TS to DTM Conversion

Chapter 2 (V2.8.2) base definition of the components

---- begin citatation -----

The number of characters populated (excluding the time zone specification) specifies the precision.

Format: YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ].

Thus:

1. only the first four are used to specify a precision of "year"
2. the first six are used to specify a precision of "month"
3. the first eight are used to specify a precision of "day"
4. the first ten are used to specify a precision of "hour”
5. the first twelve are used to specify a precision of "minute”
6. the first fourteen are used to specify a precision of "second”
7. the first sixteen are used to specify a precision of "one tenth of a second”
8. the first nineteen are used to specify a precision of " one ten thousandths of a second”

Each can be represented in minimum set of 8 with each one increasing the precision (all R values); with quite a selection of potential sets (some R, some RE). What we have in practice is a mix of the latter for specific circumstances. Translating the current TS flavors to DTM gives us the following (plus notes some gaps that might be true but not useful to define.)

---- end citation ----

**TS to DTM Map V2**

~~Note: whenever precision is finer than days then time zone offset is fixed to UTC – “0000”~~

| **TS\_** | **Proposed DTM Flavors** | **Comment** |
| --- | --- | --- |
| *TS\_0* | *Date/Time (DTM) – Precision to Year* | *Base – no action req’d* |
| TS\_2 | Date/Time 1 (DTM\_1) – Precision to Year, Potentially to Day |  |
| TS\_3 | Date/Time 2 (DTM\_2) – Precision to Year, Potentially to Minute |  |
| TS\_7 | Date/Time 3 (DTM\_3) – Precision to Day |  |
| TS\_5 | Date/Time 4 (DTM\_4) – Precision to Day, Potentially to Minute |  |
|  | Date/Time 5 (DTM\_5) – Precision to Day, Potentially to Second | Add for completeness? |
| TS\_6 | Date/Time 6 (DTM\_6) – Precision to Minute |  |
|  | Date/Time 7 (DTM\_7) – Precision to Minute, Potentially to Second | Add for completeness? |
| TS\_1 | Date/Time 8 (DTM\_8) – Precision to Seconds |  |
| TS\_4 | Date/Time ?? (DTM\_??) – Unknown Date/Time in Required Field (If available, must be to precision of Day) | Option: make conditionals DTM\_1 and DTM\_2 (TO Version), renumber all the other DTMs or tack the conditionals to end |

7/19/2016 – keep the TS\_n and map to the DTM\_, monitor the DT Library project @ HL7

8/23/2016 – Discussion:

1) Do not lock into UTC, keep original usage for time zone, can revisit during Jan ballot.

2) Resolve nomenclature before or at WWWG mtg in September. Hold off on voting until larger group discussion.

Initial principles to support the DT flavors library:

1. The base is conceptually \_0, e.g., DTM\_0, but need only be referenced as DTM where used (but no table in DT section).
2. There is value in the hierarchical index example above, leave open slots 5 & 7 for those flavors or create for the library but do not include in the guides (consider leaving more slots for UTC versions – see the Set Analysis tab in TS\_DTM\_Convert\_v4.xlsx).
3. The initial TS\_ *n* assignments will not map to same DTM\_*n* if the current TS\_*n* values are to be preserved where referenced.
4. For each DTM flavor a TS flavor is created and the TS remains as the reference in fields; initial sync of TS-to-DTM numbering will be “off” but new DTMs will have TS with the same number.

**August 30, 2016**

Motion to move the variables (use of Varies) to the field level, create new DTM flavors for the TO components – David Burgess, Riki Merrick, no further discussion, against: 0, abstain: 3, in favor: 4

**October 13, 2016**

Based on the TS\_DTM\_Convert\_V6.xlsx (includes Immunization)

| **TS\_** | **DTM\_** | **Proposed DTM Flavors** | **Comment** |
| --- | --- | --- | --- |
| *TS\_0* |  | *Date/Time (DTM) – Precision to Year* | *Base – no action req’d* |
| TS\_2 | DTM\_01 | Date/Time 1 – Precision to Year, Potentially to Day |  |
| TS\_3 | DTM\_02 | Date/Time 2 – Precision to Year, Potentially to Minute |  |
|  | ***DTM\_03*** | Date/Time – Precision to Month  | Used in ***IMM IG*** for vaccine expiration dates |
| TS\_7 | DTM\_03 | Date/Time 3 – Precision to Day | **DTM-02 in Imm IG.** |
| TS\_5 | DTM\_04 | Date/Time 4 – Precision to Day, Potentially to Minute |  |
|  | DTM\_05 | Date/Time 5 (DTM\_5) – Precision to Day, Potentially to Second | Add for completeness? |
| TS\_6 | DTM\_06 | Date/Time 6 – Precision to Minute |  |
|  | DTM\_07 | Date/Time 7 – Precision to Minute, Potentially to Second | Add for completeness? |
| TS\_1 | DTM\_08 | Date/Time 8 – Precision to Seconds |  |
|  | DTM\_09 | Date/Time – Precision to Year, Potentially to Day; Timezone Offset Required but may be empty | Used by TO component |
|  | DTM\_10 | Date/Time – Precision to Day, Potentially to Minute; Timezone Offset Required but may be empty | Used by TO component |
|  | DTM\_11 | Date/Time – Precision to Minute; Timezone Offset Required but may be empty | Used by TO component |
|  | DTM\_12 | Date/Time – Precision to Seconds; Timezone Offset Required but may be empty |  |
|  | DTM\_13 | Date/Time – Unknown Date/Time in Required Field (If available, must be to precision of Day, Potentially to Minutes) |  |
| TS\_4 | DTM\_14 | Date/Time – Unknown Date/Time in Required Field (If available, must be to precision of Day, Potentially to Minutes); Timezone Offset Required but may be empty |  |
|  |  |  |  |