



Job Task Analysis

Employer:	STANISLAUS COUNTY
Occupation:	Software Developer/Analyst
Classification:	I, II, III, Senior
Company Contact:	Risk Management 1010 10 th Street Modesto, California 95354 (209) 525-5710
Date:	April 2002; June 2016
Analysis Provided By:	Lyle Andersen, PT, CWCE Andersen Physical Therapy, Inc. 1917 Coffee Road Modesto, California 95355 (209) 549-4626

INTRODUCTION:

A complete job description is available through STANISLAUS COUNTY Human Resources. The environmental factors, physical and functional demands for this Job Task Analysis were documented by Andersen Physical Therapy, Inc. The methodology for documentation consisted of on-site visits, using various measuring devices such as dynamometers and scales, as well as observation and interviews with employees and managers. A detailed record was made of the physical and functional demands of the job in terms of force pounds, weight, frequency, height, distance, anthropometric measurements, stamina, and degrees of range of motion. The determination of the frequencies of functional activities is based on standards provided by the National Institute for Occupational Safety and Health (NIOSH) and the Work Practice Guide for Manual Lifting (U.S. Department of Commerce, National Technical Information Service).

The Job Task Analysis is organized as follows: General work description; safety requirements; equipment; environmental factors; and physical/functional demands.

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<http://www.stancounty.com/riskmgmt/risk-dm-jta-class-sub-main.shtm>

GENERAL WORK DESCRIPTION:

The frequency of the following activities may vary according to the physical requirements of the specific job tasks that the employee may be required to perform at random intervals.

Under the general supervision of the department manager, the Software Developer I, will participate in the software development and testing process. The Software Developer II, will participate in all or parts of the full life cycle development process, ranging from user analysis, development, coding, implementation and support.

SPECIFIC DUTIES: Available through the Human Resources Department.

www.stancounty.com/riskmgmt/risk-dm-jta-class-sub-main.shtm

Safety Requirements: All employees are required to observe company safety procedures and standards to insure individual and collective safety, in addition to avoiding unnecessary risk to oneself, co-workers, customers, and property.

Equipment:

- | | |
|--------------|---------------|
| 1. Computer. | 4. Printer. |
| 2. Keyboard. | 5. Copier. |
| 3. Mouse. | 6. Telephone. |

*All employees within the **Software Developer I, II, III & Senior** position are required to provide physical assistance for all weight and frequency requirement needs of all job tasks in order to maintain a safe work environment. Employees must be physically capable of working in any of the job tasks within the **Software Developer I, II, III & Senior** position.*

ENVIRONMENTAL FACTORS

The following percentages are given in terms of an eight-hour workday:

Seldom = 1% - 2%
Occasional = 3% - 33%

Frequent = 34% - 66%
Constant = 67% - 100%

ENVIRONMENTAL FACTORS		MAXIMUM FREQUENCY
1.	Unprotected heights:	Not Applicable
2.	Being around moving machinery: Road traffic	Seldom
3.	Exposure to marked changes in temperature and humidity: outside temperatures may seasonally vary between 28-110 degrees.....	Not Applicable
4.	Exposure to dust, fumes, smoke, gases, or other irritating substances (specify):	Not Applicable
5.	Driving: Vehicle	Seldom
6.	Exposure to excessive noise:..... <i>Hearing protection is available</i>	Not Applicable
7.	Exposure to radiant or electrical energy:.....	Not Applicable
8.	Exposure to solvents or chemicals:..... <i>Refer to MSDS document.</i>	Not Applicable
9.	Exposure to slippery or uneven walking surfaces:.....	Not Applicable
10.	Working below ground:.....	Not Applicable
11.	Unusual fatigue factors:	Not Applicable
12.	Working with explosives:.....	Not Applicable
13.	Excessive vibration:	Not Applicable
14.	Working with hands in water or other substance:..... <i>Hand protection is available</i>	Not Applicable
15.	Working proximity:..... Alone: Closely with others:	Not Required Constant
16.	Working inside:.....	Constant
17.	Working outside:.....	Not Required

FUNCTIONAL ACTIVITIES



The frequency of the following activities may vary according to the physical requirements of the specific job tasks the employee may be required to perform at random intervals.

PHYSICAL AND FUNCTIONAL REQUIREMENTS

<u>FREQUENCY DEFINITIONS</u>	<u>SELDOM</u>	<u>OCCASIONAL</u>	<u>FREQUENT</u>	<u>CONSTANT</u>
Percent of the Day	1-2%	3-33%	34-66%	67-100%
Material Handling	1-4 Reps	5-32 Reps	33-250 Reps	251-2,000 Reps
Non Material Handling	1-4 Reps	5-32 Reps	33-250 Reps	251-2,000 Reps
Repetitive & Static Work	1-50 Reps	51-250 Reps	251-1,000 Reps	1,001-20,000 Reps

1.) **PUSH**: *Pushing activities may require use of the back in conjunction with leg and arm musculature.*

<u>MAXIMUM REQUIREMENT</u>	
0-10 pounds:	Occasional
11-25 pounds:	Seldom
26-100 pounds:	Not Required
Maximum Force: 15 Pounds	

Assistive Devices: 4-Wheel Cart, Hand Truck. Additionally, one or more person(s) assistance is available with forces greater than 15 pounds.

Comments: Pushing is utilized with activities such as retrieving, returning, storing, adjusting, moving and/or transporting equipment and supplies (e.g. cart, door). The employee exerts up to 15 pounds of force in a horizontal plane between waist and shoulder height of a distance up to 600 feet when performing job tasks (e.g. up to 15 pounds of force to travel with cart; to open/close door, drawer, file, cabinet).

2.) **PULL**: *Pulling activities may require use of the back in conjunction with leg and arm musculature.*

<u>MAXIMUM REQUIREMENT</u>	
0-10 pounds:	Occasional
11-25 pounds:	Seldom
26-100 pounds:	Not Required
Maximum Force: 15 Pounds	

Assistive Devices: 4-Wheel Cart, Hand Truck. Additionally, one or more person(s) assistance is available with forces greater than 15 pounds.

Comments: Pulling is utilized with activities such as retrieving, returning, storing, adjusting, moving and/or transporting equipment and supplies (e.g. cart, door). The employee exerts up to 15 pounds of force in a horizontal plane between waist and shoulder height of a distance up to 3 feet when performing job tasks (e.g. up to 15 pounds of force to travel with carts; open/close doors, drawers, files, cabinets). *Pushing is the preferred method of moving carts.*

3.) **STAND-UP LIFT:** *Lifting weighted objects between floor and waist height.*

MAXIMUM REQUIREMENT

0-10 pounds:	Seldom	Maximum Force: <u>5</u> Pounds
11-100 pounds:	Not Required	

Assistive Devices: One or more person(s) assistance is available with weights greater than 5 pounds.

Comments: A stand-up lift is utilized with activities such as retrieving, returning, storing, adjusting, moving and/or transporting supplies (e.g. documents). The employee lifts items weighing between <1 pounds and 5 pounds from/to the floor when performing job tasks (e.g. up to 5-pound ream of copy paper; binder; hand or armfuls of paper; miscellaneous office equipment). *Safe lifting is performed by utilizing a posture of partial squatting and a straight back.*

4.) **LEVEL LIFT:** *Lifting weighted objects from between waist and chest height level for a maximum horizontal distance of up to four feet.*

MAXIMUM REQUIREMENT

0-10 pounds:	Seldom	Maximum Force: <u>5</u> Pounds
11-100 pounds:	Not Required	

Assistive Devices: 4-Wheel Cart, Hand Truck. Additionally, one or more person(s) assistance is available with weights greater than 5 pounds.

Comments: A level lift is utilized with activities such as retrieving, returning, storing, moving and/or transporting supplies (e.g. documents). The employee lifts items weighing between <1 pounds and 5 pounds when performing job tasks (e.g. lift up to 5-pound ream of copy paper; binder; hand or armfuls of paper; miscellaneous office equipment).

5.) **WEIGHT CARRY:** *Carrying weighted objects between waist and chest height beyond a distance of four feet.*

MAXIMUM REQUIREMENT

0-10 pounds:	Seldom	Maximum Force: <u>5</u> Pounds
11-100 pounds:	Not Required	

Assistive Devices: 4-Wheel Cart, Hand Truck. Additionally, one or more person(s) assistance is available with weights greater than 5 pounds.

Comments: Weight Carry is utilized with activities such as retrieving, returning, storing, moving and/or transporting supplies (e.g. documents). The employee carries items weighing between <1 pound and 5 pounds between 3 feet and 600 feet when performing job tasks (e.g. up to 5-pound ream of copy paper; binder; hand or armfuls of paper; miscellaneous office equipment).

6.) **OVERHEAD LIFT/PULL DOWN:** *Lifting weighted object from/to chest and overhead height level.*

MAXIMUM REQUIREMENT

0-100 pounds:	Not Required	Maximum Force: <u>0</u> Pounds
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Assistive Devices: A vertical ladder, step ladder or step stool is available to bring items to eye or shoulder level.

Comments: Overhead lift/pull down is not required when performing job tasks. *Variables to overhead reaching will be the employee's height and anthropometric reach.*

7.) OVERHEAD REACH:

**MAXIMUM
FREQUENCY:** Not Required

Comments: Overhead reach is not required when performing job tasks. A ladder (appropriate height) or step stool may be utilized to bring items to eye or shoulder level. Variables to overhead reaching will be the employee's height and anthropometric reach.

8.) FORWARD REACH:

**MAXIMUM
FREQUENCY:** Occasional

Comments: Forward reach is performed up to a distance of 28 inches when manipulating, retrieving, returning, storing, adjusting, moving and/or transporting equipment, controls and supplies (e.g. desktop work; utilizing copier, printer; drive vehicle). The degree of elbow extension required for reaching will vary according to the employee's anthropometric reach.

9.) STOOP:

**MAXIMUM
FREQUENCY:** Not Required

Comments: Stooping is not required when performing job tasks. Variable to stooping will be the employee's height. Stooping of the head, trunk and knees can be minimized or avoided by substituting alternate positions of squatting, kneeling or bending when performing job tasks.

10.) SQUAT: (Unloaded)

**MAXIMUM
FREQUENCY:** Not Required

Comments: Squatting is not required when performing job tasks. Squatting may be minimized or avoided by substituting alternate positions of bending or kneeling. Partial squatting is a preferred lifting posture.

11.) FORWARD BEND:

**MAXIMUM
FREQUENCY:** Not Required

Comments: Bending forward at the waist is not required when performing job tasks. Maximum forward trunk flexion required is 80 degrees. Employee may minimize or avoid excessive forward bending of the trunk up to 80 degrees by using alternate positions of bending at the hips, kneeling, half kneeling, stooping, sitting or squatting.

12.) **TWIST:**

**MAXIMUM
FREQUENCY:** Seldom

Comments: Twisting at the waist is performed when performing job tasks (e.g. drive vehicle). *Twisting at the waist may be minimized by turning the whole body, including the feet and working from a swivel office chair.*

13.) **TURN:**

**MAXIMUM
FREQUENCY:** Not Required

Comments: Turning is not required when performing job tasks.

14.) **KNEEL:**

**MAXIMUM
FREQUENCY:** Not Required

Comments: Kneeling is not required when performing job tasks. *Kneeling may be minimized or avoided by substituting alternate positions of bending, squatting, or half kneeling.*

15.) **CRAWL:**

**MAXIMUM
FREQUENCY:** Not Required

Comments: Crawling is not required when performing job tasks.

16.) **STAIR CLIMB:**

**MAXIMUM
FREQUENCY:** Not Required

Comments: Stair climb is not required when performing job tasks.

17.) **LADDER CLIMB:**

**MAXIMUM
FREQUENCY:** Not Required

Comments: Ladder climbing is not required when performing job tasks. *Variables to overhead climbing will vary according to the employee's height and anthropometric reach.*

18.) **WALK:**

**MAXIMUM
FREQUENCY:** Occasional

Comments: Walking is performed when retrieving, returning, moving and/or transporting supplies (e.g. to/from meetings with collaborating agencies and/or colleagues). Walking length varies between 3 feet and 600 feet depending on job task.

19.) **SIT:**

**MAXIMUM
FREQUENCY:** Frequent

Comments: Sitting is performed for a maximum of 120-minute intervals when performing job tasks (e.g. sit for meetings with collaborating agencies and/or colleagues; desktop work; drive vehicle). *Some work sites offer optional sit/stand desktops.*

20.) **STAND: (Static)**

**MAXIMUM
FREQUENCY:** Occasional

Comments: Static standing is performed for a maximum of 15-minute intervals when performing top tasks (e.g. stand for meetings with collaborating agencies and/or colleagues).

21.) **BALANCE:**

**MAXIMUM
FREQUENCY:** Occasional

Comments: Adequate balance is required for safe walking, standing, reaching and lifting.

22.) **HAND/FOOT CONTROL:**

<u>MAXIMUM REQUIREMENT</u>	
HAND:	
Right:	Seldom
Left:	Seldom
Both:	Seldom
Either:	Not Required
FOOT:	
Right:	Seldom
Left:	Seldom
Both:	Not Required
Either:	Not Required

Comments: Hand controls are utilized to operate equipment (e.g. vehicle) when adjusting controls (e.g. drive vehicle). Foot controls are utilized to operate equipment (e.g. drive vehicle).

23.) UPPER AND LOWER EXTREMITY COORDINATION:

<u>MAXIMUM REQUIREMENT</u>	
Simple Grasp:	Occasional
Firm Grasp:	Seldom
Fine Manipulation:	Frequent
Eye/Hand Coordination:	Frequent
Hand/Foot Coordination:	Seldom

Comments: Grasping and coordination activities are performed when performing job tasks (e.g. desktop work).

Simple grasping is utilized to perform job tasks (e.g. lift and manipulate objects weighing less than 5 pounds; drive vehicle).

Firm grasping is utilized to perform job tasks (e.g. lift and handle objects weighing 5 pounds or greater).

Fine manipulation is utilized to perform job tasks (e.g. keyboard, mouse, telephone, handwrite, sort, page turn).

Eye/hand coordination is utilized to perform job tasks (e.g. keyboard, mouse, telephone, handwrite, sort, page turn; drive vehicle).

Hand/foot coordination is utilized to perform job tasks (e.g. drive vehicle).

Depending on individual hand dominance, one hand may be used more frequently than the other when performing job tasks.

24.) CERVICAL (NECK) MOVEMENT:

<u>MAXIMUM REQUIREMENT</u>	
Static Neutral Position:	Frequent
Flexing:	Frequent
Rotating:	Occasional
Extending:	Seldom

Comments: Neck movement is required when performing job tasks (e.g. desktop work; drive vehicle; meetings with collaborating agencies and/or colleagues). *Participation in the observation of the work environment allows for safe working conditions. Full cervical range of motion is required to safely perform the job tasks.*

{End of Report}



Stanislaus County

JOB TASK ANALYSIS SUMMARY

<u>FREQUENCY DEFINITIONS</u>	<u>SELDOM</u>	<u>OCCASIONAL</u>	<u>FREQUENT</u>	<u>CONSTANT</u>
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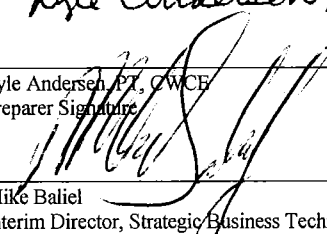
The following is a summary of the physical demands of the Job Task Analysis that were obtained for the position of:

SOFTWARE DEVELOPER I, II, III & SENIOR

Functional Activities	Maximum Requirements	Functional Activities	Maximum Requirements
<i>Push (Force)</i> ¹	15 pounds	<i>Stair Climb</i> ¹	Not Required
<i>Pull (Force)</i> ¹	15 pounds	<i>Ladder Climb</i> ¹	Not Required
<i>Stand Up Lift</i> ¹	5 pounds	<i>Walk</i> ¹	Occasional
<i>Level Lift</i> ¹	5 pounds	<i>Sit</i> ¹	Frequent
<i>Weight Carry</i> ¹	5 pounds	<i>Stand (Static)</i> ¹	Occasional
<i>Overhead Lift/Pull Down</i>	0 pounds	<i>Balance</i> ¹	Occasional
<i>Overhead Reach</i> ¹	Not Required	<i>Hand Control</i> ¹	Seldom
<i>Forward Reach</i> ¹	Occasional	<i>Foot Control</i> ¹	Seldom
<i>Stoop</i> ¹	Not Required	<i>Simple Grasp</i> ¹	Occasional
<i>Squat (Unloaded)</i> ¹	Not Required	<i>Firm Grasp</i> ¹	Seldom
<i>Forward Bend</i> ¹	Not Required	<i>Fine Manipulation</i> ¹	Frequent
<i>Twist</i> ¹	Seldom	<i>Eye/Hand Coordination</i> ¹	Frequent
<i>Turn</i> ¹	Not Required	<i>Hand/Foot Coordination</i> ¹	Seldom
<i>Kneel</i> ¹	Not Required	<i>Cervical (neck) Movement</i> ¹	Frequent
<i>Crawl</i>	Not Required		

¹ The critical demands of the job.

Lyle Andersen, P.T.

Lyle Andersen, P.T., CWCE
 Preparer Signature _____ Date: _____ Contact Person Title _____ Date: _____

 Mike Baniel _____ Date: 2/9/16 Contact Person Title _____ Date: _____
 Interim Director, Strategic Business Technology

LA/ga