



ThinManager

ThinManager ROI
Return on Investment

Purpose of this session

- Highlight how customers commonly leverage ThinManager to \$ave money, increase production, and reduce risk
- Show how to use ACP's free ROI Calculator with a real customer example
 - Download calculator at: www.thinmanager.com/roi
- Answer questions

2009 DOE Report

Energy consumption audit of computing resources at seven DOE sites:



“None of the sites reviewed had taken advantage of opportunities to reduce energy consumption, enhance cyber security, and reduce costs available through the use of techniques, such as 'thin-client computing’”

“...had the Department transitioned to this technology and replaced more than 10,300 desktops at the seven sites visited, energy savings of more than \$195,000 annually could have been realized.”

2009 DOE Report



- Over 5 years DOE could have saved:
 - \$6.0 million in HW acquisition
 - \$8.8 million in support services

Site ¹	Power Management Savings	Thin-Client Savings			Total
		Energy	Acquisition	Support	
NETL	\$42,383	\$944	\$150,226	\$86,700	\$280,253
ORNL	\$407,053	\$5,011	\$255,982	\$364,933	\$1,032,979
SNL	\$614,815	\$5,188	\$420,168	\$490,450	\$1,530,621
Y-12	\$252,364	\$3,057	\$235,547	\$294,808	\$785,776
NNSA Service Center	\$41,370	\$126	\$7,617	\$11,900	\$61,013
Headquarters	\$95,432	\$15,409	\$128,240	\$495,125	\$734,206
ORO	\$110,360	\$222	\$8,425	\$9,775	\$128,782
Annual Savings	\$1,563,777	\$29,957	\$1,206,205	\$1,753,691	\$4,553,630
Five-Year Savings	\$7,818,885	\$149,785	\$6,031,025	\$8,768,455	\$22,768,150

* Reflects only potential savings at a limited number of sites. We were unable to calculate Department-wide savings.

June 2006 Gartner Research study

TCO Comparison of PCs with Server-Based Computing – thin client TCO annual savings have been measured as high as:

- 16% capital cost savings
- 19% less to operate
- 79% less downtime cost per user
- 34% less in maintenance
- 48% overall lower total cost

Gartner[®]

ROI Categories

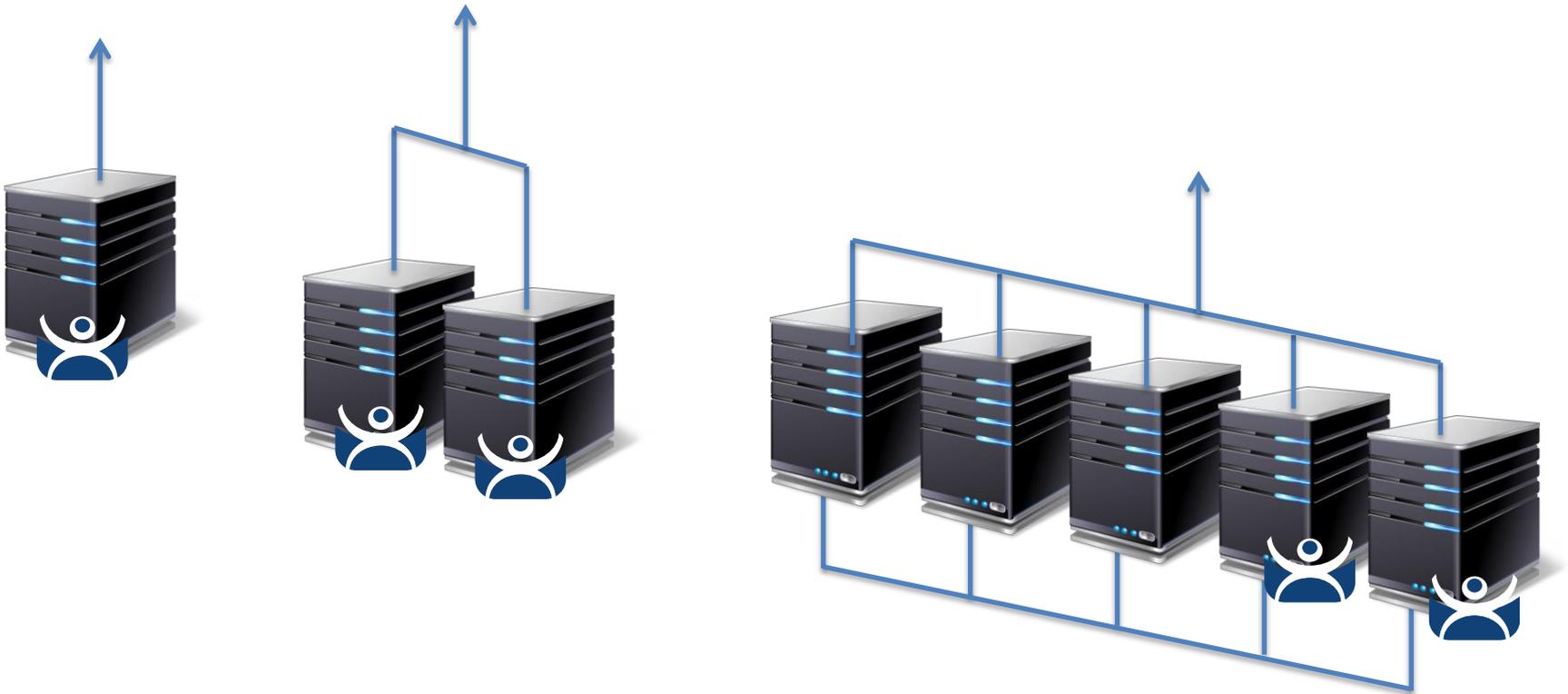


- 1) Capital Investments
- 2) Preparation Expenses
- 3) Operating Expenses*
- 4) Refresh Expenses

**Typically the highest savings category.*

1) CAPITAL INVESTMENTS

- Server Hardware



1) CAPITAL INVESTMENTS

- Server Licensing



Windows
Server 2012



ThinManager

1) CAPITAL INVESTMENTS

- Client Hardware

Office-grade



Industrial-grade



Multi-monitor



1) CAPITAL INVESTMENTS

- Client Licensing

Remote Desktop Services CAL
(TS CAL)



2) PREPARATION EXPENSES

- Installation & Setup

2 servers



VS

30 PCs



2) PREPARATION EXPENSES

- Deployment

Field Installation + Remote Setup

Field installation + Field Setup

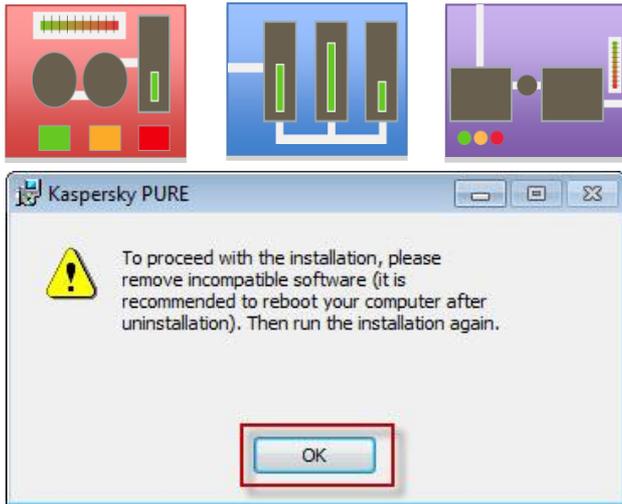


VS



2) PREPARATION EXPENSES

- Incompatibility mitigation

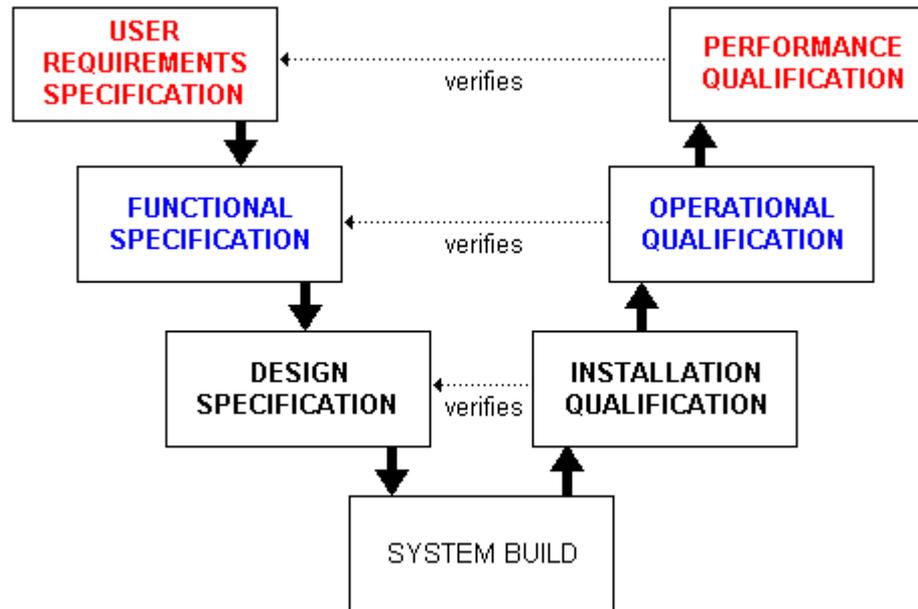


VS



2) PREPARATION EXPENSES

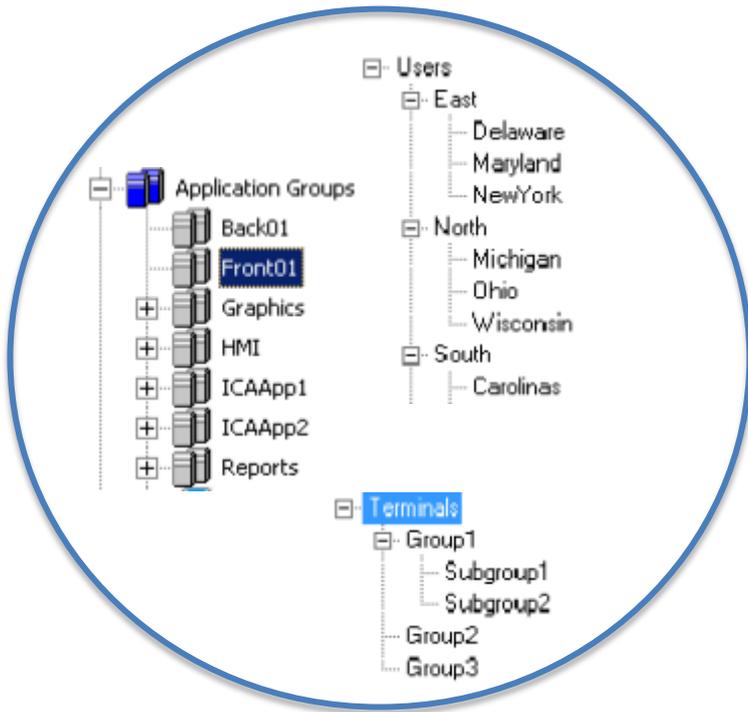
- Validation / Certification



2) PREPARATION EXPENSES

- Validation / Certification

Manage Grouped Configurations



Manage Individual Configurations



VS

3) OPERATING EXPENSES

- System Management
 - Easier and stronger Security (Endpoints and intellectual property are inherently protected)

USB storage disabled by default



No client-side data to steal



No client-side OS to attack

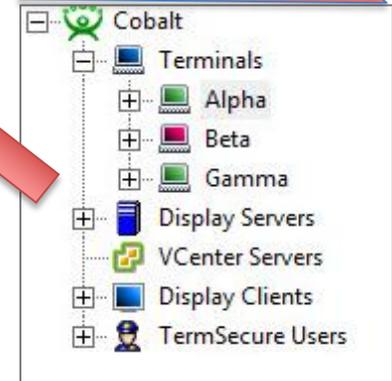


3) OPERATING EXPENSES

- System Management
- Efficient Configuration Management
 - Centralized access via network/mobile device
 - Group management of Applications, Clients and Users



“shadowing”



3) OPERATING EXPENSES

- System Management
 - Easy access to hard-to-reach work centers
 - Clean rooms and Hazardous areas
 - Control cabinets
 - OEM machines
 - Kiosks
 - Large screen displays
 - Reduces or eliminates Travel & Call-outs with “shadowing”



3) OPERATING EXPENSES

- System Management

- 4 minutes MTTR instead of 4 hours



VS



- 3 to 5 times longer MTBF than a PC



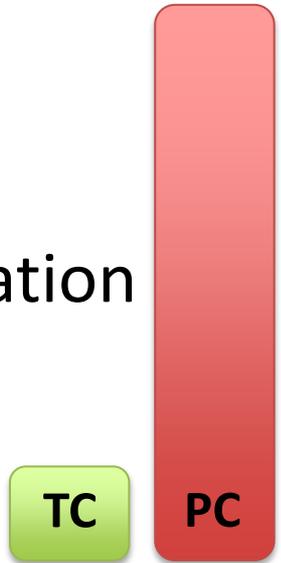
VS



- Eliminates need for a Help Desk
- Centralized backup/restore

3) OPERATING EXPENSES

- Resource Efficiency
 - 5 times less Energy consumption than a PC
 - No need for Air Conditioned enclosures
 - Requires less enclosure/desktop Space
 - Reduces Emissions, delays Disposal impact
 - Higher Server Capacity utilization
 - (Typically) reduced Network Bandwidth utilization



3) OPERATING EXPENSES

- Production
 - Reduces production losses caused by system downtime
 - Reduces overtime expenses caused by system-related production losses



3) OPERATING EXPENSES

- Version Upgrades / Patch Management

2 servers



VS

30 PCs



Centralized



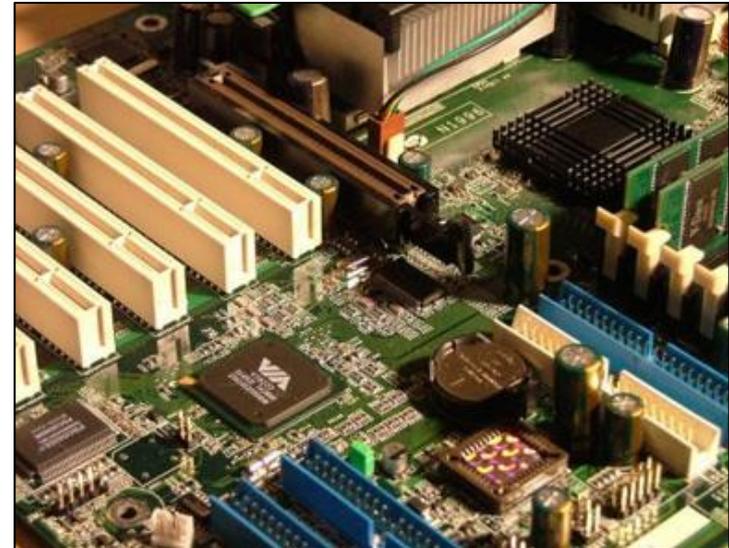
VS

Localized

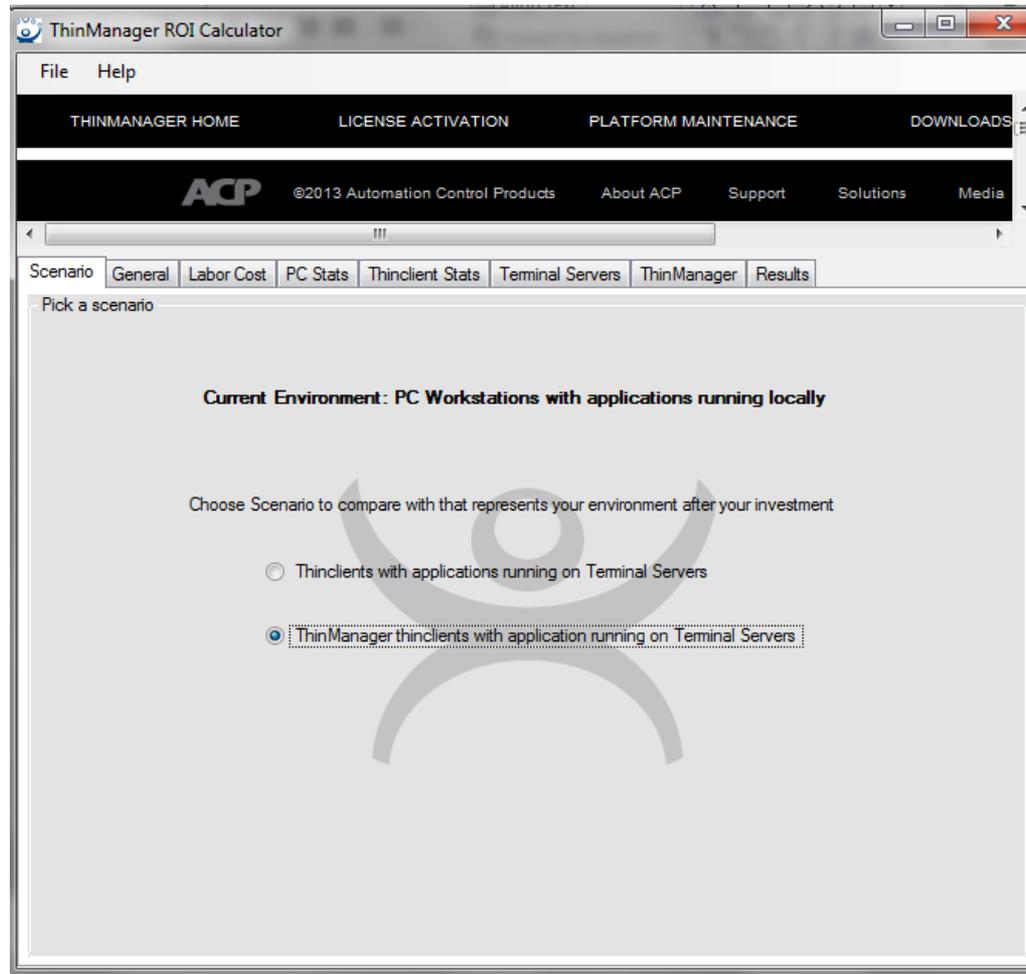


4) REFRESH EXPENSES

- Hardware compatibility
- Software compatibility
- System Reliability
- System Performance
- System Functionality
- Harsh Environments



Free ROI Calculator



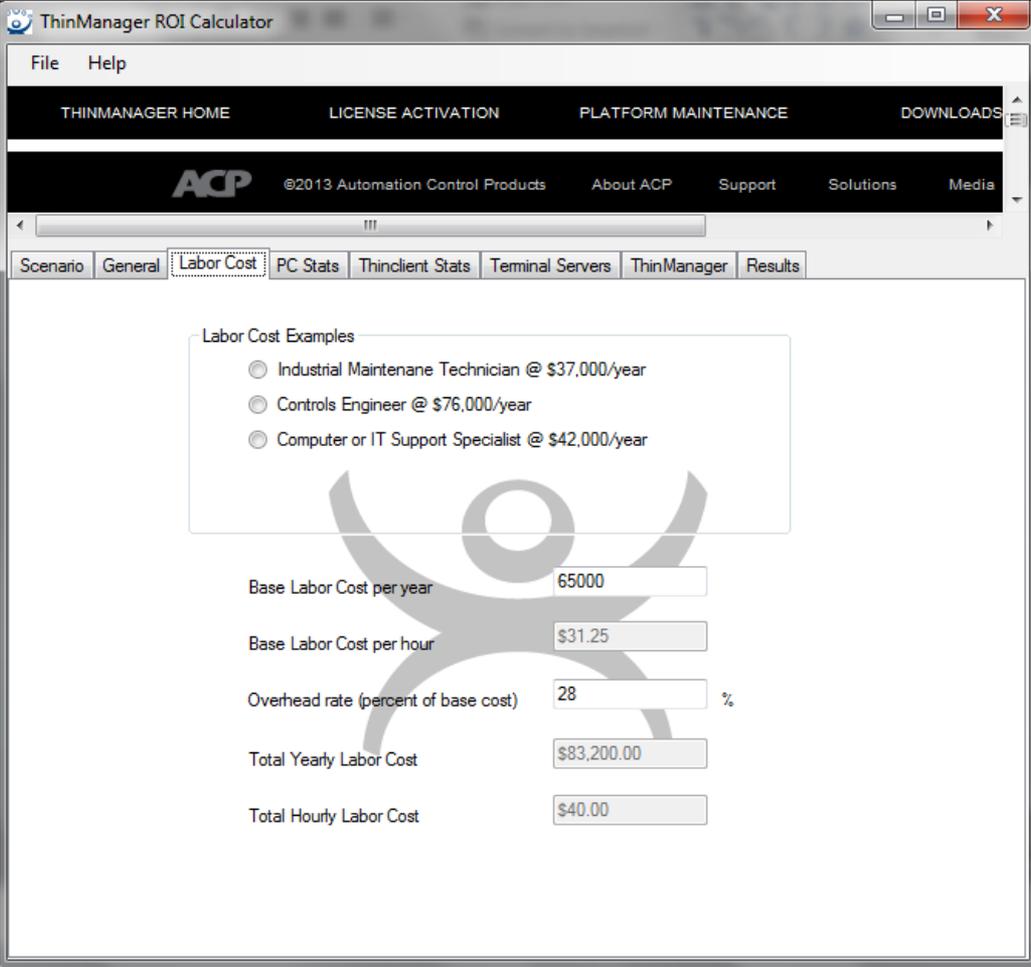
Free ROI Calculator

The screenshot shows a web browser window titled "ThinManager ROI Calculator". The page has a navigation menu with links for "THINMANAGER HOME", "LICENSE ACTIVATION", "PLATFORM MAINTENANCE", and "DOWNLOADS". Below this is a secondary menu with the "ACP" logo and links for "©2013 Automation Control Products", "About ACP", "Support", "Solutions", and "Media". The main content area features a tabbed interface with tabs for "Scenario", "General", "Labor Cost", "PC Stats", "Thinclient Stats", "Terminal Servers", "ThinManager", and "Results". The "General" tab is active, displaying a form with the following input fields:

Number of workstations in the survey area	<input type="text" value="30"/>
Workstation uptime per day (hours)	<input type="text" value="24"/>
Local Power cost (cents per Kilowatt Hour)	<input type="text" value="9.286"/>
Cost per hour of process downtime due to workstation failure	<input type="text" value="8000"/>
Number of years to project costs	<input type="text" value="8"/>
Discount Rate (percent)	<input type="text" value="3"/>

A large, faint watermark of a stylized human figure with arms raised is visible in the background of the form area.

Free ROI Calculator



ThinManager ROI Calculator

File Help

THINMANAGER HOME LICENSE ACTIVATION PLATFORM MAINTENANCE DOWNLOADS

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Scenario General **Labor Cost** PC Stats Thinclient Stats Terminal Servers ThinManager Results

Labor Cost Examples

- Industrial Maintenance Technician @ \$37,000/year
- Controls Engineer @ \$76,000/year
- Computer or IT Support Specialist @ \$42,000/year

Base Labor Cost per year 65000

Base Labor Cost per hour \$31.25

Overhead rate (percent of base cost) 28 %

Total Yearly Labor Cost \$83,200.00

Total Hourly Labor Cost \$40.00

Free ROI Calculator

ThinManager ROI Calculator

File Help

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Scenario General Labor Cost **PC Stats** Thinclient Stats Terminal Servers ThinManager Results

Original PC Workstation Data

Average PC cost (including OS)	600
Preparation time for PC (hours, including software app installation)	4
Monthly maintenance time (hours)	1
Replacement inventory count	3
Rate of failure per year (%)	10
Power consumption (watts)	75
Average Lifetime (months)	48

Inventory PC Workstation Data

Same as Original PC

Average inventory PC cost (including OS)	600
Preparation time for inventory PC (hours)	4
Monthly maintenance time (hours)	1
Replacement Time (hours)	1

Free ROI Calculator

ThinManager ROI Calculator

File Help

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Scenario General Labor Cost PC Stats Thinclient Stats **Terminal Servers** ThinManager Results

Original Terminal Server

Average terminal server cost (including OS)	6000
Preparation time for terminal server (hours)	8
Monthly maintenance time (hours)	2
Number of sessions per terminal server	30
Power consumption (watts)	200
Average Server Lifetime (months)	48
Rate of failure per year (%)	2.5
Server uptime per day (hours)	24
Replacement Time (hours)	2
Replacement inventory count	0

Free ROI Calculator

ThinManager ROI Calculator

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Scenario General Labor Cost PC Stats Thinclient Stats Terminal Servers **ThinManager** Results

ThinManager Software Cost

Third Party Software Cost

Use ThinManager Features to reduce your Management effort

Management Software Time Savings (hours / month / thinclient)

Add an additional Terminal Server for failover

Use MultiSession or TermSecure to reduce the number of Operator Stations

Total thinclient count reduced from 30 to

- Simplify adding client features like touch screens by dropping on a module and restarting the client from a remote location.
- Support end users by shadowing them directly from ThinManager or from any other client.
- Update applications and operating systems on your terminal servers by temporarily shifting clients to a secondary server using failover and disable terminal server features.
- Update client firmware for every client device simultaneously in the time it takes to reboot.
- Add additional display sources like shadows, cameras and virtual workstations in seconds.

Free ROI Calculator

The screenshot shows the ThinManager ROI Calculator application window. The interface includes a menu bar (File, Help), a navigation bar with links (THINMANAGER HOME, LICENSE ACTIVATION, PLATFORM MAINTENANCE, DOWNLOADS), and a header with the ACP logo and copyright information (©2013 Automation Control Products). Below the header is a tabbed interface with tabs for Scenario, General, Labor Cost, PC Stats, Thinclient Stats, Terminal Servers, ThinManager, and Results. The Results tab is active, displaying two tables.

Savings

Line Item	PC Workstations with local applications	ThinManager ThinClients with terminal servers	Savings	Calculations
Capital Costs	\$19,800.00	\$44,400.00	(\$24,600.00)	Show Calcs
Preparation Costs	\$5,280.00	\$960.00	\$4,320.00	Show Calcs
Operating Costs	\$352,562.16	\$9,451.41	\$343,110.75	Show Calcs
Refresh Costs	\$50,160.00	\$64,320.00	(\$14,160.00)	Show Calcs
Total	\$427,802.16	\$119,131.41	\$308,670.75	Show Calcs

Return on Investment

Year	Yearly Cash Flow	Net Cash Flow	Return On Investment
1	\$22,608.84	\$22,608.84	49.8 %
2	\$42,888.84	\$65,497.69	141.6 %
3	\$42,888.84	\$108,386.53	230.8 %
4	\$49,008.84	\$157,395.38	329.6 %
5	\$42,888.84	\$200,284.22	413.6 %
6	\$42,888.84	\$243,173.07	495.2 %
7	\$42,888.84	\$286,061.91	574.4 %



ThinManager

Thank You