



## EAS Cortez

Explorer Class Research Vessel  
for Orbiter Space Flight Simulator 2010 P1

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## Introduction

**“Take a good look people. If you're supremely lucky, you may see two ships like her in your lifetime.”**

*- Captain John Sheridan, Babylon 5, Season 2, Episode 4: “A Distant Star”*

The EAS Cortez for Orbiter Spaceflight Simulator is modeled after the ship from the TV series Babylon 5 that bears the same name. Designed as a deep space research vehicle, the Cortez is an Explorer-class Earthforce vessel that can carry a large crew and accommodate several fighter-class craft as well as atmospheric scout and crew transport shuttles.

## Copyright

Babylon 5 and all elements related to the series are the intellectual property of Warner Home Entertainment. This addon is not intended to infringe on any copyright. Should the owner of said copyright request this addon not be distributed, please contact me at [becrane75@gmail.com](mailto:becrane75@gmail.com). This addon is released as freeware and is not intended as a source of monetary gain, and thus should not be sold by anyone.

Source code for this project is also included in this package, in the form of .cpp and .h files, as well as MS Visual Studio project/solution files. Please note that if you want to compile the solution as-is, you will need to install UMMU along with the OrbiterSound SDK, and include the appropriate SDK files in the project, as these may not be distributed, per the UMMU license.

You may use any or all of the code in this project for your own work, provided you give credit to appropriate sources. Some of the code is implemented from the UMMU SDK, as well as the OrbiterSound SDK, so please be sure and read the licensing information for that SDK and acknowledge DanSteph for his work in your project.

## Acknowledgments

First and foremost, thanks to Dr. Martin Schweiger for creating and sharing this wonderful program, Orbiter Spaceflight Simulator, with the rest of the world.

Thanks to Jason Benson for creating the original Spacecraft version of the Explorer, and for giving me permission to update it to Spacecraft3 and beyond. His original vessel was the foundation for all my work on the Cortez, and without it I would not have been able to make this vessel what it is.

Thanks to Pascal Barbier, who developed the original mesh file.

Thanks to DanSteph for creating OrbiterSound and UMMU, and for releasing the SDK for both addons. These two addons bring Orbiter, and the Cortez, to life.

Thanks to PhantomCruiser, JohnnyBGoode, Rody, mc\_, and Interceptor for testing, feedback, bug reports, and suggestions.

Special thanks to Urwumpe for C++ advice and help, as well as Orb, Wishbone, jededia, and again Urwumpe, for assistance and advice in setting up the Visual Studio compiler.

Thanks to pipcard for the XR2 Repaint kit with panels and weathering, and to dbeachy and Coolhand for the marvelous XR2 to use it on.

## Requirements

The following addons are required for the EAS Cortez to function properly

- [OrbiterSound 3.5](#) or greater. By DanSteph
- [UMMU 2.0](#) or greater. By DanSteph

In addition, due to the large size of the Cortez mesh, it is strongly recommended that the D3D9 client being developed by jarmonik be used for optimal framerate performance, particularly when the Cortez is being viewed in external mode or from another vessel. As of the release of this version of the Cortez, the current D3D9 Client release candidate can be downloaded from the [development thread](#) on Orbiter-Forum.com.

## Installation

Simply unzip the installation archive to your main/root Orbiter directory. Be sure you configure your archiving software to preserve the folder structure.

## Features

- UMMU support
  - The EAS Cortez starts out with a default crew of 4, but will support a crew of up to 100 (max allowed by the UMMU addon). Full UMMU Support is implemented, including adding UMMU from within the simulation session, EVA, and dock-to-dock transfers with other UMMU-capable vessels.
- 24 docking ports
  - 12 docking ports in the main hangar located at the bow of the ship
  - 6 docking ports in each of the two lower shuttle bays, also located at the bow of the ship.
  - All docking ports capable of crew EVA and transfer activities.
- Rotating crew habitation module
  - Located in the center of the ship, this section rotates to provide artificial gravity for the crew.

Also included in this package is a custom EAS-themed top skin repaint for the XR2 Ravenstar. This repaint is based on my interpretation of various paint schemes of EAS Atmospheric Shuttles seen in images found on the Internet. I am completely open to suggestions for improvements.

## Docking Port Layouts

The EAS Cortez for Orbiter 2010 P1 has support for 'landing' vessels in its larger bay area, known as the Main Hangar, as well as its two lower bays, known as Shuttle Bays. This is accomplished by using docking ports. The docking ports are marked by glowing beacons, green in the Main Hangar, blue in the Shuttle Bays. These docking ports are optimized for use with the XR2 Ravenstar, and positioned so that the wheels of the Ravenstar appear to touch the bottom of the hangar. There are a total of 24 docking ports on the Cortez. 12 of them are in the Main Hangar, with 6 bays in each of the Shuttle Bays. Docking port layouts and numbers are as follows:

### Main Hangar

(To Main Truss Section)

Starboard Side		Port Side
Dock 1	Dock 2	Dock 3
Dock 4	Dock 5	Dock 6
Dock 7	Dock 8	Dock 9
Dock 10	Dock 11	Dock 12

(To Bow of Ship)

### Shuttle Bay 1 (upper)

(To Stern of Ship)

Starboard Side		Port Side
Dock 13	Dock 14	Dock 15
Dock 16	Dock 17	Dock 18

(To Bow of Ship)

### Shuttle Bay 2 (lower)

(To Stern of Ship)

Starboard Side		Port Side
Dock 19	Dock 20	Dock 21
Dock 22	Dock 23	Dock 24

(To Bow of Ship)

The above docking port numbers also coincide with the UMMU active dock numbers for EVA and crew transfers. All airlocks are automatically open once the active dock is selected, so a crew member can EVA to that location or transfer to a docked UMMU-compatible vessel. This is done to simulate the fact that the hangar bays are 'open,' and crews can enter and leave ships freely without opening non-existing 'doors' on the Cortez.

## Keyboard Commands

**K** – Start/Stop Rotation of Crew Habitation Module  
(Confirmed with an audible announcement as well as HUD message)

### **UMMU-Related Commands\***

**M** – Manually add crew member to ship (Name, Age, Function)

**1** – Select previous crew member

**2** – Select next crew member

**Shift + 1** – Previous dock active

**Shift + 2** – Next dock active

**E** – Perform EVA with selected crew member or transfer to docked ship

**S** – UMMU Status (number of souls aboard, ship name)

\*Please note, I have taken liberty and transposed the 1 and 2 keys from their default function in the UMMU code, as it makes more sense to me to have them in this order.

## Support

Please direct all support questions and/or comments to the addon thread automatically created on orbiter-forum.com, which is accessible via the Comments button on the OrbitHanger download page for this addon. I will do my best to answer all questions and address all issues as quickly as possible.

I hope you enjoy this addon as much as I have enjoyed making it. Happy orbiting!

Oh, and, one more thing.....

HAIL



PROBE!