Creo Products Inc.

Workflow Systems
Blue Screen Crash (BSOD) Action Plan

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1. OVERVIEW

The basic principle is that the more blue screen crashes there are in rapid succession (within 2 weeks of each other), then the higher the situation is escalated. If it's been more than 2 weeks since the last blue screen crash, then the situation is less critical. And if it's been 2 1/2 months since the last blue screen crash, then the situation is considered normal, so any subsequent blue screen crashes are treated as though there's never been anything unusual at that site. Please note that the official industry name for a blue screen crash is a Blue Screen of Death (BSOD).

The actions to BSOD crashes will be based on a combination of Recent Changes To The System and Time From Previous Crashes. If a crash occurs we will determine what changes have happened to the system first and then follow through any other crashes based off of the initial assessment of changes to the system.

The actions taken when resolving a Blue Screen call depends upon one of the following conditions.

- The customer has had a recent Hardware Upgrade. This includes adding/changing Memory, CPU, Network Cards, UPS, etc within one month of the first BSOD recorded crash.
- The customer has recently had a significant Software Upgrade. This will include Application Service Packs (PlateMaster 1.2F SP1), NT Version upgrades, new apps added within one month of the first BSOD recorded crash.
- The customer has had a combination of Hardware and Software upgrades within one month of the first BSOD recorded crash.
- There has been no significant change in their system for the past one month since the first recorded BSOD crash.

Below is a table outlining the basic actions to follow;

Crash Level	Crash number	Recent Software Upgrade	Recent Hardware Upgrade	Both Recent Hardware and Software Upgrades	No Significant Recent Upgrades
1	First crash within 2 months or more.	Action B	Action C	Action C:	Action A
2	Between 2 weeks and 2 months ago	Action D	Action E	Action F	Action D
3	Less then 2 weeks since crash level 2	Action G	Action H	Action H	Action F
4	Less then 2 weeks since crash level 3	Action J	Action J	Action J	Action J

Below is a list of other related documents and kits. All the below can be found on the **http://intranet.creo.com/kb** page;

Item	Desc
XX0137AA	10 Step Cleaning for BSOD for NT3.51 procedure. This doc covers basic driver upgrades for systems exhibiting Blue Screen crashes (BSOD). This pertains to Alpha Servers running NT 3.51.
XX0139AA	What to do when a BSOD occurs. This document is targeted to response center or Service on how to analyze and collect crash dumps.
XX0129AA	Enable crash dump Doc. This will talk about how to set up your system to capture crash dumps from a blue screen for an Alpha 2100/A running NT 3.51.
XX0140AA	DUMPCHK.EXE. Use this program to determine the validity of the crash dump from a BSOD. You should use this before sending a dump file out for analysis.

1.1 Site Cool

Action A:

1. Monitor and send note to Derek Braendel.
2. Schedule the **10 Step Cleaning Process** if multiple unreported crashes within the last 2 months have occurred. This will require a site visit.
3. Check for valid Crash Dump. This can be done remotely by following the **What to do when a BSOD occurs** document noted above. If no valid dump then have service follow the **Enable Crash Dump** procedure at the customers site on the next service call.

1.2 Site Warm

Action B:

1. Schedule the **10 Step Cleaning Process.** This will require a site visit by service.
2. Check for valid Crash Dump. This can be done remotely by following the **What to do when a BSOD occurs** document noted above. If no valid dump then have service follow the **Enable Crash Dump** procedure at the customers site on the next service call.

Action C:

1. Schedule the **10 Step Cleaning Process** if this hasn't already been done**.** This will require a site visit by service.
2. Check for valid Crash Dump and retrieve it if it is valid. This can be done remotely by following the **What to do when a BSOD occurs** document noted above. If no valid dump then have service follow the **Enable Crash Dump** procedure at the customers site on the next service call.

1 Open a DEC initial call. Inform them that we have a suspicious Blue Screen and want a DEC Service Rep to go to the site and test the hardware.

Action D:

1. Schedule the **10 Step Cleaning Process** if this hasn't already been done**.** This will require a site visit by service.
2. Check for valid Crash Dump and retrieve it if it is valid. This can be done remotely by following the **What to do when a BSOD occurs** document noted above. If no valid dump then have service follow the **Enable Crash Dump** procedure at the customers site on the next service call.

1 Open a DEC initial call. Inform them that we have a suspicious Blue Screen and want a DEC Service Rep to go to the site and test the hardware.

2 Tell Derek to Open an Microsoft Service call. We will be able to analyze the Stop Codes to see if anything suspicious is happening.

Action E:

1. Inform Derek Braendel and Ed Moss of crash.
2. Call DEC using the original call number and ask them to run full diagnostics and escalate the call to DEC Engineering.

1 Tell Derek to Open an Microsoft Service call. We will be able to analyze the Stop Codes to see if anything suspicious is happening.

1.3 Site Hot

Action F:

1. Inform Derek and Ed of crash.
2. Call DEC using the original call number and ask them to run full diagnostics and escalate the call to DEC Engineering.
3. Present customer with option to do clean install of the NT-OS and Software. Note that when doing Clean Installs we will be using the customer's NT version. If this is 3.51 and the customer wishes us to install 4.0 the customer is responsible for paying for the upgrade software ($400 us). All other Creo Software will use the Latest and Greatest versions and Service Packs.
4. Send Creo Service in to site to examine the Server.

1 Tell Derek to Open an Microsoft Service call. We will be able to analyze the Stop Codes to see if anything suspicious is happening.

Action G:

1. Inform Derek and Ed of crash.
2. Call DEC using the original call number and ask them to run full diagnostics and escalate the call to DEC Engineering.
3. Do a full re-install of the OS and all applications. Note that when doing Clean Installs we will be using the customer's NT version. If this is 3.51 and the customer wishes us to install 4.0 the customer is responsible for paying for the upgrade software ($400 us). All other Creo Software will use the Latest and Greatest versions and Service Packs. Have Service schedule the upgrade with the customer and allow enough downtime for the install.

Action H:

1. Inform Derek and Ed of call.
2. Call DEC and have them run full tests on system. Ask to have call escalated in DEC Engineering. Have DEC replace all hardware changed during initial upgrade.
3. Present customer with option to do clean install of the NT-OS and Software. Note that when doing Clean Installs we will be using the customer's NT version. If this is 3.51 and the customer wishes us to install 4.0 the customer is responsible for paying for the upgrade software ($400 us). All other Creo Software will use the Latest and Greatest versions and Service Packs.

1.4 Site Critical

Action J:

1. Inform Derek and Ed of escalation.
2. Call DEC Engineering using the original call number and have them further investigate the system and possibly replace the server. Do not inform the customer of the possible server replacement. Inform DEC Engineering that the site is Critical.
3. If the OS and Software was re-installed from scratch from an earlier action then;
    - Tell DEC there was a complete re-install of the OS. Since the OS has been replaced it is likely a hardware problem and we a possible replacement server.
4. If the Software has not yet been re-installed;
    - Do a full re-install of the OS and all applications. Note that when doing Clean Installs we will be using the customer's NT version. If this is 3.51 and the customer wishes us to install 4.0 the customer is responsible for paying for the upgrade software ($400 us). All other Creo Software will use the Latest and Greatest versions and Service Packs. Have Service schedule the upgrade with the customer and allow enough downtime for the install.
5. Tell DEC Engineering to coordinate with MS Engineering using the call numbers previously initiated for each. Ask them to compare notes and to coordinate this with Creo Engineering.

2. GENERAL NOTES

1. If another crash occurs before completing the applicable action, do not escalate the action. An action must be completed before escalating to the next action.
2. On clean install of the operating system and software, we will default to the customer's latest owned operating system. If this is NT 3.51, then they will stay at 3.51 unless they are willing to purchase an NT 3.51 to 4.0 upgrade license.
3. The BSOD Team consists of:
    - Derek Braendel, Performance Group (2605)
    - Ed Moss, Workflow Hardware TTE (2649)
    - Barry Quart, Performance Group acting Product Manager (2388)
    - Brian Laberge, PlateMaster Project Manager (2578)

3. END