

LOG ITEM

CPROPERTY

qUINT64	PROCESS KEY	0
qINT64	TIME Elms	0
qUINT64	LEVEL	0
QSTRING	FORMAT	()
QVARIANTLIST	VARS	()
QSTRING	FUNCTIONSTATIC	()
QSTRING	FILENAME	()
qINT32	FILELINE	0

LOG

REQUIREMENTS

WHO IS THE CUSTOMER? Tony and Lesser Tony

WHAT DOES HE NEED? → ON A PROHOL BASIS VIEW
EVENTS FROM A PROCESS TO GET OUT.

SEE
WHAT

TEST NO
BJS/S
VS 157

- ENSURE UNIT TESTS PASS OR KNOW THE REASON WHY.
 - ENSURE REGRESSION AND OTHER TESTS HAVE THE EXPECTED RESULTS
 - SHOW LIVE CANDY TO USER IN DOS BOX STDOUT
 - WATCH COMMANDS RUN AND FINISH WITH COMMANDS RESULTS ON STDOUT
 - COMPARE PROCESSING OF 2 INSTANCES
 - FOR SIMPLE OUTPUT TO TEXT FILE/STDOUT/STDERR USE NOT GENERATE GB TEXT FILES TO SEARCH FOR NOISES
 - START BY CATCHING LOG ITEMS IN STARTUP CODE, PUBLISHING THAT AT APP SERVER AND PERIODICALLY THEREAFTER, WITH FLUSHES AT CRITICAL SECTIONS
 - PUSH TO A CLOUD ACCESSABLE TO THE PRODUCTION OR TEST SYSTEM AND TO THE NINJA R&D BUNKER.
 - PUSH ALL LOG EVENTS
 - ATTACH A CLOUD ASSIGNEE PROCESS KEEPER WITH THE LOG ITEMS
 - MAXIMIZE LOG CATEGORIES AS LOW LEVEL AS POSSIBLE

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GIVEN A PROCESS ID WHICH MAPS TO A PROCESS ID
DISPLAY ALL ITEMS FOR THAT PROCESS AT
SPECIFIED SERVER LEVEL

- THE ABILITY TO "FOCUS" ON ONE OR MORE NAMES CLASSES OR CLASS FUNCTIONS SHOWING ALL SEVEN LEVELS

LOG

BASE LEVEL

- LOG EVERYTHING TO LOGITEM::LIST
- OUTPUT LOGITEM::TOSTRING TO QDEBUGOUT, STREAM/STREAM,
OR TEXT FILE ABOVE SPECIFIED LOGLEVEL
- DEAL WITH DATA ITEMS ABOVE SPECIFIED LOGLEVEL.

LOG

EXE Supt LEVEL

- BASED UPON LOG/URL VALUE
 - OBTAIN INSTANCE KEY FROM URL:
 - NETWORK
 - NETWORK NODE
 - VIRTUAL MACHINE ID
 - PROCESS ID
 - MSTIME::BASE()
 - START DATA FABRIC WITH CURRENT LOGITEM :: LIST + INSTANCE KEY
 - SCAN LOGTHRESH THAT PENDING ANY VALIDASS FROM LOGITEM::LIST (NOW IN ROLE OR CANCEL) AND REM OVER FROM ITEM OR LIST.

LOG ENVIRONMENT RESULT UNIFOR UNIFOR

PRESENTLY

MACHINE KEY

HOST KEY

LOCK NOT KEY

GUARD NOT KEY

UNIVERSITY

← BEHAVIOR GETS SMARTER WITH MORE LIBS
QSTRING FORMATTING MESSAGE (CQS & FORMAT, C++11 VERS)

QSTRING RTN (FORMAT)

```
INT x = 0;  
FOR EVER ()  
{
```

```
    QSTRING RETL = QSTRING("%") + QSTRING("%" NUMBER(x));  
    IF (!RTN.contains(RETL)) BREAK;  
    QSTRING S = VARS[x].toString();  
    RTN.replace(RETL, S, STRIP("%"));  
    ++x;  
}
```

RETURN RTN;

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PROBLEMS:

1. LOOP FOREVER IF ENOUGH %'S ~ 9.99998...
2. STOPS IF FORMAT MISSING %'S
3. BREAKS FORCE, MAY BE BETTER WORK
4. CAN'T OUTPUT A % SIGN
5. REQUIRES TYPELIB: PRINTABLE FOR OBJECT, FOR EXAMPLE.

CLASS LOG LEVEL

{

PUBLIC:

ENUM LEVEL

{

LEVEL NULL
LEAVE,
ENTER Arg,
ENTER,

...
Trace,

...
NOTIFY,
WARNING,
START,
Eder,

...
SHUTDOWN,
NUKE,
LOG SIZE

}

PRIVATE:

LEVEL mLevel

PUBLIC:

CTOR(void) : mLevel(LEVEL NULL) {}

CTOR(const int i) : mLevel(LEVEL(i)) {}

CTOR(const Level l) : mLevel(l) {}

BOOL ISNULL(void) const

BOOL ISVALID(void) const

QSTRING NAME(void) const { RETURN NAME(mLevel); }

STATIC QSTRING Name(const Level l)

BASE LIB

VERSION INFO
 MODULE INFO
 FUNCTION INFO
 BASIC NAME
 BASIC ID
~~NAME <T>~~
~~NAME <T> :: LIST~~
 * ~~SINGLETION~~
 * C
 * PROPERTY
 + Q

LOG LIB

LOG LEVEL : INTEGER
 | IN NAMED {LWT}

TYPE LIB

LOG ITEM
 VIA PROPERTY
 :: QUEUE
 :: LIST

LOG TORIC

LOGGER
 SINGLETION

IT ONLY
 & NO PEG ON
 BASE LIB
 CODE

LOG MACROS, BY TYPE

- REPORT - Format message
DETAIL, TRACE, INFO, LOGMSG, PROGRESS, NOTICE, WARNING,
STEPS, ERROR, FATAL, ...
- DUMP - VO NAME [V1 VAR] [V2 BYTES]
DUMP, DUMPVARHEX, DUMPHEX
RESULT, RESULTS, VARPACK FAILRETURN
- BOOLEAN - VO NAME, V1 VAR, V2 TRUE/FALSE *
EXPECT EXPNOT WATCH WATCHNOT ASSERT
- COMPARE - VO ENAME [V1 ENM, V2 ANAM], V3 AVAM, V4 RER *
EXPECT_EQ _NE _GT _GE _LT _LE WATCH ASSERT
- FUNCTION - V... ARGUMENTS (VIA LogFunction)
→ REPORT → DUMP (AVMS)
- POINTER - VO VALUE [V1 PTRNAME] [V2 OBJNAME]
NULLPOINTER OBJ POINTER GUI POINTER
- MEMORY - TBD
- QT SPECIFIC
CONNECT, DISCONNECT → BOOLEAN
EMIT - TBD
- TODO - Format messages ONCE

* IF IS TEST ICED → SUCCESS

- MINIMAL LOGLIB
 - PREREQUISITES
 - BASE LIB MINIMAL IMPLEMENTATION
 - TYPE LIB HEADER FILES
 - BASE LIB
 - VERSIONINFO - AS IS
 - MODULEINFO - AS IS
 - FUNCTIONINFO
 - BRING OVER FROM LOG FUNCTION
 - BASIC NAME
 - STRING NOT UNWANTED CONNECTIONS
 - BASIC ID - STUB
 - TYPE LIB
 - SINGLETION - AS IS + CLEANUP
 - CPROPERTY - AS IS FOR NOW
 - QPROPERTY - AS IS FOR NOW
 - DPROPERTY - TEST AS IS
 - NAME<T>::LIST
 - QPAIR<BasicName, T>
 - BasicName::SORTABLE()
 - NAMES<T>
 - CTOR(NAME<T>::LIST) [STATIC]
 - CTOR(CONST T & VALUE)
 - CTOR(CONST BasicName& Name)
 - INSERT(CONST NAME<T> & NAME<T>) [STATIC]
 - LOGLIB
 - LOGGER
 - SINGLETON
 - ADD(LOGITEM) : BOOL
 - LOGITEM::OVERRIDE SMITEMLIST
 - LOGLEVEL : NAMES<INTEGER>
 - STATIC CTOR
 - LOGITEM VIA DPROPERTY
 - LOGFORK
 - FORMAT MESSAGE BEHAVIOR
 - OUTPUT ITEM BEHAVIOR
 - LOGFORK STANDARD IO
 - LOGFORK TROLL
 - LOGFORK TEXTFILE

IN LOGITEM.CPP

```
#INCLUDE <DATA/PRINTABLE.H>  
QSTRING LOGITEM::TO STRING()  
{  
    RETURN FORMER MESSAGE (GOTFORMATTED,  
                           PRINTABLE (GETVARS));  
    // QSL PRINTABLE (QVL)  
}
```

IN LOG PRINTABLES.CPP

```
#DEFINE DATA - LIBRARY  
#INCLUDE <DATA/PRINTABLES.CPP>  
// DATA/PRINTABLES.CPP  
INCLUDE DATA/PRINTABLE.CPP  
WHICH EXPRESSES
```