



## **An Update to Located Demos2k**

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### **Abstract:**

We give here a short update concerning Located Demos2k briefly describing the ability to forget and recall resource links, as reported in an earlier Technical Report. We also briefly mention our (purely applicative) implementation in OCaml of a simulator for Located Demos2k. Two appendices contain a substantial example of Located Demos2k, presented in OCaml terms, and the execution trace produced by the implementation.

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# An Update to Located Demos2k

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## Abstract

We give here a short update concerning Located Demos2k briefly describing the ability to *forget* and *recall* resource links, as reported in an earlier Technical Report. We also briefly mention our (purely applicative) implementation in OCaml of a simulator for Located Demos2k. Two appendices contain a substantial example of Located Demos2k, presented in OCaml terms, and the execution trace produced by the implementation.

## 1 Resources and Location

We have earlier described in [1] our extension of Demos2k [3] to include a natural notion of located resource. The basic idea is that particular locations have quantities of named resources; locations are connected together by simple links and amounts of resource can be moved along these links, preserving the type of resource. The notation we use is briefly described in [2] and is also presented here:

`getR(r@l, n)` Get  $n$  units of resource  $r$  from location  $l$ , provided they are available, otherwise wait until they are available and then get them. These resources are then owned by the process issuing this action;

`putR(r@l, n)` Put  $n$  units of resource  $r$  at location  $l$ , provided the process owns at least  $n$  units assigned to this location, otherwise wait until they are, then perform this action. After this action, the process issuing this action owns  $n$  fewer of the resource at this location;

`moveR(r, l -> m, n)` The issuing process waits until it owns  $n$  units of resource from location  $l$ . When it does so, it transfers them to location  $m$ . Afterwards, the additional  $n$  units are owned by the process at the location  $m$ .

Located Demos2k uses an explicit synchronous timing model, inherited from both standard Demos2k and SCRP [3, 2]:

`hold(t)` Delay the issuing process for  $t$  units of time. This provides the only way in which time is allowed to pass.

`close` Close the simulation.

## 2 Forgetting and recalling links

We also have the capability of modifying the underlying location–connection graph by using the *forget* and *recall* operations. These operations are of course instantaneous and modify the global graph. They are informally specified here:

`forget (l -> m)` The issuing process instructs the location environment to drop the link from location `l` to location `m`. If the link is already absent, then skip;

`recall (l -> m)` The issuing process instructs the location environment to recall the link from `l` to `m`. The link must have been declared in the preamble. If it is already present, then skip.

### 3 Implementing Located Demos2k

Located Demos2k has been implemented in terms of a timed *simulator*, allowing specific executable models to be reduced and consolidated down to a (unique) timed trace output. Because of the specific timing used, this means that either a *unique* trace is produced as output or deadlock arises, terminating the simulation before it is naturally closed. This characteristic is also shared by Demos2k. The possibility of livelock in models is pragmatically handled by limiting the number of instantaneous events occurring between ‘hold’ events (i.e., where time is consumed).

Our implementation in OCaml is *entirely* pure and applicative: no imperative side-effects were used at any stage in the construction of our simulator, even to the extent of eliminating all exceptions in favour of using ‘option’ types and fail-stop execution behaviour. A main benefit of this explicitly constructive and applicative approach is that all transfers of control are fully and explicitly represented, along with appropriate timing information. Thus the choice of OCaml for implementation is *inessential*: the implementation could be recast in an applicative-order reducing language, such as Haskell.

### References

- [1] Matthew Collinson, Brian Monahan, David Pym *Located Demos2k — Towards a Tool for Modelling Processes and Distributed Resources* HP Laboratories HPL-2008-76, June 2008  
<http://www.hpl.hp.com/techreports/2008/HPL-2008-76.pdf>
- [2] Matthew Collinson, Brian Monahan, David Pym. *A Logical and Computational Theory of Located Resource* HP Laboratories HPL-2008-74R1, June 2008  
<http://www.hpl.hp.com/techreports/2008/HPL-2008-74R1.pdf>
- [3] Demos2k. <http://www.demos2k.org>, 2000

## A An extensive example of Located Demos2k (in OCaml syntax)

Our implementation of Located Demos2k is given in terms of OCaml. The system is experimental, and so we conveniently use OCaml data terms to represent examples of Located Demos2k.

The model implemented in this example is the one discussed in detail in [2]. This model captures the handling of ferries and submarines in a harbour, in which the tugs, jetties, and cranes suitable for each kind of vessel are resources which have locations.

```
(*
  ferriesSubsCranes.ml

  The ferries, subs and cranes example
  -- illustrating secure information flow.

  by Collinson, Monahan, and Pym

  using: Located Demos2k (Version A.0.5, Released: 16th November 2008)
*)

let runTime = 300

(* Times and Delays *)
let ferry_in      = 2
and ferry_delay   = 3

and ferry_docking = 5
and ferry_loading = 2
and tug_return    = 1
and ferry_return  = 4
and ferry_out     = 2

and sub_delay     = 3
and sub_in        = 1

and sub_docking  = 6
and sub_loading   = 2

and stug_return  = 1
and sub_return   = 3
and sub_out      = 1

and gate_closed  = 12
and gate_open    = 12

and prom_time    = 1

and scan_time    = 3
and scrub_time   = 2
and crane_delay  = 24
and crane_return = 2

(* location names *)
let ferry      = "ferry"
and openSea    = "openSea"
and harbour    = "harbour"
and ferryDock  = "ferryDock"
and subDock    = "subDock"
and debZone    = "debZone"

(* entity/share names *)
let ferry      = "ferry"
and sub        = "sub"
and crane      = "crane"
and jetty      = "jetty"
and tug        = "tug"
```

```

and sectug = "sectug"
and info   = "info"

(* process names *)
let genFerries = "genFerries"
and genSubs   = "genSubs"
and dockFerry = "dockFerry"
and dockSub   = "dockSub"
and craneDeClass = "craneDeClass"
and gateKeeper = "gateKeeper"

let ferriesSubsCranes =
[
  (* atomic location declarations *)
  newLoc (openSea);
  newLoc (harbour);
  newLoc (ferryDock);
  newLoc (subDock);
  newLoc (debZone);

  (* atomic link declarations *)
  link (openSea, harbour); link (harbour, openSea);
  link (harbour, subDock); link (subDock, harbour);
  link (harbour, ferryDock); link (ferryDock, harbour);

  link (ferryDock, subDock);
  link (subDock, debZone);
  link (debZone, ferryDock);

  (* initial resource distribution *)
  newR (ferry, openSea, 2);
  newR (sub, openSea, 3);

  newR (jetty, ferryDock, 1);
  newR (crane, ferryDock, 2);
  newR (tug, harbour, 2);

  newR (jetty, subDock, 2);
  newR (crane, subDock, 1);
  newR (sectug, harbour, 4);
  newR (info, subDock, 5);

  (* Process declarations *)

  defnProcess (genFerries,
  [
    req ( [ getR(ferry, openSea, 1) ] );
    moveR(ferry, openSea, harbour, 1);
    hold(ferry_in);
    putR(ferry, harbour, 1);
    launch'(genFerries, ferry_delay)
  ]
  );

  defnProcess (genSubs,
  [
    req [ getR(sub, openSea, 1) ];
    moveR(sub, openSea, harbour, 1);
    hold(sub_in);
    putR(sub, harbour, 1);
    launch'(genSubs, sub_delay)
  ]
  );

  defnProcess (dockFerry,
  [

```

```

req ([ getR(ferry, harbour, 1); getR(tug, harbour, 2) ]);

moveR(ferry, harbour, ferryDock, 1);

tryAlt ([
  ( [ getR(info, harbour, 1) ]
    , [
      moveR(tug, harbour, ferryDock, 2);
      moveR(info, harbour, ferryDock, 1);
      getR(jetty, ferryDock, 1);
      hold(ferry_docking);
      putR(info, harbour, 1)
    ]
  );
  ( []
    , [
      moveR(tug, harbour, ferryDock, 2);
      getR(jetty, ferryDock, 1);
      hold(ferry_docking)
    ]
  )
]);

moveR(tug, ferryDock, harbour, 2);
putR(tug, harbour, 2);

getR(crane, ferryDock, 1);
hold(ferry_loading);
putR(crane, ferryDock, 1);

getR(tug, harbour, 2);
tryAlt ([
  ( [ getR(info, harbour, 1) ]
    , [
      moveR(tug, harbour, ferryDock, 2);
      moveR(info, harbour, ferryDock, 1);
      hold(tug_return);
      putR(info, ferryDock, 1)
    ]
  );
  ( []
    , [
      moveR(tug, harbour, ferryDock, 2);
      hold(tug_return)
    ]
  )
]);
putR(jetty, ferryDock, 1);

moveR(ferry, ferryDock, harbour, 1);
moveR(tug, ferryDock, harbour, 2);
hold(ferry_return);
putR(tug, harbour, 2);
moveR(ferry, harbour, openSea, 1);
hold(ferry_out);

putR(ferry, openSea, 1);

launch' (dockFerry, 0)
]
);

defnProcess (dockSub,
[
  req ([ getR(sub, harbour, 1); getR(sectug, harbour, 2) ]);

  moveR(sub, harbour, subDock, 1);

```

```

moveR(sectug, harbour, subDock, 2);

getR(jetty, subDock, 1);
hold(sub_docking);
moveR(sectug, subDock, harbour, 2);
putR(sectug, harbour, 2);

tryAlt ([
  ( [ getR(crane, subDock, 1) ]
    , []
  );
  ( []
    , [
      req ([ getR(crane, ferryDock, 1) ]);
      moveR(crane, ferryDock, subDock, 1);
      hold(prom_time)
    ]
  )
]);

req ( [ getR(info, subDock, 1) ] );
hold(sub_loading);

putR(info, subDock, 1);
putR(crane, subDock, 1);

getR(sectug, harbour, 2);
moveR(sectug, harbour, subDock, 2);
hold(stug_return);
putR(jetty, subDock, 1);

moveR(sub, subDock, harbour, 1);
moveR(sectug, subDock, harbour, 2);
hold(sub_return);
putR(sectug, harbour, 2);

moveR(sub, harbour, openSea, 1);
hold(sub_out);
putR(sub, openSea, 1);

launch' (dockSub, 0)
]
);

defnProcess (craneDeclass,
[
  req[ getR(crane, subDock, 1)];

  tryAlt ([
    ( [ getR(info, subDock, 1) ]
      , [
        moveR(crane, subDock, debZone, 1);
        moveR(info, subDock, debZone, 1);
        hold(scan_time);
        hold(scrub_time);
        moveR(info, debZone, subDock, 1);
        putR(info, subDock, 1)
      ]
    );
    ( []
      , [
        hold(scan_time)
      ]
    )
  ]);

  moveR(crane, debZone, ferryDock, 1);

```

```

        hold(crane_return);
        putR(crane, ferryDock, 1);

        launch'(craneDeclass, crane_delay)
    ]
);

defnProcess (gateKeeper,
    [
        forget(ferryDock, subDock);
        hold(gate_closed);
        recall(ferryDock, subDock);
        launch'(gateKeeper, gate_open)
    ]
);

(* initialising launches *)
launch'(genFerries, 0);
launch'(genSubs, 0);
launch'(gateKeeper, 0);
launch'(craneDeclass, 0);

doLoop(2,
    [
        launch'(dockFerry, 0);
        launch'(dockSub, 0)
    ]
);

hold(runTime);
close
]
;;

tst "Ferries, Subs and Cranes" ferriesSubsCranes
;;

```



## B The execution trace

```
Execution Trace:
0 ! *MAIN* NewLoc: creating new location 'openSea'
0 ! *MAIN* NewLoc: creating new location 'harbour'
0 ! *MAIN* NewLoc: creating new location 'ferryDock'
0 ! *MAIN* NewLoc: creating new location 'subDock'
0 ! *MAIN* NewLoc: creating new location 'debZone'
0 ! *MAIN* Link: creating link : 'openSea' --> 'harbour'
0 ! *MAIN* Link: creating link : 'harbour' --> 'openSea'
0 ! *MAIN* Link: creating link : 'harbour' --> 'subDock'
0 ! *MAIN* Link: creating link : 'subDock' --> 'harbour'
0 ! *MAIN* Link: creating link : 'harbour' --> 'ferryDock'
0 ! *MAIN* Link: creating link : 'ferryDock' --> 'harbour'
0 ! *MAIN* Link: creating link : 'ferryDock' --> 'subDock'
0 ! *MAIN* Link: creating link : 'subDock' --> 'debZone'
0 ! *MAIN* Link: creating link : 'debZone' --> 'ferryDock'
0 ! *MAIN* newR: creating resource 'ferry' with 2 at location 'openSea'
0 ! *MAIN* newR: creating resource 'sub' with 3 at location 'openSea'
0 ! *MAIN* newR: creating resource 'jetty' with 1 at location 'ferryDock'
0 ! *MAIN* newR: creating resource 'crane' with 2 at location 'ferryDock'
0 ! *MAIN* newR: creating resource 'tug' with 2 at location 'harbour'
0 ! *MAIN* newR: creating resource 'jetty' with 2 at location 'subDock'
0 ! *MAIN* newR: creating resource 'crane' with 1 at location 'subDock'
0 ! *MAIN* newR: creating resource 'sectug' with 4 at location 'harbour'
0 ! *MAIN* newR: creating resource 'info' with 5 at location 'subDock'
0 ! *MAIN* Defined process named 'genFerries'
0 ! *MAIN* Defined process named 'genSubs'
0 ! *MAIN* Defined process named 'dockFerry'
0 ! *MAIN* Defined process named 'dockSub'
0 ! *MAIN* Defined process named 'craneDeclass'
0 ! *MAIN* Defined process named 'gateKeeper'
0 ! *MAIN* Launching entity 'genFerries' (genFerries_1) at time 0
0 ! *MAIN* Launching entity 'genSubs' (genSubs_1) at time 0
0 ! *MAIN* Launching entity 'gateKeeper' (gateKeeper_1) at time 0
0 ! *MAIN* Launching entity 'craneDeclass' (craneDeclass_1) at time 0
0 ! *MAIN* Launching entity 'dockFerry' (dockFerry_1) at time 0
0 ! *MAIN* Launching entity 'dockSub' (dockSub_1) at time 0
0 ! *MAIN* Launching entity 'dockFerry' (dockFerry_2) at time 0
0 ! *MAIN* Launching entity 'dockSub' (dockSub_2) at time 0
0 ! *MAIN* Hold issued for 300
0 ! genFerries_1 getR: claiming 1 units for resource 'ferry' at location 'openSea'
0 ! genFerries_1 moveR: moving resource 'ferry' amount 1 from location 'openSea' to location 'harbour'
0 ! genFerries_1 Hold issued for 2
0 ! genSubs_1 getR: claiming 1 units for resource 'sub' at location 'openSea'
0 ! genSubs_1 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
0 ! genSubs_1 Hold issued for 1
0 ! gateKeeper_1 Forget: forgetting the link : 'ferryDock' --> 'subDock'
0 ! gateKeeper_1 Hold issued for 12
0 ! craneDeclass_1 getR: claiming 1 units for resource 'crane' at location 'subDock'
0 ! craneDeclass_1 getR: claiming 1 units for resource 'info' at location 'subDock'
0 ! craneDeclass_1 moveR: moving resource 'crane' amount 1 from location 'subDock' to location 'debZone'
0 ! craneDeclass_1 moveR: moving resource 'info' amount 1 from location 'subDock' to location 'debZone'
0 ! craneDeclass_1 Hold issued for 3
1 ! genSubs_1 putR: releasing 1 units for resource 'sub' at location 'harbour'
1 ! dockSub_1 getR: claiming 1 units for resource 'sub' at location 'harbour'
1 ! dockSub_1 getR: claiming 2 units for resource 'sectug' at location 'harbour'
1 ! genSubs_1 Launching entity 'genSubs' (genSubs_2) at time 4
1 ! dockSub_1 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
1 ! dockSub_1 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
1 ! dockSub_1 getR: claiming 1 units for resource 'jetty' at location 'subDock'
1 ! dockSub_1 Hold issued for 6
2 ! genFerries_1 putR: releasing 1 units for resource 'ferry' at location 'harbour'
2 ! dockFerry_1 getR: claiming 1 units for resource 'ferry' at location 'harbour'
2 ! dockFerry_1 getR: claiming 2 units for resource 'tug' at location 'harbour'
2 ! genFerries_1 Launching entity 'genFerries' (genFerries_2) at time 5
2 ! dockFerry_1 moveR: moving resource 'ferry' amount 1 from location 'harbour' to location 'ferryDock'
2 ! dockFerry_1 moveR: moving resource 'tug' amount 2 from location 'harbour' to location 'ferryDock'
2 ! dockFerry_1 getR: claiming 1 units for resource 'jetty' at location 'ferryDock'
2 ! dockFerry_1 Hold issued for 5
3 ! craneDeclass_1 Hold issued for 2
4 ! genSubs_2 getR: claiming 1 units for resource 'sub' at location 'openSea'
4 ! genSubs_2 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
4 ! genSubs_2 Hold issued for 1
5 ! genFerries_2 getR: claiming 1 units for resource 'ferry' at location 'openSea'
5 ! genFerries_2 moveR: moving resource 'ferry' amount 1 from location 'openSea' to location 'harbour'
5 ! genFerries_2 Hold issued for 2
5 ! craneDeclass_1 moveR: moving resource 'info' amount 1 from location 'debZone' to location 'subDock'
5 ! craneDeclass_1 putR: releasing 1 units for resource 'info' at location 'subDock'
```

```

5 ! craneDeclass_1 moveR: moving resource 'crane' amount 1 from location 'debZone' to location 'ferryDock'
5 ! craneDeclass_1 Hold issued for 2
5 ! genSubs_2 putR: releasing 1 units for resource 'sub' at location 'harbour'
5 ! dockSub_2 getR: claiming 1 units for resource 'sub' at location 'harbour'
5 ! dockSub_2 getR: claiming 2 units for resource 'sectug' at location 'harbour'
5 ! genSubs_2 Launching entity 'genSubs' (genSubs_3) at time 8
5 ! dockSub_2 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
5 ! dockSub_2 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
5 ! dockSub_2 getR: claiming 1 units for resource 'jetty' at location 'subDock'
5 ! dockSub_2 Hold issued for 6
7 ! dockSub_1 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
7 ! dockSub_1 putR: releasing 2 units for resource 'sectug' at location 'harbour'
7 ! dockSub_1 getR: claiming 1 units for resource 'crane' at location 'ferryDock'
7 ! dockSub_1 moveR: moving resource 'crane' amount 1 from location 'ferryDock' to location 'subDock'
7 ! dockSub_1 Hold issued for 1
7 ! dockFerry_1 moveR: moving resource 'tug' amount 2 from location 'ferryDock' to location 'harbour'
7 ! dockFerry_1 putR: releasing 2 units for resource 'tug' at location 'harbour'
7 ! dockFerry_1 getR: claiming 1 units for resource 'crane' at location 'ferryDock'
7 ! dockFerry_1 Hold issued for 2
7 ! genFerries_2 putR: releasing 1 units for resource 'ferry' at location 'harbour'
7 ! dockFerry_2 getR: claiming 1 units for resource 'ferry' at location 'harbour'
7 ! dockFerry_2 getR: claiming 2 units for resource 'tug' at location 'harbour'
7 ! genFerries_2 Launching entity 'genFerries' (genFerries_3) at time 10
7 ! craneDeclass_1 putR: releasing 1 units for resource 'crane' at location 'ferryDock'
7 ! craneDeclass_1 Launching entity 'craneDeclass' (craneDeclass_2) at time 31
7 ! dockFerry_2 moveR: moving resource 'ferry' amount 1 from location 'harbour' to location 'ferryDock'
7 ! dockFerry_2 moveR: moving resource 'tug' amount 2 from location 'harbour' to location 'ferryDock'
8 ! genSubs_3 getR: claiming 1 units for resource 'sub' at location 'openSea'
8 ! genSubs_3 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
8 ! genSubs_3 Hold issued for 1
8 ! dockSub_1 getR: claiming 1 units for resource 'info' at location 'subDock'
8 ! dockSub_1 Hold issued for 2
9 ! dockFerry_1 putR: releasing 1 units for resource 'crane' at location 'ferryDock'
9 ! genSubs_3 putR: releasing 1 units for resource 'sub' at location 'harbour'
9 ! genSubs_3 Launching entity 'genSubs' (genSubs_4) at time 12
10 ! dockSub_1 putR: releasing 1 units for resource 'info' at location 'subDock'
10 ! dockSub_1 putR: releasing 1 units for resource 'crane' at location 'subDock'
10 ! dockSub_1 getR: claiming 2 units for resource 'sectug' at location 'harbour'
10 ! dockSub_1 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
10 ! dockSub_1 Hold issued for 1
11 ! dockSub_2 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
11 ! dockSub_2 putR: releasing 2 units for resource 'sectug' at location 'harbour'
11 ! dockSub_2 getR: claiming 1 units for resource 'crane' at location 'subDock'
11 ! dockSub_2 getR: claiming 1 units for resource 'info' at location 'subDock'
11 ! dockSub_2 Hold issued for 2
11 ! dockSub_1 putR: releasing 1 units for resource 'jetty' at location 'subDock'
11 ! dockSub_1 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
11 ! dockSub_1 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
11 ! dockSub_1 Hold issued for 3
12 ! gateKeeper_1 Recall: recalling the link : 'ferryDock' --> 'subDock'
12 ! gateKeeper_1 Launching entity 'gateKeeper' (gateKeeper_2) at time 24
13 ! dockSub_2 putR: releasing 1 units for resource 'info' at location 'subDock'
13 ! dockSub_2 putR: releasing 1 units for resource 'crane' at location 'subDock'
13 ! dockSub_2 getR: claiming 2 units for resource 'sectug' at location 'harbour'
13 ! dockSub_2 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
13 ! dockSub_2 Hold issued for 1
14 ! dockSub_1 putR: releasing 2 units for resource 'sectug' at location 'harbour'
14 ! dockSub_1 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
14 ! dockSub_1 Hold issued for 1
14 ! dockSub_2 putR: releasing 1 units for resource 'jetty' at location 'subDock'
14 ! dockSub_2 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
14 ! dockSub_2 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
14 ! dockSub_2 Hold issued for 3
15 ! dockSub_1 putR: releasing 1 units for resource 'sub' at location 'openSea'
15 ! genSubs_4 getR: claiming 1 units for resource 'sub' at location 'openSea'
15 ! dockSub_1 Launching entity 'dockSub' (dockSub_3) at time 15
15 ! genSubs_4 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
15 ! genSubs_4 Hold issued for 1
15 ! dockSub_3 getR: claiming 1 units for resource 'sub' at location 'harbour'
15 ! dockSub_3 getR: claiming 2 units for resource 'sectug' at location 'harbour'
15 ! dockSub_3 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
15 ! dockSub_3 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
15 ! dockSub_3 getR: claiming 1 units for resource 'jetty' at location 'subDock'
15 ! dockSub_3 Hold issued for 6
16 ! genSubs_4 putR: releasing 1 units for resource 'sub' at location 'harbour'
16 ! genSubs_4 Launching entity 'genSubs' (genSubs_5) at time 19
17 ! dockSub_2 putR: releasing 2 units for resource 'sectug' at location 'harbour'
17 ! dockSub_2 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
17 ! dockSub_2 Hold issued for 1
18 ! dockSub_2 putR: releasing 1 units for resource 'sub' at location 'openSea'

```

```

18 ! dockSub_2 Launching entity 'dockSub' (dockSub_4) at time 18
18 ! dockSub_4 getR: claiming 1 units for resource 'sub' at location 'harbour'
18 ! dockSub_4 getR: claiming 2 units for resource 'sectug' at location 'harbour'
18 ! dockSub_4 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
18 ! dockSub_4 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
18 ! dockSub_4 getR: claiming 1 units for resource 'jetty' at location 'subDock'
18 ! dockSub_4 Hold issued for 6
19 ! genSubs_5 getR: claiming 1 units for resource 'sub' at location 'openSea'
19 ! genSubs_5 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
19 ! genSubs_5 Hold issued for 1
20 ! genSubs_5 putR: releasing 1 units for resource 'sub' at location 'harbour'
20 ! genSubs_5 Launching entity 'genSubs' (genSubs_6) at time 23
21 ! dockSub_3 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
21 ! dockSub_3 putR: releasing 2 units for resource 'sectug' at location 'harbour'
21 ! dockSub_3 getR: claiming 1 units for resource 'crane' at location 'subDock'
21 ! dockSub_3 getR: claiming 1 units for resource 'info' at location 'subDock'
21 ! dockSub_3 Hold issued for 2
23 ! dockSub_3 putR: releasing 1 units for resource 'info' at location 'subDock'
23 ! dockSub_3 putR: releasing 1 units for resource 'crane' at location 'subDock'
23 ! dockSub_3 getR: claiming 2 units for resource 'sectug' at location 'harbour'
23 ! dockSub_3 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
23 ! dockSub_3 Hold issued for 1
24 ! gateKeeper_2 Forget: forgetting the link : 'ferryDock' --> 'subDock'
24 ! gateKeeper_2 Hold issued for 12
24 ! dockSub_4 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
24 ! dockSub_4 putR: releasing 2 units for resource 'sectug' at location 'harbour'
24 ! dockSub_4 getR: claiming 1 units for resource 'crane' at location 'subDock'
24 ! dockSub_4 getR: claiming 1 units for resource 'info' at location 'subDock'
24 ! dockSub_4 Hold issued for 2
24 ! dockSub_3 putR: releasing 1 units for resource 'jetty' at location 'subDock'
24 ! dockSub_3 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
24 ! dockSub_3 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
24 ! dockSub_3 Hold issued for 3
26 ! dockSub_4 putR: releasing 1 units for resource 'info' at location 'subDock'
26 ! dockSub_4 putR: releasing 1 units for resource 'crane' at location 'subDock'
26 ! dockSub_4 getR: claiming 2 units for resource 'sectug' at location 'harbour'
26 ! dockSub_4 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
26 ! dockSub_4 Hold issued for 1
27 ! dockSub_3 putR: releasing 2 units for resource 'sectug' at location 'harbour'
27 ! dockSub_3 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
27 ! dockSub_3 Hold issued for 1
27 ! dockSub_4 putR: releasing 1 units for resource 'jetty' at location 'subDock'
27 ! dockSub_4 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
27 ! dockSub_4 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
27 ! dockSub_4 Hold issued for 3
28 ! dockSub_3 putR: releasing 1 units for resource 'sub' at location 'openSea'
28 ! genSubs_6 getR: claiming 1 units for resource 'sub' at location 'openSea'
28 ! dockSub_3 Launching entity 'dockSub' (dockSub_5) at time 28
28 ! genSubs_6 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
28 ! genSubs_6 Hold issued for 1
28 ! dockSub_5 getR: claiming 1 units for resource 'sub' at location 'harbour'
28 ! dockSub_5 getR: claiming 2 units for resource 'sectug' at location 'harbour'
28 ! dockSub_5 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
28 ! dockSub_5 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
28 ! dockSub_5 getR: claiming 1 units for resource 'jetty' at location 'subDock'
28 ! dockSub_5 Hold issued for 6
29 ! genSubs_6 putR: releasing 1 units for resource 'sub' at location 'harbour'
29 ! genSubs_6 Launching entity 'genSubs' (genSubs_7) at time 32
30 ! dockSub_4 putR: releasing 2 units for resource 'sectug' at location 'harbour'
30 ! dockSub_4 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
30 ! dockSub_4 Hold issued for 1
31 ! craneDeclass_2 getR: claiming 1 units for resource 'crane' at location 'subDock'
31 ! craneDeclass_2 getR: claiming 1 units for resource 'info' at location 'subDock'
31 ! craneDeclass_2 moveR: moving resource 'crane' amount 1 from location 'subDock' to location 'debZone'
31 ! craneDeclass_2 moveR: moving resource 'info' amount 1 from location 'subDock' to location 'debZone'
31 ! craneDeclass_2 Hold issued for 3
31 ! dockSub_4 putR: releasing 1 units for resource 'sub' at location 'openSea'
31 ! dockSub_4 Launching entity 'dockSub' (dockSub_6) at time 31
31 ! dockSub_6 getR: claiming 1 units for resource 'sub' at location 'harbour'
31 ! dockSub_6 getR: claiming 2 units for resource 'sectug' at location 'harbour'
31 ! dockSub_6 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
31 ! dockSub_6 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
31 ! dockSub_6 getR: claiming 1 units for resource 'jetty' at location 'subDock'
31 ! dockSub_6 Hold issued for 6
32 ! genSubs_7 getR: claiming 1 units for resource 'sub' at location 'openSea'
32 ! genSubs_7 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
32 ! genSubs_7 Hold issued for 1
33 ! genSubs_7 putR: releasing 1 units for resource 'sub' at location 'harbour'
33 ! genSubs_7 Launching entity 'genSubs' (genSubs_8) at time 36
34 ! dockSub_5 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'

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34 ! dockSub_5 putR: releasing 2 units for resource 'sectug' at location 'harbour'
34 ! dockSub_5 getR: claiming 1 units for resource 'crane' at location 'ferryDock'
34 ! dockSub_5 moveR: moving resource 'crane' amount 1 from location 'ferryDock' to location 'subDock'
34 ! dockSub_5 Hold issued for 1
34 ! craneDeclass_2 Hold issued for 2
35 ! dockSub_5 getR: claiming 1 units for resource 'info' at location 'subDock'
35 ! dockSub_5 Hold issued for 2
36 ! gateKeeper_2 Recall: recalling the link : 'ferryDock' --> 'subDock'
36 ! gateKeeper_2 Launching entity 'gateKeeper' (gateKeeper_3) at time 48
36 ! craneDeclass_2 moveR: moving resource 'info' amount 1 from location 'debZone' to location 'subDock'
36 ! craneDeclass_2 putR: releasing 1 units for resource 'info' at location 'subDock'
36 ! craneDeclass_2 moveR: moving resource 'crane' amount 1 from location 'debZone' to location 'ferryDock'
36 ! craneDeclass_2 Hold issued for 2
37 ! dockSub_6 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
37 ! dockSub_6 putR: releasing 2 units for resource 'sectug' at location 'harbour'
37 ! dockSub_6 getR: claiming 1 units for resource 'crane' at location 'ferryDock'
37 ! dockSub_6 moveR: moving resource 'crane' amount 1 from location 'ferryDock' to location 'subDock'
37 ! dockSub_6 Hold issued for 1
37 ! dockSub_5 putR: releasing 1 units for resource 'info' at location 'subDock'
37 ! dockSub_5 putR: releasing 1 units for resource 'crane' at location 'subDock'
37 ! dockSub_5 getR: claiming 2 units for resource 'sectug' at location 'harbour'
37 ! dockSub_5 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
37 ! dockSub_5 Hold issued for 1
38 ! craneDeclass_2 putR: releasing 1 units for resource 'crane' at location 'ferryDock'
38 ! craneDeclass_2 Launching entity 'craneDeclass' (craneDeclass_3) at time 62
38 ! dockSub_6 getR: claiming 1 units for resource 'info' at location 'subDock'
38 ! dockSub_6 Hold issued for 2
38 ! dockSub_5 putR: releasing 1 units for resource 'jetty' at location 'subDock'
38 ! dockSub_5 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
38 ! dockSub_5 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
38 ! dockSub_5 Hold issued for 3
40 ! dockSub_6 putR: releasing 1 units for resource 'info' at location 'subDock'
40 ! dockSub_6 putR: releasing 1 units for resource 'crane' at location 'subDock'
40 ! dockSub_6 getR: claiming 2 units for resource 'sectug' at location 'harbour'
40 ! dockSub_6 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
40 ! dockSub_6 Hold issued for 1
41 ! dockSub_5 putR: releasing 2 units for resource 'sectug' at location 'harbour'
41 ! dockSub_5 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
41 ! dockSub_5 Hold issued for 1
41 ! dockSub_6 putR: releasing 1 units for resource 'jetty' at location 'subDock'
41 ! dockSub_6 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
41 ! dockSub_6 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
41 ! dockSub_6 Hold issued for 3
42 ! dockSub_5 putR: releasing 1 units for resource 'sub' at location 'openSea'
42 ! genSubs_8 getR: claiming 1 units for resource 'sub' at location 'openSea'
42 ! dockSub_5 Launching entity 'dockSub' (dockSub_7) at time 42
42 ! genSubs_8 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
42 ! genSubs_8 Hold issued for 1
42 ! dockSub_7 getR: claiming 1 units for resource 'sub' at location 'harbour'
42 ! dockSub_7 getR: claiming 2 units for resource 'sectug' at location 'harbour'
42 ! dockSub_7 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
42 ! dockSub_7 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
42 ! dockSub_7 getR: claiming 1 units for resource 'jetty' at location 'subDock'
42 ! dockSub_7 Hold issued for 6
43 ! genSubs_8 putR: releasing 1 units for resource 'sub' at location 'harbour'
43 ! genSubs_8 Launching entity 'genSubs' (genSubs_9) at time 46
44 ! dockSub_6 putR: releasing 2 units for resource 'sectug' at location 'harbour'
44 ! dockSub_6 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
44 ! dockSub_6 Hold issued for 1
45 ! dockSub_6 putR: releasing 1 units for resource 'sub' at location 'openSea'
45 ! dockSub_6 Launching entity 'dockSub' (dockSub_8) at time 45
45 ! dockSub_8 getR: claiming 1 units for resource 'sub' at location 'harbour'
45 ! dockSub_8 getR: claiming 2 units for resource 'sectug' at location 'harbour'
45 ! dockSub_8 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
45 ! dockSub_8 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
45 ! dockSub_8 getR: claiming 1 units for resource 'jetty' at location 'subDock'
45 ! dockSub_8 Hold issued for 6
46 ! genSubs_9 getR: claiming 1 units for resource 'sub' at location 'openSea'
46 ! genSubs_9 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
46 ! genSubs_9 Hold issued for 1
47 ! genSubs_9 putR: releasing 1 units for resource 'sub' at location 'harbour'
47 ! genSubs_9 Launching entity 'genSubs' (genSubs_10) at time 50
48 ! gateKeeper_3 Forget: forgetting the link : 'ferryDock' --> 'subDock'
48 ! gateKeeper_3 Hold issued for 12
48 ! dockSub_7 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
48 ! dockSub_7 putR: releasing 2 units for resource 'sectug' at location 'harbour'
48 ! dockSub_7 getR: claiming 1 units for resource 'crane' at location 'subDock'
48 ! dockSub_7 getR: claiming 1 units for resource 'info' at location 'subDock'
48 ! dockSub_7 Hold issued for 2
50 ! dockSub_7 putR: releasing 1 units for resource 'info' at location 'subDock'

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50 ! dockSub_7 putR: releasing 1 units for resource 'crane' at location 'subDock'
50 ! dockSub_7 getR: claiming 2 units for resource 'sectug' at location 'harbour'
50 ! dockSub_7 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
50 ! dockSub_7 Hold issued for 1
51 ! dockSub_8 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
51 ! dockSub_8 putR: releasing 2 units for resource 'sectug' at location 'harbour'
51 ! dockSub_8 getR: claiming 1 units for resource 'crane' at location 'subDock'
51 ! dockSub_8 getR: claiming 1 units for resource 'info' at location 'subDock'
51 ! dockSub_8 Hold issued for 2
51 ! dockSub_7 putR: releasing 1 units for resource 'jetty' at location 'subDock'
51 ! dockSub_7 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
51 ! dockSub_7 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
51 ! dockSub_7 Hold issued for 3
53 ! dockSub_8 putR: releasing 1 units for resource 'info' at location 'subDock'
53 ! dockSub_8 putR: releasing 1 units for resource 'crane' at location 'subDock'
53 ! dockSub_8 getR: claiming 2 units for resource 'sectug' at location 'harbour'
53 ! dockSub_8 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
53 ! dockSub_8 Hold issued for 1
54 ! dockSub_7 putR: releasing 2 units for resource 'sectug' at location 'harbour'
54 ! dockSub_7 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
54 ! dockSub_7 Hold issued for 1
54 ! dockSub_8 putR: releasing 1 units for resource 'jetty' at location 'subDock'
54 ! dockSub_8 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
54 ! dockSub_8 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
54 ! dockSub_8 Hold issued for 3
55 ! dockSub_7 putR: releasing 1 units for resource 'sub' at location 'openSea'
55 ! genSubs_10 getR: claiming 1 units for resource 'sub' at location 'openSea'
55 ! dockSub_7 Launching entity 'dockSub' (dockSub_9) at time 55
55 ! genSubs_10 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
55 ! genSubs_10 Hold issued for 1
55 ! dockSub_9 getR: claiming 1 units for resource 'sub' at location 'harbour'
55 ! dockSub_9 getR: claiming 2 units for resource 'sectug' at location 'harbour'
55 ! dockSub_9 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
55 ! dockSub_9 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
55 ! dockSub_9 getR: claiming 1 units for resource 'jetty' at location 'subDock'
55 ! dockSub_9 Hold issued for 6
56 ! genSubs_10 putR: releasing 1 units for resource 'sub' at location 'harbour'
56 ! genSubs_10 Launching entity 'genSubs' (genSubs_11) at time 59
57 ! dockSub_8 putR: releasing 2 units for resource 'sectug' at location 'harbour'
57 ! dockSub_8 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
57 ! dockSub_8 Hold issued for 1
58 ! dockSub_8 putR: releasing 1 units for resource 'sub' at location 'openSea'
58 ! dockSub_8 Launching entity 'dockSub' (dockSub_10) at time 58
58 ! dockSub_10 getR: claiming 1 units for resource 'sub' at location 'harbour'
58 ! dockSub_10 getR: claiming 2 units for resource 'sectug' at location 'harbour'
58 ! dockSub_10 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
58 ! dockSub_10 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
58 ! dockSub_10 getR: claiming 1 units for resource 'jetty' at location 'subDock'
58 ! dockSub_10 Hold issued for 6
59 ! genSubs_11 getR: claiming 1 units for resource 'sub' at location 'openSea'
59 ! genSubs_11 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
59 ! genSubs_11 Hold issued for 1
60 ! gateKeeper_3 Recall: recalling the link : 'ferryDock' --> 'subDock'
60 ! gateKeeper_3 Launching entity 'gateKeeper' (gateKeeper_4) at time 72
60 ! genSubs_11 putR: releasing 1 units for resource 'sub' at location 'harbour'
60 ! genSubs_11 Launching entity 'genSubs' (genSubs_12) at time 63
61 ! dockSub_9 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
61 ! dockSub_9 putR: releasing 2 units for resource 'sectug' at location 'harbour'
61 ! dockSub_9 getR: claiming 1 units for resource 'crane' at location 'subDock'
61 ! dockSub_9 getR: claiming 1 units for resource 'info' at location 'subDock'
61 ! dockSub_9 Hold issued for 2
62 ! craneDeClass_3 getR: claiming 1 units for resource 'crane' at location 'subDock'
62 ! craneDeClass_3 getR: claiming 1 units for resource 'info' at location 'subDock'
62 ! craneDeClass_3 moveR: moving resource 'crane' amount 1 from location 'subDock' to location 'debZone'
62 ! craneDeClass_3 moveR: moving resource 'info' amount 1 from location 'subDock' to location 'debZone'
62 ! craneDeClass_3 Hold issued for 3
63 ! dockSub_9 putR: releasing 1 units for resource 'info' at location 'subDock'
63 ! dockSub_9 putR: releasing 1 units for resource 'crane' at location 'subDock'
63 ! dockSub_9 getR: claiming 2 units for resource 'sectug' at location 'harbour'
63 ! dockSub_9 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
63 ! dockSub_9 Hold issued for 1
64 ! dockSub_10 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
64 ! dockSub_10 putR: releasing 2 units for resource 'sectug' at location 'harbour'
64 ! dockSub_10 getR: claiming 1 units for resource 'crane' at location 'subDock'
64 ! dockSub_10 getR: claiming 1 units for resource 'info' at location 'subDock'
64 ! dockSub_10 Hold issued for 2
64 ! dockSub_9 putR: releasing 1 units for resource 'jetty' at location 'subDock'
64 ! dockSub_9 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
64 ! dockSub_9 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
64 ! dockSub_9 Hold issued for 3

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65 ! craneDeclass_3 Hold issued for 2
66 ! dockSub_10 putR: releasing 1 units for resource 'info' at location 'subDock'
66 ! dockSub_10 putR: releasing 1 units for resource 'crane' at location 'subDock'
66 ! dockSub_10 getR: claiming 2 units for resource 'sectug' at location 'harbour'
66 ! dockSub_10 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
66 ! dockSub_10 Hold issued for 1
67 ! dockSub_9 putR: releasing 2 units for resource 'sectug' at location 'harbour'
67 ! dockSub_9 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
67 ! dockSub_9 Hold issued for 1
67 ! craneDeclass_3 moveR: moving resource 'info' amount 1 from location 'debZone' to location 'subDock'
67 ! craneDeclass_3 putR: releasing 1 units for resource 'info' at location 'subDock'
67 ! craneDeclass_3 moveR: moving resource 'crane' amount 1 from location 'debZone' to location 'ferryDock'
67 ! craneDeclass_3 Hold issued for 2
67 ! dockSub_10 putR: releasing 1 units for resource 'jetty' at location 'subDock'
67 ! dockSub_10 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
67 ! dockSub_10 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
67 ! dockSub_10 Hold issued for 3
68 ! dockSub_9 putR: releasing 1 units for resource 'sub' at location 'openSea'
68 ! genSubs_12 getR: claiming 1 units for resource 'sub' at location 'openSea'
68 ! dockSub_9 Launching entity 'dockSub' (dockSub_11) at time 68
68 ! genSubs_12 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
68 ! genSubs_12 Hold issued for 1
68 ! dockSub_11 getR: claiming 1 units for resource 'sub' at location 'harbour'
68 ! dockSub_11 getR: claiming 2 units for resource 'sectug' at location 'harbour'
68 ! dockSub_11 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
68 ! dockSub_11 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
68 ! dockSub_11 getR: claiming 1 units for resource 'jetty' at location 'subDock'
68 ! dockSub_11 Hold issued for 6
69 ! craneDeclass_3 putR: releasing 1 units for resource 'crane' at location 'ferryDock'
69 ! craneDeclass_3 Launching entity 'craneDeclass' (craneDeclass_4) at time 93
69 ! genSubs_12 putR: releasing 1 units for resource 'sub' at location 'harbour'
69 ! genSubs_12 Launching entity 'genSubs' (genSubs_13) at time 72
70 ! dockSub_10 putR: releasing 2 units for resource 'sectug' at location 'harbour'
70 ! dockSub_10 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
70 ! dockSub_10 Hold issued for 1
71 ! dockSub_10 putR: releasing 1 units for resource 'sub' at location 'openSea'
71 ! dockSub_10 Launching entity 'dockSub' (dockSub_12) at time 71
71 ! dockSub_12 getR: claiming 1 units for resource 'sub' at location 'harbour'
71 ! dockSub_12 getR: claiming 2 units for resource 'sectug' at location 'harbour'
71 ! dockSub_12 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
71 ! dockSub_12 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
71 ! dockSub_12 getR: claiming 1 units for resource 'jetty' at location 'subDock'
71 ! dockSub_12 Hold issued for 6
72 ! gateKeeper_4 Forget: forgetting the link : 'ferryDock' --> 'subDock'
72 ! gateKeeper_4 Hold issued for 12
72 ! genSubs_13 getR: claiming 1 units for resource 'sub' at location 'openSea'
72 ! genSubs_13 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
72 ! genSubs_13 Hold issued for 1
73 ! genSubs_13 putR: releasing 1 units for resource 'sub' at location 'harbour'
73 ! genSubs_13 Launching entity 'genSubs' (genSubs_14) at time 76
74 ! dockSub_11 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
74 ! dockSub_11 putR: releasing 2 units for resource 'sectug' at location 'harbour'
74 ! dockSub_11 getR: claiming 1 units for resource 'crane' at location 'subDock'
74 ! dockSub_11 getR: claiming 1 units for resource 'info' at location 'subDock'
74 ! dockSub_11 Hold issued for 2
76 ! dockSub_11 putR: releasing 1 units for resource 'info' at location 'subDock'
76 ! dockSub_11 putR: releasing 1 units for resource 'crane' at location 'subDock'
76 ! dockSub_11 getR: claiming 2 units for resource 'sectug' at location 'harbour'
76 ! dockSub_11 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
76 ! dockSub_11 Hold issued for 1
77 ! dockSub_12 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
77 ! dockSub_12 putR: releasing 2 units for resource 'sectug' at location 'harbour'
77 ! dockSub_12 getR: claiming 1 units for resource 'crane' at location 'subDock'
77 ! dockSub_12 getR: claiming 1 units for resource 'info' at location 'subDock'
77 ! dockSub_12 Hold issued for 2
77 ! dockSub_11 putR: releasing 1 units for resource 'jetty' at location 'subDock'
77 ! dockSub_11 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
77 ! dockSub_11 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
77 ! dockSub_11 Hold issued for 3
79 ! dockSub_12 putR: releasing 1 units for resource 'info' at location 'subDock'
79 ! dockSub_12 putR: releasing 1 units for resource 'crane' at location 'subDock'
79 ! dockSub_12 getR: claiming 2 units for resource 'sectug' at location 'harbour'
79 ! dockSub_12 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
79 ! dockSub_12 Hold issued for 1
80 ! dockSub_11 putR: releasing 2 units for resource 'sectug' at location 'harbour'
80 ! dockSub_11 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
80 ! dockSub_11 Hold issued for 1
80 ! dockSub_12 putR: releasing 1 units for resource 'jetty' at location 'subDock'
80 ! dockSub_12 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
80 ! dockSub_12 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'

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80 ! dockSub_12 Hold issued for 3
81 ! dockSub_11 putR: releasing 1 units for resource 'sub' at location 'openSea'
81 ! genSubs_14 getR: claiming 1 units for resource 'sub' at location 'openSea'
81 ! dockSub_11 Launching entity 'dockSub' (dockSub_13) at time 81
81 ! genSubs_14 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
81 ! genSubs_14 Hold issued for 1
81 ! dockSub_13 getR: claiming 1 units for resource 'sub' at location 'harbour'
81 ! dockSub_13 getR: claiming 2 units for resource 'sectug' at location 'harbour'
81 ! dockSub_13 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
81 ! dockSub_13 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
81 ! dockSub_13 getR: claiming 1 units for resource 'jetty' at location 'subDock'
81 ! dockSub_13 Hold issued for 6
82 ! genSubs_14 putR: releasing 1 units for resource 'sub' at location 'harbour'
82 ! genSubs_14 Launching entity 'genSubs' (genSubs_15) at time 85
83 ! dockSub_12 putR: releasing 2 units for resource 'sectug' at location 'harbour'
83 ! dockSub_12 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
83 ! dockSub_12 Hold issued for 1
84 ! gateKeeper_4 Recall: recalling the link : 'ferryDock' --> 'subDock'
84 ! gateKeeper_4 Launching entity 'gateKeeper' (gateKeeper_5) at time 96
84 ! dockSub_12 putR: releasing 1 units for resource 'sub' at location 'openSea'
84 ! dockSub_12 Launching entity 'dockSub' (dockSub_14) at time 84
84 ! dockSub_14 getR: claiming 1 units for resource 'sub' at location 'harbour'
84 ! dockSub_14 getR: claiming 2 units for resource 'sectug' at location 'harbour'
84 ! dockSub_14 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
84 ! dockSub_14 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
84 ! dockSub_14 getR: claiming 1 units for resource 'jetty' at location 'subDock'
84 ! dockSub_14 Hold issued for 6
85 ! genSubs_15 getR: claiming 1 units for resource 'sub' at location 'openSea'
85 ! genSubs_15 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
85 ! genSubs_15 Hold issued for 1
86 ! genSubs_15 putR: releasing 1 units for resource 'sub' at location 'harbour'
86 ! genSubs_15 Launching entity 'genSubs' (genSubs_16) at time 89
87 ! dockSub_13 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
87 ! dockSub_13 putR: releasing 2 units for resource 'sectug' at location 'harbour'
87 ! dockSub_13 getR: claiming 1 units for resource 'crane' at location 'subDock'
87 ! dockSub_13 getR: claiming 1 units for resource 'info' at location 'subDock'
87 ! dockSub_13 Hold issued for 2
89 ! dockSub_13 putR: releasing 1 units for resource 'info' at location 'subDock'
89 ! dockSub_13 putR: releasing 1 units for resource 'crane' at location 'subDock'
89 ! dockSub_13 getR: claiming 2 units for resource 'sectug' at location 'harbour'
89 ! dockSub_13 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
89 ! dockSub_13 Hold issued for 1
90 ! dockSub_14 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
90 ! dockSub_14 putR: releasing 2 units for resource 'sectug' at location 'harbour'
90 ! dockSub_14 getR: claiming 1 units for resource 'crane' at location 'subDock'
90 ! dockSub_14 getR: claiming 1 units for resource 'info' at location 'subDock'
90 ! dockSub_14 Hold issued for 2
90 ! dockSub_13 putR: releasing 1 units for resource 'jetty' at location 'subDock'
90 ! dockSub_13 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
90 ! dockSub_13 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
90 ! dockSub_13 Hold issued for 3
92 ! dockSub_14 putR: releasing 1 units for resource 'info' at location 'subDock'
92 ! dockSub_14 putR: releasing 1 units for resource 'crane' at location 'subDock'
92 ! dockSub_14 getR: claiming 2 units for resource 'sectug' at location 'harbour'
92 ! dockSub_14 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
92 ! dockSub_14 Hold issued for 1
93 ! craneDeClass_4 getR: claiming 1 units for resource 'crane' at location 'subDock'
93 ! craneDeClass_4 getR: claiming 1 units for resource 'info' at location 'subDock'
93 ! craneDeClass_4 moveR: moving resource 'crane' amount 1 from location 'subDock' to location 'debZone'
93 ! craneDeClass_4 moveR: moving resource 'info' amount 1 from location 'subDock' to location 'debZone'
93 ! craneDeClass_4 Hold issued for 3
93 ! dockSub_13 putR: releasing 2 units for resource 'sectug' at location 'harbour'
93 ! dockSub_13 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
93 ! dockSub_13 Hold issued for 1
93 ! dockSub_14 putR: releasing 1 units for resource 'jetty' at location 'subDock'
93 ! dockSub_14 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
93 ! dockSub_14 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
93 ! dockSub_14 Hold issued for 3
94 ! dockSub_13 putR: releasing 1 units for resource 'sub' at location 'openSea'
94 ! genSubs_16 getR: claiming 1 units for resource 'sub' at location 'openSea'
94 ! dockSub_13 Launching entity 'dockSub' (dockSub_15) at time 94
94 ! genSubs_16 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
94 ! genSubs_16 Hold issued for 1
94 ! dockSub_15 getR: claiming 1 units for resource 'sub' at location 'harbour'
94 ! dockSub_15 getR: claiming 2 units for resource 'sectug' at location 'harbour'
94 ! dockSub_15 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
94 ! dockSub_15 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
94 ! dockSub_15 getR: claiming 1 units for resource 'jetty' at location 'subDock'
94 ! dockSub_15 Hold issued for 6
95 ! genSubs_16 putR: releasing 1 units for resource 'sub' at location 'harbour'

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95 ! genSubs_16 Launching entity 'genSubs' (genSubs_17) at time 98
96 ! gateKeeper_5 Forget: forgetting the link : 'ferryDock' --> 'subDock'
96 ! gateKeeper_5 Hold issued for 12
96 ! craneDeClass_4 Hold issued for 2
96 ! dockSub_14 putR: releasing 2 units for resource 'sectug' at location 'harbour'
96 ! dockSub_14 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
96 ! dockSub_14 Hold issued for 1
97 ! dockSub_14 putR: releasing 1 units for resource 'sub' at location 'openSea'
97 ! dockSub_14 Launching entity 'dockSub' (dockSub_16) at time 97
97 ! dockSub_16 getR: claiming 1 units for resource 'sub' at location 'harbour'
97 ! dockSub_16 getR: claiming 2 units for resource 'sectug' at location 'harbour'
97 ! dockSub_16 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
97 ! dockSub_16 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
97 ! dockSub_16 getR: claiming 1 units for resource 'jetty' at location 'subDock'
97 ! dockSub_16 Hold issued for 6
98 ! genSubs_17 getR: claiming 1 units for resource 'sub' at location 'openSea'
98 ! genSubs_17 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
98 ! genSubs_17 Hold issued for 1
98 ! craneDeClass_4 moveR: moving resource 'info' amount 1 from location 'debZone' to location 'subDock'
98 ! craneDeClass_4 putR: releasing 1 units for resource 'info' at location 'subDock'
98 ! craneDeClass_4 moveR: moving resource 'crane' amount 1 from location 'debZone' to location 'ferryDock'
98 ! craneDeClass_4 Hold issued for 2
99 ! genSubs_17 putR: releasing 1 units for resource 'sub' at location 'harbour'
99 ! genSubs_17 Launching entity 'genSubs' (genSubs_18) at time 102
100 ! dockSub_15 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
100 ! dockSub_15 putR: releasing 2 units for resource 'sectug' at location 'harbour'
100 ! dockSub_15 getR: claiming 1 units for resource 'crane' at location 'ferryDock'
100 ! dockSub_15 moveR: moving resource 'crane' amount 1 from location 'ferryDock' to location 'subDock'
100 ! dockSub_15 Hold issued for 1
100 ! craneDeClass_4 putR: releasing 1 units for resource 'crane' at location 'ferryDock'
100 ! craneDeClass_4 Launching entity 'craneDeClass' (craneDeClass_5) at time 124
101 ! dockSub_15 getR: claiming 1 units for resource 'info' at location 'subDock'
101 ! dockSub_15 Hold issued for 2
103 ! dockSub_16 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
103 ! dockSub_16 putR: releasing 2 units for resource 'sectug' at location 'harbour'
103 ! dockSub_16 getR: claiming 1 units for resource 'crane' at location 'ferryDock'
103 ! dockSub_16 moveR: moving resource 'crane' amount 1 from location 'ferryDock' to location 'subDock'
103 ! dockSub_16 Hold issued for 1
103 ! dockSub_15 putR: releasing 1 units for resource 'info' at location 'subDock'
103 ! dockSub_15 putR: releasing 1 units for resource 'crane' at location 'subDock'
103 ! dockSub_15 getR: claiming 2 units for resource 'sectug' at location 'harbour'
103 ! dockSub_15 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
103 ! dockSub_15 Hold issued for 1
104 ! dockSub_16 getR: claiming 1 units for resource 'info' at location 'subDock'
104 ! dockSub_16 Hold issued for 2
104 ! dockSub_15 putR: releasing 1 units for resource 'jetty' at location 'subDock'
104 ! dockSub_15 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
104 ! dockSub_15 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
104 ! dockSub_15 Hold issued for 3
106 ! dockSub_16 putR: releasing 1 units for resource 'info' at location 'subDock'
106 ! dockSub_16 putR: releasing 1 units for resource 'crane' at location 'subDock'
106 ! dockSub_16 getR: claiming 2 units for resource 'sectug' at location 'harbour'
106 ! dockSub_16 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
106 ! dockSub_16 Hold issued for 1
107 ! dockSub_15 putR: releasing 2 units for resource 'sectug' at location 'harbour'
107 ! dockSub_15 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
107 ! dockSub_15 Hold issued for 1
107 ! dockSub_16 putR: releasing 1 units for resource 'jetty' at location 'subDock'
107 ! dockSub_16 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
107 ! dockSub_16 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
107 ! dockSub_16 Hold issued for 3
108 ! gateKeeper_5 Recall: recalling the link : 'ferryDock' --> 'subDock'
108 ! gateKeeper_5 Launching entity 'gateKeeper' (gateKeeper_6) at time 120
108 ! dockSub_15 putR: releasing 1 units for resource 'sub' at location 'openSea'
108 ! genSubs_18 getR: claiming 1 units for resource 'sub' at location 'openSea'
108 ! dockSub_15 Launching entity 'dockSub' (dockSub_17) at time 108
108 ! genSubs_18 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
108 ! genSubs_18 Hold issued for 1
108 ! dockSub_17 getR: claiming 1 units for resource 'sub' at location 'harbour'
108 ! dockSub_17 getR: claiming 2 units for resource 'sectug' at location 'harbour'
108 ! dockSub_17 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
108 ! dockSub_17 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
108 ! dockSub_17 getR: claiming 1 units for resource 'jetty' at location 'subDock'
108 ! dockSub_17 Hold issued for 6
109 ! genSubs_18 putR: releasing 1 units for resource 'sub' at location 'harbour'
109 ! genSubs_18 Launching entity 'genSubs' (genSubs_19) at time 112
110 ! dockSub_16 putR: releasing 2 units for resource 'sectug' at location 'harbour'
110 ! dockSub_16 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
110 ! dockSub_16 Hold issued for 1
111 ! dockSub_16 putR: releasing 1 units for resource 'sub' at location 'openSea'

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111 ! dockSub_16 Launching entity 'dockSub' (dockSub_18) at time 111
111 ! dockSub_18 getR: claiming 1 units for resource 'sub' at location 'harbour'
111 ! dockSub_18 getR: claiming 2 units for resource 'sectug' at location 'harbour'
111 ! dockSub_18 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
111 ! dockSub_18 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
111 ! dockSub_18 getR: claiming 1 units for resource 'jetty' at location 'subDock'
111 ! dockSub_18 Hold issued for 6
112 ! genSubs_19 getR: claiming 1 units for resource 'sub' at location 'openSea'
112 ! genSubs_19 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
112 ! genSubs_19 Hold issued for 1
113 ! genSubs_19 putR: releasing 1 units for resource 'sub' at location 'harbour'
113 ! genSubs_19 Launching entity 'genSubs' (genSubs_20) at time 116
114 ! dockSub_17 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
114 ! dockSub_17 putR: releasing 2 units for resource 'sectug' at location 'harbour'
114 ! dockSub_17 getR: claiming 1 units for resource 'crane' at location 'subDock'
114 ! dockSub_17 getR: claiming 1 units for resource 'info' at location 'subDock'
114 ! dockSub_17 Hold issued for 2
116 ! dockSub_17 putR: releasing 1 units for resource 'info' at location 'subDock'
116 ! dockSub_17 putR: releasing 1 units for resource 'crane' at location 'subDock'
116 ! dockSub_17 getR: claiming 2 units for resource 'sectug' at location 'harbour'
116 ! dockSub_17 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
116 ! dockSub_17 Hold issued for 1
117 ! dockSub_18 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
117 ! dockSub_18 putR: releasing 2 units for resource 'sectug' at location 'harbour'
117 ! dockSub_18 getR: claiming 1 units for resource 'crane' at location 'subDock'
117 ! dockSub_18 getR: claiming 1 units for resource 'info' at location 'subDock'
117 ! dockSub_18 Hold issued for 2
117 ! dockSub_17 putR: releasing 1 units for resource 'jetty' at location 'subDock'
117 ! dockSub_17 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
117 ! dockSub_17 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
117 ! dockSub_17 Hold issued for 3
119 ! dockSub_18 putR: releasing 1 units for resource 'info' at location 'subDock'
119 ! dockSub_18 putR: releasing 1 units for resource 'crane' at location 'subDock'
119 ! dockSub_18 getR: claiming 2 units for resource 'sectug' at location 'harbour'
119 ! dockSub_18 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
119 ! dockSub_18 Hold issued for 1
120 ! gateKeeper_6 Forget: forgetting the link : 'ferryDock' --> 'subDock'
120 ! gateKeeper_6 Hold issued for 12
120 ! dockSub_17 putR: releasing 2 units for resource 'sectug' at location 'harbour'
120 ! dockSub_17 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
120 ! dockSub_17 Hold issued for 1
120 ! dockSub_18 putR: releasing 1 units for resource 'jetty' at location 'subDock'
120 ! dockSub_18 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
120 ! dockSub_18 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
120 ! dockSub_18 Hold issued for 3
121 ! dockSub_17 putR: releasing 1 units for resource 'sub' at location 'openSea'
121 ! genSubs_20 getR: claiming 1 units for resource 'sub' at location 'openSea'
121 ! dockSub_17 Launching entity 'dockSub' (dockSub_19) at time 121
121 ! genSubs_20 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
121 ! genSubs_20 Hold issued for 1
121 ! dockSub_19 getR: claiming 1 units for resource 'sub' at location 'harbour'
121 ! dockSub_19 getR: claiming 2 units for resource 'sectug' at location 'harbour'
121 ! dockSub_19 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
121 ! dockSub_19 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
121 ! dockSub_19 getR: claiming 1 units for resource 'jetty' at location 'subDock'
121 ! dockSub_19 Hold issued for 6
122 ! genSubs_20 putR: releasing 1 units for resource 'sub' at location 'harbour'
122 ! genSubs_20 Launching entity 'genSubs' (genSubs_21) at time 125
123 ! dockSub_18 putR: releasing 2 units for resource 'sectug' at location 'harbour'
123 ! dockSub_18 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
123 ! dockSub_18 Hold issued for 1
124 ! craneDeClass_5 getR: claiming 1 units for resource 'crane' at location 'subDock'
124 ! craneDeClass_5 getR: claiming 1 units for resource 'info' at location 'subDock'
124 ! craneDeClass_5 moveR: moving resource 'crane' amount 1 from location 'subDock' to location 'debZone'
124 ! craneDeClass_5 moveR: moving resource 'info' amount 1 from location 'subDock' to location 'debZone'
124 ! craneDeClass_5 Hold issued for 3
124 ! dockSub_18 putR: releasing 1 units for resource 'sub' at location 'openSea'
124 ! dockSub_18 Launching entity 'dockSub' (dockSub_20) at time 124
124 ! dockSub_20 getR: claiming 1 units for resource 'sub' at location 'harbour'
124 ! dockSub_20 getR: claiming 2 units for resource 'sectug' at location 'harbour'
124 ! dockSub_20 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
124 ! dockSub_20 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
124 ! dockSub_20 getR: claiming 1 units for resource 'jetty' at location 'subDock'
124 ! dockSub_20 Hold issued for 6
125 ! genSubs_21 getR: claiming 1 units for resource 'sub' at location 'openSea'
125 ! genSubs_21 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
125 ! genSubs_21 Hold issued for 1
126 ! genSubs_21 putR: releasing 1 units for resource 'sub' at location 'harbour'
126 ! genSubs_21 Launching entity 'genSubs' (genSubs_22) at time 129
127 ! dockSub_19 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'

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127 ! dockSub_19 putR: releasing 2 units for resource 'sectug' at location 'harbour'
127 ! dockSub_19 getR: claiming 1 units for resource 'crane' at location 'subDock'
127 ! dockSub_19 getR: claiming 1 units for resource 'info' at location 'subDock'
127 ! dockSub_19 Hold issued for 2
127 ! craneDeClass_5 Hold issued for 2
129 ! dockSub_19 putR: releasing 1 units for resource 'info' at location 'subDock'
129 ! dockSub_19 putR: releasing 1 units for resource 'crane' at location 'subDock'
129 ! dockSub_19 getR: claiming 2 units for resource 'sectug' at location 'harbour'
129 ! dockSub_19 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
129 ! dockSub_19 Hold issued for 1
129 ! craneDeClass_5 moveR: moving resource 'info' amount 1 from location 'debZone' to location 'subDock'
129 ! craneDeClass_5 putR: releasing 1 units for resource 'info' at location 'subDock'
129 ! craneDeClass_5 moveR: moving resource 'crane' amount 1 from location 'debZone' to location 'ferryDock'
129 ! craneDeClass_5 Hold issued for 2
130 ! dockSub_20 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
130 ! dockSub_20 putR: releasing 2 units for resource 'sectug' at location 'harbour'
130 ! dockSub_20 getR: claiming 1 units for resource 'crane' at location 'subDock'
130 ! dockSub_20 getR: claiming 1 units for resource 'info' at location 'subDock'
130 ! dockSub_20 Hold issued for 2
130 ! dockSub_19 putR: releasing 1 units for resource 'jetty' at location 'subDock'
130 ! dockSub_19 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
130 ! dockSub_19 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
130 ! dockSub_19 Hold issued for 3
131 ! craneDeClass_5 putR: releasing 1 units for resource 'crane' at location 'ferryDock'
131 ! craneDeClass_5 Launching entity 'craneDeClass' (craneDeClass_6) at time 155
132 ! gateKeeper_6 Recall: recalling the link : 'ferryDock' --> 'subDock'
132 ! gateKeeper_6 Launching entity 'gateKeeper' (gateKeeper_7) at time 144
132 ! dockSub_20 putR: releasing 1 units for resource 'info' at location 'subDock'
132 ! dockSub_20 putR: releasing 1 units for resource 'crane' at location 'subDock'
132 ! dockSub_20 getR: claiming 2 units for resource 'sectug' at location 'harbour'
132 ! dockSub_20 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
132 ! dockSub_20 Hold issued for 1
133 ! dockSub_19 putR: releasing 2 units for resource 'sectug' at location 'harbour'
133 ! dockSub_19 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
133 ! dockSub_19 Hold issued for 1
133 ! dockSub_20 putR: releasing 1 units for resource 'jetty' at location 'subDock'
133 ! dockSub_20 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
133 ! dockSub_20 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
133 ! dockSub_20 Hold issued for 3
134 ! dockSub_19 putR: releasing 1 units for resource 'sub' at location 'openSea'
134 ! genSubs_22 getR: claiming 1 units for resource 'sub' at location 'openSea'
134 ! dockSub_19 Launching entity 'dockSub' (dockSub_21) at time 134
134 ! genSubs_22 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
134 ! genSubs_22 Hold issued for 1
134 ! dockSub_21 getR: claiming 1 units for resource 'sub' at location 'harbour'
134 ! dockSub_21 getR: claiming 2 units for resource 'sectug' at location 'harbour'
134 ! dockSub_21 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
134 ! dockSub_21 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
134 ! dockSub_21 getR: claiming 1 units for resource 'jetty' at location 'subDock'
134 ! dockSub_21 Hold issued for 6
135 ! genSubs_22 putR: releasing 1 units for resource 'sub' at location 'harbour'
135 ! genSubs_22 Launching entity 'genSubs' (genSubs_23) at time 138
136 ! dockSub_20 putR: releasing 2 units for resource 'sectug' at location 'harbour'
136 ! dockSub_20 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
136 ! dockSub_20 Hold issued for 1
137 ! dockSub_20 putR: releasing 1 units for resource 'sub' at location 'openSea'
137 ! dockSub_20 Launching entity 'dockSub' (dockSub_22) at time 137
137 ! dockSub_22 getR: claiming 1 units for resource 'sub' at location 'harbour'
137 ! dockSub_22 getR: claiming 2 units for resource 'sectug' at location 'harbour'
137 ! dockSub_22 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
137 ! dockSub_22 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
137 ! dockSub_22 getR: claiming 1 units for resource 'jetty' at location 'subDock'
137 ! dockSub_22 Hold issued for 6
138 ! genSubs_23 getR: claiming 1 units for resource 'sub' at location 'openSea'
138 ! genSubs_23 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
138 ! genSubs_23 Hold issued for 1
139 ! genSubs_23 putR: releasing 1 units for resource 'sub' at location 'harbour'
139 ! genSubs_23 Launching entity 'genSubs' (genSubs_24) at time 142
140 ! dockSub_21 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
140 ! dockSub_21 putR: releasing 2 units for resource 'sectug' at location 'harbour'
140 ! dockSub_21 getR: claiming 1 units for resource 'crane' at location 'subDock'
140 ! dockSub_21 getR: claiming 1 units for resource 'info' at location 'subDock'
140 ! dockSub_21 Hold issued for 2
142 ! dockSub_21 putR: releasing 1 units for resource 'info' at location 'subDock'
142 ! dockSub_21 putR: releasing 1 units for resource 'crane' at location 'subDock'
142 ! dockSub_21 getR: claiming 2 units for resource 'sectug' at location 'harbour'
142 ! dockSub_21 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
142 ! dockSub_21 Hold issued for 1
143 ! dockSub_22 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
143 ! dockSub_22 putR: releasing 2 units for resource 'sectug' at location 'harbour'

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143 ! dockSub_22 getR: claiming 1 units for resource 'crane' at location 'subDock'
143 ! dockSub_22 getR: claiming 1 units for resource 'info' at location 'subDock'
143 ! dockSub_22 Hold issued for 2
143 ! dockSub_21 putR: releasing 1 units for resource 'jetty' at location 'subDock'
143 ! dockSub_21 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
143 ! dockSub_21 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
143 ! dockSub_21 Hold issued for 3
144 ! gateKeeper_7 Forget: forgetting the link : 'ferryDock' --> 'subDock'
144 ! gateKeeper_7 Hold issued for 12
145 ! dockSub_22 putR: releasing 1 units for resource 'info' at location 'subDock'
145 ! dockSub_22 putR: releasing 1 units for resource 'crane' at location 'subDock'
145 ! dockSub_22 getR: claiming 2 units for resource 'sectug' at location 'harbour'
145 ! dockSub_22 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
145 ! dockSub_22 Hold issued for 1
146 ! dockSub_21 putR: releasing 2 units for resource 'sectug' at location 'harbour'
146 ! dockSub_21 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
146 ! dockSub_21 Hold issued for 1
146 ! dockSub_22 putR: releasing 1 units for resource 'jetty' at location 'subDock'
146 ! dockSub_22 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
146 ! dockSub_22 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
146 ! dockSub_22 Hold issued for 3
147 ! dockSub_21 putR: releasing 1 units for resource 'sub' at location 'openSea'
147 ! genSubs_24 getR: claiming 1 units for resource 'sub' at location 'openSea'
147 ! dockSub_21 Launching entity 'dockSub' (dockSub_23) at time 147
147 ! genSubs_24 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
147 ! genSubs_24 Hold issued for 1
147 ! dockSub_23 getR: claiming 1 units for resource 'sub' at location 'harbour'
147 ! dockSub_23 getR: claiming 2 units for resource 'sectug' at location 'harbour'
147 ! dockSub_23 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
147 ! dockSub_23 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
147 ! dockSub_23 getR: claiming 1 units for resource 'jetty' at location 'subDock'
147 ! dockSub_23 Hold issued for 6
148 ! genSubs_24 putR: releasing 1 units for resource 'sub' at location 'harbour'
148 ! genSubs_24 Launching entity 'genSubs' (genSubs_25) at time 151
149 ! dockSub_22 putR: releasing 2 units for resource 'sectug' at location 'harbour'
149 ! dockSub_22 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
149 ! dockSub_22 Hold issued for 1
150 ! dockSub_22 putR: releasing 1 units for resource 'sub' at location 'openSea'
150 ! dockSub_22 Launching entity 'dockSub' (dockSub_24) at time 150
150 ! dockSub_24 getR: claiming 1 units for resource 'sub' at location 'harbour'
150 ! dockSub_24 getR: claiming 2 units for resource 'sectug' at location 'harbour'
150 ! dockSub_24 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
150 ! dockSub_24 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
150 ! dockSub_24 getR: claiming 1 units for resource 'jetty' at location 'subDock'
150 ! dockSub_24 Hold issued for 6
151 ! genSubs_25 getR: claiming 1 units for resource 'sub' at location 'openSea'
151 ! genSubs_25 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
151 ! genSubs_25 Hold issued for 1
152 ! genSubs_25 putR: releasing 1 units for resource 'sub' at location 'harbour'
152 ! genSubs_25 Launching entity 'genSubs' (genSubs_26) at time 155
153 ! dockSub_23 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
153 ! dockSub_23 putR: releasing 2 units for resource 'sectug' at location 'harbour'
153 ! dockSub_23 getR: claiming 1 units for resource 'crane' at location 'subDock'
153 ! dockSub_23 getR: claiming 1 units for resource 'info' at location 'subDock'
153 ! dockSub_23 Hold issued for 2
155 ! dockSub_23 putR: releasing 1 units for resource 'info' at location 'subDock'
155 ! dockSub_23 putR: releasing 1 units for resource 'crane' at location 'subDock'
155 ! craneDeClass_6 getR: claiming 1 units for resource 'crane' at location 'subDock'
155 ! dockSub_23 getR: claiming 2 units for resource 'sectug' at location 'harbour'
155 ! dockSub_23 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
155 ! dockSub_23 Hold issued for 1
155 ! craneDeClass_6 getR: claiming 1 units for resource 'info' at location 'subDock'
155 ! craneDeClass_6 moveR: moving resource 'crane' amount 1 from location 'subDock' to location 'debZone'
155 ! craneDeClass_6 moveR: moving resource 'info' amount 1 from location 'subDock' to location 'debZone'
155 ! craneDeClass_6 Hold issued for 3
156 ! gateKeeper_7 Recall: recalling the link : 'ferryDock' --> 'subDock'
156 ! gateKeeper_7 Launching entity 'gateKeeper' (gateKeeper_8) at time 168
156 ! dockSub_24 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
156 ! dockSub_24 putR: releasing 2 units for resource 'sectug' at location 'harbour'
156 ! dockSub_24 getR: claiming 1 units for resource 'crane' at location 'ferryDock'
156 ! dockSub_24 moveR: moving resource 'crane' amount 1 from location 'ferryDock' to location 'subDock'
156 ! dockSub_24 Hold issued for 1
156 ! dockSub_23 putR: releasing 1 units for resource 'jetty' at location 'subDock'
156 ! dockSub_23 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
156 ! dockSub_23 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
156 ! dockSub_23 Hold issued for 3
157 ! dockSub_24 getR: claiming 1 units for resource 'info' at location 'subDock'
157 ! dockSub_24 Hold issued for 2
158 ! craneDeClass_6 Hold issued for 2
159 ! dockSub_23 putR: releasing 2 units for resource 'sectug' at location 'harbour'

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159 ! dockSub_23 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
159 ! dockSub_23 Hold issued for 1
159 ! dockSub_24 putR: releasing 1 units for resource 'info' at location 'subDock'
159 ! dockSub_24 putR: releasing 1 units for resource 'crane' at location 'subDock'
159 ! dockSub_24 getR: claiming 2 units for resource 'sectug' at location 'harbour'
159 ! dockSub_24 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
159 ! dockSub_24 Hold issued for 1
160 ! craneDeClass_6 moveR: moving resource 'info' amount 1 from location 'debZone' to location 'subDock'
160 ! craneDeClass_6 putR: releasing 1 units for resource 'info' at location 'subDock'
160 ! craneDeClass_6 moveR: moving resource 'crane' amount 1 from location 'debZone' to location 'ferryDock'
160 ! craneDeClass_6 Hold issued for 2
160 ! dockSub_23 putR: releasing 1 units for resource 'sub' at location 'openSea'
160 ! genSubs_26 getR: claiming 1 units for resource 'sub' at location 'openSea'
160 ! dockSub_23 Launching entity 'dockSub' (dockSub_25) at time 160
160 ! dockSub_24 putR: releasing 1 units for resource 'jetty' at location 'subDock'
160 ! dockSub_24 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
160 ! dockSub_24 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
160 ! dockSub_24 Hold issued for 3
160 ! genSubs_26 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
160 ! genSubs_26 Hold issued for 1
160 ! dockSub_25 getR: claiming 1 units for resource 'sub' at location 'harbour'
160 ! dockSub_25 getR: claiming 2 units for resource 'sectug' at location 'harbour'
160 ! dockSub_25 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
160 ! dockSub_25 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
160 ! dockSub_25 getR: claiming 1 units for resource 'jetty' at location 'subDock'
160 ! dockSub_25 Hold issued for 6
161 ! genSubs_26 putR: releasing 1 units for resource 'sub' at location 'harbour'
161 ! genSubs_26 Launching entity 'genSubs' (genSubs_27) at time 164
162 ! craneDeClass_6 putR: releasing 1 units for resource 'crane' at location 'ferryDock'
162 ! craneDeClass_6 Launching entity 'craneDeClass' (craneDeClass_7) at time 186
163 ! dockSub_24 putR: releasing 2 units for resource 'sectug' at location 'harbour'
163 ! dockSub_24 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
163 ! dockSub_24 Hold issued for 1
164 ! dockSub_24 putR: releasing 1 units for resource 'sub' at location 'openSea'
164 ! genSubs_27 getR: claiming 1 units for resource 'sub' at location 'openSea'
164 ! dockSub_24 Launching entity 'dockSub' (dockSub_26) at time 164
164 ! genSubs_27 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
164 ! genSubs_27 Hold issued for 1
164 ! dockSub_26 getR: claiming 1 units for resource 'sub' at location 'harbour'
164 ! dockSub_26 getR: claiming 2 units for resource 'sectug' at location 'harbour'
164 ! dockSub_26 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
164 ! dockSub_26 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
164 ! dockSub_26 getR: claiming 1 units for resource 'jetty' at location 'subDock'
164 ! dockSub_26 Hold issued for 6
165 ! genSubs_27 putR: releasing 1 units for resource 'sub' at location 'harbour'
165 ! genSubs_27 Launching entity 'genSubs' (genSubs_28) at time 168
166 ! dockSub_25 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
166 ! dockSub_25 putR: releasing 2 units for resource 'sectug' at location 'harbour'
166 ! dockSub_25 getR: claiming 1 units for resource 'crane' at location 'subDock'
166 ! dockSub_25 getR: claiming 1 units for resource 'info' at location 'subDock'
166 ! dockSub_25 Hold issued for 2
168 ! gateKeeper_8 Forget: forgetting the link : 'ferryDock' --> 'subDock'
168 ! gateKeeper_8 Hold issued for 12
168 ! dockSub_25 putR: releasing 1 units for resource 'info' at location 'subDock'
168 ! dockSub_25 putR: releasing 1 units for resource 'crane' at location 'subDock'
168 ! dockSub_25 getR: claiming 2 units for resource 'sectug' at location 'harbour'
168 ! dockSub_25 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
168 ! dockSub_25 Hold issued for 1
169 ! dockSub_25 putR: releasing 1 units for resource 'jetty' at location 'subDock'
169 ! dockSub_25 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
169 ! dockSub_25 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
169 ! dockSub_25 Hold issued for 3
170 ! dockSub_26 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
170 ! dockSub_26 putR: releasing 2 units for resource 'sectug' at location 'harbour'
170 ! dockSub_26 getR: claiming 1 units for resource 'crane' at location 'subDock'
170 ! dockSub_26 getR: claiming 1 units for resource 'info' at location 'subDock'
170 ! dockSub_26 Hold issued for 2
172 ! dockSub_25 putR: releasing 2 units for resource 'sectug' at location 'harbour'
172 ! dockSub_25 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
172 ! dockSub_25 Hold issued for 1
172 ! dockSub_26 putR: releasing 1 units for resource 'info' at location 'subDock'
172 ! dockSub_26 putR: releasing 1 units for resource 'crane' at location 'subDock'
172 ! dockSub_26 getR: claiming 2 units for resource 'sectug' at location 'harbour'
172 ! dockSub_26 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
172 ! dockSub_26 Hold issued for 1
173 ! dockSub_25 putR: releasing 1 units for resource 'sub' at location 'openSea'
173 ! genSubs_28 getR: claiming 1 units for resource 'sub' at location 'openSea'
173 ! dockSub_25 Launching entity 'dockSub' (dockSub_27) at time 173
173 ! dockSub_26 putR: releasing 1 units for resource 'jetty' at location 'subDock'
173 ! dockSub_26 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'

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173 ! dockSub_26 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
173 ! dockSub_26 Hold issued for 3
173 ! genSubs_28 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
173 ! genSubs_28 Hold issued for 1
173 ! dockSub_27 getR: claiming 1 units for resource 'sub' at location 'harbour'
173 ! dockSub_27 getR: claiming 2 units for resource 'sectug' at location 'harbour'
173 ! dockSub_27 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
173 ! dockSub_27 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
173 ! dockSub_27 getR: claiming 1 units for resource 'jetty' at location 'subDock'
173 ! dockSub_27 Hold issued for 6
174 ! genSubs_28 putR: releasing 1 units for resource 'sub' at location 'harbour'
174 ! genSubs_28 Launching entity 'genSubs' (genSubs_29) at time 177
176 ! dockSub_26 putR: releasing 2 units for resource 'sectug' at location 'harbour'
176 ! dockSub_26 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
176 ! dockSub_26 Hold issued for 1
177 ! dockSub_26 putR: releasing 1 units for resource 'sub' at location 'openSea'
177 ! genSubs_29 getR: claiming 1 units for resource 'sub' at location 'openSea'
177 ! dockSub_26 Launching entity 'dockSub' (dockSub_28) at time 177
177 ! genSubs_29 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
177 ! genSubs_29 Hold issued for 1
177 ! dockSub_28 getR: claiming 1 units for resource 'sub' at location 'harbour'
177 ! dockSub_28 getR: claiming 2 units for resource 'sectug' at location 'harbour'
177 ! dockSub_28 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
177 ! dockSub_28 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
177 ! dockSub_28 getR: claiming 1 units for resource 'jetty' at location 'subDock'
177 ! dockSub_28 Hold issued for 6
178 ! genSubs_29 putR: releasing 1 units for resource 'sub' at location 'harbour'
178 ! genSubs_29 Launching entity 'genSubs' (genSubs_30) at time 181
179 ! dockSub_27 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
179 ! dockSub_27 putR: releasing 2 units for resource 'sectug' at location 'harbour'
179 ! dockSub_27 getR: claiming 1 units for resource 'crane' at location 'subDock'
179 ! dockSub_27 getR: claiming 1 units for resource 'info' at location 'subDock'
179 ! dockSub_27 Hold issued for 2
180 ! gateKeeper_8 Recall: recalling the link : 'ferryDock' --> 'subDock'
180 ! gateKeeper_8 Launching entity 'gateKeeper' (gateKeeper_9) at time 192
181 ! dockSub_27 putR: releasing 1 units for resource 'info' at location 'subDock'
181 ! dockSub_27 putR: releasing 1 units for resource 'crane' at location 'subDock'
181 ! dockSub_27 getR: claiming 2 units for resource 'sectug' at location 'harbour'
181 ! dockSub_27 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
181 ! dockSub_27 Hold issued for 1
182 ! dockSub_27 putR: releasing 1 units for resource 'jetty' at location 'subDock'
182 ! dockSub_27 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
182 ! dockSub_27 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
182 ! dockSub_27 Hold issued for 3
183 ! dockSub_28 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
183 ! dockSub_28 putR: releasing 2 units for resource 'sectug' at location 'harbour'
183 ! dockSub_28 getR: claiming 1 units for resource 'crane' at location 'subDock'
183 ! dockSub_28 getR: claiming 1 units for resource 'info' at location 'subDock'
183 ! dockSub_28 Hold issued for 2
185 ! dockSub_27 putR: releasing 2 units for resource 'sectug' at location 'harbour'
185 ! dockSub_27 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
185 ! dockSub_27 Hold issued for 1
185 ! dockSub_28 putR: releasing 1 units for resource 'info' at location 'subDock'
185 ! dockSub_28 putR: releasing 1 units for resource 'crane' at location 'subDock'
185 ! dockSub_28 getR: claiming 2 units for resource 'sectug' at location 'harbour'
185 ! dockSub_28 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
185 ! dockSub_28 Hold issued for 1
186 ! craneDeClass_7 getR: claiming 1 units for resource 'crane' at location 'subDock'
186 ! craneDeClass_7 getR: claiming 1 units for resource 'info' at location 'subDock'
186 ! craneDeClass_7 moveR: moving resource 'crane' amount 1 from location 'subDock' to location 'debZone'
186 ! craneDeClass_7 moveR: moving resource 'info' amount 1 from location 'subDock' to location 'debZone'
186 ! craneDeClass_7 Hold issued for 3
186 ! dockSub_27 putR: releasing 1 units for resource 'sub' at location 'openSea'
186 ! genSubs_30 getR: claiming 1 units for resource 'sub' at location 'openSea'
186 ! dockSub_27 Launching entity 'dockSub' (dockSub_29) at time 186
186 ! dockSub_28 putR: releasing 1 units for resource 'jetty' at location 'subDock'
186 ! dockSub_28 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
186 ! dockSub_28 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
186 ! dockSub_28 Hold issued for 3
186 ! genSubs_30 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
186 ! genSubs_30 Hold issued for 1
186 ! dockSub_29 getR: claiming 1 units for resource 'sub' at location 'harbour'
186 ! dockSub_29 getR: claiming 2 units for resource 'sectug' at location 'harbour'
186 ! dockSub_29 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
186 ! dockSub_29 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
186 ! dockSub_29 getR: claiming 1 units for resource 'jetty' at location 'subDock'
186 ! dockSub_29 Hold issued for 6
187 ! genSubs_30 putR: releasing 1 units for resource 'sub' at location 'harbour'
187 ! genSubs_30 Launching entity 'genSubs' (genSubs_31) at time 190
189 ! craneDeClass_7 Hold issued for 2

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189 ! dockSub_28 putR: releasing 2 units for resource 'sectug' at location 'harbour'
189 ! dockSub_28 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
189 ! dockSub_28 Hold issued for 1
190 ! dockSub_28 putR: releasing 1 units for resource 'sub' at location 'openSea'
190 ! genSubs_31 getR: claiming 1 units for resource 'sub' at location 'openSea'
190 ! dockSub_28 Launching entity 'dockSub' (dockSub_30) at time 190
190 ! genSubs_31 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
190 ! genSubs_31 Hold issued for 1
190 ! dockSub_30 getR: claiming 1 units for resource 'sub' at location 'harbour'
190 ! dockSub_30 getR: claiming 2 units for resource 'sectug' at location 'harbour'
190 ! dockSub_30 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
190 ! dockSub_30 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
190 ! dockSub_30 getR: claiming 1 units for resource 'jetty' at location 'subDock'
190 ! dockSub_30 Hold issued for 6
191 ! craneDeclass_7 moveR: moving resource 'info' amount 1 from location 'debZone' to location 'subDock'
191 ! craneDeclass_7 putR: releasing 1 units for resource 'info' at location 'subDock'
191 ! craneDeclass_7 moveR: moving resource 'crane' amount 1 from location 'debZone' to location 'ferryDock'
191 ! craneDeclass_7 Hold issued for 2
191 ! genSubs_31 putR: releasing 1 units for resource 'sub' at location 'harbour'
191 ! genSubs_31 Launching entity 'genSubs' (genSubs_32) at time 194
192 ! gateKeeper_9 Forget: forgetting the link : 'ferryDock' --> 'subDock'
192 ! gateKeeper_9 Hold issued for 12
192 ! dockSub_29 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
192 ! dockSub_29 putR: releasing 2 units for resource 'sectug' at location 'harbour'
192 ! dockSub_29 getR: claiming 1 units for resource 'crane' at location 'ferryDock'
192 ! dockSub_29 moveR: moving resource 'crane' amount 1 from location 'ferryDock' to location 'subDock'
192 ! dockSub_29 Hold issued for 1
193 ! craneDeclass_7 putR: releasing 1 units for resource 'crane' at location 'ferryDock'
193 ! craneDeclass_7 Launching entity 'craneDeclass' (craneDeclass_8) at time 217
193 ! dockSub_29 getR: claiming 1 units for resource 'info' at location 'subDock'
193 ! dockSub_29 Hold issued for 2
195 ! dockSub_29 putR: releasing 1 units for resource 'info' at location 'subDock'
195 ! dockSub_29 putR: releasing 1 units for resource 'crane' at location 'subDock'
195 ! dockSub_29 getR: claiming 2 units for resource 'sectug' at location 'harbour'
195 ! dockSub_29 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
195 ! dockSub_29 Hold issued for 1
196 ! dockSub_30 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
196 ! dockSub_30 putR: releasing 2 units for resource 'sectug' at location 'harbour'
196 ! dockSub_30 getR: claiming 1 units for resource 'crane' at location 'subDock'
196 ! dockSub_30 getR: claiming 1 units for resource 'info' at location 'subDock'
196 ! dockSub_30 Hold issued for 2
196 ! dockSub_29 putR: releasing 1 units for resource 'jetty' at location 'subDock'
196 ! dockSub_29 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
196 ! dockSub_29 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
196 ! dockSub_29 Hold issued for 3
198 ! dockSub_30 putR: releasing 1 units for resource 'info' at location 'subDock'
198 ! dockSub_30 putR: releasing 1 units for resource 'crane' at location 'subDock'
198 ! dockSub_30 getR: claiming 2 units for resource 'sectug' at location 'harbour'
198 ! dockSub_30 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
198 ! dockSub_30 Hold issued for 1
199 ! dockSub_29 putR: releasing 2 units for resource 'sectug' at location 'harbour'
199 ! dockSub_29 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
199 ! dockSub_29 Hold issued for 1
199 ! dockSub_30 putR: releasing 1 units for resource 'jetty' at location 'subDock'
199 ! dockSub_30 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
199 ! dockSub_30 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
199 ! dockSub_30 Hold issued for 3
200 ! dockSub_29 putR: releasing 1 units for resource 'sub' at location 'openSea'
200 ! genSubs_32 getR: claiming 1 units for resource 'sub' at location 'openSea'
200 ! dockSub_29 Launching entity 'dockSub' (dockSub_31) at time 200
200 ! genSubs_32 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
200 ! genSubs_32 Hold issued for 1
200 ! dockSub_31 getR: claiming 1 units for resource 'sub' at location 'harbour'
200 ! dockSub_31 getR: claiming 2 units for resource 'sectug' at location 'harbour'
200 ! dockSub_31 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
200 ! dockSub_31 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
200 ! dockSub_31 getR: claiming 1 units for resource 'jetty' at location 'subDock'
200 ! dockSub_31 Hold issued for 6
201 ! genSubs_32 putR: releasing 1 units for resource 'sub' at location 'harbour'
201 ! genSubs_32 Launching entity 'genSubs' (genSubs_33) at time 204
202 ! dockSub_30 putR: releasing 2 units for resource 'sectug' at location 'harbour'
202 ! dockSub_30 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
202 ! dockSub_30 Hold issued for 1
203 ! dockSub_30 putR: releasing 1 units for resource 'sub' at location 'openSea'
203 ! dockSub_30 Launching entity 'dockSub' (dockSub_32) at time 203
203 ! dockSub_32 getR: claiming 1 units for resource 'sub' at location 'harbour'
203 ! dockSub_32 getR: claiming 2 units for resource 'sectug' at location 'harbour'
203 ! dockSub_32 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
203 ! dockSub_32 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
203 ! dockSub_32 getR: claiming 1 units for resource 'jetty' at location 'subDock'

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203 ! dockSub_32 Hold issued for 6
204 ! gateKeeper_9 Recall: recalling the link : 'ferryDock' --> 'subDock'
204 ! gateKeeper_9 Launching entity 'gateKeeper' (gateKeeper_10) at time 216
204 ! genSubs_33 getR: claiming 1 units for resource 'sub' at location 'openSea'
204 ! genSubs_33 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
204 ! genSubs_33 Hold issued for 1
205 ! genSubs_33 putR: releasing 1 units for resource 'sub' at location 'harbour'
205 ! genSubs_33 Launching entity 'genSubs' (genSubs_34) at time 208
206 ! dockSub_31 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
206 ! dockSub_31 putR: releasing 2 units for resource 'sectug' at location 'harbour'
206 ! dockSub_31 getR: claiming 1 units for resource 'crane' at location 'subDock'
206 ! dockSub_31 getR: claiming 1 units for resource 'info' at location 'subDock'
206 ! dockSub_31 Hold issued for 2
208 ! dockSub_31 putR: releasing 1 units for resource 'info' at location 'subDock'
208 ! dockSub_31 putR: releasing 1 units for resource 'crane' at location 'subDock'
208 ! dockSub_31 getR: claiming 2 units for resource 'sectug' at location 'harbour'
208 ! dockSub_31 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
208 ! dockSub_31 Hold issued for 1
209 ! dockSub_32 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
209 ! dockSub_32 putR: releasing 2 units for resource 'sectug' at location 'harbour'
209 ! dockSub_32 getR: claiming 1 units for resource 'crane' at location 'subDock'
209 ! dockSub_32 getR: claiming 1 units for resource 'info' at location 'subDock'
209 ! dockSub_32 Hold issued for 2
209 ! dockSub_31 putR: releasing 1 units for resource 'jetty' at location 'subDock'
209 ! dockSub_31 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
209 ! dockSub_31 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
209 ! dockSub_31 Hold issued for 3
211 ! dockSub_32 putR: releasing 1 units for resource 'info' at location 'subDock'
211 ! dockSub_32 putR: releasing 1 units for resource 'crane' at location 'subDock'
211 ! dockSub_32 getR: claiming 2 units for resource 'sectug' at location 'harbour'
211 ! dockSub_32 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
211 ! dockSub_32 Hold issued for 1
212 ! dockSub_31 putR: releasing 2 units for resource 'sectug' at location 'harbour'
212 ! dockSub_31 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
212 ! dockSub_31 Hold issued for 1
212 ! dockSub_32 putR: releasing 1 units for resource 'jetty' at location 'subDock'
212 ! dockSub_32 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
212 ! dockSub_32 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
212 ! dockSub_32 Hold issued for 3
213 ! dockSub_31 putR: releasing 1 units for resource 'sub' at location 'openSea'
213 ! genSubs_34 getR: claiming 1 units for resource 'sub' at location 'openSea'
213 ! dockSub_31 Launching entity 'dockSub' (dockSub_33) at time 213
213 ! genSubs_34 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
213 ! genSubs_34 Hold issued for 1
213 ! dockSub_33 getR: claiming 1 units for resource 'sub' at location 'harbour'
213 ! dockSub_33 getR: claiming 2 units for resource 'sectug' at location 'harbour'
213 ! dockSub_33 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
213 ! dockSub_33 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
213 ! dockSub_33 getR: claiming 1 units for resource 'jetty' at location 'subDock'
213 ! dockSub_33 Hold issued for 6
214 ! genSubs_34 putR: releasing 1 units for resource 'sub' at location 'harbour'
214 ! genSubs_34 Launching entity 'genSubs' (genSubs_35) at time 217
215 ! dockSub_32 putR: releasing 2 units for resource 'sectug' at location 'harbour'
215 ! dockSub_32 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
215 ! dockSub_32 Hold issued for 1
216 ! gateKeeper_10 Forget: forgetting the link : 'ferryDock' --> 'subDock'
216 ! gateKeeper_10 Hold issued for 12
216 ! dockSub_32 putR: releasing 1 units for resource 'sub' at location 'openSea'
216 ! dockSub_32 Launching entity 'dockSub' (dockSub_34) at time 216
216 ! dockSub_34 getR: claiming 1 units for resource 'sub' at location 'harbour'
216 ! dockSub_34 getR: claiming 2 units for resource 'sectug' at location 'harbour'
216 ! dockSub_34 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
216 ! dockSub_34 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
216 ! dockSub_34 getR: claiming 1 units for resource 'jetty' at location 'subDock'
216 ! dockSub_34 Hold issued for 6
217 ! craneDeClass_8 getR: claiming 1 units for resource 'crane' at location 'subDock'
217 ! craneDeClass_8 getR: claiming 1 units for resource 'info' at location 'subDock'
217 ! craneDeClass_8 moveR: moving resource 'crane' amount 1 from location 'subDock' to location 'debZone'
217 ! craneDeClass_8 moveR: moving resource 'info' amount 1 from location 'subDock' to location 'debZone'
217 ! craneDeClass_8 Hold issued for 3
217 ! genSubs_35 getR: claiming 1 units for resource 'sub' at location 'openSea'
217 ! genSubs_35 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
217 ! genSubs_35 Hold issued for 1
218 ! genSubs_35 putR: releasing 1 units for resource 'sub' at location 'harbour'
218 ! genSubs_35 Launching entity 'genSubs' (genSubs_36) at time 221
219 ! dockSub_33 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
219 ! dockSub_33 putR: releasing 2 units for resource 'sectug' at location 'harbour'
219 ! dockSub_33 getR: claiming 1 units for resource 'crane' at location 'ferryDock'
219 ! dockSub_33 moveR: moving resource 'crane' amount 1 from location 'ferryDock' to location 'subDock'
219 ! dockSub_33 Hold issued for 1

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220 ! craneDeClass_8 Hold issued for 2
220 ! dockSub_33 getR: claiming 1 units for resource 'info' at location 'subDock'
220 ! dockSub_33 Hold issued for 2
222 ! dockSub_34 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
222 ! dockSub_34 putR: releasing 2 units for resource 'sectug' at location 'harbour'
222 ! dockSub_34 getR: claiming 1 units for resource 'crane' at location 'ferryDock'
222 ! dockSub_34 moveR: moving resource 'crane' amount 1 from location 'ferryDock' to location 'subDock'
222 ! dockSub_34 Hold issued for 1
222 ! craneDeClass_8 moveR: moving resource 'info' amount 1 from location 'debZone' to location 'subDock'
222 ! craneDeClass_8 putR: releasing 1 units for resource 'info' at location 'subDock'
222 ! craneDeClass_8 moveR: moving resource 'crane' amount 1 from location 'debZone' to location 'ferryDock'
222 ! craneDeClass_8 Hold issued for 2
222 ! dockSub_33 putR: releasing 1 units for resource 'info' at location 'subDock'
222 ! dockSub_33 putR: releasing 1 units for resource 'crane' at location 'subDock'
222 ! dockSub_33 getR: claiming 2 units for resource 'sectug' at location 'harbour'
222 ! dockSub_33 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
222 ! dockSub_33 Hold issued for 1
223 ! dockSub_34 getR: claiming 1 units for resource 'info' at location 'subDock'
223 ! dockSub_34 Hold issued for 2
223 ! dockSub_33 putR: releasing 1 units for resource 'jetty' at location 'subDock'
223 ! dockSub_33 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
223 ! dockSub_33 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
223 ! dockSub_33 Hold issued for 3
224 ! craneDeClass_8 putR: releasing 1 units for resource 'crane' at location 'ferryDock'
224 ! craneDeClass_8 Launching entity 'craneDeClass' (craneDeClass_9) at time 248
225 ! dockSub_34 putR: releasing 1 units for resource 'info' at location 'subDock'
225 ! dockSub_34 putR: releasing 1 units for resource 'crane' at location 'subDock'
225 ! dockSub_34 getR: claiming 2 units for resource 'sectug' at location 'harbour'
225 ! dockSub_34 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
225 ! dockSub_34 Hold issued for 1
226 ! dockSub_33 putR: releasing 2 units for resource 'sectug' at location 'harbour'
226 ! dockSub_33 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
226 ! dockSub_33 Hold issued for 1
226 ! dockSub_34 putR: releasing 1 units for resource 'jetty' at location 'subDock'
226 ! dockSub_34 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
226 ! dockSub_34 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
226 ! dockSub_34 Hold issued for 3
227 ! dockSub_33 putR: releasing 1 units for resource 'sub' at location 'openSea'
227 ! genSubs_36 getR: claiming 1 units for resource 'sub' at location 'openSea'
227 ! dockSub_33 Launching entity 'dockSub' (dockSub_35) at time 227
227 ! genSubs_36 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
227 ! genSubs_36 Hold issued for 1
227 ! dockSub_35 getR: claiming 1 units for resource 'sub' at location 'harbour'
227 ! dockSub_35 getR: claiming 2 units for resource 'sectug' at location 'harbour'
227 ! dockSub_35 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
227 ! dockSub_35 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
227 ! dockSub_35 getR: claiming 1 units for resource 'jetty' at location 'subDock'
227 ! dockSub_35 Hold issued for 6
228 ! gateKeeper_10 Recall: recalling the link : 'ferryDock' --> 'subDock'
228 ! gateKeeper_10 Launching entity 'gateKeeper' (gateKeeper_11) at time 240
228 ! genSubs_36 putR: releasing 1 units for resource 'sub' at location 'harbour'
228 ! genSubs_36 Launching entity 'genSubs' (genSubs_37) at time 231
229 ! dockSub_34 putR: releasing 2 units for resource 'sectug' at location 'harbour'
229 ! dockSub_34 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
229 ! dockSub_34 Hold issued for 1
230 ! dockSub_34 putR: releasing 1 units for resource 'sub' at location 'openSea'
230 ! dockSub_34 Launching entity 'dockSub' (dockSub_36) at time 230
230 ! dockSub_36 getR: claiming 1 units for resource 'sub' at location 'harbour'
230 ! dockSub_36 getR: claiming 2 units for resource 'sectug' at location 'harbour'
230 ! dockSub_36 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
230 ! dockSub_36 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
230 ! dockSub_36 getR: claiming 1 units for resource 'jetty' at location 'subDock'
230 ! dockSub_36 Hold issued for 6
231 ! genSubs_37 getR: claiming 1 units for resource 'sub' at location 'openSea'
231 ! genSubs_37 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
231 ! genSubs_37 Hold issued for 1
232 ! genSubs_37 putR: releasing 1 units for resource 'sub' at location 'harbour'
232 ! genSubs_37 Launching entity 'genSubs' (genSubs_38) at time 235
233 ! dockSub_35 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
233 ! dockSub_35 putR: releasing 2 units for resource 'sectug' at location 'harbour'
233 ! dockSub_35 getR: claiming 1 units for resource 'crane' at location 'subDock'
233 ! dockSub_35 getR: claiming 1 units for resource 'info' at location 'subDock'
233 ! dockSub_35 Hold issued for 2
235 ! dockSub_35 putR: releasing 1 units for resource 'info' at location 'subDock'
235 ! dockSub_35 putR: releasing 1 units for resource 'crane' at location 'subDock'
235 ! dockSub_35 getR: claiming 2 units for resource 'sectug' at location 'harbour'
235 ! dockSub_35 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
235 ! dockSub_35 Hold issued for 1
236 ! dockSub_36 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
236 ! dockSub_36 putR: releasing 2 units for resource 'sectug' at location 'harbour'

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236 ! dockSub_36 getR: claiming 1 units for resource 'crane' at location 'subDock'
236 ! dockSub_36 getR: claiming 1 units for resource 'info' at location 'subDock'
236 ! dockSub_36 Hold issued for 2
236 ! dockSub_35 putR: releasing 1 units for resource 'jetty' at location 'subDock'
236 ! dockSub_35 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
236 ! dockSub_35 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
236 ! dockSub_35 Hold issued for 3
238 ! dockSub_36 putR: releasing 1 units for resource 'info' at location 'subDock'
238 ! dockSub_36 putR: releasing 1 units for resource 'crane' at location 'subDock'
238 ! dockSub_36 getR: claiming 2 units for resource 'sectug' at location 'harbour'
238 ! dockSub_36 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
238 ! dockSub_36 Hold issued for 1
239 ! dockSub_35 putR: releasing 2 units for resource 'sectug' at location 'harbour'
239 ! dockSub_35 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
239 ! dockSub_35 Hold issued for 1
239 ! dockSub_36 putR: releasing 1 units for resource 'jetty' at location 'subDock'
239 ! dockSub_36 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
239 ! dockSub_36 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
239 ! dockSub_36 Hold issued for 3
240 ! gateKeeper_11 Forget: forgetting the link : 'ferryDock' --> 'subDock'
240 ! gateKeeper_11 Hold issued for 12
240 ! dockSub_35 putR: releasing 1 units for resource 'sub' at location 'openSea'
240 ! genSubs_38 getR: claiming 1 units for resource 'sub' at location 'openSea'
240 ! dockSub_35 Launching entity 'dockSub' (dockSub_37) at time 240
240 ! genSubs_38 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
240 ! genSubs_38 Hold issued for 1
240 ! dockSub_37 getR: claiming 1 units for resource 'sub' at location 'harbour'
240 ! dockSub_37 getR: claiming 2 units for resource 'sectug' at location 'harbour'
240 ! dockSub_37 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
240 ! dockSub_37 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
240 ! dockSub_37 getR: claiming 1 units for resource 'jetty' at location 'subDock'
240 ! dockSub_37 Hold issued for 6
241 ! genSubs_38 putR: releasing 1 units for resource 'sub' at location 'harbour'
241 ! genSubs_38 Launching entity 'genSubs' (genSubs_39) at time 244
242 ! dockSub_36 putR: releasing 2 units for resource 'sectug' at location 'harbour'
242 ! dockSub_36 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
242 ! dockSub_36 Hold issued for 1
243 ! dockSub_36 putR: releasing 1 units for resource 'sub' at location 'openSea'
243 ! dockSub_36 Launching entity 'dockSub' (dockSub_38) at time 243
243 ! dockSub_38 getR: claiming 1 units for resource 'sub' at location 'harbour'
243 ! dockSub_38 getR: claiming 2 units for resource 'sectug' at location 'harbour'
243 ! dockSub_38 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
243 ! dockSub_38 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
243 ! dockSub_38 getR: claiming 1 units for resource 'jetty' at location 'subDock'
243 ! dockSub_38 Hold issued for 6
244 ! genSubs_39 getR: claiming 1 units for resource 'sub' at location 'openSea'
244 ! genSubs_39 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
244 ! genSubs_39 Hold issued for 1
245 ! genSubs_39 putR: releasing 1 units for resource 'sub' at location 'harbour'
245 ! genSubs_39 Launching entity 'genSubs' (genSubs_40) at time 248
246 ! dockSub_37 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
246 ! dockSub_37 putR: releasing 2 units for resource 'sectug' at location 'harbour'
246 ! dockSub_37 getR: claiming 1 units for resource 'crane' at location 'subDock'
246 ! dockSub_37 getR: claiming 1 units for resource 'info' at location 'subDock'
246 ! dockSub_37 Hold issued for 2
248 ! craneDeClass_9 getR: claiming 1 units for resource 'crane' at location 'subDock'
248 ! craneDeClass_9 getR: claiming 1 units for resource 'info' at location 'subDock'
248 ! craneDeClass_9 moveR: moving resource 'crane' amount 1 from location 'subDock' to location 'debZone'
248 ! craneDeClass_9 moveR: moving resource 'info' amount 1 from location 'subDock' to location 'debZone'
248 ! craneDeClass_9 Hold issued for 3
248 ! dockSub_37 putR: releasing 1 units for resource 'info' at location 'subDock'
248 ! dockSub_37 putR: releasing 1 units for resource 'crane' at location 'subDock'
248 ! dockSub_37 getR: claiming 2 units for resource 'sectug' at location 'harbour'
248 ! dockSub_37 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
248 ! dockSub_37 Hold issued for 1
249 ! dockSub_38 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
249 ! dockSub_38 putR: releasing 2 units for resource 'sectug' at location 'harbour'
249 ! dockSub_38 getR: claiming 1 units for resource 'crane' at location 'subDock'
249 ! dockSub_38 getR: claiming 1 units for resource 'info' at location 'subDock'
249 ! dockSub_38 Hold issued for 2
249 ! dockSub_37 putR: releasing 1 units for resource 'jetty' at location 'subDock'
249 ! dockSub_37 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
249 ! dockSub_37 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
249 ! dockSub_37 Hold issued for 3
251 ! craneDeClass_9 Hold issued for 2
251 ! dockSub_38 putR: releasing 1 units for resource 'info' at location 'subDock'
251 ! dockSub_38 putR: releasing 1 units for resource 'crane' at location 'subDock'
251 ! dockSub_38 getR: claiming 2 units for resource 'sectug' at location 'harbour'
251 ! dockSub_38 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
251 ! dockSub_38 Hold issued for 1

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252 ! gateKeeper_11 Recall: recalling the link : 'ferryDock' --> 'subDock'
252 ! gateKeeper_11 Launching entity 'gateKeeper' (gateKeeper_12) at time 264
252 ! dockSub_37 putR: releasing 2 units for resource 'sectug' at location 'harbour'
252 ! dockSub_37 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
252 ! dockSub_37 Hold issued for 1
252 ! dockSub_38 putR: releasing 1 units for resource 'jetty' at location 'subDock'
252 ! dockSub_38 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
252 ! dockSub_38 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
252 ! dockSub_38 Hold issued for 3
253 ! craneDeClass_9 moveR: moving resource 'info' amount 1 from location 'debZone' to location 'subDock'
253 ! craneDeClass_9 putR: releasing 1 units for resource 'info' at location 'subDock'
253 ! craneDeClass_9 moveR: moving resource 'crane' amount 1 from location 'debZone' to location 'ferryDock'
253 ! craneDeClass_9 Hold issued for 2
253 ! dockSub_37 putR: releasing 1 units for resource 'sub' at location 'openSea'
253 ! genSubs_40 getR: claiming 1 units for resource 'sub' at location 'openSea'
253 ! dockSub_37 Launching entity 'dockSub' (dockSub_39) at time 253
253 ! genSubs_40 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
253 ! genSubs_40 Hold issued for 1
253 ! dockSub_39 getR: claiming 1 units for resource 'sub' at location 'harbour'
253 ! dockSub_39 getR: claiming 2 units for resource 'sectug' at location 'harbour'
253 ! dockSub_39 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
253 ! dockSub_39 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
253 ! dockSub_39 getR: claiming 1 units for resource 'jetty' at location 'subDock'
253 ! dockSub_39 Hold issued for 6
254 ! genSubs_40 putR: releasing 1 units for resource 'sub' at location 'harbour'
254 ! genSubs_40 Launching entity 'genSubs' (genSubs_41) at time 257
255 ! dockSub_38 putR: releasing 2 units for resource 'sectug' at location 'harbour'
255 ! dockSub_38 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
255 ! dockSub_38 Hold issued for 1
255 ! craneDeClass_9 putR: releasing 1 units for resource 'crane' at location 'ferryDock'
255 ! craneDeClass_9 Launching entity 'craneDeClass' (craneDeClass_10) at time 279
256 ! dockSub_38 putR: releasing 1 units for resource 'sub' at location 'openSea'
256 ! dockSub_38 Launching entity 'dockSub' (dockSub_40) at time 256
256 ! dockSub_40 getR: claiming 1 units for resource 'sub' at location 'harbour'
256 ! dockSub_40 getR: claiming 2 units for resource 'sectug' at location 'harbour'
256 ! dockSub_40 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
256 ! dockSub_40 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
256 ! dockSub_40 getR: claiming 1 units for resource 'jetty' at location 'subDock'
256 ! dockSub_40 Hold issued for 6
257 ! genSubs_41 getR: claiming 1 units for resource 'sub' at location 'openSea'
257 ! genSubs_41 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
257 ! genSubs_41 Hold issued for 1
258 ! genSubs_41 putR: releasing 1 units for resource 'sub' at location 'harbour'
258 ! genSubs_41 Launching entity 'genSubs' (genSubs_42) at time 261
259 ! dockSub_39 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
259 ! dockSub_39 putR: releasing 2 units for resource 'sectug' at location 'harbour'
259 ! dockSub_39 getR: claiming 1 units for resource 'crane' at location 'subDock'
259 ! dockSub_39 getR: claiming 1 units for resource 'info' at location 'subDock'
259 ! dockSub_39 Hold issued for 2
261 ! dockSub_39 putR: releasing 1 units for resource 'info' at location 'subDock'
261 ! dockSub_39 putR: releasing 1 units for resource 'crane' at location 'subDock'
261 ! dockSub_39 getR: claiming 2 units for resource 'sectug' at location 'harbour'
261 ! dockSub_39 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
261 ! dockSub_39 Hold issued for 1
262 ! dockSub_40 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
262 ! dockSub_40 putR: releasing 2 units for resource 'sectug' at location 'harbour'
262 ! dockSub_40 getR: claiming 1 units for resource 'crane' at location 'subDock'
262 ! dockSub_40 getR: claiming 1 units for resource 'info' at location 'subDock'
262 ! dockSub_40 Hold issued for 2
262 ! dockSub_39 putR: releasing 1 units for resource 'jetty' at location 'subDock'
262 ! dockSub_39 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
262 ! dockSub_39 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
262 ! dockSub_39 Hold issued for 3
264 ! gateKeeper_12 Forget: forgetting the link : 'ferryDock' --> 'subDock'
264 ! gateKeeper_12 Hold issued for 12
264 ! dockSub_40 putR: releasing 1 units for resource 'info' at location 'subDock'
264 ! dockSub_40 putR: releasing 1 units for resource 'crane' at location 'subDock'
264 ! dockSub_40 getR: claiming 2 units for resource 'sectug' at location 'harbour'
264 ! dockSub_40 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
264 ! dockSub_40 Hold issued for 1
265 ! dockSub_39 putR: releasing 2 units for resource 'sectug' at location 'harbour'
265 ! dockSub_39 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
265 ! dockSub_39 Hold issued for 1
265 ! dockSub_40 putR: releasing 1 units for resource 'jetty' at location 'subDock'
265 ! dockSub_40 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
265 ! dockSub_40 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
265 ! dockSub_40 Hold issued for 3
266 ! dockSub_39 putR: releasing 1 units for resource 'sub' at location 'openSea'
266 ! genSubs_42 getR: claiming 1 units for resource 'sub' at location 'openSea'
266 ! dockSub_39 Launching entity 'dockSub' (dockSub_41) at time 266

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266 ! genSubs_42 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
266 ! genSubs_42 Hold issued for 1
266 ! dockSub_41 getR: claiming 1 units for resource 'sub' at location 'harbour'
266 ! dockSub_41 getR: claiming 2 units for resource 'sectug' at location 'harbour'
266 ! dockSub_41 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
266 ! dockSub_41 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
266 ! dockSub_41 getR: claiming 1 units for resource 'jetty' at location 'subDock'
266 ! dockSub_41 Hold issued for 6
267 ! genSubs_42 putR: releasing 1 units for resource 'sub' at location 'harbour'
267 ! genSubs_42 Launching entity 'genSubs' (genSubs_43) at time 270
268 ! dockSub_40 putR: releasing 2 units for resource 'sectug' at location 'harbour'
268 ! dockSub_40 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
268 ! dockSub_40 Hold issued for 1
269 ! dockSub_40 putR: releasing 1 units for resource 'sub' at location 'openSea'
269 ! dockSub_40 Launching entity 'dockSub' (dockSub_42) at time 269
269 ! dockSub_42 getR: claiming 1 units for resource 'sub' at location 'harbour'
269 ! dockSub_42 getR: claiming 2 units for resource 'sectug' at location 'harbour'
269 ! dockSub_42 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
269 ! dockSub_42 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
269 ! dockSub_42 getR: claiming 1 units for resource 'jetty' at location 'subDock'
269 ! dockSub_42 Hold issued for 6
270 ! genSubs_43 getR: claiming 1 units for resource 'sub' at location 'openSea'
270 ! genSubs_43 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
270 ! genSubs_43 Hold issued for 1
271 ! genSubs_43 putR: releasing 1 units for resource 'sub' at location 'harbour'
271 ! genSubs_43 Launching entity 'genSubs' (genSubs_44) at time 274
272 ! dockSub_41 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
272 ! dockSub_41 putR: releasing 2 units for resource 'sectug' at location 'harbour'
272 ! dockSub_41 getR: claiming 1 units for resource 'crane' at location 'subDock'
272 ! dockSub_41 getR: claiming 1 units for resource 'info' at location 'subDock'
272 ! dockSub_41 Hold issued for 2
274 ! dockSub_41 putR: releasing 1 units for resource 'info' at location 'subDock'
274 ! dockSub_41 putR: releasing 1 units for resource 'crane' at location 'subDock'
274 ! dockSub_41 getR: claiming 2 units for resource 'sectug' at location 'harbour'
274 ! dockSub_41 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
274 ! dockSub_41 Hold issued for 1
275 ! dockSub_42 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
275 ! dockSub_42 putR: releasing 2 units for resource 'sectug' at location 'harbour'
275 ! dockSub_42 getR: claiming 1 units for resource 'crane' at location 'subDock'
275 ! dockSub_42 getR: claiming 1 units for resource 'info' at location 'subDock'
275 ! dockSub_42 Hold issued for 2
275 ! dockSub_41 putR: releasing 1 units for resource 'jetty' at location 'subDock'
275 ! dockSub_41 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
275 ! dockSub_41 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
275 ! dockSub_41 Hold issued for 3
276 ! gateKeeper_12 Recall: recalling the link : 'ferryDock' --> 'subDock'
276 ! gateKeeper_12 Launching entity 'gateKeeper' (gateKeeper_13) at time 288
277 ! dockSub_42 putR: releasing 1 units for resource 'info' at location 'subDock'
277 ! dockSub_42 putR: releasing 1 units for resource 'crane' at location 'subDock'
277 ! dockSub_42 getR: claiming 2 units for resource 'sectug' at location 'harbour'
277 ! dockSub_42 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
277 ! dockSub_42 Hold issued for 1
278 ! dockSub_41 putR: releasing 2 units for resource 'sectug' at location 'harbour'
278 ! dockSub_41 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
278 ! dockSub_41 Hold issued for 1
278 ! dockSub_42 putR: releasing 1 units for resource 'jetty' at location 'subDock'
278 ! dockSub_42 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
278 ! dockSub_42 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
278 ! dockSub_42 Hold issued for 3
279 ! craneDeClass_10 getR: claiming 1 units for resource 'crane' at location 'subDock'
279 ! craneDeClass_10 getR: claiming 1 units for resource 'info' at location 'subDock'
279 ! craneDeClass_10 moveR: moving resource 'crane' amount 1 from location 'subDock' to location 'debZone'
279 ! craneDeClass_10 moveR: moving resource 'info' amount 1 from location 'subDock' to location 'debZone'
279 ! craneDeClass_10 Hold issued for 3
279 ! dockSub_41 putR: releasing 1 units for resource 'sub' at location 'openSea'
279 ! genSubs_44 getR: claiming 1 units for resource 'sub' at location 'openSea'
279 ! dockSub_41 Launching entity 'dockSub' (dockSub_43) at time 279
279 ! genSubs_44 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
279 ! genSubs_44 Hold issued for 1
279 ! dockSub_43 getR: claiming 1 units for resource 'sub' at location 'harbour'
279 ! dockSub_43 getR: claiming 2 units for resource 'sectug' at location 'harbour'
279 ! dockSub_43 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
279 ! dockSub_43 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
279 ! dockSub_43 getR: claiming 1 units for resource 'jetty' at location 'subDock'
279 ! dockSub_43 Hold issued for 6
280 ! genSubs_44 putR: releasing 1 units for resource 'sub' at location 'harbour'
280 ! genSubs_44 Launching entity 'genSubs' (genSubs_45) at time 283
281 ! dockSub_42 putR: releasing 2 units for resource 'sectug' at location 'harbour'
281 ! dockSub_42 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
281 ! dockSub_42 Hold issued for 1

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282 ! craneDeClass_10 Hold issued for 2
282 ! dockSub_42 putR: releasing 1 units for resource 'sub' at location 'openSea'
282 ! dockSub_42 Launching entity 'dockSub' (dockSub_44) at time 282
282 ! dockSub_44 getR: claiming 1 units for resource 'sub' at location 'harbour'
282 ! dockSub_44 getR: claiming 2 units for resource 'sectug' at location 'harbour'
282 ! dockSub_44 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
282 ! dockSub_44 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
282 ! dockSub_44 getR: claiming 1 units for resource 'jetty' at location 'subDock'
282 ! dockSub_44 Hold issued for 6
283 ! genSubs_45 getR: claiming 1 units for resource 'sub' at location 'openSea'
283 ! genSubs_45 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
283 ! genSubs_45 Hold issued for 1
284 ! craneDeClass_10 moveR: moving resource 'info' amount 1 from location 'debZone' to location 'subDock'
284 ! craneDeClass_10 putR: releasing 1 units for resource 'info' at location 'subDock'
284 ! craneDeClass_10 moveR: moving resource 'crane' amount 1 from location 'debZone' to location 'ferryDock'
284 ! craneDeClass_10 Hold issued for 2
284 ! genSubs_45 putR: releasing 1 units for resource 'sub' at location 'harbour'
284 ! genSubs_45 Launching entity 'genSubs' (genSubs_46) at time 287
285 ! dockSub_43 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
285 ! dockSub_43 putR: releasing 2 units for resource 'sectug' at location 'harbour'
285 ! dockSub_43 getR: claiming 1 units for resource 'crane' at location 'ferryDock'
285 ! dockSub_43 moveR: moving resource 'crane' amount 1 from location 'ferryDock' to location 'subDock'
285 ! dockSub_43 Hold issued for 1
286 ! craneDeClass_10 putR: releasing 1 units for resource 'crane' at location 'ferryDock'
286 ! craneDeClass_10 Launching entity 'craneDeClass' (craneDeClass_11) at time 310
286 ! dockSub_43 getR: claiming 1 units for resource 'info' at location 'subDock'
286 ! dockSub_43 Hold issued for 2
288 ! gateKeeper_13 Forget: forgetting the link : 'ferryDock' --> 'subDock'
288 ! gateKeeper_13 Hold issued for 12
288 ! dockSub_44 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
288 ! dockSub_44 putR: releasing 2 units for resource 'sectug' at location 'harbour'
288 ! dockSub_44 getR: claiming 1 units for resource 'crane' at location 'ferryDock'
288 ! dockSub_44 moveR: moving resource 'crane' amount 1 from location 'ferryDock' to location 'subDock'
288 ! dockSub_44 Hold issued for 1
288 ! dockSub_43 putR: releasing 1 units for resource 'info' at location 'subDock'
288 ! dockSub_43 putR: releasing 1 units for resource 'crane' at location 'subDock'
288 ! dockSub_43 getR: claiming 2 units for resource 'sectug' at location 'harbour'
288 ! dockSub_43 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
288 ! dockSub_43 Hold issued for 1
289 ! dockSub_44 getR: claiming 1 units for resource 'info' at location 'subDock'
289 ! dockSub_44 Hold issued for 2
289 ! dockSub_43 putR: releasing 1 units for resource 'jetty' at location 'subDock'
289 ! dockSub_43 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
289 ! dockSub_43 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
289 ! dockSub_43 Hold issued for 3
291 ! dockSub_44 putR: releasing 1 units for resource 'info' at location 'subDock'
291 ! dockSub_44 putR: releasing 1 units for resource 'crane' at location 'subDock'
291 ! dockSub_44 getR: claiming 2 units for resource 'sectug' at location 'harbour'
291 ! dockSub_44 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
291 ! dockSub_44 Hold issued for 1
292 ! dockSub_43 putR: releasing 2 units for resource 'sectug' at location 'harbour'
292 ! dockSub_43 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
292 ! dockSub_43 Hold issued for 1
292 ! dockSub_44 putR: releasing 1 units for resource 'jetty' at location 'subDock'
292 ! dockSub_44 moveR: moving resource 'sub' amount 1 from location 'subDock' to location 'harbour'
292 ! dockSub_44 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
292 ! dockSub_44 Hold issued for 3
293 ! dockSub_43 putR: releasing 1 units for resource 'sub' at location 'openSea'
293 ! genSubs_46 getR: claiming 1 units for resource 'sub' at location 'openSea'
293 ! dockSub_43 Launching entity 'dockSub' (dockSub_45) at time 293
293 ! genSubs_46 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
293 ! genSubs_46 Hold issued for 1
293 ! dockSub_45 getR: claiming 1 units for resource 'sub' at location 'harbour'
293 ! dockSub_45 getR: claiming 2 units for resource 'sectug' at location 'harbour'
293 ! dockSub_45 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
293 ! dockSub_45 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
293 ! dockSub_45 getR: claiming 1 units for resource 'jetty' at location 'subDock'
293 ! dockSub_45 Hold issued for 6
294 ! genSubs_46 putR: releasing 1 units for resource 'sub' at location 'harbour'
294 ! genSubs_46 Launching entity 'genSubs' (genSubs_47) at time 297
295 ! dockSub_44 putR: releasing 2 units for resource 'sectug' at location 'harbour'
295 ! dockSub_44 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'openSea'
295 ! dockSub_44 Hold issued for 1
296 ! dockSub_44 putR: releasing 1 units for resource 'sub' at location 'openSea'
296 ! dockSub_44 Launching entity 'dockSub' (dockSub_46) at time 296
296 ! dockSub_46 getR: claiming 1 units for resource 'sub' at location 'harbour'
296 ! dockSub_46 getR: claiming 2 units for resource 'sectug' at location 'harbour'
296 ! dockSub_46 moveR: moving resource 'sub' amount 1 from location 'harbour' to location 'subDock'
296 ! dockSub_46 moveR: moving resource 'sectug' amount 2 from location 'harbour' to location 'subDock'
296 ! dockSub_46 getR: claiming 1 units for resource 'jetty' at location 'subDock'

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296 ! dockSub_46 Hold issued for 6
297 ! genSubs_47 getR: claiming 1 units for resource 'sub' at location 'openSea'
297 ! genSubs_47 moveR: moving resource 'sub' amount 1 from location 'openSea' to location 'harbour'
297 ! genSubs_47 Hold issued for 1
298 ! genSubs_47 putR: releasing 1 units for resource 'sub' at location 'harbour'
298 ! genSubs_47 Launching entity 'genSubs' (genSubs_48) at time 301
299 ! dockSub_45 moveR: moving resource 'sectug' amount 2 from location 'subDock' to location 'harbour'
299 ! dockSub_45 putR: releasing 2 units for resource 'sectug' at location 'harbour'
299 ! dockSub_45 getR: claiming 1 units for resource 'crane' at location 'subDock'
299 ! dockSub_45 getR: claiming 1 units for resource 'info' at location 'subDock'
299 ! dockSub_45 Hold issued for 2
300 ! *MAIN* - Simulation Closed.

```

Final State:

There are 6 active process events.

Waiting/Blocked processes:

There are 3 blocked processes.

There are 0 pending sync. instances.

There are 0 active sync. instances.

Resources:

```

(ferry@openSea) --> SHARE_ACCOUNT 0, 0
(sub@openSea) --> SHARE_ACCOUNT 0, 0
(jetty@ferryDock) --> SHARE_ACCOUNT 1, 0
(crane@ferryDock) --> SHARE_ACCOUNT 1, 1
(tug@harbour) --> SHARE_ACCOUNT 0, 0
(jetty@subDock) --> SHARE_ACCOUNT 2, 0
(crane@subDock) --> SHARE_ACCOUNT 2, 1
(sectug@harbour) --> SHARE_ACCOUNT 2, 2
(info@subDock) --> SHARE_ACCOUNT 5, 4
(ferry@harbour) --> SHARE_ACCOUNT 0, 0
(sub@harbour) --> SHARE_ACCOUNT 1, 1
(crane@debZone) --> SHARE_ACCOUNT 0, 0
(info@debZone) --> SHARE_ACCOUNT 0, 0
(sub@subDock) --> SHARE_ACCOUNT 2, 0
(sectug@subDock) --> SHARE_ACCOUNT 2, 0
(ferry@ferryDock) --> SHARE_ACCOUNT 2, 0
(tug@ferryDock) --> SHARE_ACCOUNT 2, 0
- : unit = ()
#

```