**Intern Performance Form [Employee: Cale Geffre / Review Period: 2012]**

## General Information

### Employee Information

**GID** 534572 **Name** Cale Geffre

**Title** Intern II **Job Category** Americas

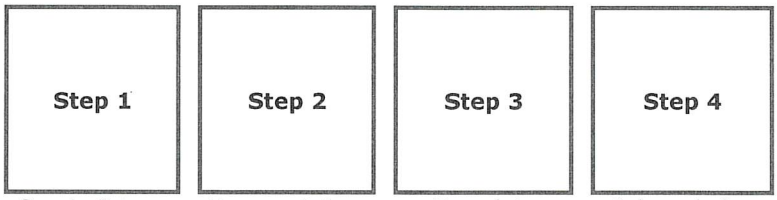
**Department** Firmware Engineering **Location** Shakopee, USA

### Manager Information

**GID** 308514 **Name** RICHARD ARTHUR HERR

**Title** Sr Engineering Manager

## Workflow Graphic




## Instructions

The performance management process for Interns is comprised of 4 steps.

**Create Intern Goals:** Use the task "Step 1: Create Intern Goals". Interns create goals to reflect expectations during the internship. Then, Submit the form to Step 2, according to the schedule based on the start of the internship.

**Manage Intern Goals:** Use the task "Step 2: Manage Intern Goals". Interns continue to have the ability to create, modify, save, and delete goals, as needed. Then, Submit the form to Step 3, according to the schedule based on the start of the internship.

**Manager Completes Intern Review**: Use the task "Step 3: Complete Intern Review and Rating". Managers write overall comments and select an overall rating based on the accomplishment of goals. Then, Submit the form to Step 4, according to the schedule based on the start of the internship.

**Acknowledge Intern Review**: Use the task "Step 4: Acknowledge Intern review" Then, Submit the form to complete the process, according to the schedule based on the start of the internship.

Use the "Save" button at the top left of the page to save your work in progress until you are ready to "Submit" to the next step in the process.

## Goals

Goals are the desired, or required, outcomes an intern is accountable for achieving. Goals may be project-

related or tied to key responsibilities. Enter 1 to 5 goals.

**Goal 1 of 3**

| Goal | Due Date |
|---|---|
| Understand and create tools for and model DOS reliability system | 08/26/2016 |

**Details**

Understand how DOS (Directed Offline Scanning) works and assists in reliability. Create a GUI to run performance tests with different combinations of partition size, transfer length, queue depth, etc. Create a performance analysis tool to quickly compare the output of two different drives with each other at various combinations of DOS parameters and graphically represent the difference between the two at each combination. Create a model of a drive running DOS to display CCT (Command Completion Time) of host activity based on DOS interruptions. Add in potential new firmware features to simulation to see how they would improve the results, see if it is a worthwhile change. Create a tool to parse through a UDS dump to quickly extract and humanize information regarding DOS activity from the drive.

**Results**

**Employee Comments**

**Goal 2 of 3**

| Goal | Due Date |
|---|---|
| Create a parser for NVC flash dump data | 08/26/2016 |

**Details**

Read in and parse a hexadecimal file of NVC Flash Data output from a UDS dump. Fill out structs from firmware with data output from the drive and humanize it. Print out the values of flags, allow for the input of different drives and power devices.

**Results**

**Employee Comments**

**Goal 3 of 3**

| Goal | Due Date |
| --- | --- |
| Learn about the IDD reliability system and fix issues with it | 08/26/2016 |

**Details**

Understand how IDD (In Drive Diagnostics) works and assists in reliability. Work on solving current issues that have been detected by using serial port output and drive information from UDS dumps to debug.

**Results**

**Employee Comments**

## Overall Summary

Managers provide summary comments and select an overall rating for the intern's overall performance. The recommended limit for comments is 500 words.

### Overall Evaluation Comments:

**Manager Comments**

I first met Cale with a mentoring program thru Shakopee High School and quickly recognized his initiative, motivation and ability to run a project to completion. When Cale contacted me fo fill a internship, I said yes immediately.

Cale came into help us with DOS Modeling Work and quickly learned Excel Macros, Scripting, Parsing, and other tools to get the job done. He completed the humanization of DOS metrics for anyone needing to analyze DOS from UDS data. This tool has been published to world wide Seagate FW engineers. He also parsed NVC data from UDS as well and this was more challenging because the input data was in binary format and required new learning, data structures and tools. This was presented to other engineers in the NVC team and supported by a senior engineer with experience in this area.

Cale also extended an existing DOS performance model from just basic concepts into a full analysis tool for FW and RSS engineers. He has prepared examples for engineer review to make decisions about new DOS feature changes and enhancements. This is quite involved methods and the tool will benefit the tool immediately and in the future too.

Because of Cale's success with DOS and Parsing, we assigned him some product firmware debugging responsibilities to continue his education. This required some support but Cale took on this assignment too. Using Serial Port output messages and some training on FW features, he was able to understand and resolve a few issues.

All of this work was done in a 3 month internship and shows Cale's ability to organize his work and execute his plans to completion.

He joined the team and is now functioning beyond Intern expectations, scheduling meetings, providing minutes, actions and execution. My relationship with Cale is just like a full time employee, unfortunately he still have 2 years of school remaining, so we send him back to learn more at UW Madison.

Thanks Cale for a Very Good Summer Internship, it has been a pleasure having your help!

### Overall Ratings

**Manager** (5) Outstanding

## Intern Acknowledgement

Please sign to complete the acknowledgement of your Intern Review. You have the option to enter acknowledgement comments. The comments are available for review by your manager and appear on the published version of your Intern Review.