

<b>Fiscal Year:</b>	FY 2008	<b>Task Last Updated:</b>	FY 09/24/2009
<b>PI Name:</b>	Megahed, Abe B.S.		
<b>Project Title:</b>	Just-in-Time Simulation Platform		
<b>Division Name:</b>	Human Research		
<b>Program/Discipline:</b>	HUMAN RESEARCH		
<b>Program/Discipline--Element/Subdiscipline:</b>	HUMAN RESEARCH--Space Human Factors Engineering		
<b>Joint Agency Name:</b>	<b>TechPort:</b>	No	
<b>Human Research Program Elements:</b>	(1) <b>SHFH</b> :Space Human Factors & Habitability (archival in 2017)		
<b>Human Research Program Risks:</b>	(1) <b>HSIA</b> :Risk of Adverse Outcomes Due to Inadequate Human Systems Integration Architecture		
<b>Space Biology Element:</b>	None		
<b>Space Biology Cross-Element Discipline:</b>	None		
<b>Space Biology Special Category:</b>	None		
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<b>Zip Code:</b>	53717-1961	<b>Congressional District:</b>	2
<b>Comments:</b>			
<b>Project Type:</b>	GROUND	<b>Solicitation / Funding Source:</b>	SBIR Phase II
<b>Start Date:</b>	07/15/2008	<b>End Date:</b>	07/14/2010
<b>No. of Post Docs:</b>	<b>No. of PhD Degrees:</b>		
<b>No. of PhD Candidates:</b>	<b>No. of Master' Degrees:</b>		
<b>No. of Master's Candidates:</b>	<b>No. of Bachelor's Degrees:</b>		
<b>No. of Bachelor's Candidates:</b>	<b>Monitoring Center:</b> NASA JSC		
<b>Contact Monitor:</b>	Woolford, Barbara	<b>Contact Phone:</b>	218-483-3701
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<b>Flight Program:</b>			
<b>Flight Assignment:</b>			
<b>Key Personnel Changes/Previous PI:</b>			
<b>COI Name (Institution):</b>			
<b>Grant/Contract No.:</b>	NNJ07JB13C		
<b>Performance Goal No.:</b>			
<b>Performance Goal Text:</b>			
<b>Task Description:</b>	<p>Identification and Significance of the Innovation: Long duration spaceflight and exploration missions will require complex operations and demanding tasks. A better system for creation of intelligent simulations will be needed to prepare future crews for the rigors ahead. The software system proposed will create a method for authoring intelligent 3D simulations for training and operations support without the need for high-level programming. An authoring tool of this type will allow NASA subject matter experts to capture their knowledge and build a simulation from it, or allow developers to create scenario-based simulations for troubleshooting and repair. This tool will also be more cost effective than hardware. A specific and immediate use will be for EVA training, particularly when a EVA or IVA task needs to designed during a mission and the simulation delivered just prior to execution.</p> <p>• Objectives and Deliverables: Fully functional NASA Astronaut training system. After a successful tool test is complete, training materials and user-guide documentation will be completed. This will allow PLANET LLC to train a</p>		

	number of NASA personnel on the system, and prepare the software for commercial release.
<b>Rationale for HRP Directed Research:</b>	
<b>Research Impact/Earth Benefits:</b>	Hypercosm is currently being used by USA in its training platform known as Questus, integrated applications and tools specifically for space operations.
<b>Task Progress:</b>	New project for FY2008. Reporting not required for this SBIR Phase 2 project. [Ed. note: added to Task Book in September 2009 when received information on this task]
<b>Bibliography Type:</b>	Description: (Last Updated: )