

Creo Products Inc.

Workflow Systems
Verifying and Collect Crash Dumps

CONTENTS

1. Overview 1
    1.1 Items Required 1
    1.2 Other Related Documents 1

2. When a crash occurs 1
    2.1 Checking and Forwarding the dump 2

3. End. 4

1. OVERVIEW

This document will discuss how to dial in remotely and analyze crash information.

1.1 Items Required

This document will assume that you have the following.

1. You are at the site exhibiting the problem OR you have a Remote Access connection and the modem number of the site exhibiting the problem.
2. The DUMPCHK.EXE program. This is available on the net in **http://intranet.creo.com/cgi-bin/s-files.pl** as file XX0140AA.ZIP.
3. A DAT tape if you are at the customer site.

1.2 Other Related Documents

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.
XX0138AB	BSOD Action (Escalation) Plan. This will discuss how BSOD crash sites are escalated within Service and Engineering within Creo, DEC, and Microsoft.
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.

2. WHEN A CRASH OCCURS

1. At the time of the Blue Screen a counter in the bottom of the screen will count. Do **not reboot the server yet**.
2. Mark down the first 2 rows of numbers on the screen. This is the stop code. Do not loose this information.
3. When the dump has finished updating you should see a message "**Physical Memory Dump Complete**.". At this point you can reboot the server.
4. After logging into NT the server might complain about **Not Enough Room In The Paging File**. This is OK. What is happening is the crash debug info which has been sent to the paging file is being written to **T:\MEMORY.DMP**.

5. Verify that the file "**T:\MEMORY.DMP**" is there. Wait until it has stopped writing. It will finish when the file size is about equal to the Total Physical Memory.

2.1 Checking and Forwarding the dump

1. Setup the DUMPCHK.EXE if not already installed.

   a) Copy and unzip the XX0140AA.ZIP file in a temporary directory on the server. Type the following and note case sensitivity "**UNZIP -d XX0140AA**".

   b) Copy the appropriate processor version to the S:\Creosupt\Bin directory.

   c) Delete the XX0140AA.ZIP and the directories it created.

2. Open a command line in the directory that contains the Dump file and run the following "**DUMPCHK MEMORY.DMP**". Note that this program takes about 5 minutes to complete and will sit at the "Validating All Physical Addresses" during most of the test.
   What you should see is something resembling the following.

```
T:\>dumpchk memory.dmp

Filename . . . . . .memory.dmp
Signature. . . . . .PAGE
ValidDump. . . . . .DUMP
MajorVersion . . . . .free system
MinorVersion . . . . .1381
DirectoryTableBase . .0x0006dc05
PfnDataBase. . . . . .0x904fc000
PsLoadedModuleList . .0x800fcff0
PsActiveProcessHead. .0x800fcfa0
MachineImageType . . .alpha
NumberProcessors . . .2
BugCheckCode . . . . .0x00000050
BugCheckParameter1 . .0xe061b38c
BugCheckParameter2 . .0x00000001
BugCheckParameter3 . .0x00000000
BugCheckParameter4 . .0x00000002

ExceptionCode. . . . .0x80000003
ExceptionFlags . . . .0x00000001
ExceptionAddress . . .0x800b7990

NumberOfRuns . . . . .0x2
NumberOfPages. . . . .0x1ffce
Run #1
  BasePage . . . . . .0x1
  PageCount. . . . . .0x378
Run #2
  BasePage . . . . . .0x3aa
  PageCount. . . . . .0x1fc56


**************
**************--> Validating the integrity of the PsLoadedModuleList
**************

**************
**************--> Performing a complete check (^C to end)
**************
```

```
              **************
              **************--> Validating all physical addresses
              **************
              **************
              **************--> Validating all virtual addresses
              **************
              **************
              **************--> This dump file is good!
**************
```

1. If the file says “This Dump Is Good” then proceed with the following steps. If not then the dump file for whatever reason is corrupted and is of no use. If this is the case then do one of the following;

   a) If the Dump is corrupted and the customer has recently had a service tech do the “**Enable Crash Dump**” procedure on their server then there is nothing further we can do. Go to the End.

   b) If the Dump is corrupted and no-one has yet done the “**Enable Crash Dump**” procedure then possibly schedule someone to go to the site and run the procedure. Use the **BSOD Action (Escalation) Plan** as a guide to determine if this is the next valid step.

   c) If the dump is good follow the rest of the below steps.

2. Backup the dump file.

   a) Insert a blank DAT tape.

   b) Start NT Backup.

   c) Select **Operations / Hardware Setup**.

   d) Select the **TLZxx** (where xx is either 06, 07 or 09) device and hit OK. Note the device that was originally selected.

   e) Select **Window / Drives**.

   f) Double click **T:**.

   g) In the right hand directory window put a check in the box beside the file **MEMORY.DMP** file.

   h) Select **Backup** and hit **OK** to start the backup.

   i) Select **Operations / Hardware Setup** and select the tape device you were originally pointing to.

3. Send the tape to Derek Braendel in Creo Burnaby.

4. Log call to Creo Response Center.

   a) Log a call to (604) 451-2727 listing any details.

   b) Response Center to forward info to Derek Braendel (2605).

3. END.