Improvement of Dictionary 3 (Institutes) for efficient compilation

(N. Otsuka, 2023-04-18, Memo CP-D/1080)

The presentation by Vidya Devi and Jagjit Singh in the EXFOR workshop and my report on INST-FINDER (Memo CP-D/1078) show improvement of dictionary 3 expansions could help automation of institute coding. Based on my experience with INST-FINDER development, I summarized possible (and not comprehensive) improvement by (1) replacement of expansion, (2) addition of new institute codes, and (3) deletion of a few institute codes used seldom.

1. Replacements of expansions include

- addition of the city name

- Addition of abbreviation (e.g., BARC) or adoption of the abbreviation as the primary institute name (e.g., RIKEN instead of "Institute of Physical and Chemical Research).

- Replacement of an abbreviation with its full spelling when use of the abbreviation is not very typical (e.g., "Technische" instead of "Tech.").

- unification of the language within the country (e.g., Italian/German rather than English for the names of the Italian/German universities).

For the last item, English translation could be more convenient for expansions of some countries (e.g., "Institute of Physics and Power Engineering (IPPE)" is more convenient than "Fiziko-Energeticheskii Inst., Obninsk"? Expansions are sometimes in English but sometimes in Russian for the Russian institutes defined in Dictionary 3.)

The proposed replacements are listed in **Appendix** of this memo.

2. Addition of institutes codes are proposed for the following frequently occurring institutes:

Dictionary 3 (Institutes)

1USACMG	Central Michigan University, Mt.Pleasant, MI
2ITYUPG	Universita degli Studi di Perugia + INFN Perugia
2JPNNAO	National Astronomical Observatory of Japan, Mitaka
3KORSKK	Sungkyunkwan University, Suwon

3. Deletion of institutes codes are proposed for the following institutes. These two codes are used only two entries (31514 and A0456) and their retransmissions are foreseen to replace these codes with 3INDIND:

Dictionary 3 (Institutes)

3INDJCB	Janta College, Bakewar
3INDTHO	Thoubal College, Thouba

4. Deletion of obsolete codes starting from 2JAP is proposed except for 2JAPJAE, 2JAPKTO, 2JAPTOH, 2JAPTOK and 2JAPTIT, which are still used in 20763, 20793, 20845, 20847, 20851, 20853, 20871 and 20897. The other 2JAP codes are not used in EXFOR and CINDA anymore. See Memo 4C-2/120 for more details about replacement of 2JAP with 2JPN.

Appendix: Typical combinations of predicted and correct codes

Code	Expansion (current)	Expansion (proposed)
`1USACLU`	Colorado University, Boulder, CO	University of Colorado, Boulder, CO
`2BLGMOL`	C.E.N., Mol	SCK CEN (Belgian Nuclear Research Centre), Mol
`2GERJUL`	Forschungszentrum Juelich	Forschungszentrum Juelich, Juelich
`2GERKLN`	Universitaet zu Koeln	Universitaet zu Koeln, Koeln
`2GERPTB`	Physikal. Techn. Bundesanst., Braunschweig	Physikalisch-Technische Bundesanstalt, Braunschweig
`2GERTHB`	Tech.Hochschule, Braunschweig	Technische Universitaet Braunschweig
`2GERTHD`	Tech.Universitaet, Darmstadt	Technische Universitaet Darmstadt
`2GRCTUA`	Nat. Techn. Univ. of Athens	National Technical Univ. of Athens, Athens
`2ITYCAG`	Univ. of Cagliari	Universita degli Studi di Cagliari + INFN Cagliari
`2ITYCAM`	Universita degli Studi di Camerino	Universita degli Studi di Camerino, Camerino
`2ITYCIS`	C.I.S.E., Milan	Centro Informazioni Studi ed Esperienze (CISE), Milan
`2ITYFRA`	INFN Laboratori Nazionali di Frascati	INFN Laboratori Nazionali di Frascati, Frascati
`2ITYGVA`	U.+INFN., Genova	Universita degli Studi di Genova + INFN Genova
`2ITYLEC`	Univ.degli Studi Lecce + INFN Lecce	Universita degli Studi Lecce + INFN Lecce
`2ITYLGS`	Lab.Naz.del Gran Sasso, Ist.Naz.di Fis.Nucl.,Assergi	LINFN Laboratori Nazionali del Gran Sasso, Assergi
`2ITYMES`	Univ.of Messina	Universita degli Studi di Messina, Messina
`2ITYPAV`	Univ.degli Studi di Pavia + INFN Pavia	Universita degli Studi di Pavia + INFN Pavia
`2ITYUBO`	Bologna, Univ. + Ist. Naz. di Fis. Nucl.	Universita di Bologna + INFN Bologna
`2JPNHYO`	Hyogo Agricult.Univ., Sasayama	Hyogo Agriculture Univ., Sasayama
`2JPNIPC`	Inst.of Physical and Chemical Res. (RIKEN), Wako	RIKEN (Inst. of Physical and Chemical Research), Wako
`2JPNMZK`	Miyazaki Univ., Miyazaki	Univ. of Miyazaki, Miyazaki
`2SWDSWR`	Studsvik Science Research Laboratory	Studsvik Science Research Laboratory, Nykoeping
`2SWDUPP`	Univ. of Uppsala	Uppsala Univ., Uppsala
`2SWTBAS`	Basel Univ.	University of Basel, Basel
`2ZZZCER`	CERN, Geneva	European Org. for Nuclear Research (CERN), Geneva
`3CPRHST`	Chinese Univ. of Sci. and Tech., Hefei	Univ. of Science and Technology of China, Hefei
`3HKGHKG`	Hongkong	Hong Kong
`3HKGHKU`	Chinese Univ.of Hongkong	Chinese Univ. of Hong Kong
`3INDCCT`	Calicut University, Calicut	University of Calicut, Calicut
`3INDTAT`	Tata Institute, Mumbai	Tata Institute of Fundamental Research, Mumbai

`3INDTRM`	Bhabha Atomic Research Centre, Trombay, Mumbai	Bhabha Atomic Research Centre (BARC), Trombay, Mumbai
`3POLIFJ`	Niewodniczanski Instytut Fizyki Jadrowej, Krakow	Niewodniczanski Institute of Nuclear Physics, Krakow
`3POLWWA`	Warszawa, University	Univ. of Warsaw, Warsaw
`3RUMBUC`	Inst. de Fiz. si Ing. Nucl. Horia Hulubei, Bucharest	Horia Hulubei National Institute (IFIN-HH), Magurele
`3SAFITH`	iThemba LABS, Somerset West	iThemba Laboratories, Somerset West
`3SAFSTL`	Univ. of Stellenbosch	Stellenbosch Univ., Matieland
`3SAFUWC`	Univ. of Western Cape, Bellville, Cape Town	Univ. of the Western Cape, Bellville
`3SAFWIT`	Univ.of Witwatersrand, Johannesburg	Univ. of the Witwatersrand, Johannesburg
`3VN STH`	Institute of Nuclear Science and Technique, Hanoi	Institute for Nuclear Science and Technology, Hanoi
`3ZZZIAE`	IAEA, Vienna	International Atomic Energy Agency (IAEA), Vienna
`4ARMJER`	Inst. Fiziki Armen. A.N., Jerevan	A.I. Alikhanyan National Sci. Lab. (YerPhI), Yerevan
`4ARMJSU`	Jerevan State Univ., Jerevan	Yerevan State Univ., Yerevan
`4MLDAPI`	Appl.Physics Inst.,Mold.Acad.Sci.,Chisinau	Inst. of Applied Physics, Chisinau