CIRCULATION

Use case examples

- 🟣 requests + loan
- 🟡 loan + extend
- 🟢 request + loan + return to other member
- 🔵 request in other member + return to other member

States: ON_SHELF, AT_DESK, ON_LOAN, IN_TRANSIT, DISPUTE, EXCLUDED, DELETED

loan

return
case a: [not requested &&
item_member == transaction_member]

validate
[requested &&
item_member == pickup_member]

loan

return
case b: [requested &&
pickup_member == transaction_member]

extend

request

receive
case d: [requested &&
pickup_member == transaction_member]

receive
case c: [not requested &&
item_member == transaction_member]

return
[nor *case a, case b*]

request

reinstate

validate
[requested &&
item_member != pickup_member]

receive
[nor *case c, case d*]

request

EXCLUDED

exclude

DELETED

réro/2018-05-30/1
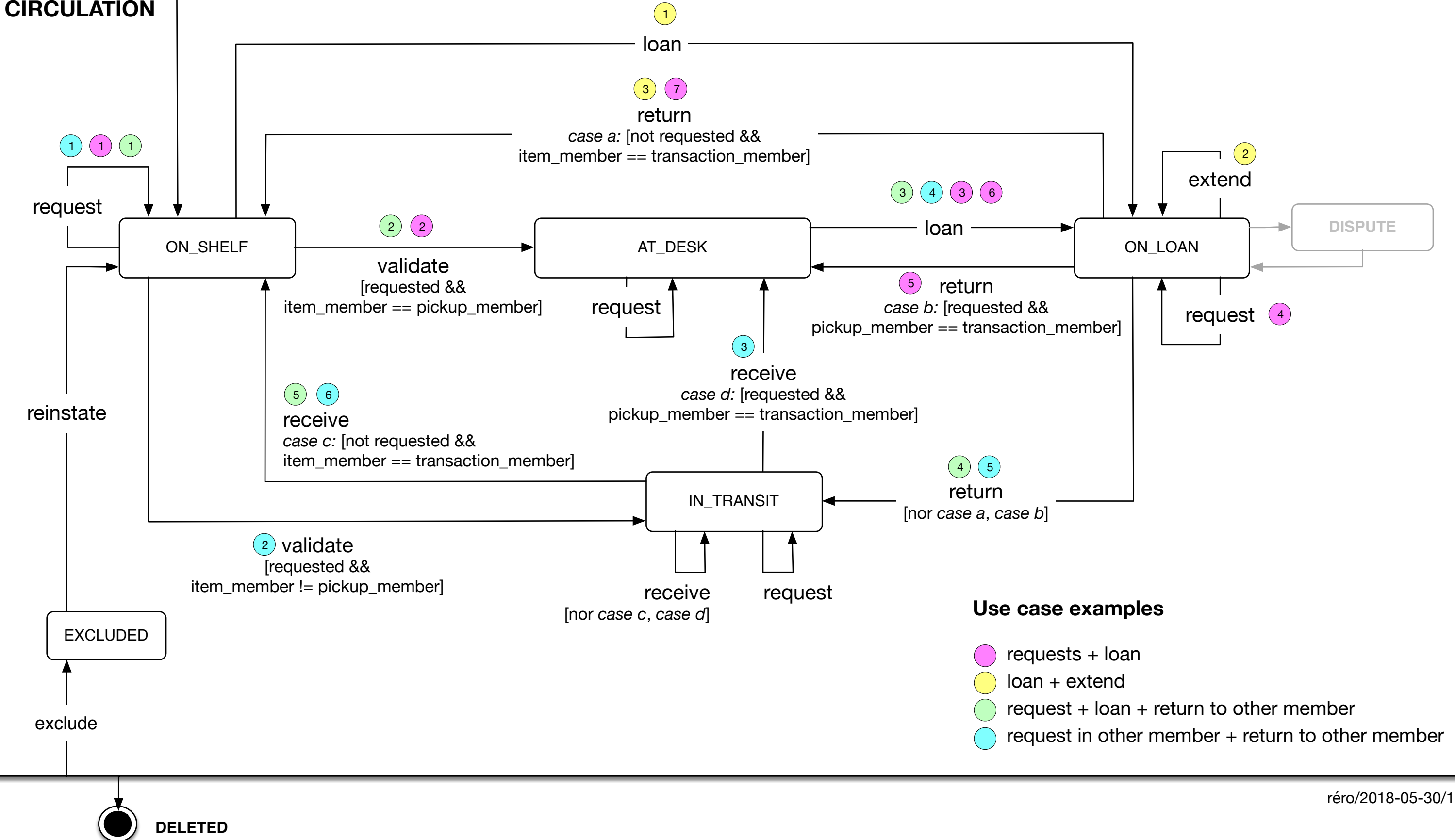
Circulation state diagram

States
- AT_DESK: the item is at the pick-up member desk, ready to be borrowed by the patron who requested it.
- DISPUTE: the item has a special state due to the activity of the patron (overdue, lost, invoiced, etc.). This box is greyed because these states still have to be clarified.
- IN_TRANSIT: the item is in transit from another member to its owning member.
- ON_LOAN: the item is borrowed by a patron, and can have requests from other patrons.
- ON_SHELF: the item is on shelf at its owning member and can have requests from other patrons.
- EXCLUDED: the item is out of circulation for different reasons: lost, in_preparation, ...

Action
- **return**: return an item to its owning member or, if it holds a request, at its pick-up member;
  in case of offsite return, the item is returned to another member and is sent to its destination member (either pick-up or owning member).
- **reinstate**: put the item in circulation.
- **loan**: loan an item to a patron.
- **extend**: extend the loan duration.
- **request**: request an item for a patron.
- **send**: send an item to a member.
- **validate**: make a requested item ready for loan.
- **receive**: receive an item belonging to another member.
- **exclude**: remove the item from circulation.

Action parameters
parameters for all action:
- transaction_date,
- transaction_member_pid,
- user_pid: staff or patron identifier
- item_pid

action specific parameters:
- **return**: return_date
- **reinstate**: return_date
- **loan**: patron_id, start_date, due_date
- **extend**: due_date
- **request**: patron_pid, expired_date
- **send**: member_pid
- **validate**:
- **receive**:
- **exclude**: reason

Consortium model terminolgy
The current consortial model has 3 levels:
1. Organisation: network of libraries (such as: universities)
2. Member: library (for now, with only one loan desk)
3. Location : physical on_shelf location of items (stores, free_access_zone…)

Consortial variables used by the circulation:
- transaction_member: member/library that performs the transaction
- item_member: library owning the item
- pickup_member: library chosen by the patron for pickup