



Job Task Analysis

Employer:	STANISLAUS COUNTY
Occupation:	Systems Technician I, II
Company Contact:	CEO-Recruitment Unit
Date:	October 2000; January 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,

SPECIFIC DUTIES: Available through the Human Resources Department.

<http://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. | 6. Ladder. |
| 2. Monitor. | 7. Hand truck. |
| 3. Mouse. | 8. Multi meter. |
| 4. Keyboard. | 9. Cable toner testing. |
| 5. Small hand tools. | |

*All employees within the **Systems Technician I, II** 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 **Systems Technician I, II** 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: Step stool, ladder	Seldom
2.	Being around moving machinery: Road traffic	Occasional
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:	Not Applicable
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:..... Basement	Seldom
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: Seldom Closely with others: Constant
16.	Working inside:.....	Constant
17.	Working outside:.....	Seldom

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:	Occasional
26-35 pounds:	Seldom
36-50 pounds:	Seldom
51-75 pounds:	Not Required
76-100 pounds:	Not Required

Maximum Force: 40 Pounds

Assistive Devices: 4-Wheel Cart, Hand Truck. Additionally, one or more person(s) assistance is available with forces greater than 40-pounds.

Comments: Pushing is utilized with activities such as retrieving, returning, storing, adjusting, moving and/or transporting product, equipment and supplies (e.g. cart, door, furniture). The employee exerts up to 40-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 40-pounds of force to move furniture away from wall in order to connect cables to jacks and/or other supportive equipment; open/close door, drawer, file, cabinet; travel with cart and/or hand truck transporting computer components.

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:	Occasional
26-35 pounds:	Seldom
36-50 pounds:	Seldom
51-75 pounds:	Not Required
76-100 pounds:	Not Required

Maximum Force: 40 Pounds

Assistive Devices: 4-Wheel Cart, Hand Truck. Additionally, one or more person(s) assistance is available with forces greater than 40-pounds.

Comments: Pulling is utilized with activities such as retrieving, returning, storing, adjusting, moving and/or transporting equipment and supplies (e.g. cart, door, furniture). The employee exerts up to 40-pounds of force in a horizontal plane between waist and shoulder height of a distance up to 5 feet when performing job tasks (e.g. up to 40-pounds of force to move furniture away from wall in order to connect cables to jacks and/or other supportive equipment; open/close door, drawer, file, cabinet; travel with cart and/or hand truck transporting computer components; pulling wire/cable). *Pushing is the preferred method of moving carts.*

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

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

Assistive Devices: One or more person(s) assistance is available with weights greater than 25-pounds.

Comments: A stand-up lift is utilized with activities such as retrieving, returning, storing, adjusting, moving and/or transporting equipment and supplies (e.g. computer components, devices). The employee lifts items weighing between <1-pounds and 25-pounds from/to the floor when performing job tasks (e.g. up to 20-pound computer; printer; monitor; miscellaneous computer anillary and accessory paraphernalia). *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.*

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

Assistive Devices: 4-Wheel Cart, Hand Truck. Additionally, one or more person(s) assistance is available with weights greater than 25-pounds.

Comments: A level lift is utilized with activities such as retrieving, returning, storing, adjusting, moving and/or transporting equipment and supplies (e.g. computer components, devices). The employee lifts items weighing between <1-pounds and 25-pounds when performing job tasks (e.g. up to 20-pound computer; printer; monitor; computer storage rack; miscellaneous computer anillary and accessory paraphernalia).

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

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

Assistive Devices: 4-Wheel Cart, Hand Truck. Additionally, one or more person(s) assistance is available with weights greater than 10-pounds.

Comments: Weight carry is utilized with activities such as retrieving, returning, storing, moving and/or transporting equipment and supplies (e.g. computer components). The employee carries items weighing between <1-pound and 10-pounds between 5 feet and 100+ feet when performing job tasks (e.g. miscellaneous anillary computer devices and components).

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

MAXIMUM REQUIREMENT	
0-10 pounds:	Seldom
11-100 pounds:	Not Required
Maximum Force:	5 Pounds

Assistive Devices: A vertical ladder, step ladder or step stool is available to bring items to eye or shoulder level.

Additionally, one or more person(s) assistance is available with weights greater than 5-pounds.

Comments: Overhead lift/pull down is utilized with activities such as retrieving, returning, storing, adjusting, moving and/or transporting equipment and supplies (e.g. computer components, devices). The employee lifts items weighing between <1 pound and 5-pounds to a maximum height of 72+ inches when performing job tasks (e.g. miscellaneous stored items on racks; pulling cable/wire). *Variables to overhead reaching will be the employee's height and anthropometric reach.*

7.) **OVERHEAD REACH:**

MAXIMUM FREQUENCY:	Seldom
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Comments: Overhead reach is performed to a maximum height of 84 inches when retrieving, returning, storing, adjusting, moving and/or transporting and supplies (e.g. physical inspection; cable toner testing). *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:	Frequent
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Comments: Forward reach is performed up to a distance of 32 inches when manipulating, handling, retrieving, returning, storing, adjusting, moving and/or transporting equipment, controls and supplies (e.g. desktop work; inspect computer connection; assemble or disassemble computer device; open/close corrugated box; unpack computer device; push/pull cart; connect computer cable; operate computer; drive vehicle; reach for stored item; maintain storage). *The degree of elbow extension required for reaching will vary according to the employee's anthropometric reach.*

9.) **STOOP:**

MAXIMUM FREQUENCY:	Occasional
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Comments: Stooping is performed when retrieving, returning, storing, adjusting, moving and/or transporting equipment, controls, and supplies (e.g. inspect computer connection; assemble or disassemble computer device; open/close corrugated box; unpack computer device; connect computer cable; operate computer; remove/install keyboard holder; inspection and/or trouble shooting). *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:** Seldom

Comments: Squatting is performed when retrieving, returning, adjusting, moving equipment, controls, and supplies (e.g. computer installation and/or inspection; install computer system; troubleshooting; squat to crawl under desk for locating cable and jack; remove/install keyboard holder). *Squatting may be minimized or avoided by substituting alternate positions of sitting, bending or kneeling. Partial squatting is a preferred lifting posture.*

11.) FORWARD BEND:**MAXIMUM
FREQUENCY:** Occasional

Comments: Bending forward at the waist is performed when retrieving, returning, storing, adjusting, moving and/or transporting equipment, controls, and supplies (e.g. inspect computer connection; assemble or disassemble computer device; open/close corrugated boxes; unpack computer devices; connect computer cable; operate computer; remove/install keyboard holder). Maximum forward trunk flexion required is 60 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:** Occasional

Comments: Twisting at the waist is performed when retrieving, returning, storing, adjusting, moving and/or transporting equipment, controls, and supplies (e.g. inspect computer connection; assemble or disassemble computer device; open/close corrugated box; unpack computer device; connect computer cable; 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:** Occasional

Comments: Turning is performed when retrieving, returning, storing, adjusting, moving and/or transporting equipment, controls, and supplies (e.g. inspect computer connection; assemble or disassemble computer device; locate computer cable).

14.) KNEEL:**MAXIMUM
FREQUENCY:** Seldom

Comments: Kneeling is performed when performing job tasks such as retrieving, returning, storing, adjusting, moving and/or transporting equipment, controls and supplies (e.g. install computer system; connect wire to jack). *Kneeling may be minimized or avoided by substituting alternate positions of bending, squatting, sitting or half kneeling.*

15.) **CRAWL:**

**MAXIMUM
FREQUENCY:** Seldom

Comments: Crawling is performed when performing job tasks (e.g. crawl to connect cable to/from equipment and/or jack; back laying under desktop in order to remove/install keyboard holder; inspection and/or trouble shooting).

16.) **STAIR CLIMB:**

**MAXIMUM
FREQUENCY:** Not Required

Comments: Stair climb is not required to perform job tasks.

17.) **LADDER CLIMB:**

**MAXIMUM
FREQUENCY:** Seldom

Comments: Ladder climbing is performed onto/off of safety ladders or steps to access structures and equipment (e.g. overhead cable) located 10+ feet above floor level (e.g. trace cable). *Variables to overhead climbing will vary according to the employee's height and anthropometric reach.*

18.) **WALK:**

**MAXIMUM
FREQUENCY:** Frequent

Comments: Walking is performed when retrieving, returning, storing, adjusting, moving and/or transporting equipment and supplies (e.g. to/from supported site, parking lot, storage; trouble-shooting computer problem; meetings with collaborating agencies and/or colleagues). Walking length varies between 3 feet and 1000+ 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. desktop work; perform assembly or disassembly of computer device; trouble-shoot and inspect computer system; install software; connect computer device; research; drive vehicle; meetings with collaborating agencies and/or colleagues).

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

**MAXIMUM
FREQUENCY:** Occasional

Comments: Static standing is performed for a maximum of 15-minute intervals when performing job tasks (e.g. assembly or disassembly of computer device; trouble-shoot and inspect computer system; connect computer device; meetings with collaborating agencies and/or colleagues).

Specific work tasks may require up to frequent sitting and/or walking.

21.) **BALANCE:**

MAXIMUM FREQUENCY:	Frequent
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Comments: Good balance is required for safe walking, standing, climbing, reaching and lifting.

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

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

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

23.) **UPPER AND LOWER EXTREMITY COORDINATION:**

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

Comments: Grasping and coordination activities are performed when retrieving, returning, storing, adjusting, moving and/or transporting equipment, controls and supplies (e.g. computer device, component, small hand tool).

Simple grasping is utilized to perform job tasks (e.g. lift and manipulate objects weighing less than 5 pounds; assembly of cables, devices, components; pull cable).

Firm grasping is utilized to perform job tasks (e.g. lift and handle objects weighing 5 pounds or greater; push/pull cart; pull cable).

Fine manipulation is utilized to perform job tasks (e.g. keyboard, mouse, handwrite, wire clip, plug in component, fine assembly of wire, screw; assemble/disassemble computer components).

Eye/hand coordination is utilized to perform job tasks (e.g. keyboard, mouse, handwrite, wire clip, plug in component, fine assembly of wire, screw, file, sort; 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; computer assembly or disassembly; trouble shoot; inspection; safe travel to/from supported agencies via foot or vehicle). *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>
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

The following is a summary of the physical demands of the Job Task Analysis that were obtained for the position of:

SYSTEMS TECHNICIAN I, II

Functional Activities	Maximum Requirements	Functional Activities	Maximum Requirements
<i>Push (Force)</i> ¹	40 pounds	<i>Stair Climb</i>	Not Required
<i>Pull (Force)</i> ¹	40 pounds	<i>Ladder Climb</i> ¹	Seldom
<i>Stand Up Lift</i> ¹	25 pounds	<i>Walk</i> ¹	Frequent
<i>Level Lift</i> ¹	25 pounds	<i>Sit</i> ¹	Frequent
<i>Weight Carry</i> ¹	10 pounds	<i>Stand (Static)</i> ¹	Occasional
<i>Overhead Lift/Pull Down</i>	5 pounds	<i>Balance</i> ¹	Frequent
<i>Overhead Reach</i> ¹	Seldom	<i>Hand Control</i> ¹	Occasional
<i>Forward Reach</i> ¹	Frequent	<i>Foot Control</i> ¹	Occasional
<i>Stoop</i> ¹	Occasional	<i>Simple Grasp</i> ¹	Frequent
<i>Squat (Unloaded)</i>	Seldom	<i>Firm Grasp</i> ¹	Occasional
<i>Forward Bend</i> ¹	Occasional	<i>Fine Manipulation</i> ¹	Frequent
<i>Twist</i> ¹	Occasional	<i>Eye/Hand Coordination</i> ¹	Frequent
<i>Turn</i> ¹	Occasional	<i>Hand/Foot Coordination</i> ¹	Occasional
<i>Kneel</i> ¹	Seldom	<i>Cervical (neck) Movement</i> ¹	Frequent
<i>Crawl</i>	Seldom		

¹ The critical demands of the job.

Lyle Andersen, PT

 Lyle Andersen, PT, CWCE
 Preparer Signature

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 Contact Person
 Title

 Contact Person
 Title

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 Title

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