Free! General-purpose Testing Tool for HL7 v2

✓ **Web-application tool**
✓ **Automatically generates HL7 v2 Test Tools based on your specification**

Faster, more efficient method for building Conformance Testing Tools

Issues and Need

- Test Tools that are easier, faster, less expensive to create and maintain
- Tool builder that enables "automatic" production of Test Tools from machine-computable XML profiles and XML Test Cases

NIST General Validation Tool (GVT)
https://hl7v2.gvt.nist.gov/

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Description of NIST General Validation Tool (GVT)

- Supports both Context-free testing and Context-based testing
- Enables domain experts to create and maintain their own Test Tools
- Leverages the XML profiles created in the NIST Implementation Guide Authoring and Management Tool (IGAMT) and the XML Test Cases created in the NIST Test Case Authoring and Management Tool (TCAMT)
- Can be used to create customized Test Tools to be used by local jurisdictions

Advantages

- Conformance testing tools can be created faster and available for use sooner
- Customized test tools for on-boarding
- **Cost is reduced** for development of conformance testing tools

The NIST GVT for HL7 v2 is being used to create Test Tools based on Implementation Guides specifiers create in IGAMT and Test Cases created in TCAMT

NIST General-purpose Validation Tool -HL7 v2 Message Testing

1. Select **HL7 Context-free** from the Menu Bar.

2. Select conformance Profile.

3. Load the message into the Message Content window.

4. Click the Validate button to initiate validation of the message.

5. View the validation results displayed in the **Message Validation Result** window.

6. Click on the **Report** button to view the **Message Validation Report**.

Home ☑ Context-free ☑ Context-based 📄 Documentation ❓About 👤 Hello Guest ▾

Test Execution

Profile Group Type: Public

Profile Groups: Jurisdiction Reporting Update ▸

☰ Profiles ❓Help

▸ Jurisdiction Reporting Updat
☑ Report Jurisdiction Live I
☑ Report Jurisdiction Fetal
☑ Report Coded Cause of I
☑ Report Coded Race & Et
☑ Report Coded Race & Et

Profile: Report Jurisdiction Live Birth Information

☑ Validation   📄 Report   ☰ Profile Viewer   📄 ValueSets

☰ Message Tree

- MSH[1]:Message Header R[1,1]
- EVN[1]:Event Type R[1,1]
- PID[1]:Patient Identification R[1,1]
- NK1[1]:Next of Kin / Associated Parties R[1,2]
- NK1[2]:Next of Kin / Associated Parties R[1,2]
- PV1[1]:Patient Visit R[1,1]
- OBX[1]:Observation/Result R[1,*]
  - OBX[1]-1[1]:Set ID - OBX O[0,1]
  - OBX[1]-2[1]:Value Type R[1,1]
  - OBX[1]-3[1]:Observation Identifier R[1,1]
    ▸ OBX[1]-3[1].1:Identifier R
       73766
    - OBX[1]-3[1].2:Text RE
    - OBX[1]-3[1].3:Name of Coding System R
  - OBX[1]-5[1]:Observation Value R[1,1]
  - OBX[1]-11[1]:Observation Result Status R[1,1]

Message Content   🔄 4s ▾   ✖ Clear   📂 Browse   ⬇ Download

▶ Validate   ⊕ Load Example

```
1  MSH  |^~\&| 2.16.840.1.114222.4.3.2.2.3.600.7|CDPH|2.16.840.1.114222.4.3.2.2.1.4|NCHS|20170
2  EVN  |20170910||LB
3  PID  |1|000011^^^CDPH^FDR~20170000011^^^CDPH^FDRFN||^^^^^^U||20170909092291|F||^^^^^^U|^^44000^06^^US
4  NK1  |1|SMITH^JOYCE^A|MTH^HL70063|^^^41^^US^BD|^^^^^44000^06^^US^|^UNK^06037||1983
5  NK1  |2|JONES^JAKES^B|FTH^HL70063|^^82340^23^^US^BDL^YES^23019|||||^^82340^23^^US^|||19860904
6  PV1  |N|||||5|
7  OBX  |1|CWE|73766^OccurrencePlace^LN||22232009^Hospital^SCT|||||F
8  OBX  |2|CX|62329-8^FacilityIDStateAssigned^LN||0290^CADOH^FI||||F
9  OBX  |3|CWE|PHC1482^MothersBirthEdit^CDCPHINVS||PHC1362^Passed Edit^CDCPHINVS|||||F
10 OBX  |4|CWE|PHC1479^FathersBirthEdit^CDCPHINVS||PHC1362^Passed Edit^CDCPHINVS|||||F
11 OBX  |5|CWE|87301-8^MotherMarriedDuringPreg^LN||Y^Yes^HL70532|||||F
12 OBX  |6|CWE|57712-2^MothersEducation^LN||PHC1449^9th through 12th grade; no diploma^CDCPHINVS
13 OBX  |7|CWE|PHC1484^MothersEducationEdit^CDCPHINVS||PHC1362^Passed Edit^CDCPHINVS|||||F
14 OBX  |8|CWE|73764-3^AttendantAtBirth^LN||112247003^MD^SCT|||||F
15 OBX  |9|DTM|69044-6^FirstPrenatalCareDate^LN||20170518|
16 OBX  |10|NM|83846-6^MothersHeight^LN||65|in^inches^UCUM|||||F
17 OBX  |11|CWE|PHC1485^MothersHeightEdit^CDCPHINVS||PHC1362^Passed Edit^CDCPHINVS|||||F
18 OBX  |12|NM|56077-1^MothersPrePregnancyWeight^LN||250|lb^Pounds^UCUM|||||F
19 OBX  |13|CWE|PHC1486^MothersPrePregnancyWeightEdit^CDCPHINVS||PHC1362^Passed Edit^CDCPHINVS
20 OBX  |14|CWE|87303-4^MotherGetWICFood^LN||N^No^HL70136|||||F
21 OBX  |15|NM|11638-4^PreviousLivebirthsNowLiving^LN||0|||||F
22 OBX  |16|
23 OBX  |17|
24 OBX  |18|NM|8
25
```

✔ Message Validation Result   ❓Help

[3] Errors [93] Warnings [398] Alerts
[3] All   [3] Code Not Found

☐ Highlight All

✖ Remove Duplicates   ⊕ Report

Path	Description	Line #
NK1[1]-28[1].1	The value '2148-5' at location Component NK1-28.1 (Identifier) is not member of the value set PHVS_EthnicityGroup_NCHS_BR	4
NK1[2]-28[1].1	The value '2148-5' at location Component NK1-28.1 (Identifier) is not member of the value set PHVS_EthnicityGroup_NCHS_BR	5
OBX[1]-3[1].1	The value '73766' at location Component OBX-3.1 (Identifier) is not member of the value set PHVS_JLBIObservationType_NCHS_BR	7