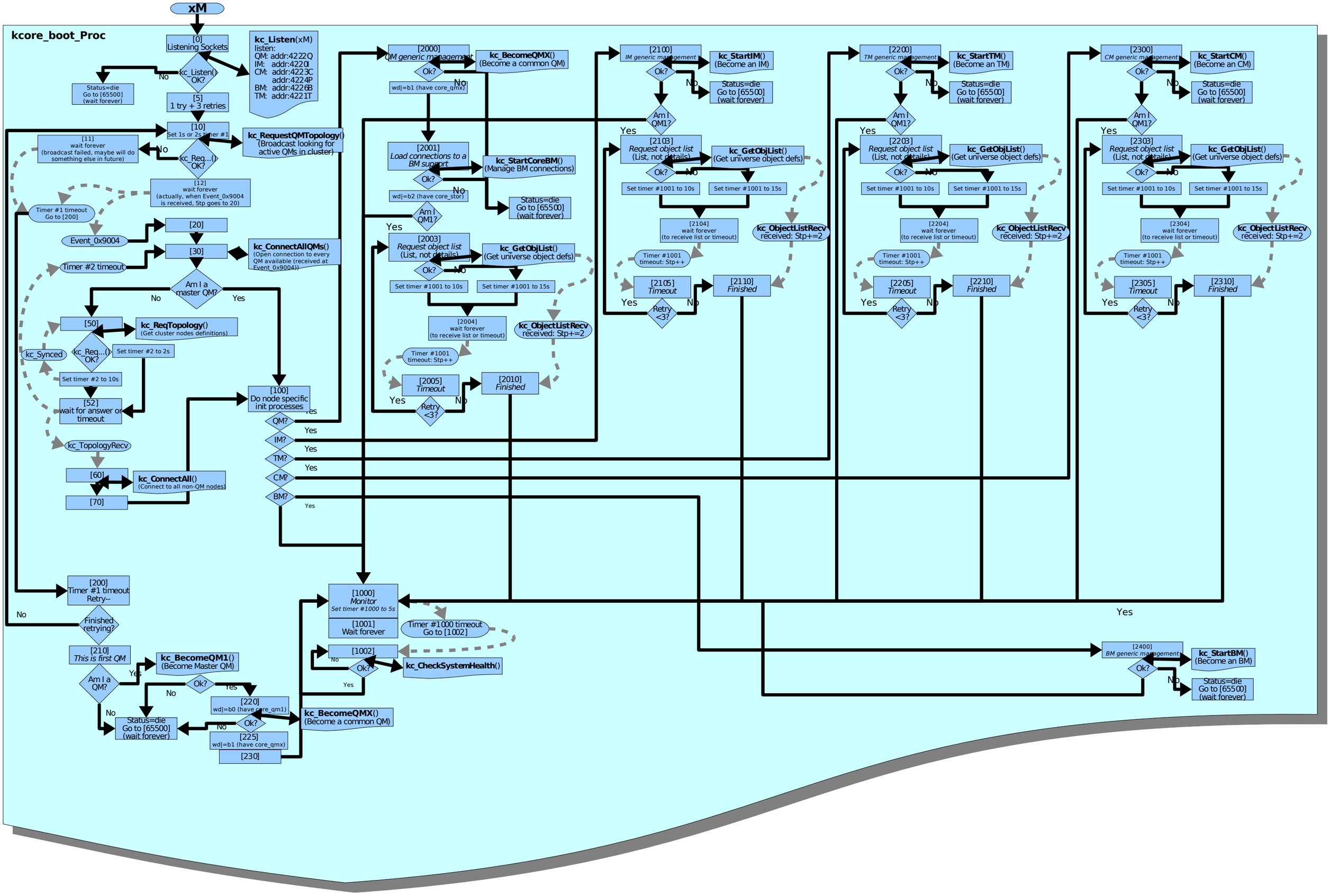
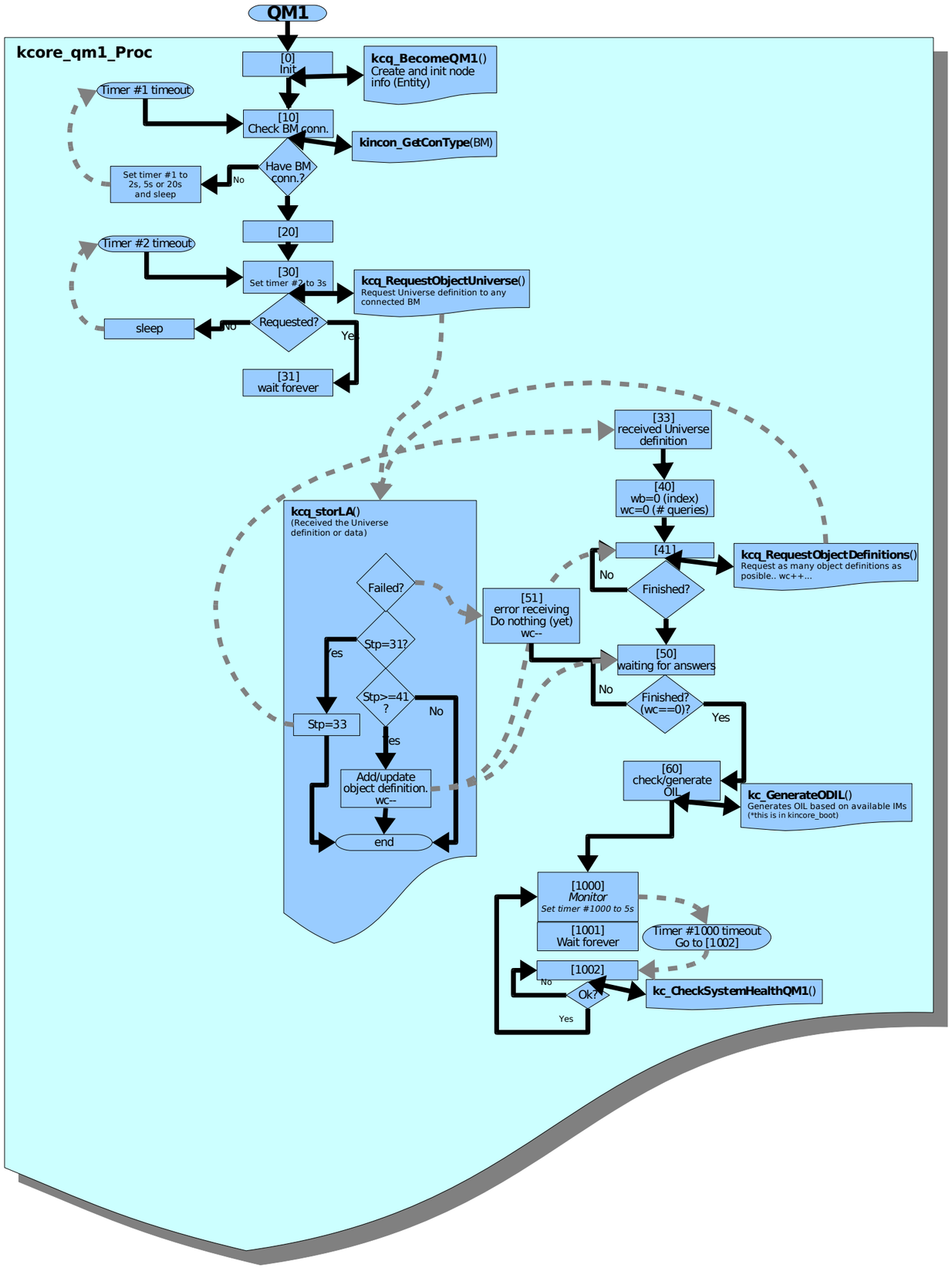
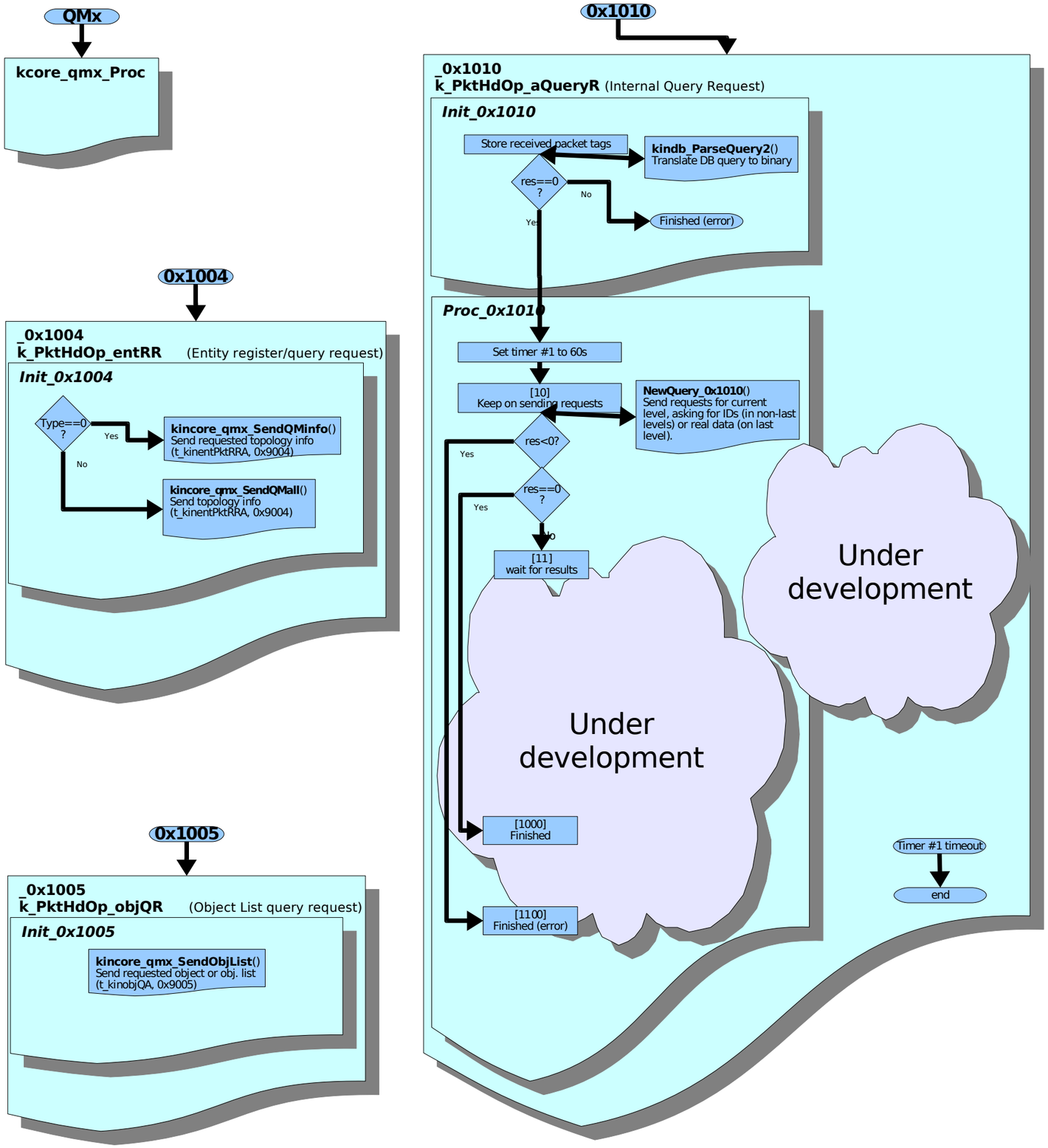
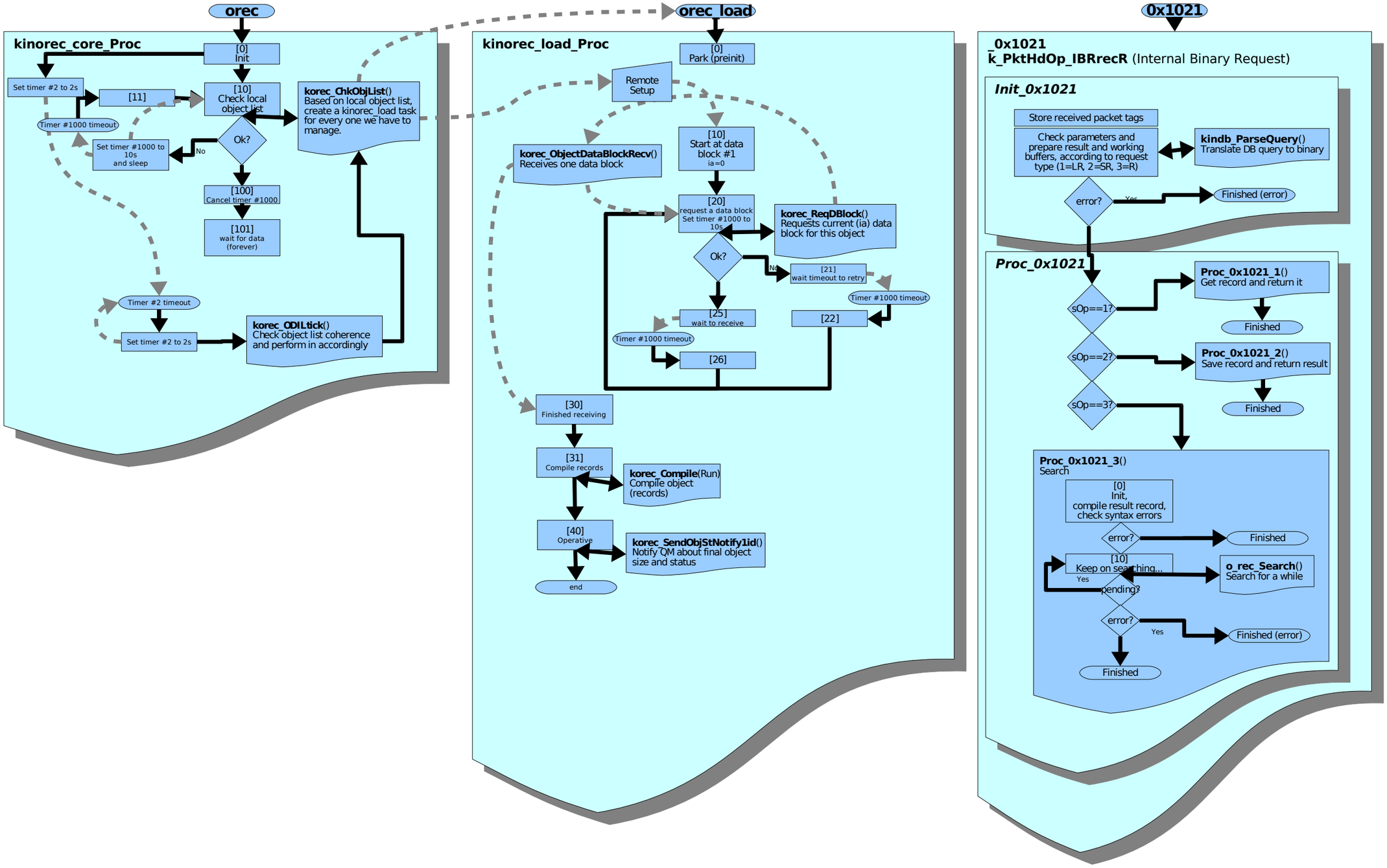
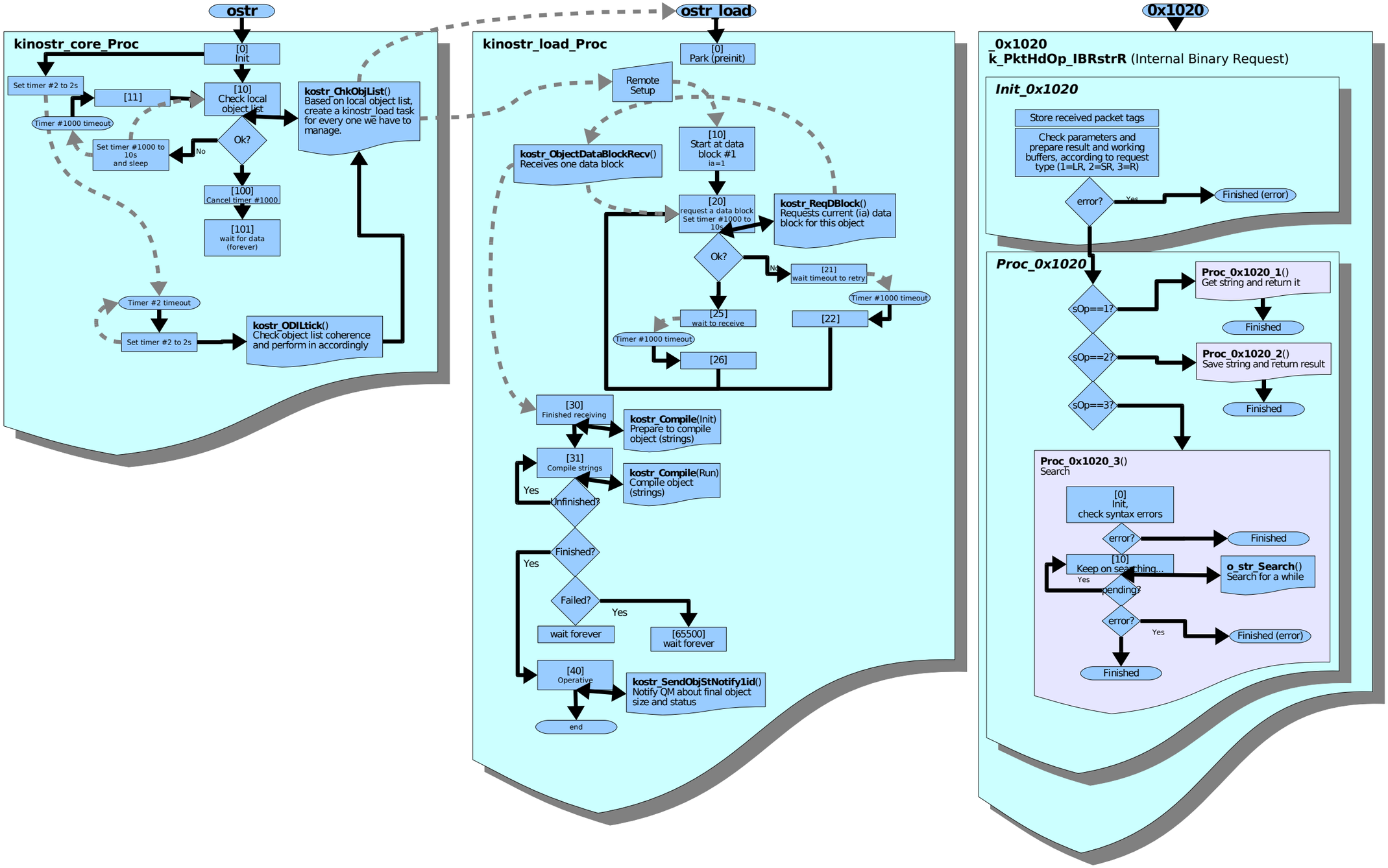
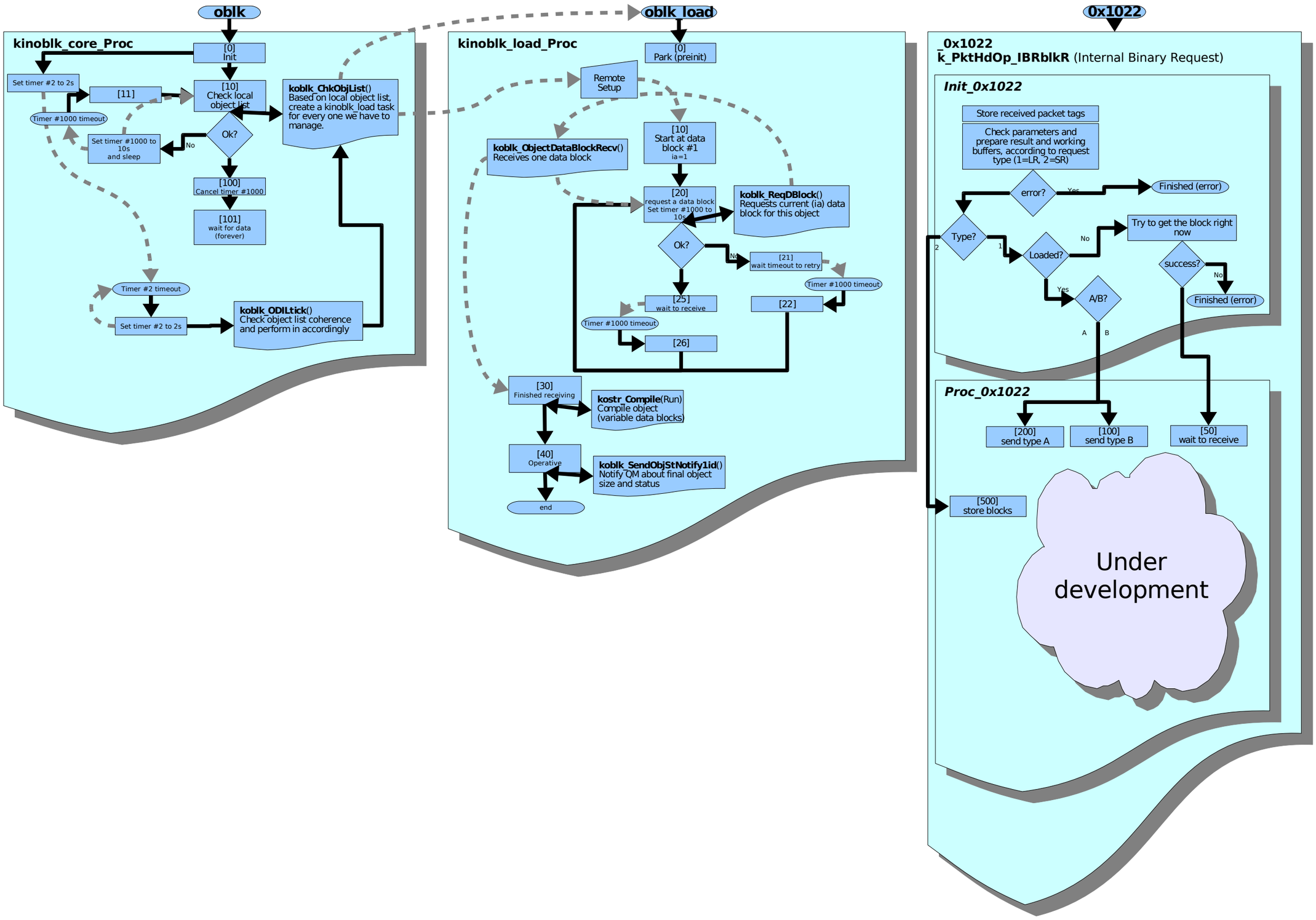

kcore_boot_Proc
xM
[0]
Listening Sockets
kc_Listen()
OK?
No
Status=die
Go to [65500]
(wait forever)
kc_Listen(xM)
listen:
QM: addr:4222Q
IM: addr:4220I
CM: addr:4223C
addr:4224P
BM: addr:4226B
TM: addr:4221T
[5]
1 try + 3 retries
[10]
Set 1s or 2s timer #1
kc_RequestQMTopology()
(Broadcast looking for active QMs in cluster)
kc_Req...()
OK?
No
[11]
wait forever
(broadcast failed, maybe will do something else in future)
[12]
wait forever
(actually, when Event_0x9004 is received, Stp goes to 20)
Timer #1 timeout
Go to [200]
Event_0x9004
[20]
[30]
kc_ConnectAllQMs()
(Open connection to every QM available (received at Event_0x9004))
Timer #2 timeout
Am I a master QM?
No
Yes
[50]
kc_ReqTopology()
(Get cluster nodes definitions)
kc_Req...()
OK?
Set timer #2 to 2s
kc_Synced
Set timer #2 to 10s
[52]
wait for answer or timeout
kc_TopologyRecv
[60]
kc_ConnectAll()
(Connect to all non-QM nodes)
[70]
[100]
Do node specific init processes
QM?
IM?
TM?
CM?
BM?
Yes
[2000]
QM generic management
Ok?
No
kc_BecomeQMX()
(Become a common QM)
wd|=b1 (have core_qmx)
[2001]
Load connections to a BM support
kc_StartCoreBM()
(Manage BM connections)
wd|=b2 (have core_stor)
Status=die
Go to [65500]
(wait forever)
Am I QM1?
[2003]
Request object list
(List, not details)
kc_GetObjList()
(Get universe object defs)
Set timer #1001 to 10s
Set timer #1001 to 15s
[2004]
wait forever
(to receive list or timeout)
kc_ObjectListRecv
received: Stp+=2
Timer #1001
timeout: Stp++
[2005]
Timeout
Retry
<3?
[2010]
Finished
[2100]
IM generic management
kc_StartIM()
(Become an IM)
[2103]
[2104]
[2105]
[2110]
[2200]
TM generic management
kc_StartTM()
(Become an TM)
[2203]
[2204]
[2205]
[2210]
[2300]
CM generic management
kc_StartCM()
(Become an CM)
[2303]
[2304]
[2305]
[2310]
[200]
Timer #1 timeout
Retry--
Finished retrying?
[210]
This is first QM
Am I a QM?
kc_BecomeQM1()
(Become Master QM)
[220]
wd|=b0 (have core_qm1)
[225]
wd|=b1 (have core_qmx)
[230]
[1000]
Monitor
Set timer #1000 to 5s
[1001]
Wait forever
Timer #1000 timeout
Go to [1002]
[1002]
kc_CheckSystemHealth()
[2400]
BM generic management
kc_StartBM()
(Become an BM)


QM1
kcore_qm1_Proc
[0]
Init
kcq_BecomeQM1()
Create and init node info (Entity)
Timer #1 timeout
[10]
Check BM conn.
kincon_GetConType(BM)
Have BM conn.?
No
Set timer #1 to 2s, 5s or 20s and sleep
[20]
Timer #2 timeout
[30]
Set timer #2 to 3s
kcq_RequestObjectUniverse()
Request Universe definition to any connected BM
Requested?
No
sleep
Yes
[31]
wait forever
[33]
received Universe definition
[40]
wb=0 (index)
wc=0 (# queries)
[41]
kcq_RequestObjectDefinitions()
Request as many object definitions as posible.. wc++...
Finished?
No
kcq_storLA()
(Received the Universe definition or data)
Failed?
Stp=31?
Yes
Stp>=41 ?
No
Yes
Stp=33
Add/update object definition.
wc--
end
[51]
error receiving
Do nothing (yet)
wc--
[50]
waiting for answers
Finished? (wc==0)?
No
Yes
[60]
check/generate OIL
kc_GenerateODIL()
Generates OIL based on available IMs
(*this is in kincore_boot)
[1000]
Monitor
Set timer #1000 to 5s
[1001]
Wait forever
Timer #1000 timeout
Go to [1002]
[1002]
Ok?
No
Yes
kc_CheckSystemHealthQM1()


QMx
kcore_qmx_Proc
0x1004
_0x1004
k_PktHdOp_entRR (Entity register/query request)
Init_0x1004
Type==0 ?
Yes
No
kincore_qmx_SendQMinfo()
Send requested topology info
(t_kinentPktRRA, 0x9004)
kincore_qmx_SendQMall()
Send topology info
(t_kinentPktRRA, 0x9004)
0x1005
_0x1005
k_PktHdOp_objQR (Object List query request)
Init_0x1005
kincore_qmx_SendObjList()
Send requested object or obj. list
(t_kinobjQA, 0x9005)
0x1010
_0x1010
k_PktHdOp_aQueryR (Internal Query Request)
Init_0x1010
Store received packet tags
kindb_ParseQuery2()
Translate DB query to binary
res==0 ?
No
Yes
Finished (error)
Proc_0x1010
Set timer #1 to 60s
[10]
Keep on sending requests
NewQuery_0x1010()
Send requests for current level, asking for IDs (in non-last levels) or real data (on last level).
res<0?
Yes
res==0 ?
Yes
No
[11]
wait for results
Under development
Under development
[1000]
Finished
[1100]
Finished (error)
Timer #1 timeout
end


orec
kinorec_core_Proc
[0]
Init
Set timer #2 to 2s
[11]
[10]
Check local object list
korec_ChkObjList()
Based on local object list, create a kinorec_load task for every one we have to manage.
Timer #1000 timeout
Set timer #1000 to 10s and sleep
No
Ok?
[100]
Cancel timer #1000
[101]
wait for data (forever)
Timer #2 timeout
Set timer #2 to 2s
korec_ODILtick()
Check object list coherence and perform in accordingly
orec_load
kinorec_load_Proc
[0]
Park (preinit)
Remote Setup
korec_ObjectDataBlockRecv()
Receives one data block
[10]
Start at data block #1
ia=0
[20]
request a data block
Set timer #1000 to 10s
korec_ReqDBlock()
Requests current (ia) data block for this object
Ok?
No
[21]
wait timeout to retry
Timer #1000 timeout
[25]
wait to receive
[22]
Timer #1000 timeout
[26]
[30]
Finished receiving
[31]
Compile records
korec_Compile(Run)
Compile object (records)
[40]
Operative
korec_SendObjStNotify1id()
Notify QM about final object size and status
end
0x1021
_0x1021
k_PktHdOp_IBRrecR (Internal Binary Request)
Init_0x1021
Store received packet tags
Check parameters and prepare result and working buffers, according to request type (1=LR, 2=SR, 3=R)
kindb_ParseQuery()
Translate DB query to binary
error?
Yes
Finished (error)
Proc_0x1021
sOp==1?
Proc_0x1021_1()
Get record and return it
Finished
sOp==2?
Proc_0x1021_2()
Save record and return result
Finished
sOp==3?
Proc_0x1021_3()
Search
[0]
Init,
compile result record,
check syntax errors
error?
Finished
[10]
Keep on searching...
Yes
pending?
o_rec_Search()
Search for a while
error?
Yes
Finished (error)
Finished


ostr
kinostr_core_Proc
[0]
Init
Set timer #2 to 2s
[11]
[10]
Check local object list
Timer #1000 timeout
Set timer #1000 to 10s and sleep
No
Ok?
kostr_ChkObjList()
Based on local object list, create a kinostr_load task for every one we have to manage.
[100]
Cancel timer #1000
[101]
wait for data (forever)
Timer #2 timeout
Set timer #2 to 2s
kostr_ODILtick()
Check object list coherence and perform in accordingly
ostr_load
kinostr_load_Proc
[0]
Park (preinit)
Remote Setup
kostr_ObjectDataBlockRecv()
Receives one data block
[10]
Start at data block #1
ia=1
[20]
request a data block
Set timer #1000 to 10s
kostr_ReqDBlock()
Requests current (ia) data block for this object
Ok?
No
[21]
wait timeout to retry
Timer #1000 timeout
[25]
wait to receive
[22]
Timer #1000 timeout
[26]
[30]
Finished receiving
kostr_Compile(Init)
Prepare to compile object (strings)
[31]
Compile strings
kostr_Compile(Run)
Compile object (strings)
Yes
Unfinished?
Finished?
Yes
Failed?
Yes
wait forever
[65500]
wait forever
[40]
Operative
kostr_SendObjStNotify1id()
Notify QM about final object size and status
end
0x1020
_0x1020
k_PktHdOp_IBRstrR (Internal Binary Request)
Init_0x1020
Store received packet tags
Check parameters and prepare result and working buffers, according to request type (1=LR, 2=SR, 3=R)
error?
Yes
Finished (error)
Proc_0x1020
sOp==1?
Proc_0x1020_1()
Get string and return it
Finished
sOp==2?
Proc_0x1020_2()
Save string and return result
Finished
sOp==3?
Proc_0x1020_3()
Search
[0]
Init,
check syntax errors
error?
Finished
[10]
Keep on searching...
Yes
o_str_Search()
Search for a while
pending?
error?
Yes
Finished (error)
Finished


oblk
kinoblk_core_Proc
[0]
Init
Set timer #2 to 2s
[11]
[10]
Check local object list
Timer #1000 timeout
Set timer #1000 to 10s and sleep
No
Ok?
koblk_ChkObjList()
Based on local object list, create a kinoblk_load task for every one we have to manage.
[100]
Cancel timer #1000
[101]
wait for data (forever)
Timer #2 timeout
Set timer #2 to 2s
koblk_ODILtick()
Check object list coherence and perform in accordingly
oblk_load
kinoblk_load_Proc
[0]
Park (preinit)
Remote Setup
koblk_ObjectDataBlockRecv()
Receives one data block
[10]
Start at data block #1
ia=1
[20]
request a data block
Set timer #1000 to 10s
koblk_ReqDBlock()
Requests current (ia) data block for this object
Ok?
No
[21]
wait timeout to retry
Timer #1000 timeout
[25]
wait to receive
[22]
Timer #1000 timeout
[26]
[30]
Finished receiving
kostr_Compile(Run)
Compile object (variable data blocks)
[40]
Operative
koblk_SendObjStNotify1id()
Notify QM about final object size and status
end
0x1022
_0x1022
k_PktHdOp_IBRblkR (Internal Binary Request)
Init_0x1022
Store received packet tags
Check parameters and prepare result and working buffers, according to request type (1=LR, 2=SR)
error?
Yes
Finished (error)
Type?
2
1
Loaded?
No
Try to get the block right now
success?
No
Finished (error)
Yes
A/B?
A
B
Proc_0x1022
[200]
send type A
[100]
send type B
[50]
wait to receive
[500]
store blocks
Under development