

Linked Data of Temporal Information

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Temporal information is important to link different kinds of data, as well as geographic information. HuTime project has developed a time information system HuTime, which has function to visualize and analyze various kinds of data based on temporal information, and enables users to know temporal relationship between different kinds of data. However, data construction based on temporal information is not necessarily easy, because there are not enough basic data for temporal information like base map and gazetteer. Therefore, the project attempts to construct basic temporal information such as basic chronological table, event index and calendar conversion. Using these data, the project released a linked data resource about temporal information last year (<http://datetime.hutime.org/>).

This released linked data consists of information about calendar date and related information, and has following features.

1. Five kinds of calendar are supported (Julian Date, Gregorian calendar, Julian calendar, Julian/Gregorian calendar and Japanese calendar), and three kinds of calendar (Hijri calendar, Hebrew calendar and Thai Buddhist calendar) are examined.
2. Linked data resources are defined daily (i.e. each date has own URI). URI of the date when PNC 2016 will start, is
<<http://datetime.hutime.org/calendar/101.1/date/2016-08-16>>
3. Resources about era, year and month are also defined as well. URI of the year when PNC was established, is
<<http://datetime.hutime.org/calendar/101.1/year/1997>>
4. URI (IRI) can be described using date expression. For example, URI of the date when PNC 2016 will start, is also described in Japanese calendar as
<<http://datetime.hutime.org/calendar/1001.1/date/平成28年8月16日>>

GeoNames (<http://www.geonames.org>) is popular as linked data about place names, and contributes to link various kinds of data based on geographic location. Similarly, it is expected that the linked data resource of the HuTime project becomes a basic infrastructure for temporal information.