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**Document Title: SCUBA-2 Data Reduction SW  
 Risk Assessment and Mitigation Plan**

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## Change Record

Issue	Date	Section(s) Affected	Description of Change / Change Request Reference / Remarks
0.1	8/27/2003	All	draft version
1.0	9/10/2003	All	Pre-Released version
1.1	9/10/2003		Released version
1.2	10/27/2003		Re-evaluated modifications, based on PDR feedback
1.3	11/21/2003	Added Risk	Starlink-specific risk
1.4	11/29/2003		Release to delta PDR
1.5	12/15/2003		Implementation of delta PDR recommendations
1.6	12/27/2003	All	Removed italics as indicators of change

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## Purpose of this Document

The Data Reduction SW for SCUBA-2 is a *high-risk*, high-reward project.

Although this document is a supplement to the overall Project Risk Assessment document SC2/PRJ/PM600/03, the risk items in this document are managed and reported on separately.

Contingency measures are included in the MS Project Plan. The impact after mitigation has estimated schedule and financial implications. The financial impact is not limited to this subproject, but rather reflects the fact that the entire project is slipping. Therefore the \$20K per month financial impact is a generic number how much it would cost to carry the entire SCUBA-2 project beyond the budgeted completion date.

The SCUBA2 Data Reduction SW development project has a fixed budget, geographically distributed development team and an inflexible delivery date, which is not ideal for a project with such a degree of technical development and risk. It is also complex in terms of involving a large number of users and various requirements, and hence there are interfaces to manage which drives up risk and cost and tends to lengthen schedules. For all of these reasons, risk identification and management is extremely important for the Data Reduction SW for SCUBA-2 project.

After the initial review of the Data Reduction SW requirements projects typically start with a high level of risk that is then reduced by the implementation of mitigation steps within the project plan, changing the requirements or developing a better understanding of the engineering/programmable challenges.

To help manage risk the project management team has adopted the standard UK ATC risk management strategy which:

- a) identifies the key risks in the project
- b) assigns a severity level to each risk on a scale of 1 to 5 (5 is very high severity and would be terminal to the project if it occurred - infinite schedule delay).
- c) assigns a probability of occurrence of the risk (0 to 4) (5 is > 50% probability),<sup>1</sup>
- d) multiplies the two numbers to come up with the risk level (Impact)
- e) tracks, with regular updates, all risks with a level of 6 or higher (9 is regarded as high risk)
- f) assigns cost and schedule impact to all tracked risks
- g) puts in place risk mitigation steps designed to bring the risk down to the acceptable level, estimates the risk level after the implemented steps and forecasts the date when the risk will reach the acceptable level and is eliminated

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<sup>1</sup> If probability of occurrence is higher, than 0.5, the risk will be treated as certainty and be part of the development plan



Although successful to date, it is entirely possible that some unforeseen technical problem might yet be uncovered that would put the delivery date in jeopardy or require additional funds to overcome. The risks applicable to the Data Reduction SW development may be added to the main project risk register and are described in the following tables.<sup>2</sup>

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<sup>2</sup> Probability factors with asterisk (\*) indicate that the designers were not comfortable with defining the probability, so the Project Manager substituted them with the value of 2. The probability numbers will be updated and this document re-released before the Critical Design Review (CDR)



## List of Identified Risks

<b>Risk Number</b>	<b>DR SW/1</b>		<b>Status</b>	<b>Live</b>
<b>Date Logged</b>	<b>Aug 2003</b>		<b>Date Cleared</b>	
<b>On Critical Path</b>	<b>No</b>		<b>WBS Ref. No.</b>	<b>210</b>
<b>Owner</b>	<b>DS</b>			
<b>Original Risk Factor</b>	<b>Prob: 4</b>	<b>Severity: 4</b>	<b>Impact (P*I) = 16</b>	<b>Cat = high</b>
<b>Mitigated Risk Factor</b>	<b>Prob: 2</b>	<b>Severity: 2</b>	<b>Impact = 4</b>	<b>Cat = medium</b>
<b>Date when risk is forecast to be passed:</b>	September 2004			
<b>Description of risk:</b> Fail to successfully hire PDRA at UBC				
<b>Impact on project cost, schedule or quality if risk realised without mitigation:</b>				
<ul style="list-style-type: none"> <li>• Science effort to work on science data simulation and testing not available.</li> <li>• Research effort for SCANMAP data reduction not available.</li> <li>• Only Quick Look quality data is available</li> </ul> <p>Schedule Delay: N/A Cost: N/A</p>				
<b>Mitigation action:</b>				
<ol style="list-style-type: none"> <li>1. Hire experienced graduate student for the next 9 months with clear mandate and expected outcomes, which later can be incorporated into a PDRA's development work.</li> <li>2. Use current quality of simulated data (sufficient for benchmarking).</li> <li>3. Implement basic scan processing as outlined in SC2/ANA/S100/038.</li> </ol> <p>Hence the re-assessment is that the probability and the severity of this risk has been reduced.</p>				
<b>Impact on project cost, schedule or quality if risk realised with mitigation action:</b>				
<ul style="list-style-type: none"> <li>• Quality of pipeline data reduction and schedule can be maintained until PDRA is hired.</li> <li>• Pipeline product suitable only for online use (pipeline product not of archival or publication quality).</li> </ul> <p>Schedule Delay: N/A Cost: N/A</p>				



<b>Risk Number</b>	<b>DR SW/2</b>		<b>Status</b>	<b>Live</b>
<b>Date Logged</b>	<b>Aug 2003</b>		<b>Date Cleared</b>	
<b>On Critical Path</b>	<b>Yes</b>		<b>WBS Ref. No.</b>	<b>210</b>
<b>Owner</b>	<b>JM</b>			
<b>Original Risk Factor</b>	<b>Prob: 2</b>	<b>Severity: 4</b>	<b>Impact (P*I) = 8</b>	<b>Cat = High</b>
<b>Mitigated Risk Factor</b>	<b>Prob: 1</b>	<b>Severity: 3</b>	<b>Impact = 3</b>	<b>Cat = medium</b>
<b>Date when risk is forecast to be passed:</b>	January 2004			
<b>Description of risk:</b> Fail to successfully hire SW developer at UBC by Feb.2004				
<b>Impact on project cost, schedule or quality if risk realised without mitigation:</b>				
<ul style="list-style-type: none"> <li>• Can not complete work package at UBC on time</li> </ul> <p>Schedule Delay: &gt; 3 months Cost: &gt; \$ 60.000</p>				
<b>Mitigation action:</b>				
<ol style="list-style-type: none"> <li>1. Intensify search for programmer</li> <li>2. Relax hiring criteria and add learning period to the project plan</li> <li>3. Widen search to allow hiring highly qualified programmer even if it takes a bit longer and costs more</li> <li>3. Outsource programming</li> <li>4. Move programming work to where the technical lead is located (JAC)</li> </ol> <p>Hence the re-assessment is that the probability and severity have been reduced.</p>				
<b>Impact on project cost, schedule or quality if risk realised with mitigation action:</b>				
<ul style="list-style-type: none"> <li>• Impact depends on mitigation solution</li> <li>• If programming moved to JAC, quality of work would be high with higher expense and longer delivery time</li> </ul> <p>Schedule Delay: 0-18 months Cost: \$0- 100.000</p>				



<b>Risk Number</b>	<b>DR SW/3</b>		<b>Status</b>	<b>Live</b>
<b>Date Logged</b>	<b>Aug 2003</b>		<b>Date Cleared</b>	
<b>On Critical Path</b>	<b>Yes</b>		<b>WBS No.</b>	<b>Ref. 210</b>
<b>Owners</b>	<b>JM</b>			
<b>Original Risk Factor</b>	<b>Prob: 3</b>	<b>Severity: 5</b>	<b>Impact = 15</b>	<b>Cat = High</b>
<b>Mitigated Risk Factor</b>	<b>Prob: 1</b>	<b>Severity: 3</b>	<b>Impact = 3</b>	<b>Cat= Medium</b>
<b>Date when risk is forecast to be passed:</b>	December 2005			
<b><u>Description of risk:</u></b>				
Critical staff not available for the entire duration of the project				
<b><u>Impact on project cost, schedule or quality if risk realised without mitigation:</u></b>				
Design complexity requires stable working team. Team members must have thorough understanding of the JAC environment, the intricacies of Data Reduction tasks in light of various observation modes as well as SCUBA2 capabilities. Replacing a critical team member with someone, who lacks the above combination of skill sets will impact the project significantly				
Schedule Delay: 5 months				
Cost: \$US 100,000				
<b><u>Mitigation action:</u></b>				
<ol style="list-style-type: none"> <li>1. Establish framework among participating institutions to ensure availability of critical staff.</li> <li>2. Minimise work overload and eliminate burn-out.</li> <li>3. Demand detailed and clear design documentation at every stage of the design</li> <li>4. Store all design information in clearly structured and easy to use secure database</li> <li>5. Duplicate responsibilities</li> <li>6. Hire new staff with critical experience or include intensive on-the-job training to obtain critical experience quickly.</li> </ol>				
<b><u>Impact on project cost, schedule or quality if risk realised with mitigation action:</u></b>				
Schedule Delay: 2 month				
Cost: \$US 35,000				



<b>Risk Number</b>	<b>DR SW/4</b>		<b>Status</b>	<b>Live</b>
<b>Date Logged</b>	<b>Sep 2003</b>		<b>Date Cleared</b>	
<b>On Critical Path</b>	<b>Yes</b>		<b>WBS No.</b>	<b>Ref. 210</b>
<b>Owners</b>	<b>DS, JM</b>			
<b>Original Risk Factor</b>	<b>Prob: 4</b>	<b>Severity: 5</b>	<b>Impact = 20</b>	<b>Cat = High</b>
<b>Mitigated Risk Factor</b>	<b>Prob: 1</b>	<b>Severity: 3</b>	<b>Impact = 3</b>	<b>Cat= Medium</b>
<b>Date when risk is forecast to be passed:</b>	December 2005			
<b><u>Description of risk:</u></b>				
Multi-site development introduces miscommunication, delay in problem recognition, problem resolution				
<b><u>Impact on project cost, schedule or quality if risk realised without mitigation:</u></b>				
Multi-site development, with significant geographic and time-zone differences make communication more cumbersome, prone to misunderstanding. Integration various blocks of SW and fixing problems uncovered during SW integration is more time-consuming to accomplish.				
Schedule Delay: 5 months Cost: \$US 100,000				
<b><u>Mitigation action:</u></b>				
<ol style="list-style-type: none"> <li>1. Establish clear SW development rules.</li> <li>2. Establish clear interface documentation.</li> <li>3. Establish convenient file-sharing and SW streaming mechanism</li> <li>4. Establish effective communication media(set-up video conferencing equipment)</li> <li>5. Plan for co-located collaboration (frequent visits by team members)</li> </ol>				
<b><u>Impact on project cost, schedule or quality if risk realised with mitigation action:</u></b>				
Schedule Delay: 1 month Cost: \$US 20,000				



<b>Risk Number</b>	<b>DR_SW/5</b>		<b>Status</b>	<b>Live</b>
<b>Date Logged</b>	<b>Sep 2003</b>		<b>Date Cleared</b>	
<b>On Critical Path</b>	<b>No</b>		<b>WBS Ref. No.</b>	<b>210</b>
<b>Owner</b>	<b>DS</b>			
<b>Original Risk Factor</b>	<b>Prob: 2*</b>	<b>Severity: 3</b>	<b>Impact = 6*</b>	<b>Cat = High</b>
<b>Mitigated Risk Factor</b>	<b>Prob: 2</b>	<b>Severity: 1</b>	<b>Impact = 2</b>	<b>Cat = Low</b>
<b>Date when risk is forecast to be passed:</b>	Jan 2005 (SW tested on recycled HW)			
<b><u>Description of risk:</u></b>				
Prototype cannot reduce simulated DREAM data at operational speed (16 hours to reduce data taken in 16 hours of operation)				
<b><u>Impact on project cost, schedule or quality if risk realised without mitigation:</u></b>				
<ul style="list-style-type: none"> <li>• Pipeline useless for data quality assessment in time for observational decisions to be taken.</li> <li>• Full potential of SCUBA2 can not be realised</li> </ul> <p>No impact on schedule or project cost</p> <p>Schedule Delay: N/A Cost: N/A</p>				
<b><u>Mitigation action:</u></b>				
1. Reduce file dump rate from the currently suggested 1Hz to an elevation-appropriate value.				
<b><u>Impact on project cost, schedule or quality if risk realised with mitigation action:</u></b>				
<ul style="list-style-type: none"> <li>• This would result in data taking at a rate that is 3-5 times slower</li> <li>• Quick Look updates slightly less frequently (every 3-5 seconds rather than 1 second)</li> <li>• This isn't known to cause any specific problem</li> </ul> <p>Schedule Delay: N/A Cost: N/A</p>				



<b>Risk Number</b>	<b>DR_SW/6</b>		<b>Status</b>	<b>Live</b>
<b>Date Logged</b>	<b>Sep 2003</b>		<b>Date Cleared</b>	
<b>On Critical Path</b>	<b>No</b>		<b>WBS Ref. No.</b>	<b>210</b>
<b>Owner</b>	<b>DS</b>			
<b>Original Risk Factor</b>	<b>Prob: 2*</b>	<b>Severity: 4</b>	<b>Impact = 8*</b>	<b>Cat = High</b>
<b>Mitigated Risk Factor</b>	<b>Prob: 2</b>	<b>Severity: 1</b>	<b>Impact = 2</b>	<b>Cat = Low</b>
<b>Date when risk is forecast to be passed:</b>	Jan 2005 (SW tested on recycled HW)			
<b><u>Description of risk:</u></b>				
<p>Prototype cannot reduce simulated SCANMAP data at operational speed (16 hours to reduce data taken in 16 hours of operation)</p>				
<b><u>Impact on project cost, schedule or quality if risk realised without mitigation:</u></b>				
<ul style="list-style-type: none"> <li>• Pipeline useless for data quality assessment in time for observational decisions to be taken.</li> <li>• Reduced data cannot be provided to PIs by JAC and PIs may not have the facility to reduce the data at their own institution.</li> <li>• Full potential of SCUBA2 can not be realised</li> </ul> <p>No impact on schedule or project cost</p> <p>Schedule Delay: N/A Cost: N/A</p>				
<b><u>Mitigation action:</u></b>				
1. Re-cast data reduction problem in a parallelized architecture.				
<b><u>Impact on project cost, schedule or quality if risk realised with mitigation action:</u></b>				
<ul style="list-style-type: none"> <li>• Slip in schedule while parallelization is introduced into ORAC-DR.</li> </ul> <p>Schedule Delay: 3 months Cost: \$60.000 +30.000 for HW duplication</p>				



<b>Risk Number</b>	<b>DR SW/7</b>		<b>Status</b>	<b>Live</b>
<b>Date Logged</b>	<b>Sep 2003</b>		<b>Date Cleared</b>	
<b>On Critical Path</b>	<b>No</b>		<b>WBS Ref. No.</b>	<b>210</b>
<b>Owner</b>	<b>DS</b>			
<b>Original Risk Factor</b>	<b>Prob: 2*</b>	<b>Severity: 3</b>	<b>Impact = 6*</b>	<b>Cat = High</b>
<b>Mitigated Risk Factor</b>	<b>Prob: 2</b>	<b>Severity: 2</b>	<b>Impact = 4</b>	<b>Cat = Medium</b>
<b>Date when risk is forecast to be passed:</b>	Jan 2005 (SW tested on recycled HW)			
<b><u>Description of risk:</u></b>				
Simulations show that it is impossible to reduce SCAN data to an acceptable quality at operational speeds without performing matrix inversion.				
<b><u>Impact on project cost, schedule or quality if risk realised without mitigation:</u></b>				
<ul style="list-style-type: none"> <li>• The likely response of the instrument team would be to investigate an observing mode based on Lissajous-figure scanning.</li> <li>• Pipeline requirements shift radically during instrument commissioning, and delivered reduction algorithms will no longer be appropriate.</li> </ul>				
No impact on schedule or project cost				
Schedule Delay: N/A				
Cost: N/A				
<b><u>Mitigation action:</u></b>				
1. Develop algorithm suitable for a parallelized hardware architecture (eg. Beowulf cluster).				
<b><u>Impact on project cost, schedule or quality if risk realised with mitigation action:</u></b>				
<ul style="list-style-type: none"> <li>• Hardware cost increases.</li> <li>• Delivery schedule slips</li> </ul>				
Schedule Delay: 4 months				
Cost: \$80,000 + 30,000 for HW duplication				



<b>Risk Number</b>	<b>DR SW/8</b>		<b>Status</b>	<b>Live</b>
<b>Date Logged</b>	<b>Aug 2003</b>		<b>Date Cleared</b>	
<b>On Critical Path</b>	<b>No</b>		<b>WBS No.</b>	<b>Ref. 210</b>
<b>Owners</b>	<b>DS</b>			
<b>Original Risk Factor</b>	<b>Prob: 1</b>	<b>Severity: 3</b>	<b>Impact = 3</b>	<b>Cat = Medium</b>
<b>Mitigated Risk Factor</b>	<b>Prob: 1</b>	<b>Severity: 1</b>	<b>Impact = 1</b>	<b>Cat= Low</b>
<b>Date when risk is forecast to be passed:</b>	December 2004			
<b><u>Description of risk:</u></b>				
Cannot perform QUICK-LOOK functionality at 1Hz				
<b><u>Impact on project cost, schedule or quality if risk realised without mitigation:</u></b>				
Quick Look cannot be delivered to spec				
Schedule Delay: N/A				
Cost: N/A				
<b><u>Mitigation action:</u></b>				
<ul style="list-style-type: none"> <li>• Reduce file dump rate from the currently suggested 1Hz to an elevation-appropriate value.</li> </ul>				
<b><u>Impact on project cost, schedule or quality if risk realised with mitigation action:</u></b>				
<ul style="list-style-type: none"> <li>• This would result in data taking at a rate that is 3-5 times slower</li> <li>• Quick Look updates slightly less frequently (every 3-5 seconds rather than 1 second)</li> <li>• This isn't known to cause any specific problem</li> </ul>				
Schedule Delay: N/A				
Cost: N/A				



<b>Risk Number</b>	<b>DR SW/9</b>		<b>Status</b>	<b>Live</b>
<b>Date Logged</b>	<b>Sep 2003</b>		<b>Date Cleared</b>	
<b>On Critical Path</b>	<b>No</b>		<b>WBS Ref. No.</b>	<b>210</b>
<b>Owners</b>	<b>DS</b>			
<b>Original Risk Factor</b>	<b>Prob: 1</b>	<b>Severity: 3</b>	<b>Impact = 6</b>	<b>Cat = High</b>
<b>Mitigated Risk Factor</b>	<b>Prob: 1</b>	<b>Severity: 1</b>	<b>Impact = 1</b>	<b>Cat= Low</b>
<b>Date when risk is forecast to be passed:</b>	December 2004			
<b><u>Description of risk:</u></b>				
Unresolved algorithm issues render certain observing modes untenable.				
<b><u>Impact on project cost, schedule or quality if risk realised without mitigation:</u></b>				
To be defined				
Schedule Delay: N/A				
Cost: N/A				
<b><u>Mitigation action:</u></b>				
<ul style="list-style-type: none"> <li>• tbd</li> </ul>				
<b><u>Impact on project cost, schedule or quality if risk realised with mitigation action:</u></b>				
<ul style="list-style-type: none"> <li>• This would result in data taking at a rate that is 3-5 times slower</li> <li>• Quick Look updates slightly less frequently (every 3-5 seconds rather than 1 second)</li> <li>• This isn't known to cause any specific problem</li> </ul>				
Schedule Delay: N/A				
Cost: N/A				



<b>Risk Number</b>	<b>DR SW/10</b>		<b>Status</b>	<b>Live</b>
<b>Date Logged</b>	<b>Sep 2003</b>		<b>Date Cleared</b>	
<b>On Critical Path</b>	<b>No</b>		<b>WBS Ref. No.</b>	<b>210</b>
<b>Owners</b>	<b>DS</b>			
<b>Original Risk Factor</b>	<b>Prob: 1</b>	<b>Severity: 3</b>	<b>Impact = 6</b>	<b>Cat = High</b>
<b>Mitigated Risk Factor</b>	<b>Prob: 1</b>	<b>Severity: 1</b>	<b>Impact = 1</b>	<b>Cat= Low</b>
<b>Date when risk is forecast to be passed:</b>	December 2004			
<b><u>Description of risk:</u></b>				
External SW packages won't deliver on time/content				
<b><u>Impact on project cost, schedule or quality if risk realised without mitigation:</u></b>				
To be defined				
Schedule Delay: N/A				
Cost: N/A				
<b><u>Mitigation action:</u></b>				
<ul style="list-style-type: none"> <li>tbd</li> </ul>				
<b><u>Impact on project cost, schedule or quality if risk realised with mitigation action:</u></b>				
<ul style="list-style-type: none"> <li>tbd</li> </ul>				
Schedule Delay: N/A				
Cost: N/A				



<b>Risk Number</b>	<b>DR SW/11</b>		<b>Status</b>	<b>Live</b>
<b>Date Logged</b>	<b>Sep 2003</b>		<b>Date Cleared</b>	
<b>On Critical Path</b>	<b>No</b>		<b>WBS Ref. No.</b>	<b>210</b>
<b>Owners</b>	<b>DS</b>			
<b>Original Risk Factor</b>	<b>Prob: 1</b>	<b>Severity:&gt;5</b>	<b>Impact &gt; 5</b>	<b>Cat = High</b>
<b>Mitigated Risk Factor</b>	<b>Prob: 1</b>	<b>Severity: 1</b>	<b>Impact = 1</b>	<b>Cat= Low</b>
<b>Date when risk is forecast to be passed:</b>	December 2006			
<b>Description of risk:</b> SW support (Starlink) discontinued				
<b>Impact on project cost, schedule or quality if risk realised without mitigation:</b>				
<p>Starlink is such an integral part of British astronomy research and work done at JAC that JAC has undertaken the role of guaranteeing ongoing Starlink support regardless of SCUBA-2 development.</p> <p>Therefore we mention this risk on SCUBA-2 Data Reduction SW development for completeness only</p> <p>Schedule Delay: N/A Cost: N/A</p>				
<b>Mitigation action:</b>				
<ul style="list-style-type: none"> <li>• None within the framework of SCUBA-2</li> </ul>				
<b>Impact on project cost, schedule or quality if risk realised with mitigation action:</b>				
<ul style="list-style-type: none"> <li>• Unpredictable</li> </ul> <p>Schedule Delay: N/A Cost: N/A</p>				



<b>Risk Number</b>	<b>DR SW/12</b>		<b>Status</b>	<b>Live</b>
<b>Date Logged</b>	<b>Sep 2003</b>		<b>Date Cleared</b>	
<b>On Critical Path</b>	<b>No</b>		<b>WBS Ref. No.</b>	<b>210</b>
<b>Owners</b>	<b>DS</b>			
<b>Original Risk Factor</b>	<b>Prob: 1</b>	<b>Severity: 3</b>	<b>Impact = 6</b>	<b>Cat = High</b>
<b>Mitigated Risk Factor</b>	<b>Prob: 1</b>	<b>Severity: 1</b>	<b>Impact = 1</b>	<b>Cat= Low</b>
<b>Date when risk is forecast to be passed:</b>	December 2006			
<b><u>Description of risk:</u></b>				
Funding is not sufficient to complete DR SW development project				
<b><u>Impact on project cost, schedule or quality if risk realised without mitigation:</u></b>				
<ol style="list-style-type: none"> <li>1. Quality of SW may require increased support and maintenance cost</li> <li>2. Some selected feature(s) will not be developed, leading to underutilizing the potential of SCUBA-2</li> </ol>				
Schedule Delay: N/A				
Cost: N/A				
<b><u>Mitigation action:</u></b>				
<ul style="list-style-type: none"> <li>• Track budget spending closely and predict budget increase ahead of time</li> <li>• Re-use available SW as much as feasible</li> <li>• Use state of the Art SW development techniques, which ensure early error detection and efficient SW debugging</li> </ul>				
<b><u>Impact on project cost, schedule or quality if risk realised with mitigation action:</u></b>				
<ul style="list-style-type: none"> <li>• tbd</li> </ul>				
Schedule Delay: N/A				
Cost: N/A				



<b>Risk Number</b>	<b>DR SW/13</b>		<b>Status</b>	<b>Live</b>
<b>Date Logged</b>	<b>Aug 2003</b>		<b>Date Cleared</b>	
<b>On Critical Path</b>	<b>No</b>		<b>WBS No.</b>	<b>Ref. 210</b>
<b>Owners</b>	<b>DS</b>			
<b>Original Risk Factor</b>	<b>Prob: 1</b>	<b>Severity: 1</b>	<b>Impact = 1</b>	<b>Cat = Low</b>
<b>Mitigated Risk Factor</b>	<b>Prob: 1</b>	<b>Severity: 1</b>	<b>Impact = 1</b>	<b>Cat= Low</b>
<b>Date when risk is forecast to be passed:</b>	December 2004			
<b><u>Description of risk:</u></b>				
Cannot display Movie at 25Hz				
<b><u>Impact on project cost, schedule or quality if risk realised without mitigation:</u></b>				
Movie functionality is dropped Full potential of SCUBA2 can not be realised				
Schedule Delay: N/A Cost: N/A				
<b><u>Mitigation action:</u></b>				
<ul style="list-style-type: none"> <li>• Reduce frame rate.</li> </ul>				
<b><u>Impact on project cost, schedule or quality if risk realised with mitigation action:</u></b>				
<ul style="list-style-type: none"> <li>• Improved customer satisfaction</li> </ul>				
Schedule Delay: N/A Cost: N/A				

