

TIBCO Staffware Process Objects (SPO) C++ Client Object Model

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Object
Keys

Class:	Key:
SWAction	StepName Type
SWActiveUser	Name
SWAttribute	Name
SWAuditStep	Name (ListIndex: 1 to n)
SWAutoFwd	HostingNode ProcName StepName
SWWorkQ	Name@HostingNode
SWCase	ComputerName ProcNode CaseReference
SWCaseDataQParam	FieldName
SWCaseDataQParamDef	FieldName
SWCasePredictQParam	FieldName
SWClientInfo	Name
SWConditional	StepName Condition
SWConfigInfo	Name
SWDeadlineValue	(Expressed in text: Minutes, Hours, Days, Weeks, Months, Years, Date, Time)
SWDurationValue	(Expressed in text: MicroSeconds, Seconds, Minutes, Hours, Days, Weeks, Months, Years)
SWDynamicSubProcStep	ProcName StepName CaseNumber
SWEAIDStep	ProcName StepName CaseNumber
SWEntUser	Name
SWEventStep	ProcName StepName CaseNumber
SWExtProcess	ExtProcessName
SWFConditional	IfRow
SWField	Name
SWFMarking	Name Row Column
SWFRow	RowNumber
SWFwdItem	QName@HostingNode QueueType (QueueType: T=Test or R=Release)
SWGraftStep	ProcName StepName CaseNumber
SWGroup	Name
SWLabel	Row Column
SWListValidation	Name
SWMarking	Name
SWNode	ComputerName NodeName IsDirector InstanceNumber
SWNodeInfo	ComputerName NodeName IsDirector InstanceNumber
SWOSUser	Name
SWOutstandingItem	WorkQName MailID
SWParticipation	"Participation"<Index + 1>
SWPredictedItem	ProcName StepName AddrToName
SWProc	HostingNode Name ProcMajorVer ProcMinorVer
SWProcAudit	Integer [ListIndex: 1 to n]
SWProcGroup	HostingNode Name
SWPublicField	Name
SWQSessionInfo	ClientName
SWRole	Name
SWSALInfo	UserName
SWSortField	FieldName
SWStep	Name
SWSubProcStep	StepName SubCaseNumber
SWTable	Name
SWTableField	Name
SWThreadInfo	ID
SWTransControlStep	ProcName StepName CaseNumber
SWUser	Name
SWWorkItem	AddrToName MailID
SWWorkQ	Name@HostingNode Mode (Mode: T=Test or R=Release)

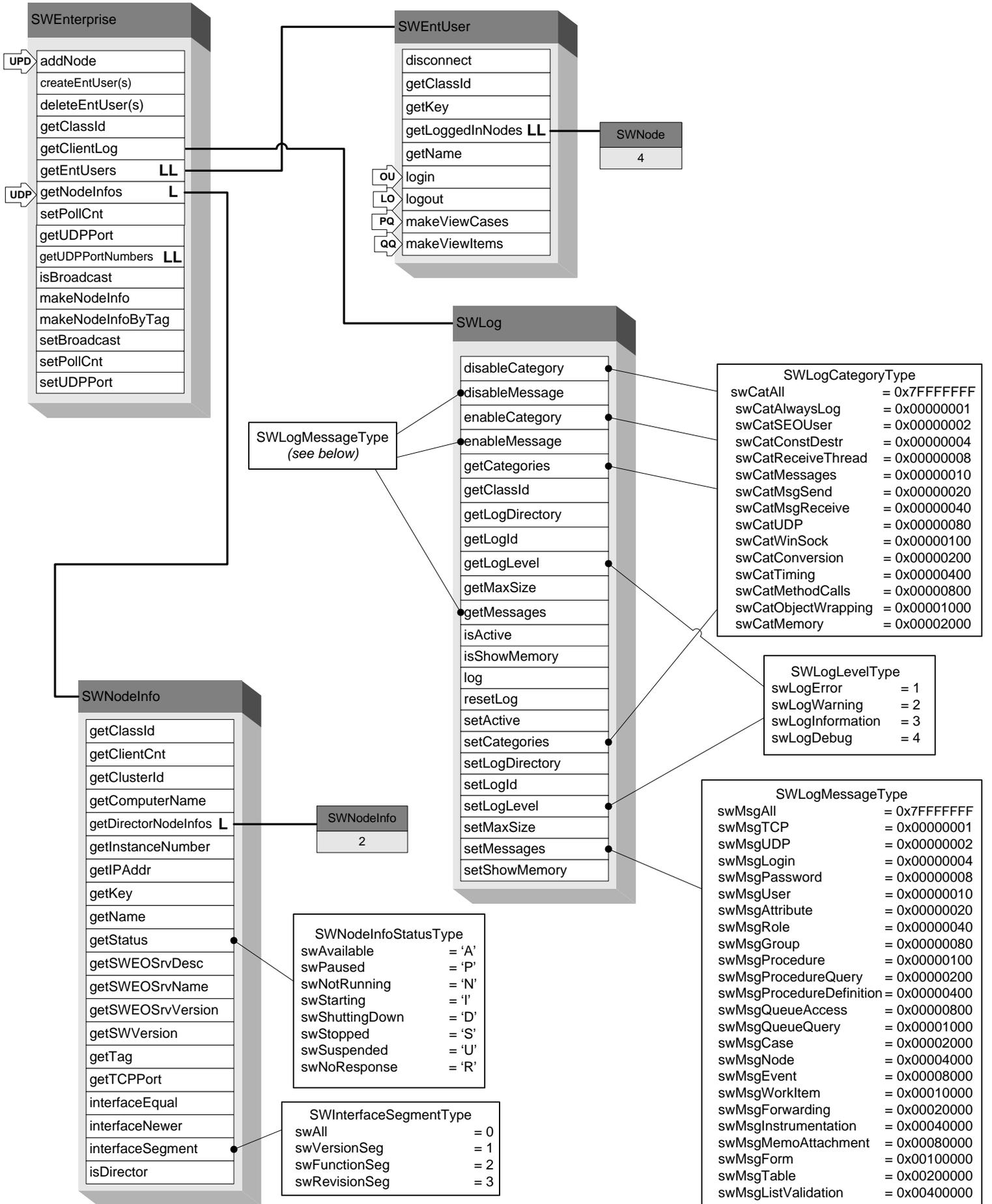
Class ID's

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swUserID	= 2	swLogID	= 41
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swAttributeID	= 5	swFConditionalID	= 44
swGroupID	= 6	swFRowID	= 45
swWorkQID	= 7	swLabelID	= 46
swBstrID	= 8	swFontID	= 47
swAutoFwdID	= 9	swListValidationID	= 48
swFwdItemID	= 10	swTableID	= 49
swFieldID	= 11	swTableFieldID	= 50
swStepID	= 12	swDateValueID	= 51
swAuditStepID	= 13	swTimeValueID	= 52
swOSUserID	= 14	swNumericValueID	= 53
swNodeID	= 15	swFormID	= 54
swConfigInfoID	= 16	swXListID	= 55
swSALInfoID	= 17	swCriteriaWIID	= 56
swClientInfoID	= 18	swCriteriaCID	= 57
swThreadInfoID	= 19	swAdminID	= 59
swQSessionInfoID	= 20	swWorkQID	= 60
swActiveUserID	= 21	swParticipationID	= 61
swSortFieldID	= 22	swRedirectionID	= 62
swMarkingID	= 23	swCaseDataQParamDefID	= 64
swEntUserID	= 24	swCaseDataQParamID	= 65
swActionID	= 25	swPublicFieldID	= 66
swConditionalID	= 26	swOutstandingItemID	= 67
swDeadlineValueID	= 27	swSubProcStepID	= 68
swCaseID	= 28	swPredictedItemID	= 69
swWorkItemID	= 29	swCasePredictQParamID	= 70
swEnterpriseID	= 30	swDurationID	= 71
swNodeInfoExID	= 31	swDurationValueID	= 72
swViewID	= 32	swCriteriaPID	= 73
swListID	= 33	swExtWorkItemID	= 74
swLocListID	= 34	swProcAuditID	= 76
swDeadlineID	= 35	swProcGroupID	= 77
swCommandID	= 36	swGraftStepID	= 78
swPermissionID	= 37	swEAIDStepID	= 79
swPriorityID	= 38	swEventStepID	= 80
swAccessUserRefID	= 39	swDynamicSubProcStepID	= 81
		swExtProcessID	= 82
		swTransControlStepID	= 83

Legend

L List
LL Local List
VL View List
XL XList

SWProc Object Reference
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SWNode	4
assignAttribute	
closeByCriteria	
createAttribute	
createGroup	
createRole	
createUser	
deleteAttribute(s)	
deleteGroup(s)	
deleteRole(s)	
deleteUser(s)	
getAdmin	
getAttributes	L
getClassId	
getComputerName	
getExtWorkItem	
getGroups	L
getGroupsX	XL
getKey	
getListValidations	L
getLoggedInUser	
getName	
getNetworkNodeNames	L
getNodeInfo	
getNodeInfoEx	
getOSUsers	L
getOSUsersX	XL
getProcs	L
getProcGroups	L
getRoles	L
getTables	L
getUsers	L
getUsersX	XL
getWorkQs	L
getXList	XL
getXListPredict	XL
isUserPwdExp	
make<Object>*	
makeXListPredict	XL
moveSysInfo	
purgeByCriteria	
resetLog	
setLogCategories	
setLogLevel	
setLogTrace	
setMaxLogSize	

SWNodeInfo	2
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SWNodeInfoEx	
getClassId	
GI	getClientInfos LL
getComputerName	
GI	getConfigInfos LL
getCurrVCCnt	
OU	getDateFormat
OU	getDateSeparator
OU	getDecimalSymbol
getFILVersion	
OU	getGroupingSymbol
getIPAddr	
getLinkDate	
getLogonLicenseCnt	
getLogonsAvailableCnt	
getLogonsExternalCnt	
getLogonsSharedCnt	
getLogonsTotalCnt	
getName	
getOSProvider	
getOSVersion	
getPartNumber	
getPeakVCCnt	
getPID	
getPlatform	
getProcessorCnt	
GI	getSALInfos LL
getSALVersion	
getServerTime	
getServerTimeZone	
getStaleVCCnt	
getStartup	
getSWEOSrvVersion	
getSWVersion	
getTCPPort	
GI	getThreadInfos LL
OU	getTimeSeparator
getTotBytesRxCnt	
getTotBytesTxCnt	
getTotTransCnt	
getTotUDPCnt	
getTotVCCnt	
getUDPPort	
getUDPRxCnt	
getUDPTxCnt	
getUpTime	
rebuild	

SWClientInfo	
GI	getActiveUsers LL
getBytesRxCnt	
getBytesTxCnt	
getClassId	
getInterfaceVersion	
getKey	
getName	
getSocket	
getTimeConnected	
getTimeLastTran	
getTransactionCnt	

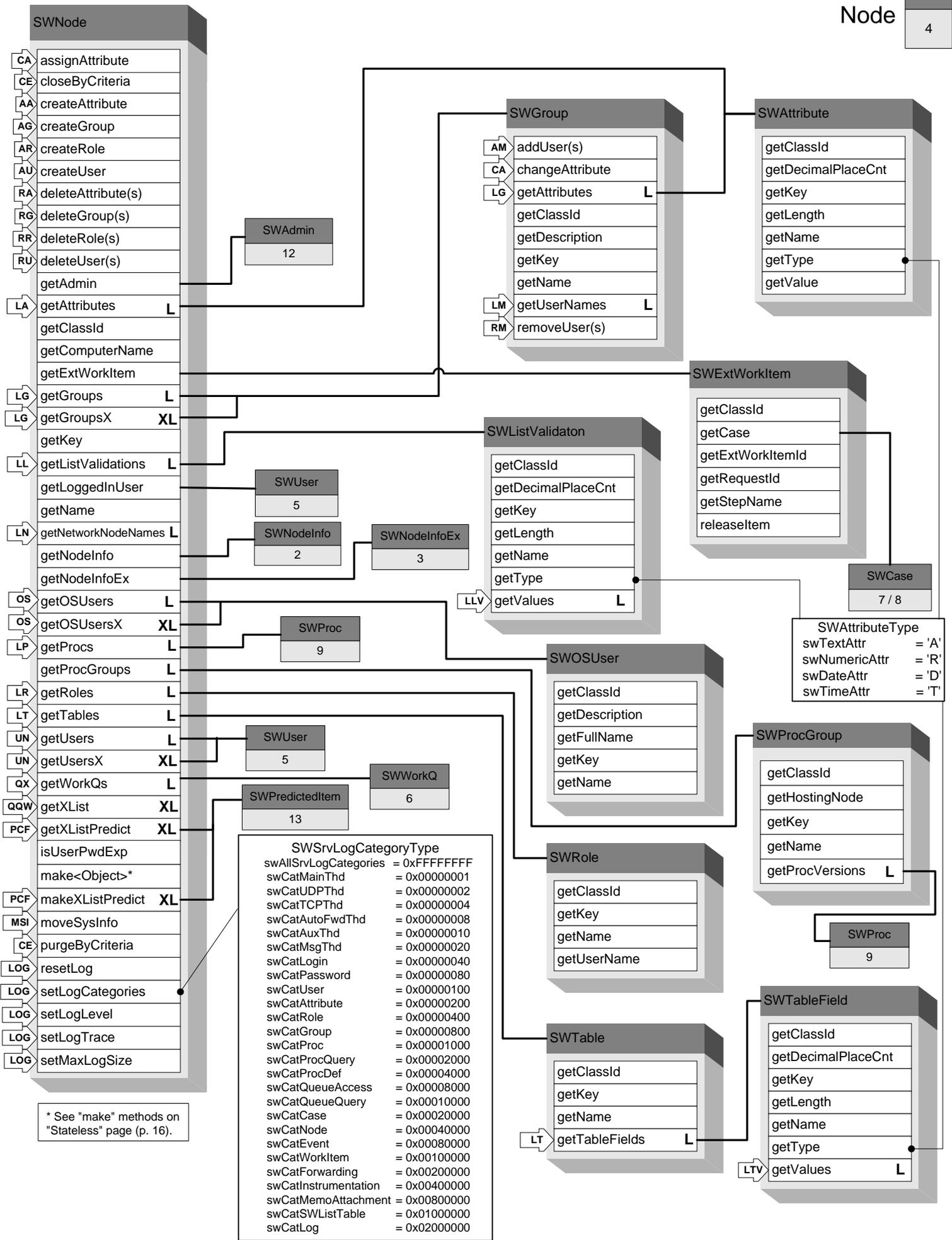
SWActiveUser	
getClassId	
getKey	
getMenu	
getName	

SWConfigInfo	
getClassId	
getKey	
getName	
getValue	

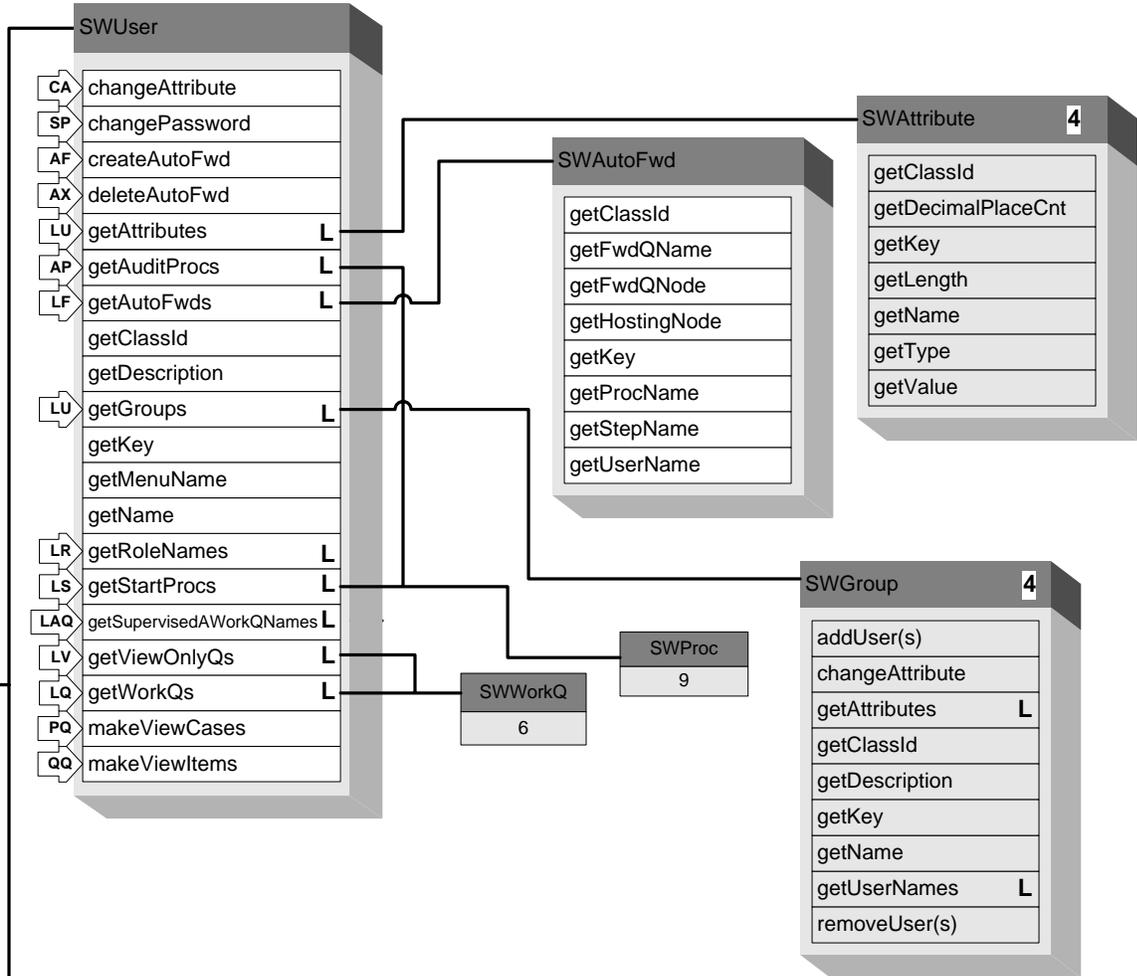
SWSALInfo	
getClassId	
getKey	
getLastUsed	
GI	getQSessionInfos LL
getTimeCreated	
getUserName	
isInUse	

SWQSessionInfo	
getClassId	
getClientName	
getKey	
getPersistenceId	
getTimeCreated	
getViewId	
getWorkQName	

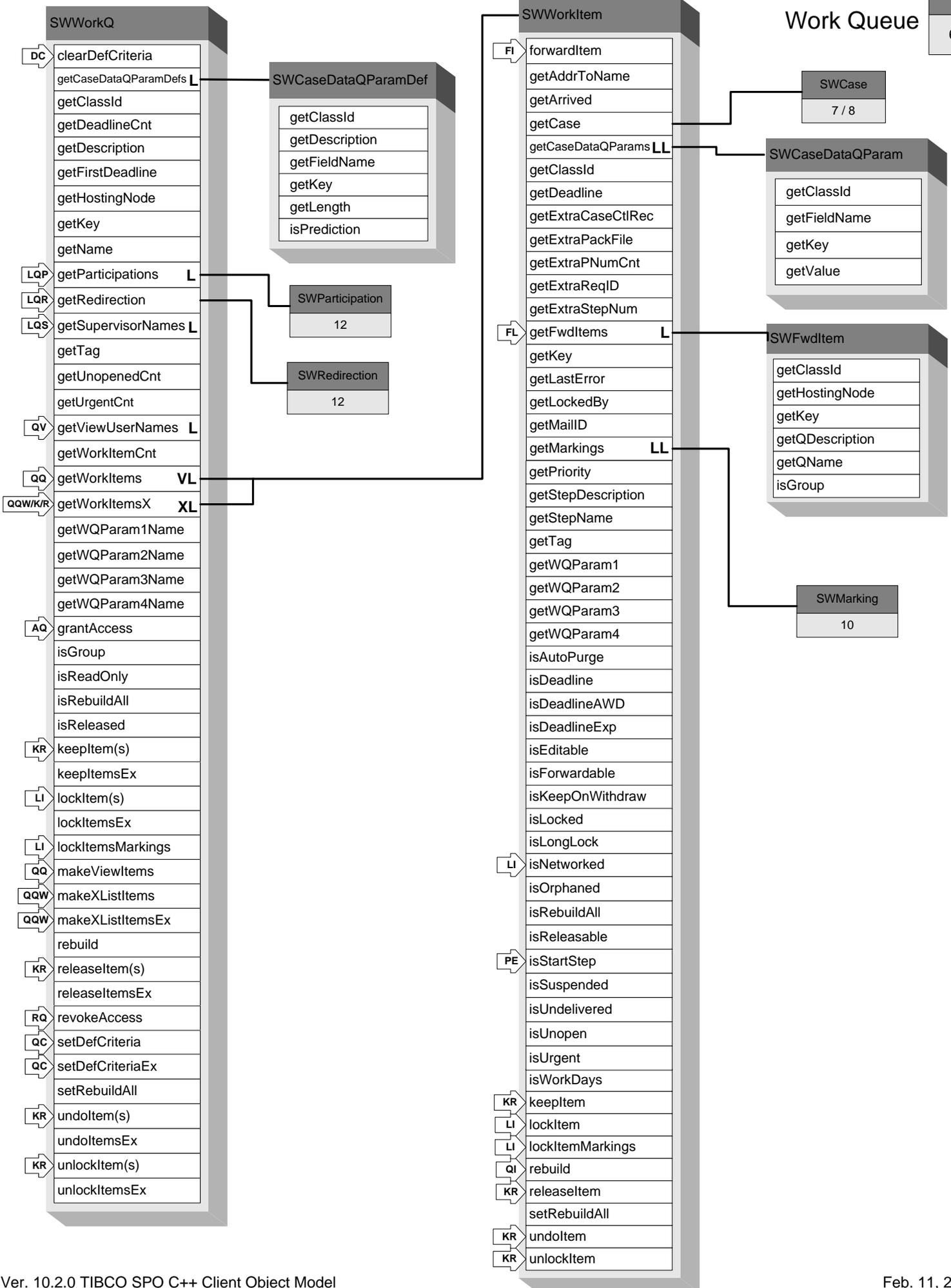
SWThreadInfo	
getBytesRxCnt	
getBytesTxCnt	
getClassId	
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getID	
getIOCompletionCnt	
getKey	
getLongestTran	
getShortestTran	
getTransProcessedCnt	

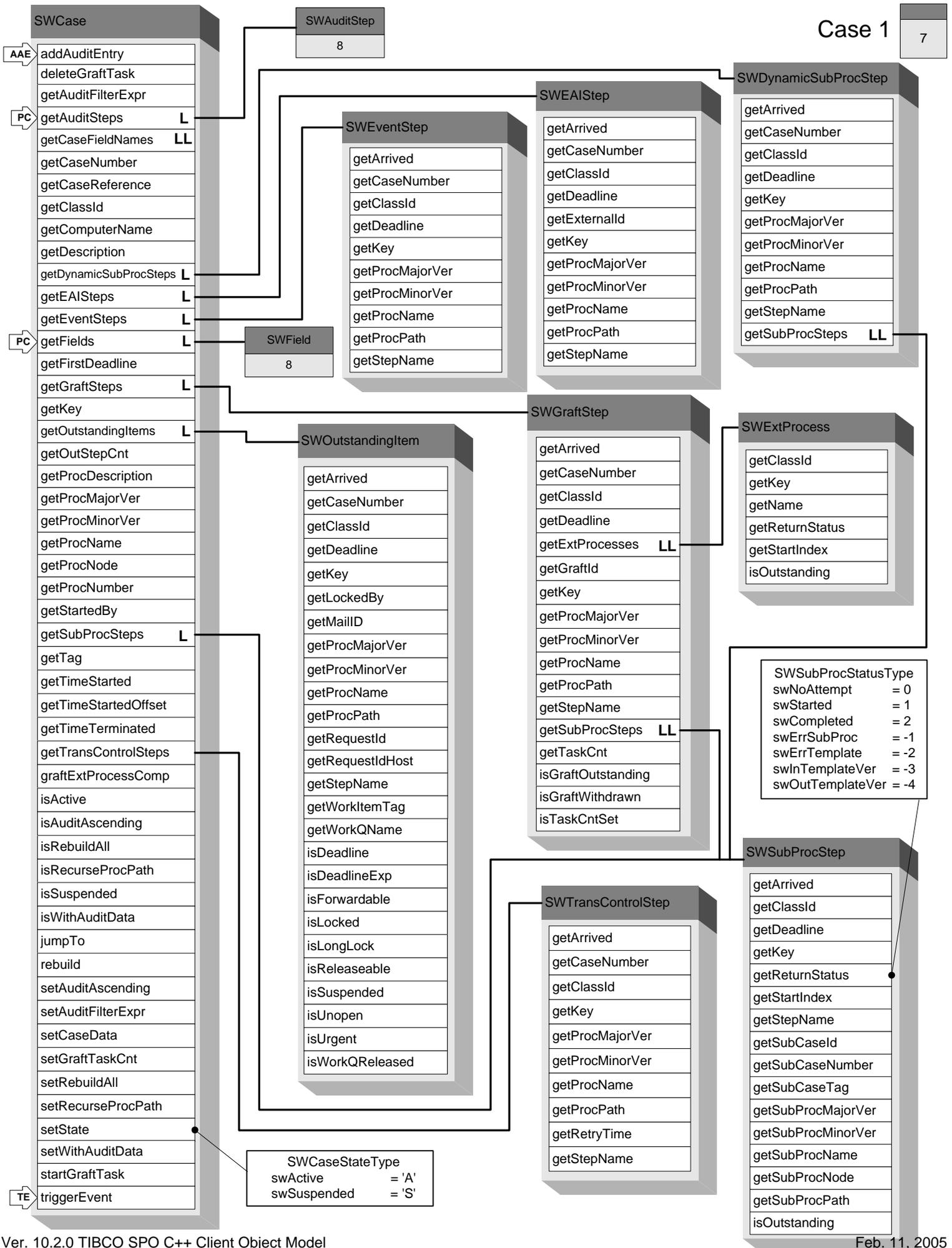


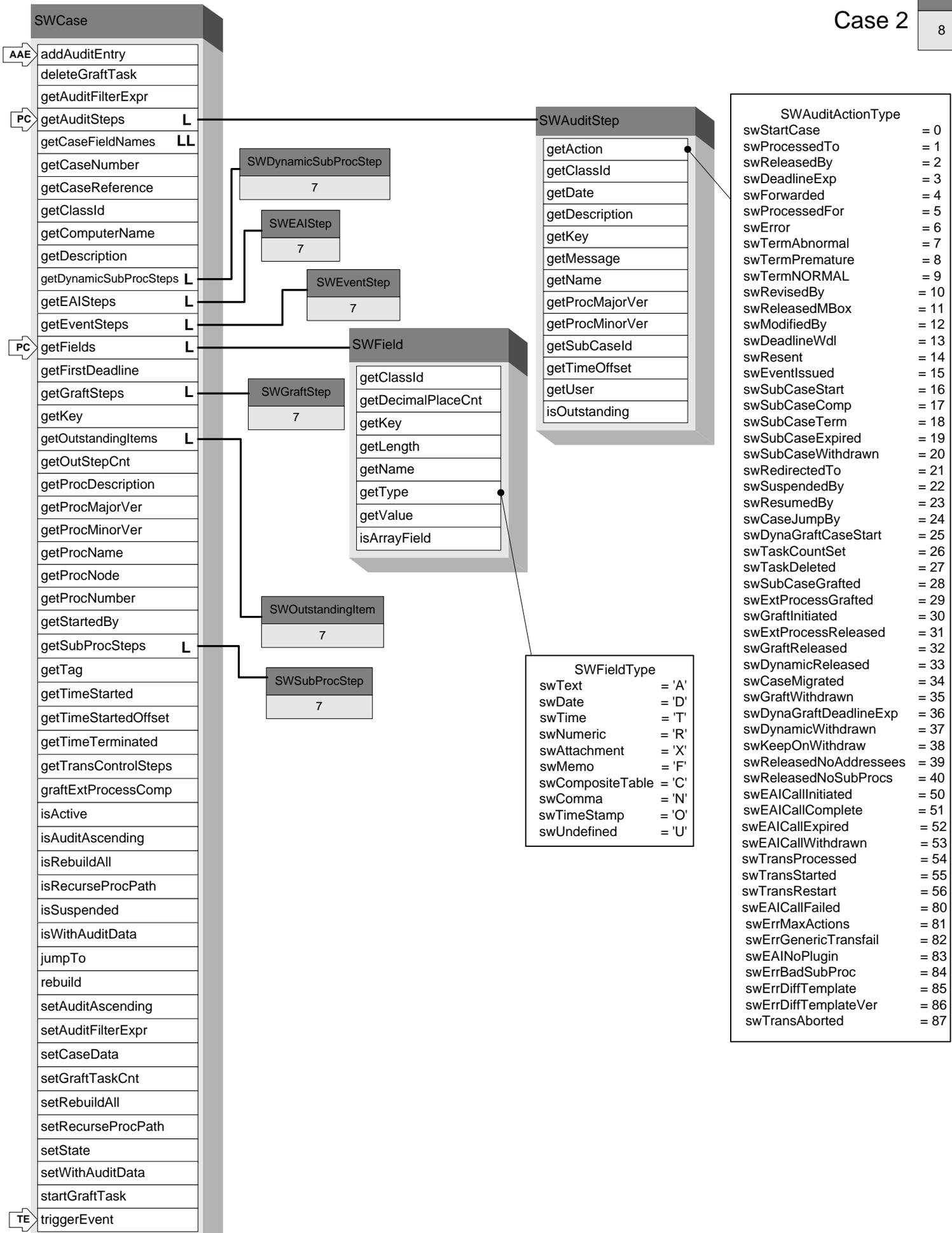
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assignAttribute	
closeByCriteria	
createAttribute	
createGroup	
createRole	
createUser	
deleteAttribute(s)	
deleteGroup(s)	
deleteRole(s)	
deleteUser(s)	
getAdmin	
getAttributes	L
getClassId	
getComputerName	
getExtWorkItem	
getGroups	L
getGroupsX	XL
getKey	
getListValidations	L
getLoggedInUser	
getName	
getNetworkNodeNames	L
getNodeInfo	
getNodeInfoEx	
getOSUsers	L
getOSUsersX	XL
getProcs	L
getProcGroups	L
getRoles	L
getTables	L
getUsers	L
getUsersX	XL
getWorkQs	L
getXList	XL
getXListPredict	XL
isUserPwdExp	
make<Object>*	
makeXListPredict	XL
moveSysInfo	
purgeByCriteria	
resetLog	
setLogCategories	
setLogLevel	
setLogTrace	
setMaxLogSize	



Work Queue







SWNode 4	
assignAttribute	
closeByCriteria	
createAttribute	
createGroup	
createRole	
createUser	
deleteAttribute(s)	
deleteGroup(s)	
deleteRole(s)	
deleteUser(s)	
getAdmin	
getAttributes	L
getClassId	
getComputerName	
getExtWorkItem	
getGroups	L
getGroupsX	XL
getKey	
getListValidations	L
getLoggedInUser	
getName	
getNetworkNodeNames	L
getNodeInfo	
getNodeInfoEx	
getOSUsers	L
getOSUsersX	XL
getProcs	L
getProcGroups	L
getRoles	L
getTables	L
getUsers	L
getUsersX	XL
getWorkQs	L
getXList	XL
getXListPredict	XL
isUserPwdExp	
make<Object>*	
makeXListPredict	XL
moveSysInfo	
purgeByCriteria	
resetLog	
setLogCategories	
setLogLevel	
setLogTrace	
setMaxLogSize	

SWProc	
closeByCriteria	CE
closeCase(s)	CP
getActiveCnt	PA
getAdminByUserRef	PE
getCaseCnt	PA
getCaseDescOpt	
getCases	PQ VL
getCasesX	PQW/R/XL
getClassId	
getClosedCnt	PA
getDateCreated	
getDateModified	
getDateReleased	
getDateWithdrawn	
getDescription	
getDuration	
getExtraPNumCnt	
getFields	PE L
getFilteredCaseCnt	
getFirstDeadline	PA
getHostingNode	
getKey	
getLastCaseNumber	PA
getLastUpdateUser	
getName	
getNetworkNodeNames	PE LL
getOwner	
getProcAudits	L
getProcMajorVer	
getProcMinorVer	
getProcNumber	
getStartByUserRef	PE
getStartStepName	
getStatus	
getSteps	PE L
getTag	
getVersionComment	
isAutoPurge	
isIgnoreBlank	
isNetworked	
isPrediction	
isRebuildAll	
isSubProc	
isWithAuditData	
isWorkDays	
makeViewCases	PQ
makeXListCases	QQW
predictCase	PCF L
purgeAndReset	PR
purgeByCriteria	CE
purgeCase(s)	CP
rebuild	
setRebuildAll	
setWithAuditData	
simulateCase	CS L
startCaseEx	SC2

SWAccessUserRef	
getClassId	
getExpressions	LL
getRoleNames	LL
getUserNames	LL

SWDescOptionType	
swOptionalDesc	= 'O'
swRequiredDesc	= 'R'
swHiddenDesc	= 'H'

SWCase	
7 / 8	

SWDuration	
13	

SWField 7	
getClassId	
getDecimalPlaceCnt	
getKey	
getLength	
getName	
getType	
getValue	
isArrayField	

SWProcStatusType	
swIncomplete	= 'I'
swModel	= 'M'
swReleased	= 'R'
swUnreleased	= 'U'
swWithdrawn	= 'W'
swDeleted	= 'D'
swWithdrawnIncomplete	= 'T'

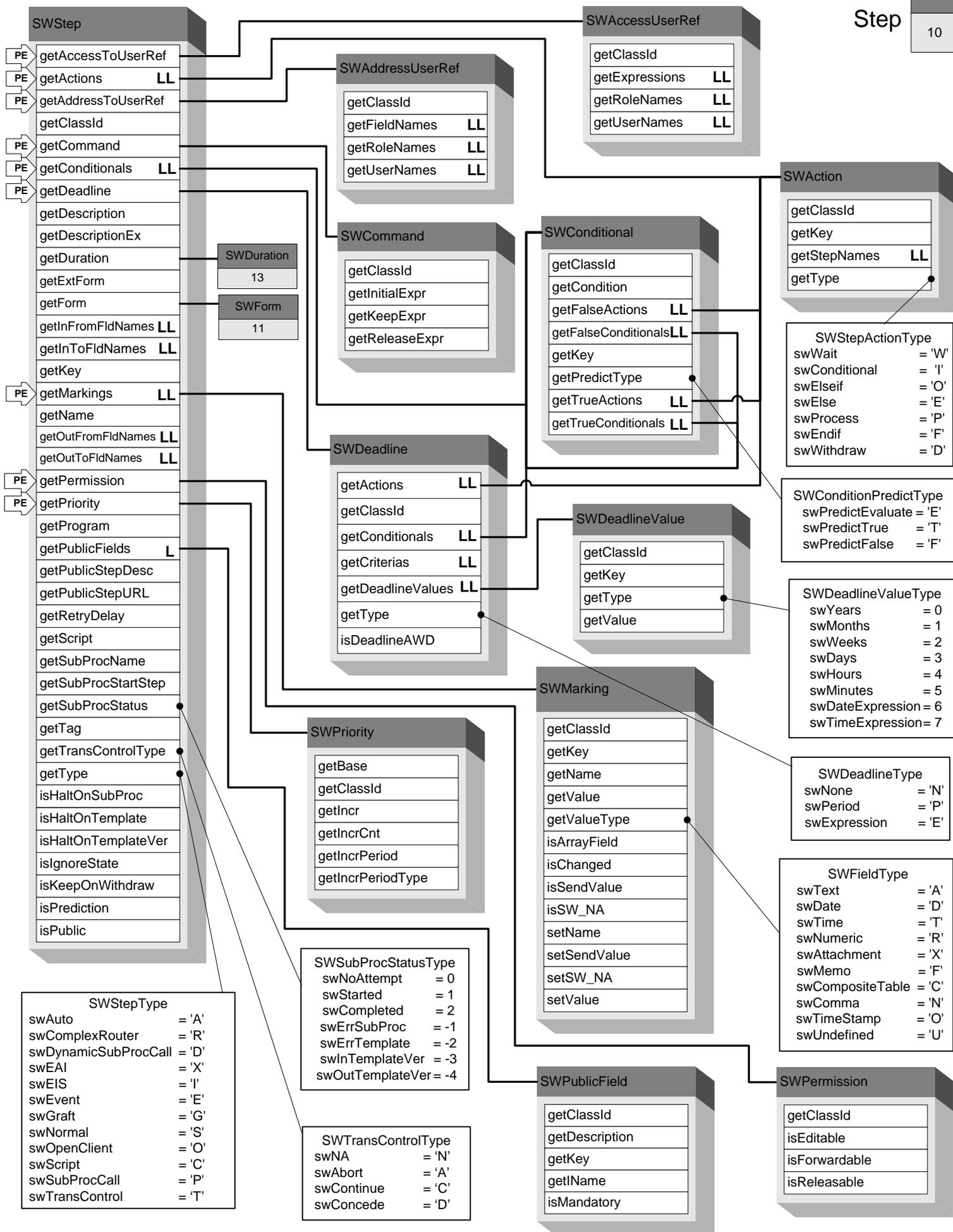
SWProcAudit	
getAction	
getClassId	
getComment	
getDate	
getKey	
getProcMajorVer	
getProcMinorVer	
getUser	

SWProcAuditActionType	
swProcCreated	= 'C'
swProcComment	= 'M'
swProcImported	= 'I'
swProcUpdated	= 'U'
swProcReleased	= 'R'
swProcWithdrawn	= 'W'

SWStep	
10	

SWPredictedItem	
13	

SWSubProcPrecedenceType	
swPrecedenceR	= '0'
swPrecedenceUR	= '1'
swPrecedenceMR	= '2'
swPrecedenceUMR	= '3'
swPrecedenceMUR	= '4'



SWStep	
getAccessToUserRef	
getActions	LL
getAddressToUserRef	
getClassId	
getCommand	
getConditionals	LL
getDeadline	
getDescription	
getDescriptionEx	
getDuration	
getExtForm	
getForm	
getInFromFldNames	LL
getInToFldNames	LL
getKey	
getMarkings	LL
getName	
getOutFromFldNames	LL
getOutToFldNames	LL
getPermission	
getPriority	
getProgram	
getPublicFields	L
getPublicStepDesc	
getPublicStepURL	
getRetryDelay	
getScript	
getSubProcName	
getSubProcStartStep	
getSubProcStatus	
getTag	
getTransControlType	
getType	
isHaltOnSubProc	
isHaltOnTemplate	
isHaltOnTemplateVer	
isIgnoreState	
isKeepOnWithdraw	
isPrediction	
isPublic	

SWForm	
getClassId	
getFConditionals	L
getFMarkings	L
getFRows	L

SWFConditional	
getClassId	
getCondition	
getElseRow	
getEndIfRow	
getIfRow	
getKey	

SWFRow	
getClassId	
getFalseConditions	LL
getFMarkings	LL
getKey	
getLabels	LL
getRowNumber	
getTrueConditions	LL

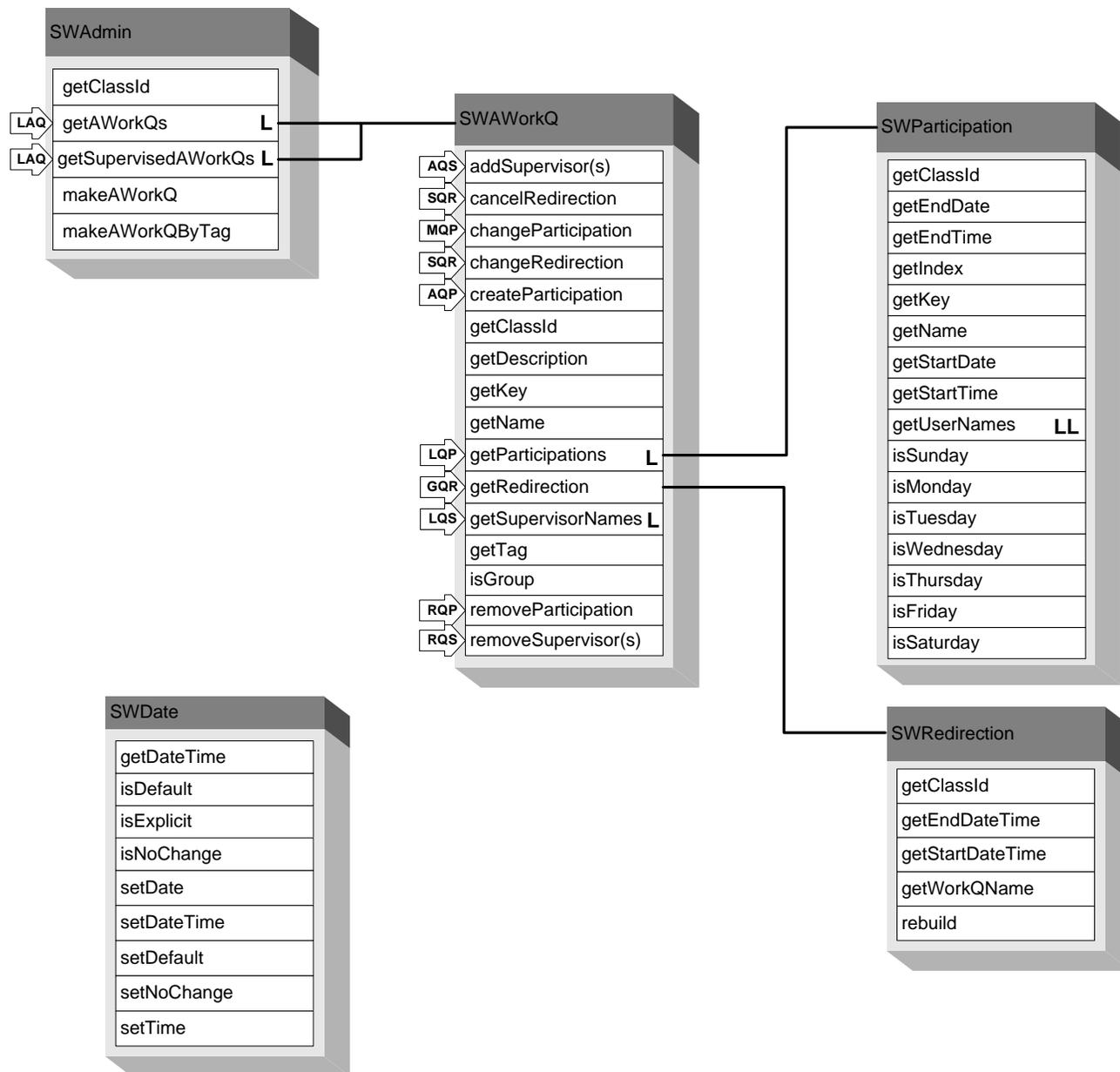
SWFMarking	
getClassId	
getColumn	
getDecimalPlaceCnt	
getExprValidations	LL
getFont	
getHelp	
getKey	
getLength	
getListNames	LL
getName	
getRow	
getType	
getValueType	
isArrayField	

SWMarkingType	
swOptional	= 'O'
swRequired	= 'R'
swHidden	= 'H'
swDisplay	= 'D'
swCalculated	= 'C'
swEmbedded	= 'E'

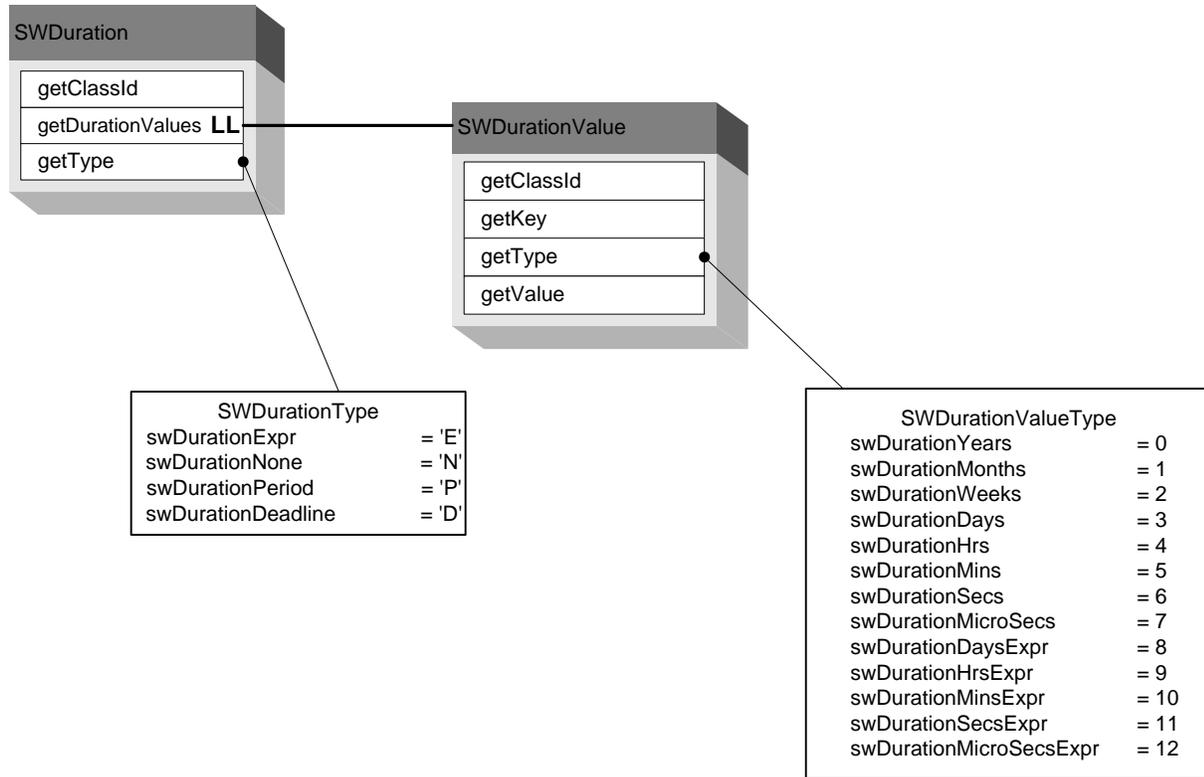
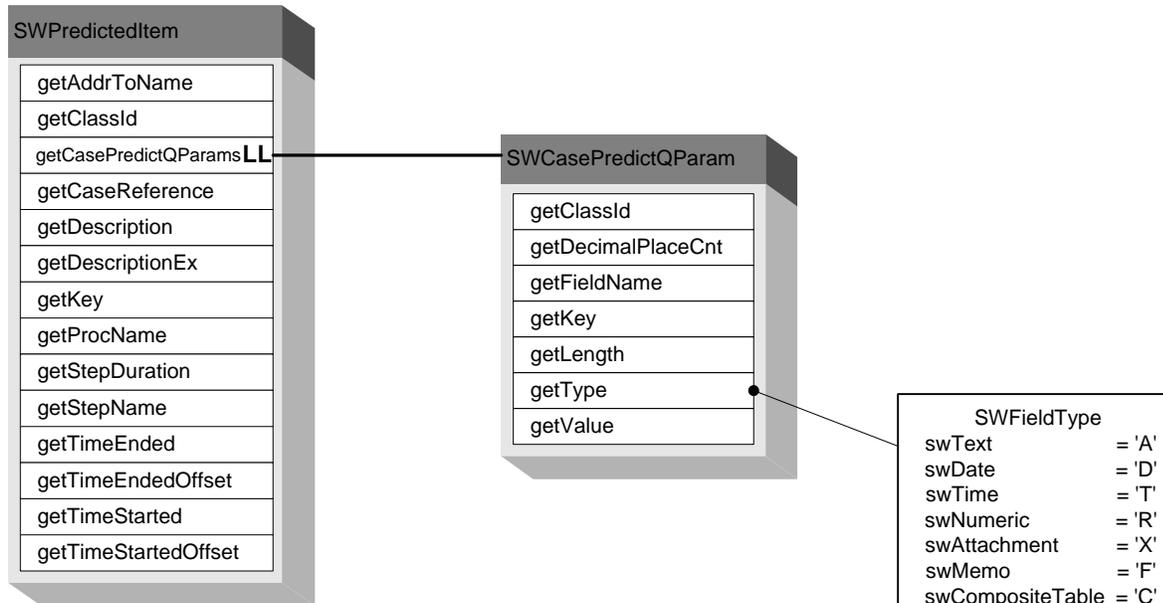
SWFont	
getClassId	
getFontColor	
getFontPlatform	
getFontSize	
getFontType	
isFontBold	
isFontItalic	
isFontUnderline	

SWLabel	
getClassId	
getColumn	
getFont	
getKey	
getLabelText	
getRow	

SWFieldType	
swText	= 'A'
swDate	= 'D'
swTime	= 'T'
swNumeric	= 'R'
swAttachment	= 'X'
swMemo	= 'F'
swCompositeTable	= 'C'
swComma	= 'N'
swTimeStamp	= 'O'
swUndefined	= 'U'



The SWDate object is used in the implementation of participation and redirection schedules.



The following enumerations are returned in the Type property to identify the type of objects in the list, local list, or view.

Object ClassId:

Objects on SWLists

swNodeInfoID = 1	swDateValueID = 51
swUserID = 2	swTimeValueID = 52
swRoleID = 3	swNumericValueID = 53
swProcID = 4	swWorkQID = 60
swAttributeID = 5	swParticipationID = 61
swGroupID = 6	swCaseDataQParamDefID = 64
swWorkQID = 7	swPublicFieldID = 66
swBstrID = 8	swOutstandingItemID = 67
swAutoFwdID = 9	swSubProcStepID = 68
swFwdItemID = 10	swPredictedItemID = 69
swFieldID = 11	swProcAuditID = 76
swStepID = 12	swProcGroupID = 77
swAuditStepID = 13	swGraftStepID = 78
swOSUserID = 14	swEAIStepID = 79
swFMarkingID = 43	swEventStepID = 80
swFConditionalID = 44	swDynamicSubProcStepID = 81
swFRowID = 45	swTransControlStepID = 83
swListValidationID = 48	
swTableID = 49	
swTableFieldID = 50	

Objects on SWLoclist

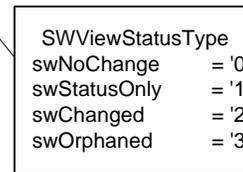
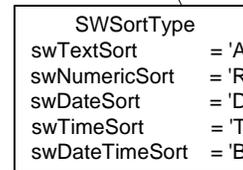
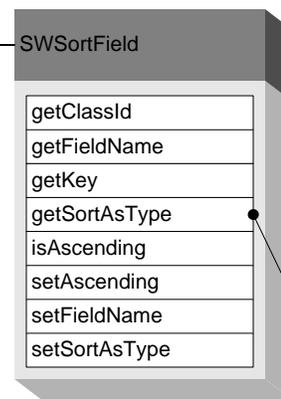
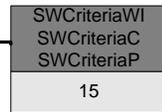
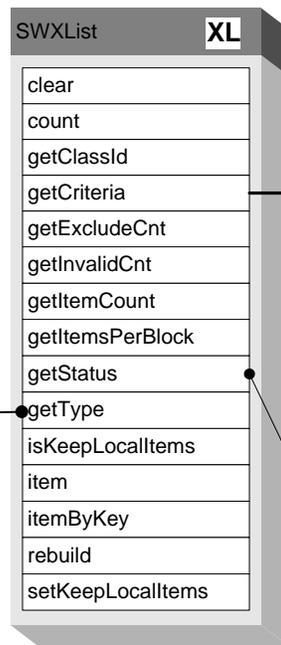
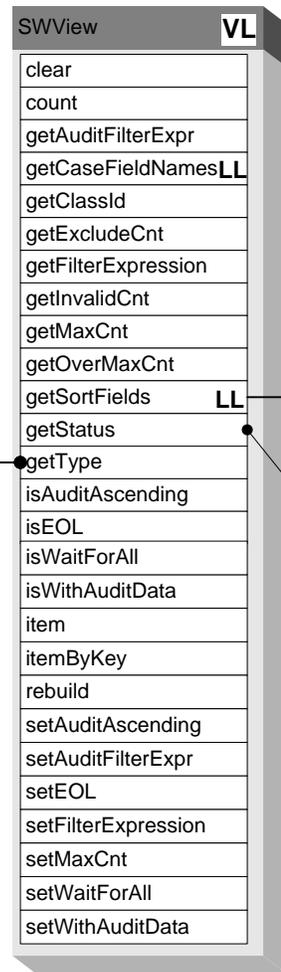
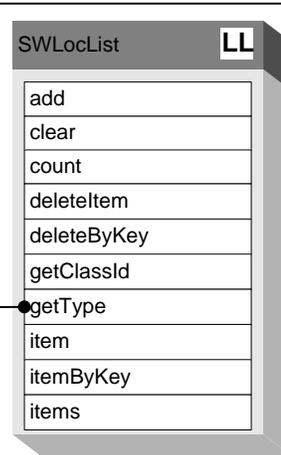
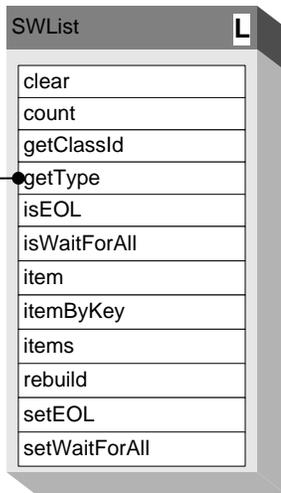
swBstrID = 8	swActionID = 25
swNodeID = 15	swConditionalID = 26
swConfigInfoID = 16	swDeadlineValueID = 27
swSALInfoID = 17	swFMarkingID = 43
swClientInfoID = 18	swLabelID = 46
swThreadInfoID = 19	swCaseDataQParamID = 65
swQSessionInfoID = 20	swSubProcStepID = 68
swActiveUserID = 21	swCasePredictQParamID = 70
swSortFieldID = 22	swExtProcessID = 82
swMarkingID = 23	
swEntUserID = 24	

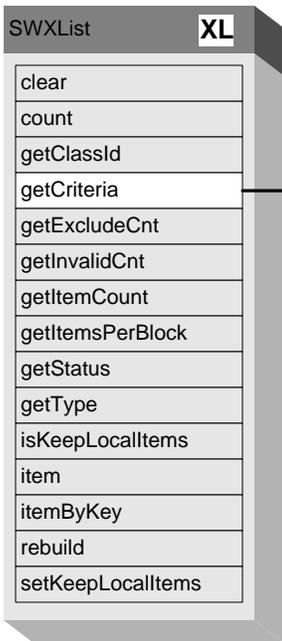
Objects on SWViews

swCaseID = 28
swWorkItemID = 29

Objects on SWXLists

swUserID = 2
swGroupID = 6
swOSUserID = 14
swCaseID = 28
swWorkItemID = 29
swPredictedItemID = 69

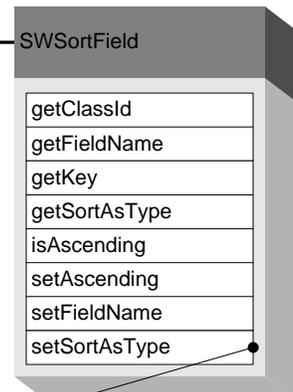
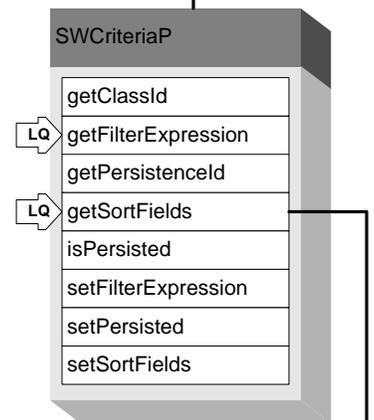
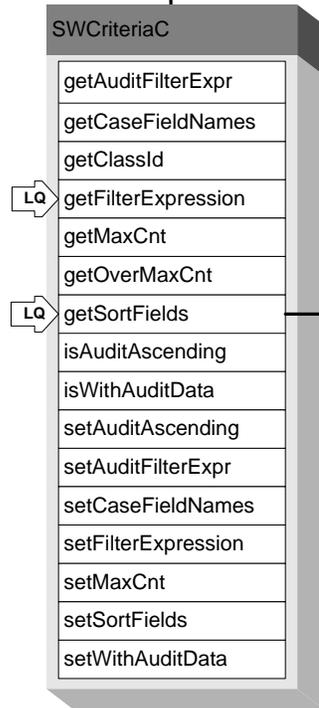
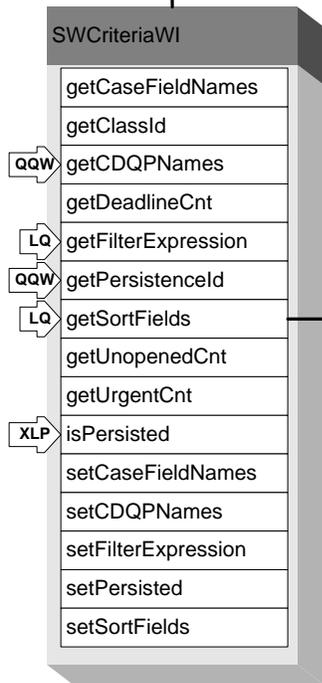




<Work Items>

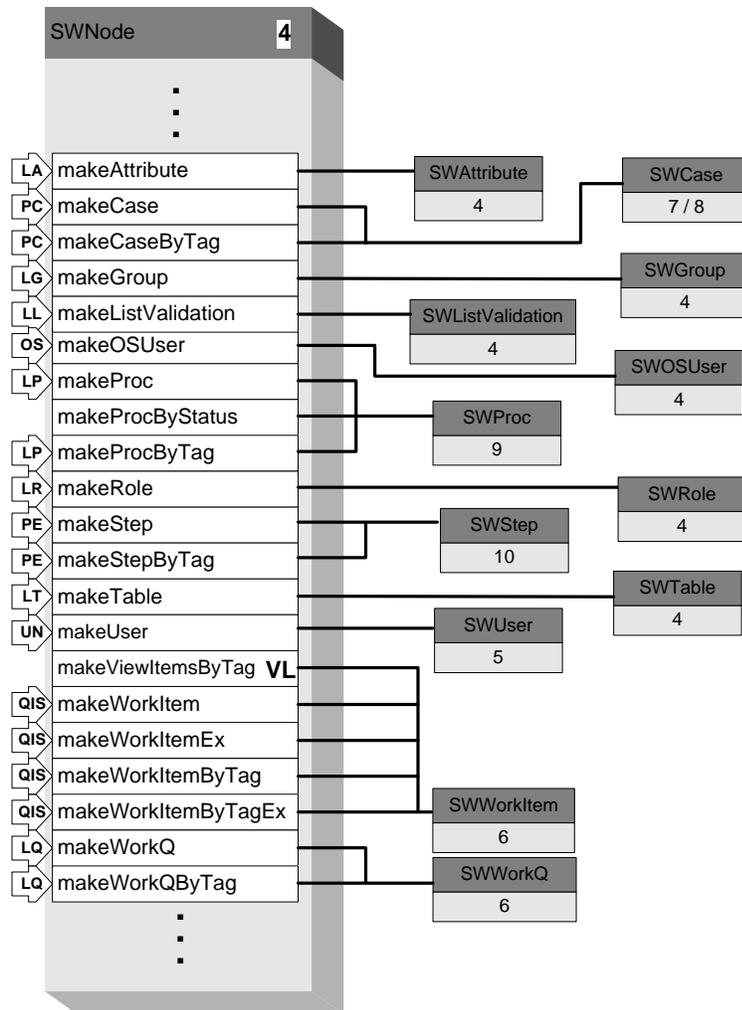
<Cases>

<Prediction>



SWSortType

- swTextSort = 'A'
- swNumericSort = 'R'
- swDateSort = 'D'
- swTimeSort = 'T'
- swDateTimeSort = 'B'



This illustration shows only the "make" methods used in stateless processing. See page 4 for the entire SWNode object.

SPO Server Error Constants

Dec	Hex	Constant	Description	Dec	Hex	Constant	Description
0	0x0000	ER_SUCCESS	Success	85	0x0055	ER_MSB_MAXLOOPS	Maximum prediction loop count exceeded.
1	0x0001	ER_SAL_ERROR	General Staffwae error	86	0x0056	ER_MSB_LOGGEDIN	Prediction service failed to login user.
2	0x0002	ER_SAL_SYSTEM	SAL system error	87	0x0057	ER_MSB_NOTEXT	Undefined prediction error.
3	0x0003	ER_SAL_HANDLE	Bad SAL/FIL session handle	88	0x0058	ER_MSB_OVERFLOW	The text string was longer than the passed in buffer size.
4	0x0004	ER_SAL_PARAM	Bad SAL/FIL function parameter.	90	0x005A	ER_MSB_EOL	Beyond list or invalid index.
5	0x0005	ER_SAL_FLOCKED	SAL internal locking error	92	0x005C	ER_MSB_QERR	Invalid query string passed to find future workitems.
6	0x0006	ER_SAL_RLOCKED	Error locking work queue item	93	0x005D	ER_MSB_SORTERR	Invalid sort parameter.
7	0x0007	ER_SAL_TOOBIG	Internal SAL data too big or truncated	94	0x005E	ER_MSB_SUBPROC_DEPTH	Sub procedure depth exceeded.
8	0x0008	ER_SAL_DUPLICATE	Duplicate data	95	0x005F	ER_MSB_NOSAL	No SAL session handle.
9	0x0009	ER_SAL_DEMO	More than 20 cases started with demo license.	96	0x0060	ER_MSB_NOCASEREF	No case reference passed for a live case.
10	0x000A	ER_SAL_MALLOC	SAL internal memory allocation failure	97	0x0061	ER_MSB_NOSTEP	Outstanding step passed in isn't in procedure.
11	0x000B	ER_SAL_NOTFOUND	Item not found	98	0x0062	ER_MSB_STEPNOTFOUND	Cannot find step in procedure in cc_exec_proc.
12	0x000C	ER_SAL_SEQUENCE	Internal sequencing error in SAL.	99	0x0063	ER_MSB_NOTMAIN	Sub-procedure name invalid for simulate case.
13	0x000D	ER_SAL_DATEINIT	Date/time format error	100	0x0064	ER_USERNAME	Invalid username.
14	0x000E	ER_SAL_APPNOTFOUND	Application not found	101	0x0065	ER_SWDIR	No/invalid SWDIR install directory
15	0x000F	ER_SAL_INVALID_PLATFORM	Staffware function is not supported on this platform	102	0x0066	ER_QINIT	Error establishing queue session
16	0x0010	ER_SAL_OSTYPE	MACINTOSH : Invalid OStype	103	0x0067	ER_QREFRESH	Error performing queues update
17	0x0011	ER_SAL_NO_APPLE_EVENTS	Apple Events are not Supported on this platform	104	0x0068	ER_NODENAME	Node name invalid or not found
18	0x0012	ER_SAL_SHUTDOWN	Work queue shutdown	105	0x0069	ER_PROCNAME	Procedure name invalid or not found
19	0x0013	ER_SAL_FILEIO	Internal SAL file I/O error	106	0x006A	ER_PROCPATH	Unable to create procedure definition path.
20	0x0014	ER_SAL_FILEPERMS	Internal SAL file permissions error	107	0x006B	ER_FILEOPEN	File open failed
21	0x0015	ER_SAL_QDISABLED	User no longer has administration access to queue	108	0x006C	ER_FILECLOSE	File close failed
22	0x0016	ER_SAL_RPC	RPC Failure	109	0x006D	ER_FLDTYPE	Invalid data for field type
23	0x0017	ER_SAL_REGISTRY	Data in registry incorrect	110	0x006E	ER_NOFIELD	Field name not found
24	0x0018	ER_SAL_UNKNOWN	Unknown SAL error	111	0x006F	ER_CASEREQD	Case description required.
25	0x0019	ER_SAL_REDIRECT	Queue has been redirected and item is unavailable	112	0x0070	ER_SYNTAX	Error in expression syntax
26	0x001A	ER_SAL_NOT_SUPPORTED	Function not supported	113	0x0071	ER_QUEUENAME	Queue name not found
27	0x001B	ER_SAL_EXISTS	Attempt to add data that already exists.	114	0x0072	ER_MEMREALLOC	Error in reallocating system memory
28	0x001C	ER_SAL_MBSSET	Failed while initializing MBOX set session	115	0x0073	ER_NOUSER	Username not found.
29	0x001D	ER_SAL_FORMAT	Error in processing format of the package	116	0x0074	ER_USEREXISTS	Username already exists
30	0x001E	ER_SAL_MOREDATA	Error in processing format of the package	117	0x0075	ER_NOATTR	Attribute not found
31	0x001F	ER_SAL_TIMEDOUT	Generic timeout error	118	0x0076	ER_ATTREXISTS	Attribute already exists
32	0x0020	ER_SAL_SUSPENDED	Request denied - WorkItem is suspended	119	0x0077	ER_INVATTRTYPE	Invalid attribute type specified
33	0x0021	ER_SAL_INV_DATA	Pack data has been updated while keeping/releasing item	120	0x0078	ER_GRPXISTS	Group already exists
34	0x0022	ER_SAL_INV_VALUE	Invalid process attribute value	121	0x0079	ER_NOGRP	Group not found
35	0x0023	ER_SAL_INV_FILTER	Invalid filter	122	0x007A	ER_NOEVENT	Event not found in procedure
36	0x0024	ER_SAL_XACT_ABORT	Global transaction has been aborted	123	0x007B	ER_NOCASE	Case number not found
37	0x0025	ER_SAL_COMPLEX	Filter is too complex	124	0x007C	ER_DATECONV	Error in SAL date conversion
38	0x0026	ER_SAL_SECDISABLED	Password checking is disabled	125	0x007D	ER_TIMECONV	Error in SAL time conversion
39	0x0027	ER_SAL_SECBADUSER	Username is invalid	126	0x007E	ER_ACTION	Invalid action code (keep/release/undo/close/purge)
40	0x0028	ER_SAL_SECDISABLED	User account is disabled or expired	127	0x007F	ER_MARKINFO	Error in sal_form_markinfo call
41	0x0029	ER_SAL_SECEXPIRED	Password is expired	128	0x0080	ER_MARKCOUNT	Error in sal_form_markcount call
42	0x002A	ER_SAL_SECBADSEED	Not used	129	0x0081	ER_NOMARK	Fieldname not found as a form marking.
43	0x002B	ER_SAL_SECBADPSWD	Unknown username or bad password	130	0x0082	ER_PUTDATA	Error in sal_frm_putdata call.
44	0x002C	ER_SAL_SECBADNEWPSWD	New password is invalid (too short or history conflict)	131	0x0083	ER_FRMKEEP	Error keeping form data
45	0x002D	ER_SAL_SECMAXCHANGES	Too many failed attempts to change password	132	0x0084	ER_FRMRELEASE	Error releasing form data
46	0x002E	ER_SAL_SECPWDINVALID	Not used	133	0x0085	ER_MANDMARK	Mandatory marking not specified
47	0x002F	ER_SAL_SECBADWKSTN	User not allowed to log on to this workstation.	134	0x0086	ER_BADORIGIN	Marking has incorrect origin
48	0x0030	ER_SAL_SECBADHOURS	User account logon time restriction violation	135	0x0087	ER_PROCNUM	Error in proc_num call
49	0x0031	ER_SAL_SECBADPERMS	User account does not have proper privilege	136	0x0088	ER_NOPROC	Procedure name not found
50	0x0032	ER_SAL_SECLOCKOUT	User account locked out due to max bad pwd change attempts	137	0x0089	ER_AUTHENFAIL	Authentication request failed
51	0x0033	ER_SAL_SECBADMATCH	Not used	138	0x008A	ER_NOTAUTH	User not authorized to perform request
52	0x0034	ER_SAL_SECUNKNOWN	Unknown security error	139	0x008B	ER_NOROLE	Role not found
53	0x0035	ER_SAL_SECCANTCHNG	Can't change user password (too recent, account restrictions, etc.)	140	0x008C	ER_STARTCASE	Error starting case
54	0x0036	ER_MSB_NONE	No future workitems found or no deadline info found	141	0x008D	ER_BADVALUE	Bad value specified
55	0x0037	ER_MSB_SUBPROC	Sub-proc step type found.	142	0x008E	ER_SWENTOBJEOF	No more session handles
56	0x0038	ER_MSB_ERR	General error.	143	0x008F	ER_FLAGINIT	Error in flag_init lock.
57	0x0039	ER_MSB_NOSW	Staffware server unavailable.	144	0x0090	ER_NODELIMETER	No delimiter in input buffer
58	0x003A	ER_MSB_BADAUTH	User has no access to start proc.	145	0x0091	ER_DBS	Error converting DBS name.
59	0x003B	ER_MSB_BADPWD	Username or password is incorrect.	146	0x0092	ER_BUFFERFLUSH	Error writing data to client
60	0x003C	ER_MSB_INVSTEP	Invalid Step.	147	0x0093	ER_TRIGGERPRIV	User does not have event trigger privilege
61	0x003D	ER_MSB_INVPROC	Invalid Procedure.	148	0x0094	ER_BADOLDPASS	Bad old password
62	0x003E	ER_MSB_INVFORM	Invalid form.	149	0x0095	ER_BADNEWPASS	Bad new password
63	0x003F	ER_MSB_NOPROC	Couldn't find procedure.	150	0x0096	ER_CANTCHNGPASS	Can't change password
64	0x0040	ER_MSB_NOFIELD	Couldn't locate named field.	151	0x0097	ER_SECUNK	Unknown security error
65	0x0041	ER_MSB_EXTERNAL	Error from External elink call.	152	0x0098	ER_BADISTEST	Bad queue is test (released/unreleased flag)
66	0x0042	ER_MSB_INVSESS	Invalid session handle.	153	0x0099	ER_CRITERIASAVE	Error persisting queue access criteria
67	0x0043	ER_MSB_NOPARAM	Invalid parameter.	154	0x009A	ER_CRITERIALOAD	Error loading queue access criteria
68	0x0044	ER_MSB_PROCNOTOPEN	Procedure is not open.	155	0x009B	ER_NULLVALUE	Parameter was empty
69	0x0045	ER_MSB_OUTOFRANGE	Request is out of range.	156	0x009C	ER_REGBADDFA	Bad regular expression DFA
70	0x0046	ER_MSB_LOCKFAIL	Failed to lock session.	157	0x009D	ER_LICENSE	Cannot log user in - exceeds license
71	0x0047	ER_MSB_SESSFALL	Failed to allocate session.	158	0x009E	ER_ACQUIRE	Error acquiring a user's mutex and SAL session
72	0x0048	ER_MSB_WAITING	Waiting on other steps to execute.	159	0x009F	ER_OPENSEM	Error opening semaphore
73	0x0049			160	0x00A0	ER_SEMWAIT	Error waiting for semaphore
74	0x004A			161	0x00A1	ER_SEMTIMEOUT	Timed-out waiting for semaphore
75	0x004B			162	0x00A2	ER_SEMRELEASE	Error releasing semaphore

SPO Server Error Constants (Cont.)

Dec	Hex	Constant	Description
163	0x00A3	ER_SEM_CLOSE	Error closing semaphore
164	0x00A4	ER_AUDITFLAG	Invalid audit flag
165	0x00A5	ER_DBREG	Error getting clsid for SWEntObjDB
166	0x00A6	ER_DBCOCREATE	Error creating instance of SWEntObjDB
167	0x00A7	ER_OPENDB	Error opening autofwd/qview database
168	0x00A8	ER_NOTABLES	No tables in autofwd/qview database
169	0x00A9	ER_CREATEDSN	Error creating data source name
170	0x00AA	ER_ADDRECORD	Error adding record to autofwd/qview database
171	0x00AB	ER_DUPRECORD	Duplicate record in autofwd/qview database
172	0x00AC	ER_UPDRECORD	Error updating record in autofwd/qview database
173	0x00AD	ER_NORECORD	Record not found in autofwd/qview db
174	0x00AE	ER_LISTRECORD	Error listing records in autofwd/qview db
175	0x00AF	ER_UNKNDBERR	Unknown exception from SWEntObjDB.
176	0x00B0	ER_NOQUEUE	Queue not found
177	0x00B1	ER_NOMEMBER	No member in group queue
178	0x00B2	ER_NOCHANGE	Queue has not changed
179	0x00B3	ER_NOITEM	Queue item not found
180	0x00B4	ER_DEMOEXCEEDED	Attempted to open > 20 cases on demo system
181	0x00B5	ER_SALGETDATA	Error getting SAL form data
182	0x00B6	ER_FRMTERM	Error in newsal_frm_term
183	0x00B7	ER_NOTLOCKED	Work item is not locked by user
184	0x00B8	ER_CSPRIV	User does not have privilege to start case.
185	0x00B9	ER_NOTFWDABLE	Item is not forwardable
186	0x00BA	ER_USRFRWDPRIV	User does not have forward privilege for this work item
187	0x00BB	ER_PREVLOCKED	Work item already locked by someone else.
188	0x00BC	ER_TCPMAXCLIENT	Connection refused - TCPMaxClients exceeded
189	0x00BD	ER_LIDAEMON	Error communicating with Staffware login daemon.
190	0x00BE	ER_QUEUEINFO	Error in sal_queues_getqueue_info function.
191	0x00BF	ER_STATUSONLY	Internal error for status only
192	0x00C0	ER_MULTIAUTHENUser	already logged in on another client
193	0x00C1	ER_QOPEN	Error in salq_list_open when accessing a work queue
194	0x00C2	ER_SALEXCEPT	SAL/FIL threw an exception; see SPO server log file
195	0x00C3	ER_NOTSUPPORTED	Message code or option not supported in this version of the server
196	0x00C4	ER_LISTINDEX	Internal list indexing error
197	0x00C5	ER_TRUNCATED	Value was truncated
198	0x00C6	ER_INDIEXCEPT	IndiForm threw an exception
199	0x00C7	ER_NOSWLIST	Staffware list not found.
200	0x00C8	ER_NOSWTABLE	Staffware tables not found.
201	0x00C9	ER_INVALIDID	Unable to find work queue session for given persistence ID.
202	0x00CA	ER_NOSTEP	Step name not found.
203	0x00CB	ER_NOPARTICSH	Unable to find work queue participation session.
204	0x00CC	ER_NOSUPERVISOR	User is not a Queue Supervisor of this queue.
205	0x00CD	ER_NOPARTICREC	This Participation Record has been modified or removed by another Supervisor.
206	0x00CE	ER_MAXSUPLST	The Supervisor List you have specified exceeds 255 characters.
207	0x00CF	ER_PARTICTIME	A StartTime and EndTime must be specified.
208	0x00D0	ER_NOCDQPDF	Unable to obtain Case Data Queue Parameter definitions for work queue.
209	0x00D1	ER_NO_SERVERS	No SPO Servers are currently available
210	0x00D2	ER_UPDATE_MEMO	Error updating memo field value.
211	0x00D3	ER_INVALIDPID	Unable to find prediction session for given persistence ID.
212	0x00D4	ER_NODEPROC	Invalid Node and/or Procedure name.
213	0x00D5	ER_NOSUBPROC SIM	Unable to Simulate a Sub Procedure, a Main Procedure must be used.
214	0x00D6	ER_INVALIDWIUID	Invalid Unique ID for External WorkItem.
215	0x00D7	ER_NOEXTWIUID	Unable to find outstanding work item for the given External WorkItem ID.
216	0x00D8	ER_GET_MEMO	Unable to get memo value.
217	0x00D9	ER_INVALIDCONID	Invalid Connection ID.
218	0x00DA	ER_USERNOTAUTH	Unable to perform Login as User has not been authenticated.
219	0x00DB	ER_NOTAUTHUSER	User for authenticated token does not match login user.
220	0x00DC	ER_INVALIDGRAFTID	Invalid Graft Id.
221	0x00DD	ER_EXTPROLEN	External Process name exceeds 30 characters.
222	0x00DE	ER_PROCCASE	The SAL returned ER_PROC. There is a problem with the procedure or the case may be invalid.
223	0x00DF	ER_BUFFEROVERRUN	Internal SPO buffer too small.
500	0x01F4	ER_LI_NODEMON	Login daemon on server not responding
501	0x01F5	ER_LI_LOGGEDIN	Someone else is logged in with that name
502	0x01F6	ER_LI_MAXUSR	Max number of concurrent users reached
503	0x01F7	ER_LI_LCNEXPIRED	Staffware license has expired
504	0x01F8	ER_LI_DISABLED	Logins are currently disabled
505	0x01F9	ER_LI_NOBG	Background shutting / already shutdown.
506	0x01FA	ER_LI_DOINGBKP	Staffware backup in progress
507	0x01FB	ER_LI_DOINGRST	Staffware Restore in progress
508	0x01FC	ER_LI_DOINGUPD	Staffware data upd (del node) in progress
509	0x01FD	ER_LI_BADPASSWD	Password Required, given passwd invalid
510	0x01FE	ER_LI_BADBGCREATE	Can't create perms chk file in BG
511	0x01FF	ER_LI_BADFGCREATE	Can't create perms chk file in FG
512	0x0200	ER_LI_BADBGPERMS	User creating with bad perms in BG
513	0x0201	ER_LI_BADFGPERMS	User creating with bad perms in FG

SPO Server Error Constants (Cont.)

Dec	Hex	Constant	Description
514	0x0202	ER_LI_ORACLEERR	Oracle Initialization failed.
515	0x0203	ER_LI_INFORMIXERR	Informix initialization failed
516	0x0204	ER_LI_NOTWINDUSER	User is not registered for S4W
517	0x0205	ER_LI_BADNODE	Node name has been changed
518	0x0206	ER_LI_ONGOPASSWD	OnGo passwd different to Staffware
519	0x0207	ER_LI_NOTOOLHELP	Unable to load TOOLHELP.DLL
520	0x0208	ER_LI_CLIENT_TOO_OLD	Client is too old for the server
521	0x0209	ER_LI_SERVER_TOO_OLD	Server is too old for client

SPO Client Error Constants

Dec	Hex	Constant	Description
2048	0x800	E_Win32_Error	Win32 Error
2049	0x801	E_Invalid_Method	Invalid method for this list.
2050	0x802	E_Srv_Disconnect	SPO Server disconnected.
2051	0x803	E_WINSOCK	Winsock problem, see Client log.
2052	0x804	E_Invalid_Param	Invalid Parameter
2053	0x805	E_Not_Found	Item not found.
2054	0x806	E_No_Memory	Memory Allocation Error.
2055	0x807	E_Login_Fail	Logins failed on.
2056	0x808	E_DelEntUsr_Fail	Must be logged out of all nodes (see LoggedInNodes).
2057	0x809	E_No_NodeInfo	NodeInfo not found in SWEnterprise.NodeInfos.
2058	0x80A	E_View_Err	View Errors Occurred.
2059	0x80B	E_Bad_Key	Invalid key in array.
2060	0x80C	E_Bad_Node	Node key not found.
2061	0x80D	E_Passwd_Length	Password too long.
2062	0x80E	E_LLDup	Item already exists in the list.
2063	0x80F	E_TimeOut	Timeout - No response from SPO server.
2064	0x810	E_Item_Err	One of the items in the array returned an error.
2065	0x811	E_Seg_Not_Found	Message segment not found
2066	0x812	E_Not_Supported	This functionality is not supported.
2067	0x813	E_Not_On_This_Step	Property not supported on this step type.
2069	0x815	E_System_Err	Unrecoverable system error, see SPO Client log.
2070	0x816	E_SubProc_Method	Invalid method for Sub-procedure.
2075	0x81B	E_Unrecoverable_Err	Unrecoverable error detected - Call Staffware - Key is invalid.
2077	0x81D	E_Invalid_Key	Key is invalid.
2078	0x81E	E_Not_Director	Not a Director node.

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