


make informed decisions.

Slide 3

First Impressions Count

- ❖ **By looking over the campus, parents reach conclusions about a school long before talking to anyone.**
- ❖ **A late bus may be of a bigger concern than a late report card.**




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(3) School leaders, especially principals, are required to be conversant in curriculum. However, wise school leaders avail themselves of resources about operations and maintenance as a means to make better decisions and to support their classified staff who are often responsible for these tasks. Like it or not, first impressions count. Curb appeal and campus condition affect the school community's perception of a school's quality. Relatively routine operations like bus scheduling are indicators of accuracy. Parental concern rises dramatically if a bus is late or a student is missing.

Slide 4

It Takes a Team

- ❖ **The best school computer system is the one that works every time a user sits at the keyboard.**
- ❖ **One of a new principal's first jobs is to make an ally of the lead custodian.**




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(4) Newer and better networked computers are only as good as the basic maintenance and support of technology in the school. It only takes a few episodes of failed connectivity or other component problems to undermine credibility. A principal new to a site is well-advised to immediately make an ally of the lead custodian and others in charge of operations, maintenance and technology because the most sophisticated instructional pedagogy will not help when the lights go out.

Slide 5

Environment Affects Learning

- ❖ **For every one tale a student brings home from school about curriculum, the student brings home five tales about the cafeteria and restrooms.**
- ❖ **Be surprised: do some research on the extent to which the condition of school facilities affects learning performance.**



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(5) When you ask a student about his school, he will most likely tell you about the school's food, the restrooms, the busses, the school grounds, and the classroom environment. There is research indicating the extent to which school environment affects learning performance. Included in the guidance that accompanies the administration of standardized tests is advice about providing a test-taking environment that allows students to focus on the test. Newer school buildings may not necessarily produce better learning performance, but ill-maintained or inoperative facilities are clear impediments to student achievement.

Slide 6

Demonstrate Daily Follow-through

❖ **Students and staff do not quickly judge what needs to be repaired – instead, they judge how quickly it gets repaired.**

❖ **Even the most visionary instructional school leader can be stymied if the school infrastructure is not up to the vision.**



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(6) Attention given to school repairs is a daily demonstration to students and staff of a school’s priority for follow-through.

The inspired instructional visionary will find it easier to make significant improvements or changes if the basic infrastructure is intact and well cared-for – otherwise, the time needed to lead instructionally will be instead spent managing the mundane.

Slide 7

Resources, Solutions and Sample Products

A. Leadership Resources – where leaders go online to stay current

B. Software Solutions – typical applications that are modernizing operations and maintenance

C. Products – high-tech supplies and goods for the progressive school leader



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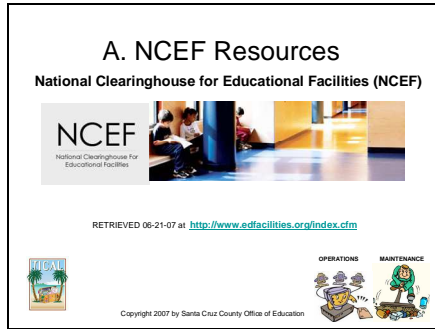
(7) To ease navigation, this presentation has been separated into three sections. As we visit the Internet sites described in the next series of slides, we invite you to click on the active links and explore the site as it is described. Simply close the Internet window when you are ready to go on.

Section A is Leadership Resources, where school leaders go online to stay current. This section focuses on clearing houses, associations, and services to assist with planning, procurement, legal issues, and emerging issues.

Section B is Software Solutions, showing some typical applications that are modernizing operations and maintenance.

Section C is Products, a sampler of high-tech supplies and goods for the progressive school leader. The cliché is that, “If you build a better mouse trap, the world will beat a path to your door.” Well, it’s operations and maintenance that makes sure that path is safe, well-lighted, and kept clean.

Slide 8



(8) Created in 1997 by the U.S. Department of Education, the National Clearinghouse for Educational Facilities (NCEF) provides information on planning, designing, funding, building, improving, and maintaining safe, healthy, high performance schools. Search under both operations and maintenance and under technology. You'll find examples of key resources on topics from how to build or remodel with environmentally friendly (green) designs and materials to researched discussions about the benefits of using computer labs versus computers distributed in classrooms. Under their Resource List tab on their home page, there are subject-specific resources on more than 140 school facilities topics. Each list includes descriptions of books, studies, reports, and journal articles, as well as links to online publications and websites. If a school leader were to pick a single online source as the starting point for global-view operations and maintenance information, this would be the site.

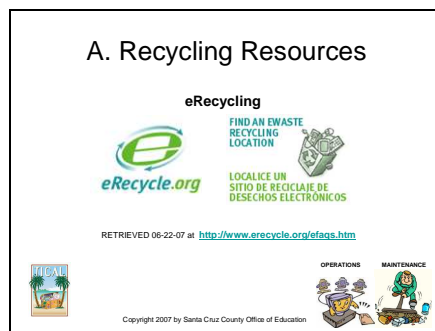
Slide 9



(9) This site uses online searching and free web-based advisories about custodial cleaning needs. From time to time, custodial staff encounters challenges regarding the best method to clean specialized school facilities, and this site provides solutions (both chemical and informational). A function of EBSCO Industries, Inc., this site offers a compendium of news and products related specifically to janitorial needs, with a focus on education institutions

and an “Ask The Education Facilities Expert” option. From the home page, the education facility case studies link cites specific janitorial needs and remedies, such as a high school that installed a rubberized sports floor which required a special cleaning machine suited to that surface. Newer materials used in schools today may require nonstandard cleaning methods. An example of this is found in the current issues section, containing such details as “Know your pH for optimal carpet care,” which charts out the best cleaning solutions for specific stain types, based on the carpet’s pH value.

Slide 10



(10) “E-waste” is the term for electronic waste which is regulated regarding its disposal. School leaders need to know what is going into the dumpster, what is going to storage, and what is being recycled. eRecycle.org is a partnership between government, manufacturers, retailers, and the environmental community to provide guidance and information about recycling electronic waste, including computer component recycling centers in California that comply with the Electronic Waste Recycling Act of 2003. Computers, televisions, VCRs, stereos, copiers, and fax machines are common electronic products. Many of these products can be reused, refurbished, or recycled. Unfortunately, electronic discards is one of the fastest growing segments of our nation's waste stream. In addition, some researchers estimate that nearly 75


percent of old electronics are in storage, in part because of the uncertainty of how to manage the materials. School leaders need to be wary of donating or surplussing "e-waste" to the community, if there are hazards associated with the identified items. Combine this with increasing advances in technology and new products headed towards the market and it is no wonder that "e-waste" is a popular topic.

Slide 11


A. Disposal / Transfer Resources

E-rate / Universal Service Administrative Company (USAC) – Disposal / transfer of network equipment

Schools and Libraries



RETRIEVED 06-22-07 at <http://www.universalservice.org/isl/about/changes-corrections/transfers-equipment.aspx>



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(11) School district personnel are often pleased to receive "E-rate" discounts on educational technology goods and services, but they must pay special attention to transferal and/or disposal of property acquired through the E-rate program. This E-rate site summarizes the "dos and don'ts" regarding E-rate acquired technology equipment. Eligible products and services purchased with Schools and Libraries program discounts cannot be sold, resold, or transferred for money or any other thing of value. Sometimes, district policies do not include these specialized restrictions, and the unsuspecting school leader may improperly transfer or dispose of property acquired through the E-rate program, an event that can result in a demand for repayment of the discounts. Applicants can transfer equipment in the following two situations, but in neither circumstance can equipment be transferred for money or anything of value: (1) Three years after the date of purchase, equipment can be transferred to other eligible entities. (2) Equipment can be

transferred from a closed location to other eligible entities within three years of the date of purchase. School leaders need to be aware of other E-rate related restrictions on record-keeping and on trade-in of equipment. This site is the official source to answer those questions.

Slide 12

A. Toxic Substances Resources

Department of Toxic Substances Control (DTSC)



Department of Toxic Substances Control
Restoring Communities - Protecting the Future

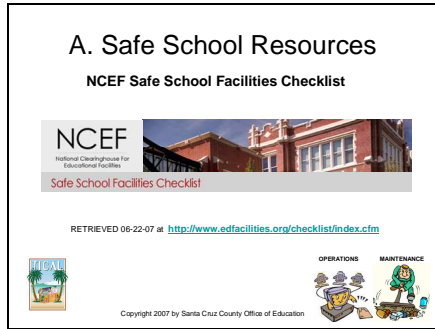
RETRIEVED 06-22-07 at
http://www.dtsc.ca.gov/HazardousWaste/EWaste/What_is_E-Waste?



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(12) School staff can learn about the regulations regarding toxic electronic components through the Department of Toxic Substances Control (DTSC). Many types of electronic products used in the workplace and homes contain hazardous substances like lead and mercury. When these products reach the end of their useful lives or become obsolete, some are considered hazardous waste. In general, hazardous waste may not be discarded in the regular trash. Instead, it must be sent to a facility that has a permit for treatment (including recycling), storage, or disposal. Electronic hazardous wastes (e-wastes) are different from industrially generated hazardous wastes in that almost every individual, institution and business generates them. RoHS is an acronym for “Restriction on the use of certain hazardous substances.” Before a school discards or disposes of certain high-tech items, staff should use this site and other resources to determine if any restrictions apply.

Slide 13



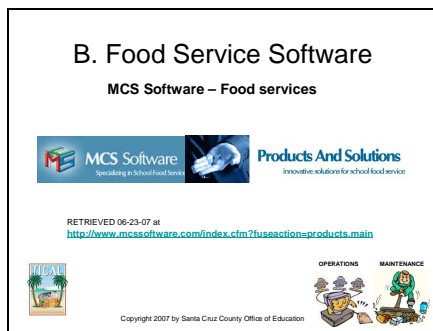
(13) In this time of heightened concern for terrorism and safety, school leaders have few resources to assess a site's risks. However, this site features a simple, quick online interface that builds your own checklist for assessing the safety and security of proposed and existing school buildings and grounds. From an extensive list of categories, the database creates a custom-made checklist of questions the school leader can use to assess school design, operation, and safety. The NCEF Safe School Facilities Checklist is designed for assessing the safety and security of proposed and existing school buildings and grounds. Facility assessments are best performed by experienced building and safety professionals working closely with school officials. Each school is different. Tailor the checklist to your school's needs by selecting the appropriate categories and subcategories. The information you choose will be downloaded to your computer in an Adobe file. These results will help the school leader identify potential weaknesses and risk factors.

Slide 14



(14) Aimed more at the operations and maintenance specialist, this software tracks tasks, travel time, equipment downtime, and assigns labor. One can automate work orders, schedule preventive maintenance tasks and completely track assets, track trends, and produce comprehensive reports to make better decisions. This software promises to: create a work order in 6 mouse clicks; use automatic alerts for needed action regarding critical events; send work orders to printers, pagers, handhelds, and some mobile phones; manage contracts and multiple projects; add labor, parts, tools and diagrams to work orders; and automatically create corrective work orders from failed inspection points. MicroMain XM is available in English, Spanish, Chinese, French and German. MicroMain products are available to government agencies through GSA schedule 70.


Slide 15



(15) Increasingly, school funding and eligibility for grants are tied to the student population's relative income level, as measured by the free/reduced lunch programs (called the National School Lunch Program). School leaders need to be aware of the eligibility standards and, more importantly, of how its food services system identifies eligible students when meals are served. This software uses scanning technology to unobtrusively account for point of student sale, plus it provides cafeteria inventory management, accounting / reporting, and an online pre-pay service.

Slide 16

B. Fingerprinting Software
Fingerprinting Systems – Student ID for school meals



M2SYS™
ACCELERATED BIOMETRICS
NEXT GENERATION FINGERPRINT TECHNOLOGY
M2SYS is a recognized industry leader in fingerprint sharing management technology, delivering fully functional, turn-key fingerprint software for immediate adoption and stand-alone solutions for corporate use.

Bio-Plugin

RETRIEVED 06-23-07 at <http://www.m2sys.com/pr010907.htm>

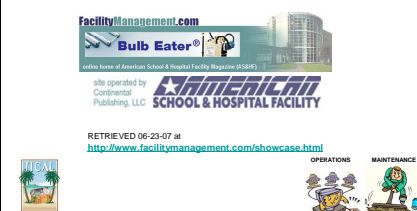
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(16) Another computer-based student ID system, M2SYS, used a fingerprint-based school lunch program ID system to shorten waiting time through the lunch line. Other fingerprint-related technologies by M2SYS are designed for staff and for security purposes. The food services fingerprint-based system eliminates the problems with ID cards and lunch tickets, improves record keeping, and prevents human error. A partnership between M2SYS Technology and Schoolhouse Software in January 2007 enables schools to integrate data systems without extensive development or training costs. The topic of positive IDs for students (or staff) often leads to emotional debates about privacy versus security, and the informed school leader can benefit from the experiences of other sites that are using this or similar software.

Slide 17

C. Facility Management Products
Facility Management – Products showcase



FacilityManagement.com
Bulb Eater®
Site based on American School & Hospital Facility Magazine (ASHF)

site operated by
Continental
Publishing, LLC. AMERICAN SCHOOL & HOSPITAL FACILITY

RETRIEVED 06-23-07 at
<http://www.facilitymanagement.com/showcase.html>

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(17) For the school leader wanting to locate new products for facilities, this is a good one-stop site. It is a product showcase, a virtual vendor conference of institutional facility products and services, from automatic door management opening to ice melting to stopping false fire alarms to controlling birds. Products are from various vendors. This site's home page is intended to serve facility managers and school site leaders by also providing content on various facility management topics. Goods and services are arrayed in 15 categories, with links to over 50 software providers related to operations and

maintenance. When the school leader faces a problem that may require a new product for the facility, this site provides quick access. Also, this is a good site for the school leader and the support staff to jointly consider “what ifs” regarding products to improve the school’s physical environment.

Slide 18



(18) You’ve no doubt seen a pool robot — one of those contraptions that floats around the surface of a pool and vacuums dirt from the pool bottom. These floor-washing robots are the pool-sweeps cousins. The units use a clean solution to wash sealed hardwood, tile and linoleum floors and get into hard-to-reach places like under cabinet edges, tables and chairs. Progressive school leaders may wish to consider the benefits of these battery-powered units that can clean approximately one classroom per charge.

Slide 19



(19) For the school leader ready to jump ahead into the future, the robotic janitor awaits. This Multipurpose Network Service Robot cleans up automatically. The robot janitor is no everyday dust vacuum. It also comes equipped with a video camera, WiFi, and the ability to apologize for interfering or running over someone’s feet. This is an example of “emerging technology” in school maintenance! Imaginative school leaders will appreciate that using its WiFi technology and camera, the robot

streams a video feed to a control center to monitor its progress. This robot is expected to be available in 2008 for approximately US\$9,000.

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Want More Information?



Visit our Operations and Maintenance Matrix at:
<http://www.portical.org/matrix4.html>

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This concludes our presentation. Please visit our Operations and Maintenance Matrix to learn more.