

Time Management for System Administrators: A New Approach

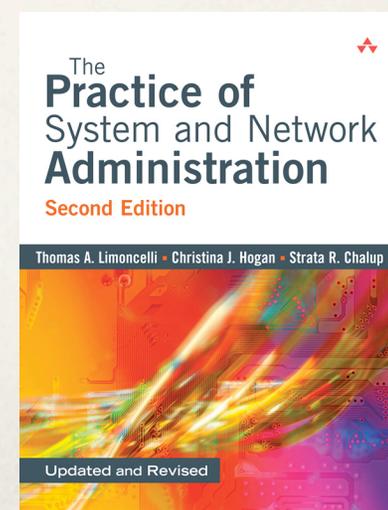
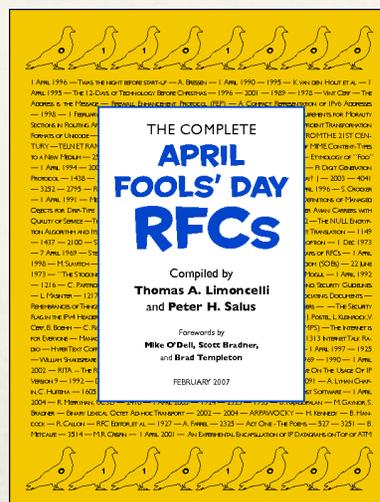
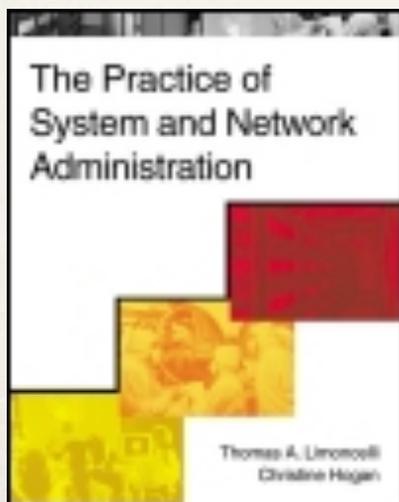
by Thomas A. Limoncelli

Usenix LISA 2009, Baltimore, MD

Meeting with My Boss

Who is this guy?

- ❖ SA since 1988
- ❖ Work at companies such as Google, DFA, Lumeta, Bell Labs
 - Time Management for System Administrators**
 - The Complete April Fools day RFCs**
 - The Practice of System and Network Administration**
- ❖ <http://EverythingSysadmin.com>



Introductions

- ❖ Other qualifications:
 - ❖ Was a time-management disaster... *but I got better!*
- ❖ Audience poll: (show of hands)
 - ❖ Sysadmins / Managers
 - ❖ Unix / Windows
 - ❖ Senior / Junior
- ❖ What are your biggest time management issues?

Why TM for Sysadmins?

- ❖ The problems are different:
 - ❖ Boss likes: When we get projects done. Customers like: When we are available.
 - ❖ Higher degree of customer interruptions.
 - ❖ More individual projects than we have time for.
- ❖ The solutions are different: We're geeks, we have geek tools.
- ❖ Lack of mentoring
 - ❖ Other careers have more opportunities for mentoring on these issues.
 - ❖ Our mentoring is technical.

Google NYC



Google HQ



What I learned by mentoring

- ❖ Conclusions:
 - ❖ Specific techniques work!
 - ❖ No “map” to fit them together.
- ❖ Developed a new approach:
 - Identify “type of day”
 - Pick appropriate tools
 - Change when surprises come



http://www.mobius.be/webday/site/mobiussite/shared/Pictures_look_feelwebsite/approach_banner.JPG



www.ten.org.ir/images/our_approach_1.jpg

How the day will end...

**...is determined by how we
approach it at the beginning.**

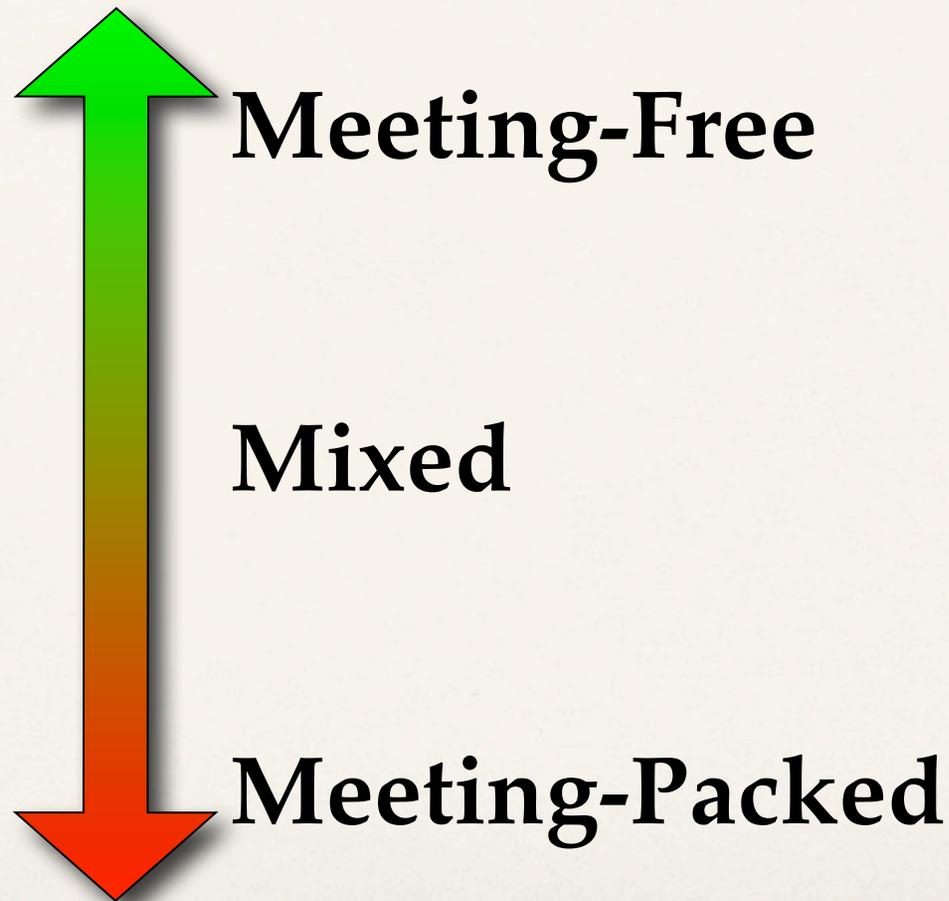
Overview

1. Introduction
2. Tools needed for “Any Day”
3. Tools needed for “Meeting-Free Days”
4. Tools needed for “Mixed Days”
5. Tools needed for “Packed Days”
6. Summary

Please call out questions any time!

3 General Types of Days

Step 1: Identify “type of day”



Create Event Today Monday, Sep 7, 2009 Refresh Print Day Week Month 4 Days Agenda

Quick Add

Tasks

NYC

Monday 9/7

9am 9 - PLAN

10am

11am

12pm 12:30p - LUNCH

1pm

2pm

3pm

4pm

5pm 5:30p - GO HOME!!!

6pm

« September 2009 »

| S | M | T | W | T | F | S |
|----|----|----|----|----|----|----|
| 30 | 31 | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |

► My calendars

► Other calendars

“No Meetings”

Strategy: Focus on projects, do interrupts as needed.

Create Event Today Wednesday, Sep 9, 2009 Refresh Print Day Week Month 4 Days Agenda

Quick Add

Tasks

« September 2009 »

| S | M | T | W | T | F | S |
|----|----|----|----|----|----|----|
| 30 | 31 | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |

► My calendars

► Other calendars

NYC

9am 9 – PLAN Ⓜ

10am

11am 11 – 12p Team Meeting

12pm

1pm

2pm 2p – 3p Conference Call

3pm

4pm 4p – 5p Design Meeting

5pm

5:30p 5:30p – GO HOME!!! Ⓜ

6pm

“Mixed”

Squeeze in important tasks between meetings.

Create Event Today Thursday, Sep 10, 2009 Refresh Print Day Week Month 4 Days Agenda

Quick Add
Tasks

« September 2009 »

| S | M | T | W | T | F | S |
|----|----|----|----|----|----|----|
| 30 | 31 | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |

► My calendars
► Other calendars

NYC

Thursday 9/10

9am 9 – PLAN Ⓟ
9:30 – 12p Quarterly Review Meeting

10am

11am

12pm 12p – 1p LUNCH

1pm 1p – 2:30p Design Review

2pm

3pm 3p – 4p Phone call with Boston

4pm 4p – 5p VC with Mountain View

5pm 5p – One-on-One with my manager
5:30p – GO HOME!!! Ⓟ

6pm

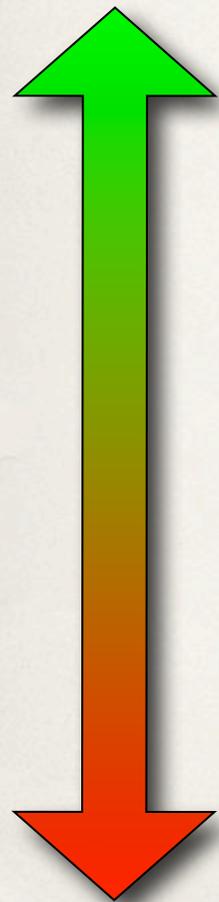
“Packed With Meetings”

Manage meetings effectively + some multitasking.

Step 2: Pick appropriate tools

| | Prioritized Todo List | Maintain Focus | Make most of limited time | Efficient Meetings |
|--|---|---|--|---|
|  No Meetings |  |  | | |
| Some Meetings |  | |  | |
|  All Meetings |  | | |  |

“Special Days”



out-of-office

half-day

emergency outage

| | Prioritized Todo List | Coverage | Make most of limited time | Comm., Shield, Follow-up |
|------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| out-of-office | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | |
| half-day | <input checked="" type="checkbox"/> | | <input checked="" type="checkbox"/> | |
| emergency outage | <input checked="" type="checkbox"/> | | | <input checked="" type="checkbox"/> |

Chapter 2:

Tools needed for *All Days*

What tools are needed all days?

- ❖ Calendar:
 - ❖ Keeps our appointments so our brain doesn't have to.
- ❖ Todo List:
 - ❖ Things to do, tasks we've agreed to do. "Assures perfect follow-through"
- ❖ Prioritization Techniques

Principles

- ❖ **One System:** Keep all time-management information in one place
- ❖ **Conserve Brain Power:** Avoid distractions, focus on one thing at a time
- ❖ **Use Routines:** Mass-produce things that you do often. “Think once, do many”
- ❖ **Same tools everywhere:** Use the same tools for your personal-life. The more practice you get, the faster things become “second nature”.

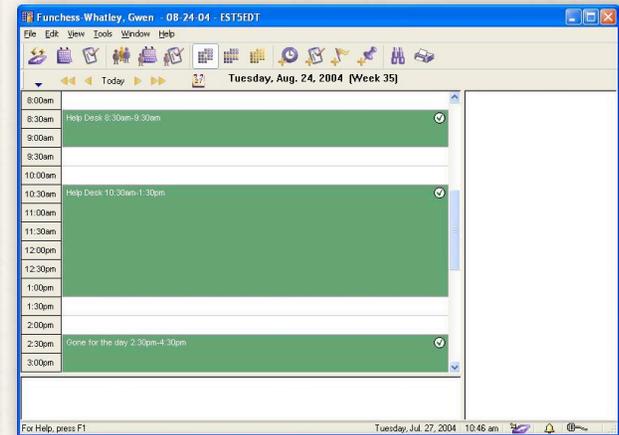
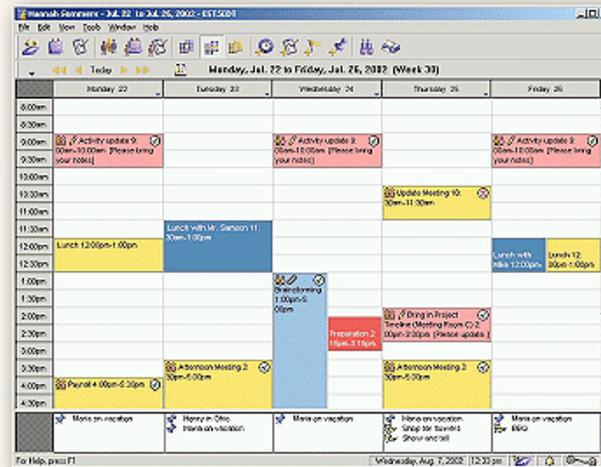
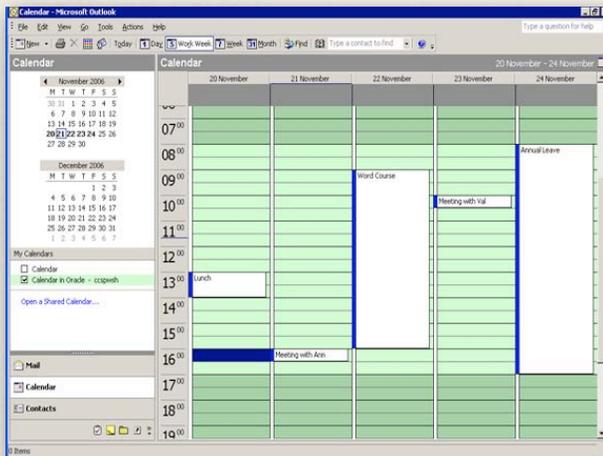
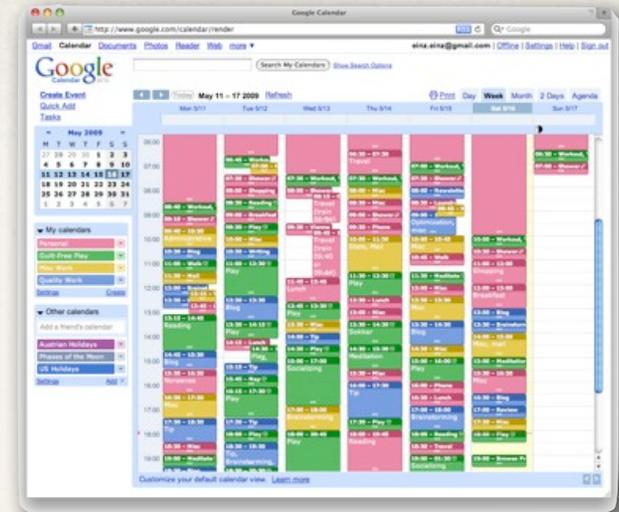
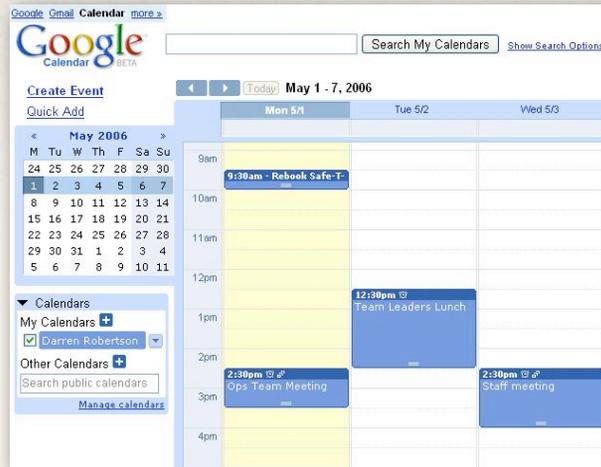
Calendar Management

Goal: Never miss an appointment, meeting, or social event.

Date

Record all appointments, dates, events, meetings, etc.

- ❖ One place for all calendar info, including social events.
- ❖ Review at the start of the day, through out the day, and before you go to sleep.
- ❖ Check for conflicts before agreeing to an appointment.



<http://8help.osu.edu/image.php/288>

http://email.about.com/library/ec/pi/blpi_google_calendar.htm

https://myhome.utpa.edu/quicktutorial/images/calendar_sync.gif

http://visibleprocrastinations.files.wordpress.com/2007/04/2006-05-01_calendar2.jpg

http://www.ucl.ac.uk/isd/common/mail/outlook/guide/outlook_images/oracle_calendar_13.jpg

JUL | JUN | MAY | APR | MAR | FEB | JAN

July

| Sun | Mon | Tue | Wed |
|-----|-----|-----|-----|
| | | 1 | 2 |
| 6 | 7 | 8 | 9 |
| 12 | 13 | 14 | 15 |
| 20 | 21 | 22 | 23 |
| 27 | 28 | 29 | 30 |

2003

| Thurs | Fri | Sat | Sun |
|-------|-----|-----|-----|
| 3 | 4 | 5 | |
| 10 | 11 | 12 | |
| 17 | 18 | 19 | |
| 24 | 25 | 26 | |
| 31 | | | |

JUL | JUN | MAY | APR | MAR | FEB | JAN

How I mark calendar days

- ❖ Top line:
 - ❖ Birthdays days, scheduled vacations (for me and others)
- ❖ Middle:
 - ❖ appointments throughout the day
- ❖ Bottom line:
 - ❖ night activity (“Date with Chris”, “Board Meeting”, “Laundry”)

27

Chris bday

Bob out until 30th



28



10-11 cm meeting

noon all hands

2-2:30 mtg w/CIO group

7pm BZ board mtg

Todo lists

Never forget a request; prioritize your work.

Date

**Where to keep the data?
NotePad, PDA or PAA?**

Either works just fine

| | VIM | PDA | PAA |
|--------------------------|-----|-----|-----|
| * One to-do list per day | Yes | Yes | Yes |
| * Kept in a single place | Yes | Yes | Yes |
| * With you all the time | Yes | Yes | Yes |
| * Easy to access | Yes | Yes | Yes |

| | Editor | PDA | PAA |
|-------|---|---|--|
| Pros: | <ul style="list-style-type: none"> + Free. + No refills + Backups? | <ul style="list-style-type: none"> + Beeps@appt + Sync w / PIM + Backups + Easy 2 carry | <ul style="list-style-type: none"> + Spontaneous + Make your own system + Theft is rare |
| Cons: | <ul style="list-style-type: none"> - Not always accessible | <ul style="list-style-type: none"> - Distractions - Inflexible - Upgrade\$ | <ul style="list-style-type: none"> - No backups - Refills every year |

PDA advice

- ❖ The PalmOS “Todo” function is very simplistic.
 - ❖ Add DateBook VI (www.pimlicosoftware.com)
 - ❖ All “The Cycle” techniques are possible
- ❖ Other fine software:
 - ❖ iPhone: Appigo Todo (www.appigo.com)
 - ❖ iPhone+Mac: OmniFocus (www.omnigroup.com)
 - ❖ Mac: Life Balance (www.llamagraphics.com)
 - ❖ FranklinCovey software for Palm
- ❖ Tom’s list:
<http://wiki.everythingsysadmin.com/twiki/bin/view/TM2SA>

PAA Overview

Left Side

- ❖ One page per day
 - ❖ Pre-printed with dates
- ❖ Daily Task List
 - ❖ Status, ABC, Task
- ❖ Appointment Schedule

Right Side

- ❖ “Record of Events”
- ❖ Wide-open space for:
 - ❖ notes, ideas, diagrams
 - ❖ special check-lists
 - ❖ “Things to pack” lists
 - ❖ “What to bring” lists

Task Management

How to get it all done without going crazy (or forgetting anything important)

Date

“The Cycle”

- ❖ Todo list
 - ❖ Perfect follow-through / Never forget a task
- ❖ Datebook / Calendar
 - ❖ Track appointments, commitments, events
- ❖ Long-term and Life Goals
 - ❖ Get where you want to go

Memorize Everything

-- VS --

Zillions of Scattered Notes

-- VS --

**The Never-Ending List of
Dooooooooom**

Why do “todo lists” fail?

- ❖ We rely on “known-faulty” hardware
 - ❖ (Our brain forgets)
- ❖ We don't keep them all in one place
 - ❖ Many scattered pieces of paper
- ❖ We keep many lists
 - ❖ Half are out of date
- ❖ We keep one master list
 - ❖ Too big, too scary
 - ❖ The Never-Ending Todo List Of Dooooooooom!

“The Cycle”

- ❖ 365 “todo lists” per year
 - ❖ Doesn't rely on our brain
 - ❖ One place to keep everything
 - ❖ Prevents “list of doooooom”-like problems
- ❖ Keep it as simple as possible!
 - ❖ Even a NotePad user can do it!

Monday, April 14:

✦ ~~Task A~~ DONE

✦ ~~Task B~~ DONE

✦ ~~Task C~~ DONE

✦ Task D

✦ Task E

Move to tomorrow

Monday, April 14:

+ ~~Task A~~ DONE

+ ~~Task B~~ DONE

+ ~~Task C~~ DONE

Tuesday, April 15:

* Task D

* Task E

New item? Add to the list!

Monday, April 14:

+ ~~Task A~~ DONE

+ ~~Task B~~ DONE

+ ~~Task C~~ DONE

Tuesday, April 15:

* Task D

* Task E

* Task F

...or tomorrow's list!

Monday, April 14:

✦ ~~Task-A~~ DONE

✦ ~~Task-B~~ DONE

✦ ~~Task-C~~ DONE

Tuesday, April 15:

✦ Task D

✦ Task E

Wednesday, April 16:

✦ Task F

...or tomorrow's list!

Monday, April 14:

✦ ~~Task-A~~ DONE

✦ ~~Task-B~~ DONE

✦ ~~Task-C~~ DONE

Tuesday, April 15:

✦ Task D

✦ Task E

Thursday, April 17:

✦ Task F

The 4pm check

- ❖ Pause to consider the remaining items
- ❖ Items due today:
 - ❖ Option 1: Call requester, negotiate extension
 - ❖ Option 2: Pawn off task to co-worker
 - ❖ Option 3: Work late

Let's Practice!

Add the following items to your todo list

- ❖ Create account for “bob”
- ❖ Test new GCC release
- ❖ Report bug in product X
- ❖ Phone JP
- ❖ Add wiki page: new support hours

(No actual patents filed)

Tom's Patented Marking System

X Done

— Moved to future day

NO Decided not to do it, record why & who told

- Delegated, record "to whom"

<May 14> More info on May 14's page

Commercial stationary uses a different notation and that's ok.

Add the following items to your todo list

- ❖ Create account for “bob” ⇐ Mark “done”
- ❖ Test new GCC release ⇐ Incomplete (next day)
- ❖ Report bug in product X ⇐ Mark “done”
- ❖ Phone JP ⇐ JP will return in 2 days

First sheet should look like:

| | ABC | Prioritized Daily Task List |
|---|-----|----------------------------------|
| X | | Create account for “bob” |
| — | | Test new GCC release |
| X | | Report bug in Product X |
| — | | Phone JP |
| | | Add wiki page: new support hours |
| | | |

End of day: 1 item left!

| | ABC | Prioritized Daily Task List |
|---|-----|----------------------------------|
| X | | Create account for “bob” |
| — | | Test new GCC release |
| X | | Report bug in Product X |
| — | | Phone JP |
| | | Add wiki page: new support hours |
| | | |

End of day: 1 item left!

| | ABC | Prioritized Daily Task List |
|---|-----|----------------------------------|
| X | | Create account for “bob” |
| — | | Test new GCC release |
| X | | Report bug in Product X |
| — | | Phone JP |
| — | | Add wiki page: new support hours |
| | | |

Leave work with a smile

- ❖ Clear your “todo” list at the end of the day by moving & marking.
- ❖ A System administrator’s work is never done. You can’t expect to finish all your tasks each day. However, you can be satisfied they have all been managed.

Control your time!

- ❖ Schedule your work
- ❖ Prioritize what you do
- ❖ Control the hours you work

More work than one 8-hour day?

- ❖ At start of day, estimate amount of work in hours.
 - ❖ Few items: easy to estimate
 - ❖ Many items: write estimates and total
- ❖ Move low-priority items to next day.
 - ❖ Start the day with just 8-hours of work.
 - ❖ Or “n” hours if you have meetings, appointments.

Super overloaded?

- ❖ Break projects into steps
 - ❖ List time for today's step
 - ❖ Add this item to each day's "todo list"
- ❖ Delegate
- ❖ Re-prioritize (re-negotiate)
- ❖ Ask boss for advice

Finish all of today's tasks?

- ❖ Get a head-start on tomorrow's work
- ❖ Reward yourself by...
 - ❖ working on a fun project
 - ❖ working on a low priority project
 - ❖ Coffee break!
- ❖ Go home early (?)

Working with tickets

- ❖ Schedule n-hours of “doing tickets” each day
- ❖ Use the todo list as a cache of tickets
- ❖ Your “working set”

Projects and Tickets

- ❖ “Glenn”, a sysadmin, was directed to “split your time evenly between helpdesk and projects”.
- ❖ When he planned his day, he added a “todo item” called “interrupts” which was always 50% of his time.
- ❖ Too many interruptions? Told me to go away (politely)
- ❖ Fewer interruptions? Extra time for projects.

Merge work & personal databases

- ❖ One unified calendar -- include social plans
- ❖ Only use a second calendar if you have a “classified work-life”
- ❖ Use calendar to allocate time for fun:
 - ❖ Plan a “date night” or “family night”
 - ❖ Hobby or personal project
 - ❖ Tom’s 2007 goal: See more movies!

Prioritization

Make sure the important stuff happens.

Date

What's so bad about FIFO?

- ❖ Distraught over what order to do tasks on your todo list?
- ❖ What's so bad about FIFO?
- ❖ Benefit:
 - ❖ it's easy
 - ❖ older items tend to “bubble” up to the top and get higher priority
 - ❖ sounds great!



Prioritize based on customer perception

Prioritizing tasks so that users think you're a genius

Date

What do customers expect?

- ❖ They want everything NOW but what do they expect?
- ❖ Some requests should be quick...
 - ❖ Reset a password
 - ❖ Assigning an IP address
 - ❖ Anything small impeding their work
 - ❖ “Hurry up and wait” things (order now, receive later)
- ❖ Some requests take a long time...
 - ❖ Installing a new PC
 - ❖ Creating a new service
- ❖ Emergencies: SAs will drop everything for major outages

FIFO-based Priority

| Task | Description | Customer Expectation | Actual Duration |
|------|---------------------------|----------------------|-----------------|
| T1 | Add new CGI area to www | 1 hour | 30 min |
| T2 | Create new account | Next day | 20 min |
| T3 | Debug minor NetNews issue | 10 min | 25 min |
| T4 | Give IP addr to user | 2 min | 5 min |
| T5 | Install new server | Next day | 4 hours |
| T6 | Order a software package | 1 hour | 1 hour |
| T7 | Reset Password | 1 min | 10 min |

- Time: 360 minutes

Evaluation:

- All tasks completed
- T4+T7: Unhappy!

Expectation-based Priority

| Task | Description | Customer Expectation | Actual Duration |
|------|---------------------------|----------------------|-----------------|
| T7 | Reset Password | 1 min | 10 min |
| T4 | Give IP addr to user | 2 min | 5 min |
| T6 | Order a software package | 1 hour | 1 hour |
| T1 | Add new CGI area to www | 1 hour | 30 min |
| T2 | Create new account | Next day | 20 min |
| T5 | Install new server | Next day | 4 hours |
| T3 | Debug minor NetNews issue | 10 min | 25 min |

No
change!

- Time: 360 minutes

Much
better!

- Evaluation:
- All tasks completed
 - Happy customers!

Summary

- ❖ In both cases:
 - ❖ All tasks completed
 - ❖ (You did the same amount of work)
- ❖ In second case:
 - ❖ Customers much happier: less waiting

You did the same amount of work, but people were happier with your performance

Priorities

- ❖ Mark every todo item with an A, B, or C priority
- ❖ A -- Must be done today (due date is today)
- ❖ B -- Today, lower priority
- ❖ C -- Everything else!

Day 2: Not enough time!

| | ABC | Prioritized Daily Task List | |
|--|-----|------------------------------------|-----|
| | A | Test new GCC | 2 |
| | A | Add wiki page: new support hours | 1/2 |
| | B | Write design for new office | 4 |
| | C | Delete (after archiving) 50T | 5 |
| | B | Find 3 new SAN vendors to bid | 3 |
| | C | Install new IDS system in test lab | 8 |

Get control over your time

- ❖ Schedule your work
- ❖ Prioritize what you do
- ❖ Control the hours you work

- ❖ Impossible? Completely possible.

It only works if you use it!

- ❖ Carry todo-list everywhere
 - ❖ Smart Phone always with ya
- ❖ Always mark your calendar.
- ❖ Start each day by prioritizing and planning.

Summary of The Cycle

- ❖ Morning:
 - ❖ (Add any repeating items, etc.)
 - ❖ Too much to do? Prioritize!
- ❖ Work items in FIFO or prioritized order
- ❖ Take breaks
- ❖ “The 4pm routine”

That's the Cycle!

❖ Questions?

Routines

Get into that old, boring routine!

I wish I never
woke up this morning

Life was easy
when it was boring.

Darkness, The Police

Turn chaos into routines

- ❖ Schedule key meetings the same time(s) each week
- ❖ “Gasoline on Sunday”
- ❖ “Empty water from A/C reservoir as you enter the building.”

Developing your routines

- ❖ Repeated events that aren't scheduled
- ❖ When procrastinating takes longer than the task itself
- ❖ Things you forget often
- ❖ Low-priority tasks that can be skipped now and then but shouldn't be
- ❖ Maintenance tasks: IT is like gardening
- ❖ Relationship development

Good habits save time

- ❖ Hesitate before pressing ENTER.
- ❖ Write the test before the code.
- ❖ “ping” before and after disconnecting any cable.
- ❖ Always backup a file before it is edited.
- ❖ Check for keys before leaving car, house, office, secured area, etc.

Automatic “Yes” Answers

- ❖ Would this be a good time to save my work?
- ❖ Should I bring my PDA/PAA with me?
- ❖ Should I record this task/event/date in my PDA/PAA?
- ❖ Should I call now that I’m going to be late?

Chapter 3: Tools for a “Meeting-Free Day”

“No meetings” Days

- ❖ Goals:
 - ❖ Maximize project time
 - ❖ Give customers attention they need
 - ❖ Do any recurring tasks (daily, weekly, etc.)
- ❖ Techniques:
 - ❖ Start the day: “Invest 5 minutes” to prioritize and plan
 - ❖ Maintain focus
 - ❖ Handle customer requests intelligently
 - ❖ Take breaks as needed

Start the day: “Invest 5”
Prioritize and mark “time blocks”

Maintaining Focus

Date

Focus

How long does it take to complete a 2-day project?

Focus

- ❖ Focus is concentrated effort.
- ❖ “Users always bother me” == “I’m being prevented from maintaining focus”
- ❖ Interruptions are the natural enemy of focus.
- ❖ Returning from an interrupt is error-prone.

The uncluttered brain

- ❖ Our brain is only so big.
- ❖ It divides itself among all the things we are trying to focus on.
- ❖ Unclutter your brain.

Focus problems we cause

- ❖ A messy desk
- ❖ Visually complex items in front of us
- ❖ Icons on our desktop, Instant messenger clients, music, stock tickers, news tickers, “you have new mail” notifiers, games, multitasking overload.
- ❖ **Clean up your workspace -- Free your mind!**

Multitasking

- ❖ Too much multitasking is a distraction
- ❖ Multitasking while talking to someone
 - ❖ ...is rude, makes conversation take longer
- ❖ When is multitasking appropriate?
 - ❖ Waiting for long batch jobs

Interrupts from others...

Redirecting Interrupts

- ❖ If someone wanted to interrupt you to ask a question, how do they find you?
- ❖ Does their web browser start-page tell them how to reach the helpdesk?
- ❖ Are proper channels properly clearly communicated?
- ❖ Can you re-arrange seating so they walk by your co-workers before they reach you?

Mutual Interruption Shield

- ❖ Each person picks a time of day to be the interrupt shield.
- ❖ While shielded, you have productive project time.

Without Shield

| | You | Co-Worker |
|----|--------------------------------------|-----------|
| AM | Frustrated by constant interruptions | |
| PM | | |

With Shield

| | You | Co-Worker |
|----|----------|-----------|
| AM | Shield | Projects |
| PM | Projects | Shield |

Org structures based on this

- ❖ Split into a tier 1 / tier 2 structure
 - ❖ Tier 1 -- “Customer facing”
 - ❖ Handles 80%, bumps 20% up to tier 2
 - ❖ Tier 2 -- “Project & Engineering”
- ❖ Physical layout:
 - ❖ Make sure customers must trip over “customer facing” people to get to Tier 2.
 - ❖ Move Tier 1 offices to high-traffic areas
 - ❖ keep Tier 2 relatively obscured

Peak time for focus

- ❖ When during the day can you focus best?
 - ❖ Different for each of us.
 - ❖ Do you know your peak hours?
- ❖ “First hour of the day”-Rule
 - ❖ The fewest interruptions happen the first hour of the day because nobody else
 - ❖ Therefore, don't use it for junk tasks like email.

Handling Interrupts without being a JERK

Saying “no” or “not now”

When someone makes a request, they expect to be heard.

Corollary: They will be unhappy if they don't feel heard.

Saying “no” with compassion

- ❖ How to say “no” without sounding rude?
 - ❖ Take the customers needs into account
 - ❖ “Say with action” (not words) that the request will be completed

For each request

Pick one:

- ❖ Record it
- ❖ Delegate it
- ❖ Do it

When to “record it”?

- ❖ I'm in the middle of another project
- ❖ Not urgent
- ❖ Not a “while you wait” request

Other ways to record request

- ❖ Create a “ticket”
- ❖ Write in your PDA or todo-list system
- ❖ Have them create the ticket -- tell them the words to use

When to “delegate”?

- ❖ Someone else can do it
- ❖ Too urgent to put off

Effective Delegation

- ❖ Three things to explain to “stucky”:
 - ❖ What you expect the end-result to include
 - ❖ A specific, measurable result?
 - ❖ A checklist?
 - ❖ The resources / authority
 - ❖ A deadline
 - ❖ Let them suggest a date. If it’s acceptable, say “Ok, I’ll expect this to be done by [insert date].”
 - ❖ Record the deadline

When to “do it”?

- ❖ Emergency -- outage affecting multiple people.
- ❖ It's my job to react in this situation.
- ❖ If it takes less than 2 minutes (“the 2 minute rule”)
- ❖ Requests from my boss.

Be creative

- ❖ Pre-allocate your next 2-3 IP addresses
- ❖ Keep common sysadmin apps running
- ❖ Automate, automate, automate
- ❖ Create self-service versions:
 - ❖ sudo shell scripts that check inputs do request
 - ❖ CGI scripts that check input then sudo
 - ❖ (Note: Such scripts may result in security holes. Validate inputs, and be paranoid.)

Task Batching

“Fixed Length” tasks first

- ❖ Fixed Tasks: Takes a certain amount of time
- ❖ Expanding tasks: Expands to fill time available
- ❖ Example 1:
 - ❖ It is 5pm. Leave to meet friends at 7pm.
 - ❖ Need to do 2 things before you leave:
 - ❖ Take out the trash before you leave
 - ❖ Practice Guitar Hero II
- ❖ Example 2:
 - ❖ Backup tapes must be changed each day.

Batching

- ❖ Batching: Do similar tasks in a group
- ❖ Examples:
 - ❖ Do all DNS-related tickets at once
 - ❖ Do all (certain kind of tickets) once a day / week
 - ❖ Make exceptions for emergencies
 - ❖ Start all new employees on Mondays
 - ❖ Weekly “walk-around” to stay in touch with users

Sharding

- ❖ Sharding: Break large quantities into chunks, or shards
- ❖ Term comes from Map-Reduce (Hadoop)
- ❖ Examples:
 - ❖ Visit 10 machines each morning until (task) complete
 - ❖ Schedule PC upgrades by hallway or department
 - ❖ Clean 1/8th of the storage room until complete

Elastic Tasks: Set a stop-point

- ❖ Elastic tasks: Tasks that stretch to fill all time (if you let them)
 - ❖ Examples: email, netnews, reading blogs, chatting with coworkers at the watercooler
- ❖ The solution: Set a “stop point”
 - ❖ Say to yourself:
 - ❖ “I’m going to stop reading email in 10 minutes”
 - ❖ Look at your watch, set a timer, do whatever it takes.
- ❖ What if I’m not done?
 - ❖ Don’t worry... the email will be there when you come back.

Declare a “fix-it day”

- ❖ Stop working on bigger projects to do tasks that have been lingering for too long
- ❖ Personal examples:
 - ❖ Inventory all the PCs
 - ❖ Clean the house
- ❖ Team Examples:
 - ❖ documentation fix-it day
 - ❖ find and fix slow PCs day
 - ❖ fix all the SSL certs day
 - ❖

Email

- ❖ **Strategy:** Use filters so there is one Inbox to read that is important.
 - ❖ 00.MustRead -- all things “to you”, from “important people”, and on urgent mailing lists
 - ❖ 5x.listname -- one per mailing lists
 - ❖ Inbox -- everything else

Daily plan:

- ❖ Read “00” when busy. “Inbox” when you have time.
- ❖ Everything else as recreation, or scheduled for a particular time blocks

And take breaks

- ❖ Take breaks. Your brain needs a rest. Really.
- ❖ Henry Ford, king of working people to death invented the coffee break because he found that people are more productive when they take breaks.

Tools for a “Some Meetings” Day

Goal: Squeeze productivity into the gaps between meetings.

- ❖ First thing: Review Todo list, prioritize, circle things that “have to be done today”
- ❖ Everything else:
 - ❖ Move to next day.
 - ❖ Notify people if this means adjusting deadlines.
- ❖ Between meetings:
 - ❖ Focus on those “key items”.
 - ❖ Get right to work.
 - ❖ No socializing.

How to get out of meetings

- ❖ Send a delegate.
 - ❖ Why is entire team attending?
 - ❖ Send a delegate to take notes.
 - ❖ Load up delegates with points to make.
 - ❖ Have delegate get you if certain topics come up.
- ❖ Announce “I can only stay for the first half”.
- ❖ Reschedule the meeting for some other time.

Chapter 4: Tools for a “Packed Day”

“Packed Day”

- ❖ Goals:
 - ❖ Efficient Meetings
 - ❖ Some multi-tasking
- ❖ Techniques:
 - ❖ Start the day: “Invest 5 minutes” to prioritize and plan
 - ❖ Reschedule + communicate if deadlines need extensions
 - ❖ Take breaks as needed

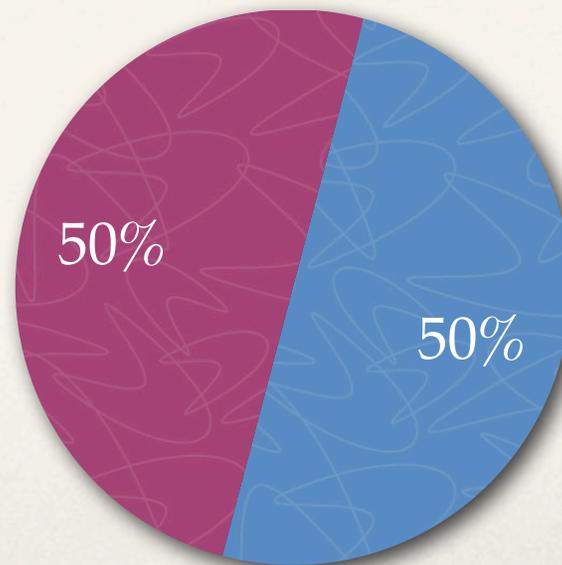
Goal: Efficient meetings

1. All meetings should be a good use of your time.
 - ❖ Ones that aren't should be reformed or cancelled.
2. When I'm in a meeting, I should participate to my fullest.
 - ❖ I should have a reason for being there.
 - ❖ I should focus on this reason.

Who's responsible for how effective/efficient a meeting is?

● Attendees

● Facilitators



Meetings run better when: (Attendee responsibilities)

- ❖ Meetings start on time.
 - ❖ Arrive on time.
 - ❖ Quiet and ready to go.
 - ❖ A/V needs ready before meeting starts.
- ❖ Everyone pays attention.
 - ❖ Not reading email, chatting online.
- ❖ Hold back from funny comments.
 - ❖ Unless it the meeting needs some life.

How to “pay attention”

- ❖ Unable to pay attention?
 - ❖ Offer to be the note-taker.

- ❖ Unable to resist email / IM?
 - ❖ Don't bring your laptop.
 - ❖ Offer to take notes (if your laptop is projecting, you won't be reading email)

Meetings run better when: (Facilitator responsibilities)

- ❖ Have a written agenda.
- ❖ Meetings start on time.
 - ❖ Arrive on time.
 - ❖ A/V needs ready before meeting starts.
- ❖ End on time

Different meeting types

- ❖ Information:
 - ❖ Make your announcement then start Q&A.
 - ❖ Use Google Moderator.
- ❖ Discussion:
 - ❖ Facilitator is there to moderate, make sure everyone gets their thoughts expressed.
 - ❖ Tries to get closure (a decision) after people have talked enough.
- ❖ Status:
 - ❖ Give each person 1 minute. Time them.
 - ❖ No discussion until everyone has spoke.

Let agenda manage themselves:

- ❖ Use a Google Doc, Wiki, or other shared document
 - ❖ At top:
 - ❖ Write goal of meeting, time, who should attend, etc.
 - ❖ Agenda for next meeting:
 - ❖ (anyone can log in and add / comment)
 - ❖ Agenda and notes for past meetings (in reverse chronological order)
- ❖ No agenda 12 hours prior? Automatic cancel.

“Weekly GSI Team Meeting” Meeting Guidelines:

- Weekly. 30 minutes but book 1 hour just in case.
- Who should attend: all core GSI members, plus TLs and PjMs involved in GSI.
- First meeting of each month includes updates from all the Tech Leads
- How the agenda is built:
 - Anyone can add items to the agenda via the shared doc
- No new agenda items after 5pm the previous day.
- No agenda by 5pm PST? Meeting automatically cancelled.
- Default Agenda:
 - Announcements (if any)
 - First meeting of each month: Each TL gives a report (accomplishments, projects, and help needed)
 - Remainder of agenda items from shared doc.

Agendas and Notes:

Agenda for
next meeting

2009-09-02 Weekly GSI-Team Meeting

- (bill) Review agenda for annual summit
- (mary) The new monitoring system

Notes from
previous
meeting

2009-08-26 Weekly GSI-Team Meeting

- Attendees: bill, mary, joe, sara, mar, tom, bob, julie
- Announcements:
 - Bill will be out of office all November
- Discussion of new monitoring thresholds:
 - mary: too many false-alarms
 - Decision: No alert until 4 consecutive missed pings.
- Where to put new server:
 - Much discussion.
 - Decision: Rack 3 in room 2.

Notes from
even earlier
meetings

2009-08-19 Weekly GSI-Team Meeting

Other tips:

- ❖ Facilitator decides:
 - ❖ Order of agenda items
 - ❖ Laptop policy
- ❖ Only invite people that are needed.
- ❖ Facilitator should not be the note-taker. Too distracting.

How to have shorter meetings.

- ❖ Schedule 30-minute meetings, not 60-minutes.
- ❖ Meeting ends early?
 - ❖ Don't ask, "is there anything else?" Just say "we've reached the end of the agenda. Thank you." and leave.
- ❖ Feed people: Mouths busy with food don't talk. (Unless you want to encourage discussion.)

Dealing with bad facilitators.

- ❖ Either reform them, or stop attending their meetings.
- ❖ Either way, let them know. *IN PRIVATE.*
- ❖ Explain the problems:
 - ❖ Meetings are longer than needed.
 - ❖ Meetings are unfocused.
- ❖ Suggest the Agenda Wiki, shorter timeslot, etc.

=====
My meeting policy
=====

After spending too much time in meetings I realized that if everything else can be budgeted away (travel, computing resources, etc.), I can introduce a new meeting policy for myself.

Budget
=====

I have a budget for recurring meetings. The budget stands at 12.5% of my working time (40 hours per week \Rightarrow 5 hours of meetings, i.e. one per day). Weekly meetings are not supposed to take more than 7.5% (i.e. I have 3 hours of weekly meetings per week), and the other 5% (two hours) are reserved for less-often meetings.

Confused? Current weekly meetings:

- * all-team meeting, one hour
- * team-leads meeting, one hour

And I have one hour left for weekly meetings.

Loopholes:

Of course, the budget above doesn't deal with non-recurring meetings. I'll see about those if they happen to become a problem.

Meeting times
=====

Due to my current timezone and the teams I'm working with, all recurring meetings will be restricted to a specific time slot: after 15:00 Zürich time.

Non-recurring meetings are restricted to the same time slot, exceptional cases (people traveling here, etc.) being, of course, an exception.

Furthermore, Mondays and Fridays are not favorable to meetings. I can have meetings on those days, but I won't be happy.

Meeting types
=====

Of course, there are different meeting types/purposes, so treating all the same is not right. However, I'll make it simple: any 'meeting' whose purpose is not:

- * to solve a technical problem
 - * a collaboration that will result in a design document
- is a meeting, and is a subject of the above rules.

This is the “meeting budget” a co-worker recently announced for himself.

Chapter 5: Tools for a “Out of Office”

“Out of Office”

- ❖ Goals:
 - ❖ Coverage
 - ❖ Keep others informed.
- ❖ Techniques:
 - ❖ Review upcoming Todo lists.
 - ❖ The OOO countdown
 - ❖ Set appropriate messages.

Short-term Out Of Office:

- ❖ 1-2 days
- ❖ Check Todo List.
 - ❖ Manage “due date” items.
 - ❖ Contact requester, renegotiate date or delegate.
 - ❖ Might be better to do with your boss than requester.
 - ❖

Long-term Out of Office

- ❖ Vacations, trips, etc.
- ❖ Establish a “count-down”:
 - ❖ x days in advance:
 - ❖ Announce to boss, others.
 - ❖ Plan coverage (co-worker, clerk, etc.)
 - ❖ Coverage doesn't have to be perfect. Just recurring todos, common tasks.
 - ❖ Timeline should be written, have manager signoff.
 - ❖ Communication:
 - ❖ If/ when any email announcements, etc.

Long-term OoO (pt 2)

- ❖ Training:
 - ❖ Train those that will cover for you.
 - ❖ Update documentation.
 - ❖ Have them practice
- ❖ 7 days prior:
 - ❖ Coverage people should do all tasks at least once.
- ❖ 1 day prior:
 - ❖ No “root” or “administrator” access for you!
 - ❖ Set “vacation” message on email, voicemail, etc

On Return...

- ❖ Checklist:
 - ❖ Disable “vacation” message on email and VM
 - ❖ Meet with coverage people.
 - ❖ Identify gaps in documentation, other issues.
 - ❖ Enumerate tasks left for when you return.
 - ❖ Hopefully a ticket is filed for each.
 - ❖ Announce you have returned (reply-all to previous announcement email? walk around saying “hi”?)

Chapter 6: Tools for a “Half Day”

Half Day

- ❖ Example: The half-day before Thanksgiving
- ❖ Goals:
 - ❖ Don't drop any high-priority issues / deadlines.
 - ❖ Leave on-time.
- ❖ Techniques:
 - ❖ Prioritize and schedule.
 - ❖ Limit elastic tasks.
 - ❖ Communicate, coverage, etc.
- ❖ Special case: day before holiday:
 - ❖ Often nobody gets work done. Is a party. Plan for this!

Chapter 7: Tools for an “Emergency Outage”

Day 3:

| | ABC | Prioritized Daily Task List |
|--|-----|----------------------------------|
| | B | Phone JP |
| | A | Add wiki page: new support hours |
| | C | Ticket catchup (3 hours) |
| | A | Upgrade Oracle for Sales group |
| | | |

Emergency Day

- ❖ Was going to be a normal day, then a major outage happens.
- ❖ Goal:
 - ❖ Solve the outage!
- ❖ Techniques:
 - ❖ Be visible to customers.
 - ❖ Be focused.
 - ❖ Know when to accept help.
 - ❖ Communicate the management chain and/or customers.

Techniques

- ❖ Respond visibly:
 - ❖ Match customer expectation:
 - ❖ They want to see action - so do something visible
 - ❖ “we’re down” web page, signs on wall, “*running SAs*”
- ❖ After initial diagnosis, communicate.
 - ❖ Inform management (hourly?)
 - ❖ Review “todo list” -- Renegotiate “A” priority items.
 - ❖ Ask boss to do the negotiations. Excuse you from mtgs.
 - ❖ Benefit: keeps boss out of your hair.

Other tips...

- ❖ Accept help from others.
 - ❖ I've seen many sysadmins try to "go it alone" or not accept help during an outage. Accept offers of help.
 - ❖ Even a "second pair of eyes" is a powerful thing.
- ❖ Know when you are tired.
 - ❖ Assign external person to force you to take breaks.
 - ❖ Work in shifts for multi-day outages.
- ❖ Fix the urgent problem, save the long-term fix for later.
 - ❖ "Quick fix" is ok.
 - ❖ Schedule long-term fix for next maintenance window.

Post mortem and preventions

- * After an emergency, publish a “Post Mortem”
- * Goal:
 - * Document what went wrong, what went right, can can be done to prevent this in the future.
 - * Non-Goal: to place blame.
- * List:
 - * What went wrong
 - * Timeline (pages, actions taken, emails sent, etc.)
 - * Core problems
 - * Preventions for the future:
 - * List ticketId assigned to each recommendation
 - * People involved

Summary

- ❖ Plan how you will approach your day:
 - ❖ Meeting-Free / Mixed / Meeting-Packed
- ❖ Use appropriate tools:
 - ❖ All: Todo list + Calendar
 - ❖ Meeting-Free: Focus
 - ❖ Mixed: Squeeze in tasks where you can.
 - ❖ Meeting-Packed: Efficient Meetings
- ❖ Meeting efficiency:
 - ❖ Depends on YOUR activity and FACILITATOR'S planning.

Life Goals

Get what you want out of life!

Date

Rocks, pebbles and sand

- ❖ If you put the sand into the jar first, there is no room for the pebbles or the rocks. The same is true for your life: If you spend all your energy and time on the small stuff, you will never have room for the things that are important in life.



<http://www.juliaferguson.com/cool.html>

Make time for the big things

- ❖ When do we have time for big things?
 - ❖ Taking a long vacation
 - ❖ A week writing code to save months of labor
- ❖ Answer: Never!

So what do we do?

- ❖ We make time.
- ❖ We schedule the vacation a far in advance.
- ❖ Weeks before we...
 - ❖ Train the person that covers for us.
 - ❖ Update documentation
 - ❖ etc.
- ❖ Other “big projects” require the same.

Life goals:

- ❖ Goals should be measurable: “Lose 20 pounds by January”, not “Lose weight”
- ❖ Don't be afraid to dream
- ❖ What do you want to accomplish...
 - ❖ 1 month from now?
 - ❖ 1 year from now?
 - ❖ 5 years from now?
 - ❖ In your lifetime?

Exercise: Life goals

- ❖ Spend 5 minutes writing down your 1m, 1y, 5y, life goals.
- ❖ Write 1-2 per category (1 work, 1 personal)
- ❖ Nobody will be seeing these, feel free to write the secret goal that you may be embarrassed to share.

Actions to achieve goals:

| Category: | Goal: | Actions: |
|-----------|-------|----------|
| 1 Month | | |
| 1 Year | | |
| 5 Years | | |
| Lifetime | | |

Goal-planning is a life-time task

- ❖ Keep your list in your planner
- ❖ Add new ideas when you think of them
- ❖ Review it periodically

- ❖ This 5 minute exercise wasn't enough time
 - ❖ Week-long workshops, weekend retreats, family discussions, etc

Routine: 1st day of month

- ❖ Re-read list of goals (keep copy in dayplanner)
- ❖ Sprinkle action items into your schedule that bring you closer to these goals.
- ❖ PAA: Do it when you load the next month of paper into your organizer
- ❖ PDA: Schedule a recurring event called “Monthly Goal Review”

Q&A

**What are you going to do with
all this free time?**

REVIEW:

- ❖ List 3 techniques you found most useful
- ❖ Circle the one you commit to doing

More tips:

www.EverythingSysAdmin.com

wiki.EverythingSysadmin.com



Please be verbose on the evaluation forms!

Time Management for System Administrators: A New Approach

by Thomas A. Limoncelli

Usenix LISA 2009, Baltimore, MD