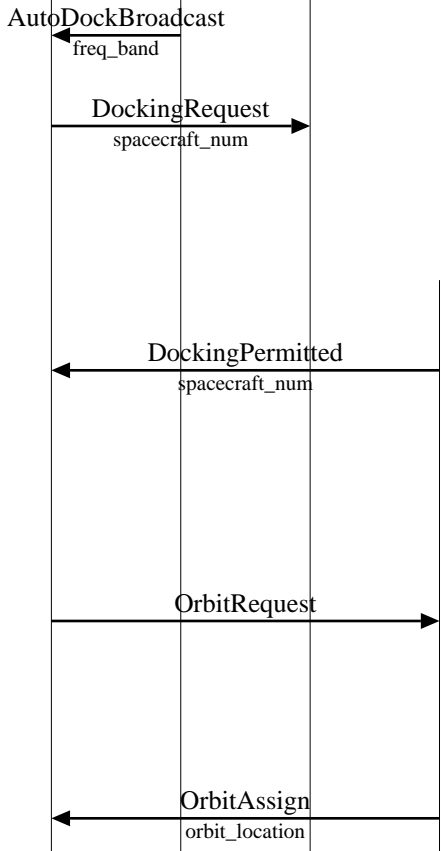


Module Interfaces (Successful Spacecraft Docking and Undocking)									
space		space port							EventHelix.com/EventStudio 2.0
spacecraft		central proc							
pilot	auto dock	broadcast mgr	spaceship obj mgr	spaceship obj	docking	undocking	orbit allocator	docking allocator	05-Jul-03 16:41 (Page 1)

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Spacecraft receives the standard AirDock broadcast from SpacePort 9000

A docking request is sent out. The frequency for sending the message was obtained from the broadcast

**LEG: Orbit Resource is Available**

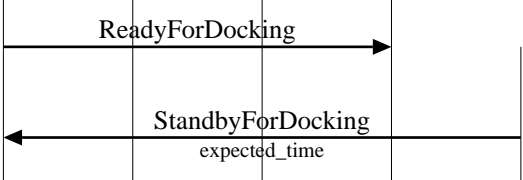
**LEG: Docking Port is Available**

The system has enough resources to handle the orbit request. Once DockingPermitted has been sent, the docking request should NOT be rejected due to resource unavailability. Refer to Chapter 3 of the AutoDock 1.0 Green book

Spacecraft is to be assigned a temporary orbit before docking since AutoDock 1.0 doesnot support direct docking and also only one docking or undocking procedure may be active at any given time

Inform details of the orbit assigned to the spacecraft

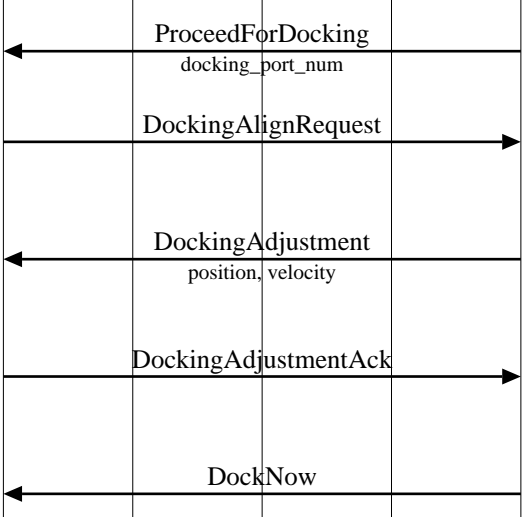
Spacecraft reaches the assigned orbit



Spacecraft inform the docking station that it is ready for docking

Inform expected time in which docking will be permitted to the spacecraft

A docking or undocking that is already in progress finishes



Indicate spacecraft to proceed for docking in the specified docking port number

When the spacecraft is 2000m from the docking station, it contacts the docking station for adjusting position and velocity

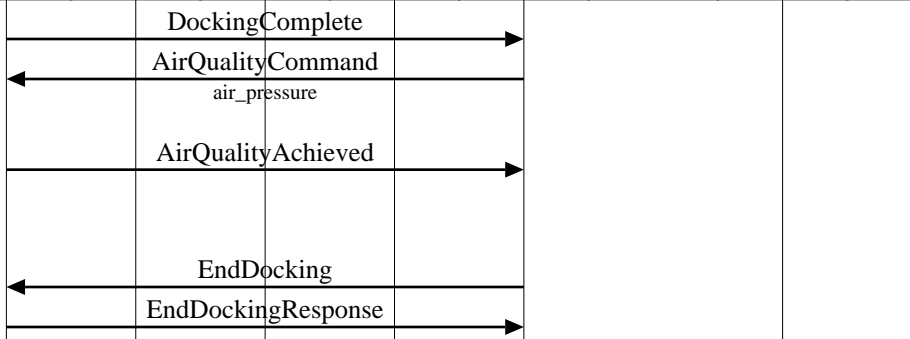
The docking station informs spacecraft about the postion and velocity adjustments required with respect to the docking port

Spacecraft performs the position and velocity adjustments and acknowledges the same

The docking station allows actual docking

Spacecraft reaches the assigned port and attains the same orbit and velocity as the docking station

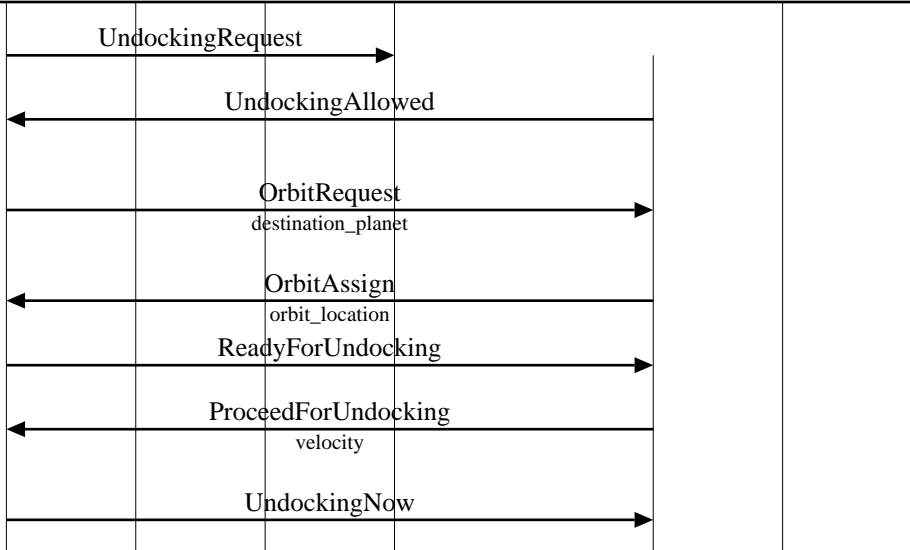
Module Interfaces (Successful Spacecraft Docking and Undocking)									
space		space port						EventHelix.com/EventStudio 2.0	
spacecraft		central proc							
pilot	auto dock	broadcast mgr	spaceship obj mgr	spaceship obj	docking	undocking	orbit allocator	docking allocator	05-Jul-03 16:41 (Page 2)



The docking station commands the spacecraft to match the specified air pressure  
Spacecraft adjusts the air quality to match that of the docking station and responds to the docking station

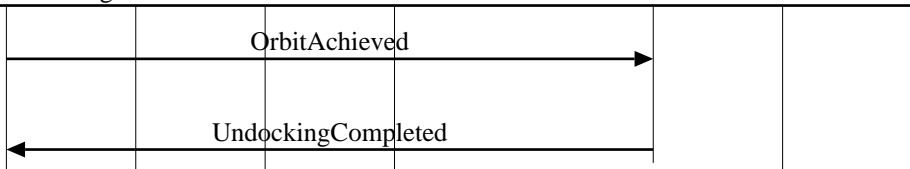
Spacecraft docking has been completed

Spacecraft wishes to depart from the docking station



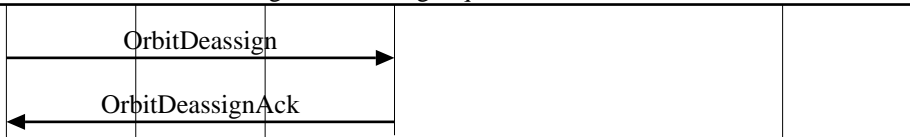
Spacecraft sends a request for undocking  
Spacecraft is informed when the undocking procedure can proceed  
Spacecraft requests for a temporary orbit. The destination planet is specified  
Inform details of the assigned orbit to spacecraft  
Spacecraft informs that it is ready to leave  
The docking station indicates to proceed for undocking with the recommended velocity  
Spacecraft leaves for the assigned orbit

Spacecraft reaches the assigned orbit



Spacecraft informs the docking station that the assigned orbit has been reached

The docking station schedules next docking or undocking request

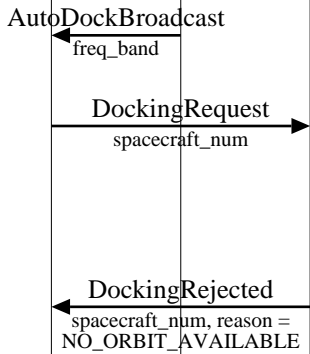


Spacecraft informs that it wishes to leave the orbit

**Module Interfaces (Orbit Resource not Available)**

space		space port							EventHelix.com/EventStudio 2.0
spacecraft		central proc							
pilot	auto dock	broadcast mgr	spaceship obj mgr	spaceship obj	docking	undocking	orbit allocator	docking allocator	05-Jul-03 16:41 (Page 3)

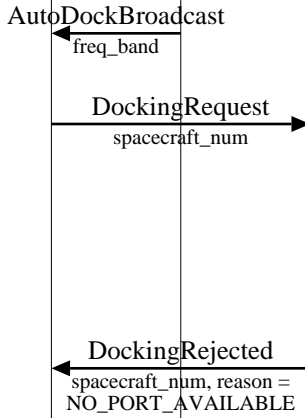
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Spacecraft receives the standard AirDock broadcast from SpacePort 9000  
 A docking request is sent out. The frequency for sending the message was obtained from the broadcast  
**LEG: No Orbit Resource Available**

Module Interfaces (Docking Resource not Available)									
space		space port						EventHelix.com/EventStudio 2.0	
spacecraft		central proc							
pilot	auto dock	broadcast mgr	spaceship obj mgr	spaceship obj	docking	undocking	orbit allocator	docking allocator	05-Jul-03 16:41 (Page 4)

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Spacecraft receives the standard AirDock broadcast from SpacePort 9000

A docking request is sent out. The frequency for sending the message was obtained from the broadcast

**LEG: Orbit Resource is Available**

**LEG: No Docking Ports Available**