

Project JTC1.22.17: Common Language-Independent Datatypes

Notes for the information of SC22 Member Bodies and others

1. Introduction

WG11 has prepared these notes so that SC22 Member Bodies may take them into consideration when deciding their response to the current letter ballot on Working Draft 4 of the Common Language-Independent Datatypes (CLID) Standard (SC22/N842). They may also be similarly of use to SC22 working groups and other standards committees and interested parties considering submitting comments on N842.

2. Submission of comments

The letter ballot closing date is 8 January 1991. It would be appreciated if all comments could be sent by that date to the convenor of WG11:

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It would be greatly appreciated, and will expedite processing of letter ballot comments, if SC22 Member Bodies could arrange for a copy of their official letter ballot response could be sent to the above address directly as well to SC22 secretariat.

3. Outstanding issues

The CLID WD4 as circulated (N842) contains (pages i and ii) a list of 9 outstanding issues, on which comments from SC22 Member Bodies and others are particularly invited. It is hoped that comments received will enable all these issues to be resolved before registration of a revised version of N842 as a DP.

3.1 Null datatype

Although Null datatype (N842, page 21, section 7.1.13) is stated in the document to be a "resolved issue" (page 68, Annex G issue 10) concern has continued to be expressed about it, and views on the issue are therefore still invited. The option of not addressing the issue at all has been rejected because it will be necessary for mapping standards to do so and if CLID is silent about it they are likely to do so in different and incompatible ways, to the detriment of services based upon CLID.

One suggestion being considered is to include a more extended specification of association between a datatype and an object. This would say that, depending on its nature, the object may be in various states: it will have a "status" attribute (to avoid confusion with State datatype) as well as other attributes including associated with the datatype. In general, possible setting of the status attribute will include 'normal' (e.g. its association can be identified with a particular value of the datatype), 'null', and 'undefined'. Conforming information processing entities would be required to support these status settings as well as the datatype values. (Mapping standards would probably in many cases need to specify further requirements, including handling of further status settings.)

3.2 Date-and-Time datatype

Although Date-and-Time datatype is not listed as an issue, some concerns have been expressed about it and so, again, comments will be particularly welcome from SC22 member bodies and others. Particular questions which have been raised and which views are invited are:

- should the datatype support time zones?
- is the datatype primitive or derived?
- should the datatype be in CLID at all?

3.3 Compliance requirements

Quite apart from the question of Null datatype (see item 3.1 above) it is recognised that the compliance clause of CLID/WD4 (section 5) will be refined, and comments would be especially welcomed.

The intention is to allow products to conform to CLID directly, or to conform indirectly through mappings between their internal ('native') datatypes and CLID. The intention is also to allow the development of mapping standards, to which products sharing the same common set of internal datatypes could conform (and hence conform indirectly to CLID). The most obvious example is that of language processors (implementations) for a particular language. These could conform indirectly to CLID by providing CLID-conforming mappings, but without a mapping standard would be likely to do so in different and mutually incompatible ways, hence limiting the value of CLID based services to that language community.

It is recognised that section 5 of CLID WD4 (N842) does not express these intentions as clearly as it might, which is why suggestions for improvements will be welcomed.

3.4 Illustrative examples

It has been requested that illustrative examples be included in the document. WG11 is not in principle opposed to this but would like the guidance of SC22 member bodies on the issue.

If the weight of opinion is in favour of illustrative examples, indications of places in the document where they would be especially useful would be helpful. Suggestions so far have included List, Bag, Array and Table. Suggestions of actual examples to use would also be much appreciated.

Since such examples would be informative and not normative, it would not be WG11's intention to hold up DP registration and the next stage of processing in order to include them.

3.5 Character datatype

Finally, to save unnecessary comment on a question which has already been raised, character is a generic datatype in CLID, since CLID is a generic standard, and hence no particular character repertoire is specified. Mapping standards will probably have to address the matter of character repertoires but at the level of CLID itself it would introduce an unnecessary constraint.

It is recognized that some modifications to the treatment of Character datatype in CLID may be necessary as a result of the work of the SC22 ad hoc group on character handling. WG11 believes that it is unnecessary and undesirable to hold up the progress of CLID to DP stage because of that possibility. Some minor editorial changes to align the Character-string and List specifications and to explain their relationship are known to be needed and will be incorporated into the revised form of N842, which will be forwarded for DP registration and JTC1 letter ballot.