平仮名や片仮名はそれらが作られた当初から漢字と入り混じって使われており、日本語の書記方法として長らく定着している。さらに、近代になってからは漢字・平仮名・片仮名に混じって英数字も使われるようになり、たとえば英数字と漢字が混ざった商号等、それら複数の用字の入り混じった書記方法が常態化、定着している。

Major scripts used for writing modern Japanese are Kanji (Han), Hiragana, Katakana, alphanumeric (Latin Alphabets and Arabic numerals). Kanji was imported from China around the 5th Century AD. Hiragana and Katakana are phonetic syllabaries that were invented in Japan around the 10th Century AD from cursive forms or parts of Kanji. The Latin alphabet was imported from Western Europe after the 16th century, and since the 19th century it has been used widely.

Hiragana and Katakana have been used mixed with Kanji since their invention, and this combination of scripts has become established as the Japanese writing system. Furthermore, since modern times, alphanumeric scripts began to be used mixed with Kanji, Hiragana and Katakana. For example, trade names often use alphanumeric script and Kanji mixed. This multi-script mixed writing system has become common and widely used.

1.1. Target Script for the Proposed Generation Panel

[ISO 15924 での Script コードの説明]

日本語の書記方法で使う Script は前述の通り漢字、平仮名、片仮名、英数字である。

以下に、日本語ドメイン名として使用する文字の範囲を示す。

As mentioned in previous section, scripts for Japanese writing system are Kanji, Hiragana, Katakana and alphanumeric.

The following are the ranges of Japanese scripts used for Japanese Domain Names:

In ISO 15924, the script for Japanese language is mainly defined in this specification.

ISO 15924 code: Jpan

ISO 15924 no.: 413

English name: Japanese (alias for Han + Hiragana + Katakana)

漢字の範囲

The ranges of Kanji (CJK Unified Ideographs) defined in Unicode are:

CJK Symbols and Punctuation: 3005, 3006

CJK Unified Ideographs: 4E00-9FCC

CJK Unified Ideographs Extension A: 3400-4DB5

CJK Unified Ideographs Extension B: 20000-2A6D6

CJK Unified Ideographs Extension C: 2A700-2B734

CJK Unified Ideographs Extension D: 2B740-2B81D

平仮名・片仮名の範囲

The ranges of Hiragana and Katakana defined in Unicode are:

Hiragana: 3041-3096, 309D-309E Katakana: 30A1-30FA, 30FC-30FE

In ISO 15924, the alphanumeric script is defined in this specification:

ISO 15924 code: Latn ISO 15924 no.: 215 English name: Latin

英字の範囲

The range of the Latin alphabet defined in Unicode is: Basic Latin: 0061-007A

[英字を含めることができるかは IP に確認中]

1.2. Principal Languages using the Script

[日本語文字を使う言語の紹介] 日本語においては、漢字、平仮名・片仮名、英字が混ぜて使われる。

The Japanese writing system usually uses four scripts. They are: Kanji, Hiragana, Katakana, and alphanumeric.

[漢字を使う言語の紹介]

漢字は中国、台湾、香港、澳門、マレーシア、シンガポール、韓国等で使われてきた。

日本語で使われる漢字は中国から輸入されたものだが、1000年以上の歴史の中で日本固有の文字(国字)が追加されたり、日本固有の簡略化(新字体の作成)が行われたりしている。公的文書、新聞、一般書籍等で使われる漢字の集合として「常用漢字」が定義され、そこでは2100文字あまりが規定されている。また、常用漢字に含まれない人名用漢字が860文字あまり規定されている。日本国内で広く普及している文字の規格であるJIS X 0208では、これら常用漢字および人名用漢字を含み、さらに、地名や歴史的名称等を表すため、6300文字あまりの漢字が規定されている。

日本語における異体字としては主に簡略化前の旧字体と簡略化後の新字体の対応が存在しているが、人名や組織名等名前に対しては、旧字体と新字体は別の文字として認識されることが多い。

Kanji (Han) has been used in Mainland China, Taiwan, Macau, Malaysia, Singapore, Korea, Japan and elsewhere. The Kanji used in Japan were originally imported from China, but during over 1000 years of the history of Japanese, the creation of Japanese-particular characters (Kokuji) and character simplification in the Japanese particular way (Shinji) occurred. The Kanji for Common Use (Joyo Kanji) was defined as a set of Kanji used in official documents, newspapers and generic magazines, and more than 2100 characters were prescribed there. Furthermore, the Kanji for Personal

Names (Jinmeiyo Kanji) that are not included in Joyo Kanji were defined, and more than 860 characters were prescribed there. JIS X 0208 is the most widely used character standard in Japan and consists of the Joyo Kanji, Jinmeiyo Kanji and other characters to represent geographical names and historical names, and more than 6300 characters are prescribed there. There exists a correspondence between Old-form Kanji (Kyuji) which are not simplified and New-form Kanji (Shinji) which are simplified as variants in Japan, but Kyuji and Shinji are often distinguished in the context of personal names and organizational names.

中国語で使われる漢字は簡体字(中国本土、シンガポール等で使用)と繁体字(台湾、香港、澳門等で使用)がある。簡体字は、繁体字の中でよく使われるものを書きやすくしたものと捉えることができ、簡体字と繁体字は可換な異体字であると認識されている。なお、簡体字を使う国・地域で繁体字を使うこと、およびその逆はほぼない。また、簡体字と繁体字を混ぜて使うこともほぼない。

韓国で使われる漢字はほぼ繁体字であるが、現代韓国語の書記方法としてはほ ぼハングルが用いられており、最近の公的文書、新聞、一般書籍等での漢字の 使用は補助的である。

For the Han script in Chinese, there are Simplified Characters (used in Mainland China, Singapore, etc.) and Traditional Characters (used in Taiwan, Hong Kong, Macau, etc.). Simplified Characters are transformed forms of frequently used Traditional Characters for easy writing, and these are recognized as interchangeable variants in Chinese. Note that the usage of Traditional Characters in the Simplified Chinese area is very low, and vice versa. In addition, mixed usage of Simplified Characters and Traditional Characters is very low.

Hanja used in South Korea are mostly Traditional forms, but only Hangul is used in the modern Korean writing system with few exceptions, and the usage of Hanja in public documents, newspapers, and general magazines is supplementary.

[平仮名・片仮名を使う言語の紹介]

平仮名、片仮名は日本で発明された文字であり、日本でのみ使用されており、 他の国や地域では使用されていない(脚注:パラオ共和国アンガウル州 http://en.wikipedia.org/wiki/Angaur)。平仮名、片仮名はともに音節文字であり、同じ発音に対してそれぞれ対応する文字があるが、それらは異体字とはみなされていない。平仮名は主に漢字の送り仮名や副詞、接続詞、難読漢字を平易に書き表す場合等に使われる。片仮名は主に外来語や擬声語で使われる。

Hiragana and Katakana are characters invented in Japan, and used only in Japan, not in other countries or regions¹. Hiragana and Katakana are both syllabic characters and there's one-to-one mapping between Hiragana character and Katakana character with the same pronunciation, but they are not recognized as variants. Hiragana is mainly used as suffixes to Kanji to complete the full reading of the word, for adverbs, conjunctions, and to rewrite difficult Kanji into forms for easy reading. Katakana is mainly used to represent loanwords and onomatopoeic words.

[英字を使う言語の紹介]

英字はアラビア数字と同様に世界中の多数の国や地域で使われている。日本語における英字は主に外来語や略語を表すために使われる。会社名や商標名等で漢字・平仮名・片仮名と入り混じって使われることがある。

The Latin script is used in many countries and regions in the world as well as Arabic numerals. In Japanese it is mainly used to represent loanwords and abbreviations. Furthermore, it is sometimes used mixed with Kanji, Hiragana and Katakana to represent company names and trade names.

1.3. Countries with Significant User Communities for the Script [日本語で使われる漢字を使う国の紹介]

漢字は、中国語を使用する中国、台湾、香港、澳門、マレーシア、シンガポール等で使われてきた。さらには、漢字を輸入して自国語内で使ってきた国である日本、韓国等でも使われてきた。

平仮名、片仮名は日本で発明された文字であり、日本でのみ使用されている。 英字は、英語圏の国々で使われているのみでなく、英字と同じ文字を含むラテン文字を使う国々(フランス、ドイツ等)で使われている。

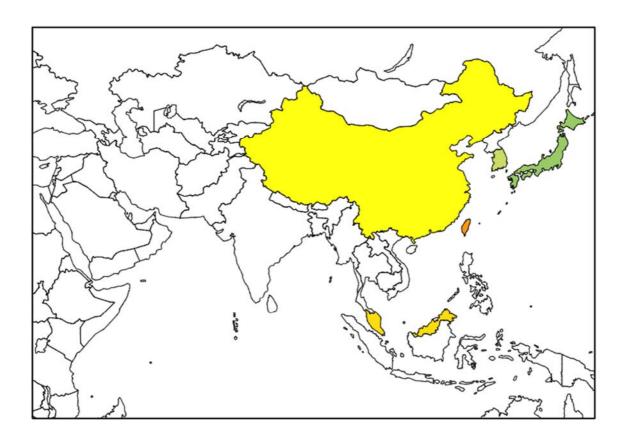
¹ Japanese is defined as one of official languages in Angaur, but not used in daily life. See also: http://en.wikipedia.org/wiki/Angaur

漢字を使う国々については、中国語生成パネルの提案書に書かれている以下の 図が参考になる。

Kanji (Han) has been used in Mainland China, Taiwan, Macau, Malaysia, and Singapore, where the Chinese language is used. In addition, in countries such as Japan and Korea, Kanji (Hanja) were imported and used. Hiragana (平仮名) and Katakana (片仮名) were invented in Japan and are being used only in Japan.

The Latin script is used in English speaking countries. In addition, decorated versions of Latin Script-based characters are used in countries where Latin script-based languages are used (such as France and Germany).

Countries where Kanji are used are shown in the world map below. (This map is copied from the CGP proposal.)



Kanji (Chinese script) used in conjunction with Hiragana and Katakana in the same language
(Japan)
Hanja (Chinese script) used in conjunction with Hangul in the same language (Republic of Korea)
Hans (Simplified Chinese) used exclusively or almost exclusively (Mainland China)
Hant (Traditional Chinese) used exclusively or almost exclusively (Taiwan, Macau and Hong Kong)
Hans (Simplified Chinese) used formally but Hant (Traditional Chinese) continue to be used widely

2. Proposed Initial Composition of the Panel

2.1. Panel Chair and Members (with Expertise)

候補者のリストと、候補者の専門性の背景

Hiro Hotta (堀田博文) (chair)

- Director, Corporate Planning, Japan Registry Services (JPRS)
- Council member of ICANN ccNSO
- Board member and Treasurer of APTLD
- Former member of CJK Joint Engineering Team (JET)
- Former member of JPNIC IDN Taskforce (IDN-TF)

Akinori Maemura (前村昌紀) (vice chair)

- General Manager, Internet Development Department, Japan Network Information Center (JPNIC)
- Chair of APNIC EC
- Former Member of NETmundial EMC
- Former Board member of Japan Network Information Center (JPNIC)
- Former member of JANOG committee

Shigeki Goto (後藤滋樹)

- Professor at Department of Computer Science and Engineering, Waseda University, Japan
- President of Japan Network Information Center (JPNIC)
- Advisor to Asia-Pacific Advanced Network (APAN)
- Chair of JP Domain Name Advisory Committee
- Former member of Telecommunications Council, Japanese Government
- Former vice chair of Japan Internet Domain Name Council
- Former chair of Japanese Domain Names Association (JDNA)
- Former member of CJK Joint Engineering Team (JET)
- Former member of JPNIC IDN Taskforce (IDN-TF)

Kazunori Konishi (小西和憲)

- NOC Director of Asia-Pacific Advanced Network (APAN)
- Former professor of Cyber University

- Former board of Japan Network Information Center (JPNIC)
- Former board of Japanese Domain Names Association (JDNA)
- Founder of CJK Joint Engineering Team (JET)
- Former member of JPNIC IDN Taskforce (IDN-TF)
- Co-author of JET Guidelines (RFC 3743)

Tsugizo Kubo (久保次三)

- Professor, Senshu University Law School, Tokyo, Japan
- Panel of Experts appointed by WIPO in the WIPO Internet Domain Name Process 1999
- A member of the Advisory Committee of the Internet Association Japan (IAjapan)
- Former Chairman of the Trademark Committee of the Japan Intellectual Property Association (JIPA)
- Former Managing Director of the Japan Trademark Association (JTA)
- Former Member of the Advisory Council of the Japan Network Information Center (JPNIC)
- Former Chair of the JPNIC Domain Name Working Group (DOM-WG)
- Former Chairman of the JPNIC Domain Name Dispute Resolution Policy Taskforce (DRP-TF)
- Former DRP Panelist of the Prefecture Type JP Domain Name Sunrise of Japan Registry Services Co., Ltd. (JPRS)

Yoshitaka Murakami (村上嘉隆)

★未記述★

Shuichi Tashiro (田代秀一)

- General Manager, Open Standards Promotion Center Technology Headquarters, Information-technology Promotion Agency, Japan
- Member of ISO/IEC JTC1/SC2/WG2/IRG
- Secretary of IPA Character Information Infrastructure
- Former member of CJK Joint Engineering Team (JET)
- Former member of JPNIC Domain WG (DOM-WG)
- Former member of JPNIC IDN Taskforce (IDN-TF)

Yoshiro Yoneya (米谷嘉朗)

- Senior Researcher, Research and Development Department, Japan Registry Services (JPRS)
- Co-chair of IETF precis WG
- Board of DNS operator group Japan (DNSOPS.JP)
- Former member of ICANN IDN VIP Chinese Case Study Team
- Former secretary general of Japanese Domain Names Association (JDNA)
- Former member of CJK Joint Engineering Team (JET)
- Former chair of JPNIC IDN Taskforce (IDN-TF)
- Co-author of downgrading mechanism for EAI (RFC 5504)

2.2. Panel Diversity

日本語生成パネルのメンバーはさまざまな背景を持つ専門家が集まっている。 いずれのメンバーも IDN の規格策定や JET (Joint Engineering Team: 2.3 節 を参照) における CJK での議論、日本国内における日本語ドメイン名ルールの 制定、ICANN における多様な文化からの参加を通したポリシー作成の経験を持 っている。

日本語生成パネルの初期メンバーはいずれも日本人であるが、インターネット 国際化(多言語化)を世界的な範囲で実施していた経験者が多く、インターネットの国際化における日本語や他の言語(特にアジア系言語)に造詣が深い。

The members of the initial Japanese Generation Panel consist of experts with various backgrounds. Each member has experience in one or more of the areas of IDN standardization, CJK discussion in JET (cf. Section 2.3), establishment of Japanese Domain Name rules, policy making in ICANN through the participation from various sectors.

Although all the members of the initial Japanese Generation Panel are Japanese, most of them have experience in internationalization (multilingualization) of the Internet worldwide, therefore, they have a deep knowledge of Japanese and other (especially Asian) languages in terms of internationalization of the Internet.

2.3. Relationship with Past Work or Working Groups

JPドメイン名においては、2001年2月より、IDNの登録サービスを開始した。 それは、汎用 JPドメイン名と呼ばれる第2レベルへの ACII ラベルおよび IDN ラベルの登録サービスである。また、2012年11月からは、都道府県型と呼ばれる第2レベルに都道府県名を持つ第3レベルへの ACII ラベルおよび IDN ラベルの登録サービスを開始した。

汎用 JP ドメイン名においては、2014 年 11 月 1 日現在、全 93.9 万ドメイン名登録のうち約 13%が IDN であり、また、都道府県型 JP ドメイン名においては、全 1.2 万ドメイン名登録のうち約 25%が IDN である。

また、それら IDN のうち、約4%は、英数字交じりの IDN である。

この JP における日本語ドメイン名のルールは IANA レポジトリに ja-JP として登録されており、それは、. ASIA でも使われている。

JP Domain Names started an IDN registration service in February 2001. It is a domain name registration service called "General-use JP Domain Name", which registers ASCII and IDN labels on the second level. Also, in November 2012, the domain name registration service called "Prefecture Type JP Domain Name" started, and it registers ASCII and IDN labels on the third level when the second level is a prefecture name.

In General-use JP Domain Names, as of 1 November 2014, ★13% of the 93.9K registered domain names are IDNs, and in Prefecture Type JP Domain Names, 25% of the 1.2K registered domain names are IDNs. Furthermore, about 4% of these IDNs are Latin script mixed IDNs.★ The Japanese Domain Names rules for JP are registered to IANA's Repository of IDN Practices as .jp Japanese (Language Tag: ja-JP), and are also used at DotAsia.

この日本語ドメイン名のルールは、2000年9月より JPNIC が中心となり、ドメイン名の専門家だけでなく商標専門家や文字の専門家等、多様な専門家を集めて議論し、作ったものである。その過程において、コミュニティに仕様を公開し、コメントも受け付けた。主だった特徴は、次のものである。

- 漢字、ひらがな、カタカナが少なくとも1文字入った、漢字、ひらがな、カタカナ、英数字の列
- 漢字は、JIS 第 1 水準と第 2 水準からなる 6355 個の範囲。平仮名は 85 字、 片仮名は 89 字、漢字に準ずる文字は 5 字。
- 異体字は存在しない

その約14年間に及ぶサービス提供経験において、この日本語ドメイン名のル ールに対する苦情や反対意見は受けていない。

JPNIC convened various experts such as domain name experts, trademark experts, character code experts and so on, and has led discussions since September 2000, and developed these Japanese Domain Names rules. During the development process, a specification was published to the community and there was a call for public comments. Major characteristics of the specification are:

- String consists from alphanumeric script, Kanji, Hiragana and Katakana which must include one or more Kanji, Hiragana or Katakana.
- Kanji must be in range of JIS X 0208 first level and second level (6355 characters). Moreover, Hiragana (85 characters), Katakana (89 characters) and quasi-Kanji (5 characters) must be in the same range.
- No variants exist.

During about 14 years experience of service delivery, there were no complaints or objections to these Japanese Domain Name rules.

「JET との関係]

CJK は、同じ漢字を共通に使う可能性がある。しかし、漢字の範囲や異体字の 定義は、CJK それぞれで異なる。

IETFでのIDNAの検討を通して、この異体字をどのパートで処理すべきかという議論があった。この中で、プロトコルのレベルで異体字を処理すべきという意見があったが、プロトコルのレベルでは言語毎に異なる扱いを要求する異体字を処理できないという問題がある。

このため、CJK を使う国や地域が JET (Joint Engineering Team) と呼ぶチームを作り、異体字の扱い方を協力して検討し、ドメイン名登録や利用のレベルで処理すべきということを合意し、RFC3743 を作り出した。

CJK have the possibility of using the same Han (Kanji) characters in common. But the ranges of the Han characters and the definitions of variants are different for each of CJK.

Through the consideration of IDNA in the IETF, there was a discussion regarding which part should process variants. During the discussion, there was an argument that variants should be processed at protocol level, but

there was the issue that it is impossible to process variants which require different treatment in each language at protocol level.

Therefore, countries and regions that use CJK established the JET (Joint Engineering Team), and discussed variant processing together. Finally JET got consensus that it should be processed at domain name registration and utilization level (not at protocol level), and published RFC 3743.

3. Work Plan

3.1. Characteristics of the Japanese LGR

日本語は、1.3節と2.3節に記述されているように、中国語コミュニティおよび韓国語コミュニティと漢字スクリプトを共有しているが、その言語文字の範囲および異体字定義は異なっている。このため、JGPは、CGP、KGPと協力・協調して日本語 LGR を生成し、それが中国語 LGR、韓国語 LGR と調和しているものとする必要がある。

As described in 1.3 and 2.3, Japanese language uses Kanji script that is also used by Chinese community and Korean community. However, the characters used in Chinese, Japanese, and Korean languages have different character sets and variant definitions. Therefore, JGP needs to cooperate and coordinate with CGP and KGP in defining Japanese LGR in order for the RootLGR to be defined as harmonized as possible.

3.2. Suggested Timeline with Significant Milestones

2014年

8-12 月 JGP 設立準備

JGP 準備会合[JGP 体制/スケジュール/方針の共有・合意]

日本語 LGR 検討

CJK 調整内容検討

2014

Aug – Dec Preparation for establishment of JGP

Preparation meeting of JGP [sharing and agreement on JGP

formation/schedule/principle]

Development of Japanese LGR

Investigation of the subject matter of CJK coordination

2015年

1月 日本語 LGR 検討 CJK 調整内容検討

2月 JGP 設立申請[対 ICANN]

JGP 設立申請したことを発表[対国内一般]

CJK 調整委員会

3-5 月 日本語 LGR 検討

CJK 調整

5月 日本語 LGR の ICANN への提出

その後 IP と調整

2015

Jan Development of Japanese LGR

Investigation of the subject matter of CJK coordination

Feb Application for establishment of JGP

Announcement of application for JGP establishment

[domestic]

CJK coordination committee

Mar-May Development of Japanese LGR

CJK coordination committee

May Submit draft Japanese LGR [to ICANN]

June- Coordination with IP

※ 本活動予定は最速のケースを想定したものであり、検討項目の増減、 CJK 間調整等の状況により適宜予定を修正する

Note: This schedule is assuming the fastest case, and it will be updated in a timely manner according to the increasing/decreasing number of action items, the CJK coordination situation, and so on.

3.3. Proposed Schedule of Meeting and Teleconferences

毎月1~2回の会合を予定

Scheduling meeting once or twice per month.

3.4. Sources of Funding for Travel and Logistics

事務局である JPRS もしくは JPNIC が会議場所および必要に応じリモート参加環境を提供。また、会議場への交通費やリモート参加に要する機材等は、メンバー各位もしくはメンバー所属組織各位が負担する。

As secretariat JPNIC or JPRS to provide meeting rooms and remote participation facilities if necessary. Each member or their affiliations to defray travel expenses and facilities for remote participation.

3.5. Need for ICANN Provided Advisors

パネル創設当時は、特に想定していない。ただし、検討の進展中において、必要に応じアドバイスを依頼することはある。

Not anticipated at the start of the Japanese Generation Panel. However, advice to be requested if needed during the progress of the discussions.

References

- About Japanese Language

Japanese language

http://en.wikipedia.org/wiki/Japanese_language

- About Japanese trade mark and trade name law

About the designation of the standard characters to prescribe in

Trademarks Law Article 5 Clause 3 (In Japanese)

http://www.jpo.go.jp/shiryou/kijun/kijun2/pdf/syouhyoubin/19_01.pdf

Japan's trademark system

http://www.jetro.go.jp/en/invest/setting_up/laws/section5/page2.html

About using Roman characters for trade names (In Japanese)

http://www.moj.go.jp/MINJI/minji44.html

- Character Standards

JIS X 0208

http://en.wikipedia.org/wiki/JIS_X_0208

Unicode

http://www.unicode.org/

- Internet Standards

Joint Engineering Team (JET) Guidelines for Internationalized Domain Names (IDN) Registration and Administration for Chinese, Japanese, and Korean

http://tools.ietf.org/html/rfc3743

- ICANN Related Documents

Root Zone LGR Project

https://community.icann.org/display/croscomlgrprocedure/Root+Zone+L

GR+Project>

Report on Chinese Variants in Internationalized Top-Level Domains

http://archive.icann.org/en/topics/new-gtlds/chinese-vip-issues-report-

03oct11-en.pdf>

Proposal for Japanese Generation Panel

Proposal for the Generation Panel for the Chinese Script Label Generation

Ruleset for the Root Zone