

# A Day in the Life of System Administrators (aka DITL)

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# It's all Mark's Fault

- Born at SANS May 1998
- Scheduled for Sept 15, 1998
- Web site and registration posted
- Advertised very widely
- Cancellation not an option
- Ready at about 3am Sept 15, 1998

# The Plan

- Participants pre-registered with demographic data
- On the day - submit a form once every hour
  - trade off between data granularity and ease
  - 15 minute granularity with 3 time slices
  - needed to develop distinct entry categories to make data quantifiable
- Submit a summary

# Data Categories

- We decided to use pairs of nouns and verbs to categorize each activity unit
- This turned out to be more ambiguous than expected because of the lack of adjectives and prepositions
  - communicate (with|about) email
  - monitor (my|system) email
  - answer questions (about|via) email

## VERBS

Answer questions,  
Automate, Configure,  
Communicate, Debug,  
Design, Diagnose,  
Document, Fight Fire,  
Install, Learn,  
Monitor, Meet, Plan,  
Research, Schedule,  
Test, Train

## NOUNS

Backups, DNS, Mail,  
WWW, Hardware,  
Disk, Tape,  
Peripherals, Operating  
System, Utility SW,  
Application Software,  
Network, Security,  
User Environment,  
Policy, Personal,  
Break

# Results

- This was an experiment, but it was for fun, not science. Therefore the results are not conclusive in any way.
- We had to “clean” the data:
  - resolve duplicate submissions
  - remove non-working hours
  - throw out personal and break time
  - spot check notes with category selections

# Response: Over 20 countries

- 163 pre-registered
- 128 recorded their day
- 107 summarized their day
- Intersection of all three is about 100
- Used all day records
- Used only pre-registered who recorded
- Used all summaries

# Typical System Administrator

- Works about 9.5 hours/day and 5 days/week
- Off hours work is required (78%)
- Has about 7 years of experience
- Not titled System Administrator (75%)
- Has some college (20%) or degree (77%)
- Is 32 years old, male, married, no kids
- Wears a pager full time and not paid for it

# Typical System Administrator

- Supports over 500 users and workstations
- Supports 10-20 servers
- Works in a group of 2-5
- Has an “atypical” day once/week or more
- Has more NetApp or such boxes than off-brand UNIX
- Has at least some Linux

# Detailed Records

- 19x16 usable matrix
- 346 possible combinations
- 254 were used!!
- Only the ones that didn't make sense weren't used like "install policy" and "automate hardware"

# Typical Day by Noun

- 20% miscellaneous or no good category
- 12% applications software
- 12% email
- 9% operating systems
- 7% hardware
- 6% utilities
- 5% user environment

# Typical Day by Verb

- 11% meetings
- 11% communicating
- 9% configuring
- 8% installing
- 8% “doing”
- 7% answering questions
- 7% debugging

# Typical Day in Detail

- 7% communicate|monitor misc|email
- 6% miscellaneous meetings
- 4% answering questions about|via email
- 4% install|config applications
- 3% install|config operating systems
- 2% configure user environment
- 1% debug utilities

# Interesting Details

- DNS takes the least amount of our time
- 3x as much time spent in meetings than ensuring security
- All fire fighting is only 5% of time
- Little scheduling, planning, designing
- Backups require little time, but broad action

# Summary: What frustrates us

- #1 Wasted time or lack of progress
- #2 Stupid or preventable mistakes
- #3 resources
- #4 fires

# Summary: Easy to please

- Best days were those with few fires and interruptions
- or learned something new
- or made users/customers happy
- or caught up on work

# Summary: “Epiphanies”

- Finding solutions to problems
- Finding elusive application/utility bugs
- Finding useful tools
- Naivete`

# Summary: Hindsight

- Lack of time spent planning was evident
- Wanted to plan, manage, communicate, document, or organize better
- “Marry into a family with money.”
- “Stay home.”

# Conclusion

- 99% would do it again
- Most commented on how it helped them see how they could improve how they work
- We plan to do it again
- Our own hindsight is better planning