GigaSpace : managing many objects
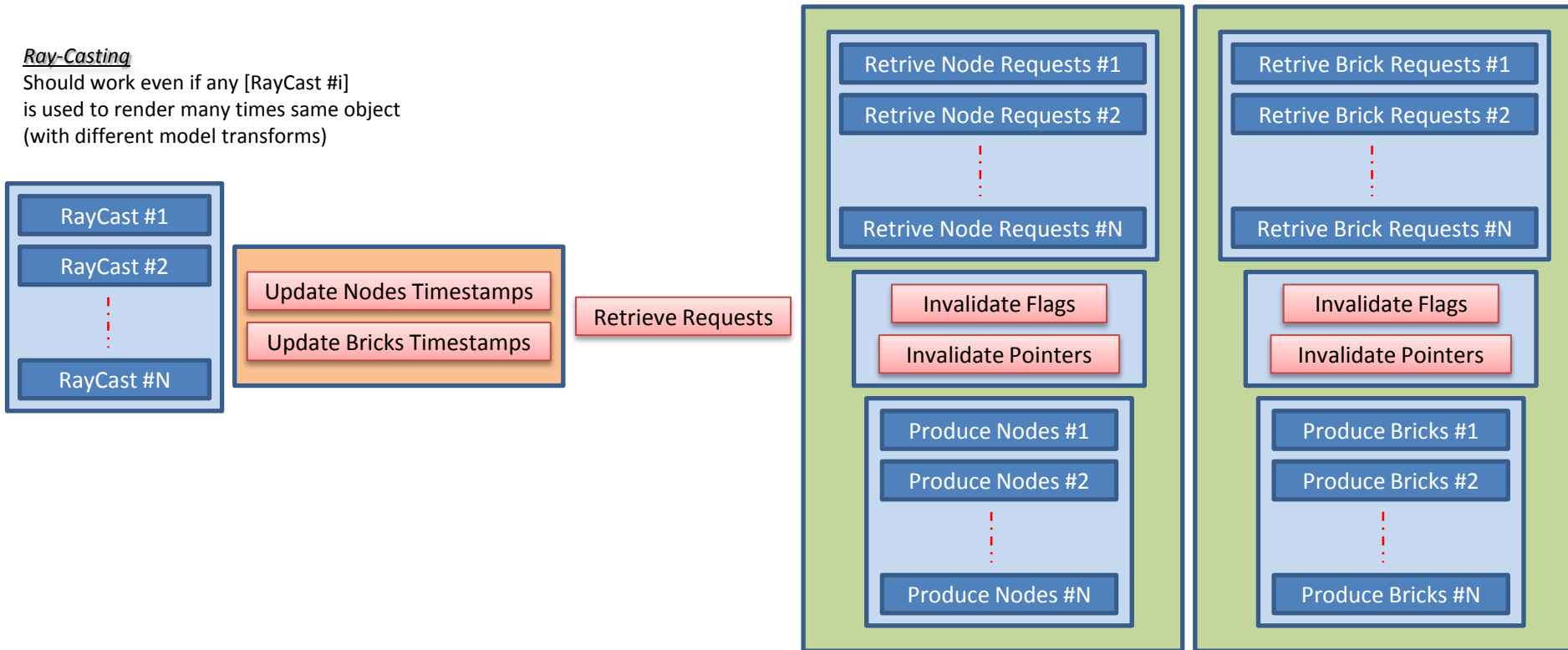
- 1 data structure
- 1 producer
- 1 renderer
- many model transforms
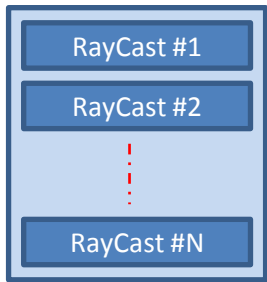

Depth of Field example
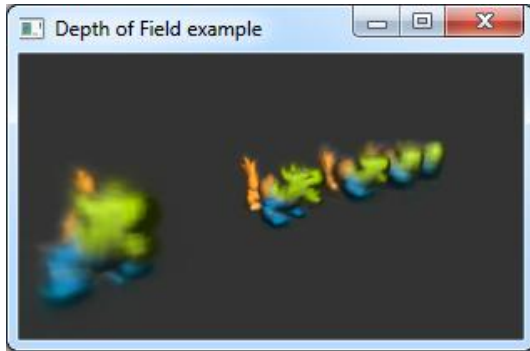
GigaSpace : managing many objects

Ray-Casting
Should work even if any [RayCast #i]
is used to render many times same object
(with different model transforms)

| RayCast #1 |
| RayCast #2 |
| ⋮ |
| RayCast #N |

| Update Nodes Timestamps |
| Update Bricks Timestamps |

Retrieve Requests

| Retrive Node Requests #1 |
| Retrive Node Requests #2 |
| ⋮ |
| Retrive Node Requests #N |

| Invalidate Flags |
| Invalidate Pointers |

| Produce Nodes #1 |
| Produce Nodes #2 |
| ⋮ |
| Produce Nodes #N |

| Retrive Brick Requests #1 |
| Retrive Brick Requests #2 |
| ⋮ |
| Retrive Brick Requests #N |

| Invalidate Flags |
| Invalidate Pointers |

| Produce Bricks #1 |
| Produce Bricks #2 |
| ⋮ |
| Produce Bricks #N |

GigaSpace : managing many objects

Need to pass
the ROOT node
to each RayCaster

RayCast #1
RayCast #2
⋮
RayCast #N

GigaSpace : managing many objects
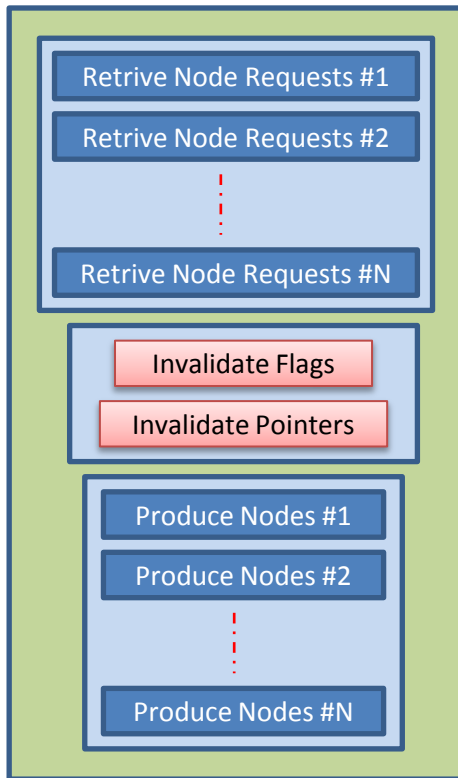
Nothing to do

Update Nodes Timestamps

Update Bricks Timestamps
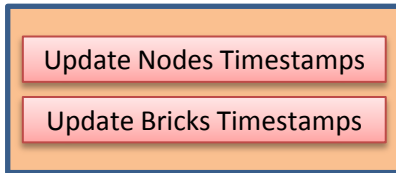
GigaSpace : managing many objects

Nothing to do

Retrieve Requests

GigaSpace : managing many objects

Retrive Node Requests #1

Retrive Node Requests #2

Retrive Node Requests #N

Invalidate Flags

Invalidate Pointers

Produce Nodes #1

Produce Nodes #2

Produce Nodes #N

Need to modify kernels :
- create masks to retrieve Producer#1 node requests
- create masks to retrieve Producer#2 node requests
-...
- create masks to retrieve Producer#N node requests

Nothing to do

Nothing to do

GigaSpace : managing many objects