

Facilities & Asset Management Systems

**A Systematic Approach to
Managing Facilities and Assets**

December 2, 2004



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I. Overview

Astron International has a heritage of sensing software technology shifts and harnessing the benefits for our customers to streamline their business processes and reduce operating costs. It started when we developed our first Maintenance Software Windows application, adding needed simplicity while placing more power into the hands of our customers. And we're at it again, as the transition from traditional systems to Internet based architecture brings organizations the opportunity to enable collaboration between maintenance craftspeople, maintenance management, and maintenance engineers across the organization to reduce cost.

Through close relationships with our customers, Astron International recognized that facilities across the US were looking to the advantages of asset management systems, built with a Web-based architecture. Moreover, facilities were looking for business solutions designed specifically for them, without having to invest considerable dollars in technology developed primarily for the private-sector. So we embarked on delivering Web-based Facilities and Asset Management Systems in collaboration with *The Teams Group*, a consulting company specializing in facilities management services. Our systems are flexible and their architecture lends itself to cost effective custom development to fit the specific needs of every customer.

Designed to increase the life cycle and availability of your assets, enable better communication, and reduce maintenance and operating costs. You can rely on the products and services from Astron International and The Teams Group to manage and maintain facilities and assets.

II. Products and Services

Following is a partial list of products Astron International and The Teams Group can deliver for your facilities and asset management needs.

1. **The FSR System:** The Facilities Service Request System (FSR System) is a user-friendly software package to create, process, and track facility service requests. The FSR System can be provided with a Web interface. This allows employees to submit FSR requests via the Web and check on the status of these requests the same way.
2. **Warranties and Guarantees:** Enables the user to check if an asset is still under warranty or a maintenance agreement before an FSR is created.
3. **Asset Tracking:** Track details on fixed assets including history of maintenance work performed. This can also be used for GASB 34 compliance.
4. **Preventive Maintenance:** Schedule maintenance tasks for all assets and automatically create FSRs to execute them.
5. **Project Management:** Monitor the progress and resource utilization of multiple projects and their various phases.
6. **Facility Scheduling and Permitting Fees:** Manage the scheduling of facilities rental and the collection of related fees.
7. **Custom Applications:** Astron International has excellent capabilities to cost effectively build custom applications or add custom features to the above applications in a short time frame.

The following section presents the FSR System in detail as an example.

III. The FSR System

The Facilities Service Request System (FSR System) offered by Astron International, Inc. is a user-friendly software package to create, process, and track facility service requests (FSRs). The FSR System lets the user create a new FSR upon request, and process it through its life cycle (open, complete, and close). It also has powerful features to automatically fill fields related to the caller's location, schedule FSRs on a daily basis, search FSRs in its database, and create reports.

This document presents the major features of the FSR System.



Figure 1. Facilities Service Request System login screen

1. FSR Management – Start to Finish

The following Figure 2 shows the life cycle of a service request in the FSR system. The application assigns a FSR number for each request to track the task throughout its cycle. Different user levels can then update the record and sign off at each step of the process from the initial request to follow-up to completion.



Figure 2. The process flow of a FSR

2. Creating a FSR

Initiating a new FSR using the system is simple and easy. Normally an employee will call the help desk with a maintenance or service request. The Facilities Service Request System has a *Quick Location Lookup* feature to automatically fill fields on the FSR form based on the caller's phone number. This feature works as follows:

- FSR System user enters the caller's phone number
- Application looks in the database for the phone number
- Application retrieves data associated with the number
- Application fills the associated fields (name, address, building #, dept. etc.)

This expedites the creation of a new FSR while the caller is on the phone. A priority level for the FSR is also entered to schedule service tasks efficiently.

Facilities Service Request System

File FSR Order FSR Report Help

Facilities Service Request Form

Tel: 555 555 5555 Fax: 555 555 5556 Temp.WO No. FSR No. Prog. No. Priority No.

WORK LOCATION

Caller Jane Smith Phone No. 281-555-5555 Department Maintenance
 Building Name Administrative Building Floor No. 8 Room No. 815 Org. No. 940 Date 1/21/2004
 Taken By Bill Willard Loc. Code 493M Time 9:52:38 AM

WORK REQUESTED

File View Help

EDIT - Replace 5 fluorescent

WORK PERFORMED

EDIT - Replaced 5 fluorescent

Start Date 1/21/2004

COSTS

Vend. No. 4793494 fluorescer

Account No. Comments

Similar FSR(s)

☒ Show/Refresh Similar FSR(s) Automatically

Emp No. Employee Name Reg/OT Hours \$/Hour Total Cost

4789349 Benjamin Pratt r 2.5 \$20.00 \$50.00

Vehicle No. Miles \$/Mile Total Cost

0 \$0.36

APPROVALS

Supervisor: Name Tom Jones Date 1/21/2004
 Signature
 Manager: Name Dennis Bishop Date 1/21/2004
 Signature

Cancel FSR Current FSR FSR Status

Figure 3. Initiating a new FSR

3. Completing a FSR

The Complete FSR form allows for the capture of time and cost for a specific job. There is accountability each step of the way so that all aspects of a job from initiation to completion are documented and can be traced back to an individual.

The user enters start and completion dates as well as the actual work performed which may vary from the work requested. Materials and labor costs are accounted for and these include vehicle mileage accrued to complete the request. The FSR status can be continually updated until the order is closed.

Facilities Service Request System

File FSR Order FSR Report Help

Facilities Service Request Form

Tel: 555 555 5555 Fax: 555 555 5556 Temp WO No. FSR No. Prog. No. Priority No.

WORK LOCATION

Caller: Jane Smith
Building Name: Administrative
Taken By: Bill Williams
Comments: EDIT - 3 of 3

WORK REQUESTED

FSR Number: H-0525-B-23-001

Work Performed: Start Date: 05/25/2004 Time: 08:30 Completion Date: 05/25/2004 Time: 03:00
Work: Pressure washed the entire 250,000 square foot building.

WORK PERFORMED

Work Group: A Job Co
EDIT - Replaced 5 fluorescent

COSTS

Start Date: 1/21/2004
Vend. No.: 4793494 fluorescent

Materials

Vendor No.	Part Description	Unit	Qty. Used	Price
1 58998	Building pressure washing fluid	35	10	\$350.00

Labor

Emp. No.	Employee Name	Reg / OT	Hours	\$/Hour	Total Cost
1 4859	James Smith	r	6.5	20	\$130.00
2 5799	Hector Jesus	r	6.5	20	\$130.00

Vehicle

Vehicle No.: 5797656 Miles: 30 \$ / Mile: \$0.36 Total Cost: \$10.80

Completed By: CATHY FSR Completion Date: 05/25/2004

APPROVALS

Supervisor: Name: Tom Jones Date: 1/21/2004
Signature: _____

Manager: Name: Dennis Bishop Date: 1/21/2004
Signature: _____

Cancel FSR Current FSR FSR Status

Figure 4. Completing a FSR

4. Searching and Creating Reports

FSRs can be located by selecting a search criteria from numerous options presented under several categories.

A user can select the desired criteria under each category and submit the request for a query. The FSR System will return a list of FSR records that meet the selected criteria.

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<div> <div>Search Criteria</div> <div>Search Results</div> <div> <div>FSR Number</div> <div>ChargeBack</div> <div>Priority</div> <div>FSR Status</div> <div>FSR Dates</div> <div>Phone Number</div> <div>FSR Type</div> <div>Project No.</div> </div> <div> <div>Yes</div> <div>No</div> <div>0</div> <div>1</div> <div>2</div> <div>3</div> <div>4</div> <div>Programs</div> <div>Work Groups</div> <div>Job Codes</div> <div>Funds</div> </div> <div> <div>Selections for Search</div> <div>FSR Nos:</div> <div>All</div> <div>Charge Back:</div> <div>All</div> <div>Priorities:</div> <div>All</div> <div>FSR Status:</div> <div>All</div> <div>Date Range:</div> <div>All</div> <div>Programs:</div> <div>All</div> </div> </div>																																									
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<table border="1"> <thead> <tr> <th>Emp No.</th> <th>Employee Name</th> <th>Reg/OT</th> <th>Hours</th> <th>\$/Hour</th> <th>Total Cost</th> <th>Total Job Cost</th> <th>\$75.00</th> </tr> </thead> <tbody> <tr> <td>4789349</td> <td>Benjamin Pratt</td> <td>r</td> <td>2.5</td> <td>\$20.00</td> <td>\$50.00</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>										Emp No.	Employee Name	Reg/OT	Hours	\$/Hour	Total Cost	Total Job Cost	\$75.00	4789349	Benjamin Pratt	r	2.5	\$20.00	\$50.00																		
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Figure 5. Searching the FSR database using a selected criteria

Search results are listed in the “Query and Reports” window. To select the desired record, a user can double-click on the record and it will appear in the FSR Form.

To view the search results as a report, the user can click the *Query Report* button and a detailed report will be presented. These reports can be used for management review, comparisons, and tracking progress of FSRs.

The screenshot displays the Facilities Service Request System (FSR) interface. The main window is titled "Facilities Service Request Form" and contains fields for Caller (Jane Smith), Building Name (Administrative Building), Taken By (Bill Williams), and Comments (EDIT - 3 of the 5 lights flicker and do not give off c). The "WORK REQUESTED" section shows "EDIT - Replace 5 fluorescent bulbs in the front office." The "WORK PERFORMED" section shows "EDIT - Replaced 5 fluorescent light bulbs in main office in room 815." The "COSTS" section shows "Vend. No. 4793494" and "Part Description fluorescent light bulb".

The "Query and Reports" window is open, showing search results for "H-0107-B-12-001". The search results table lists the following records:

Number	Program Number	Open	Priority	Work Group	Job Code	Fund No.	Charge Back
H-0107-H-17-005	865	1/7/2004	Open	2	H	17	3089
H-0107-G-17-004	865	1/7/2004	Open	2	G	17	3095
H-0107-B-12-001	865	1/7/2004	Open	2	B	12	0

The "FSR Summary Report" window is also open, showing a table of search results. The table has columns for "Print No.", "Print Date", "Status", "Priority", "Work Group", "Job Code", "Fund No.", "Charge Back", "Total Cost", "Total Labor Cost", "Total Material Cost", "Total Equipment Cost", "Total Other Cost", "Phone No.", "Report No.", "Print No.", and "Assigned To". The table contains three rows of data, all with a status of "Open" and a priority of "2".

Figure 6. A typical FSR search result

5. Daily FSR Scheduling

A report of the current day's FSRs can be generated to assist with scheduling of work personnel and resources for the day.

All FSRs that are open or in progress will appear in this report. Details of each FSR and its stage in the process flow are presented in the daily scheduling report.

Daily Facilities Service Request Scheduling Report

Printed on 15-May-2004

Work Group: E

FSR No	Date Issued	Priority	Room	JobCode	Assigned To	Completed By	Date Comp.	Hours	Parts Cost	Input By	Input Date	Prog No
G-0326-E-24-068	3/25/03	1	409B	24	K. JOHNSON				0.00	ANGELE	3/25/03	827
Work Requested: WATER FOUNTAIN NEEDS CHECKING - GREEN WATER COMING OUT - 2ND & 3RD FLOORS - CHECK OTHER FLOORS ALSO												
Work Performed:												

FSR No	Date Issued	Priority	Room	JobCode	Assigned To	Completed By	Date Comp.	Hours	Parts Cost	Input By	Input Date	Prog No
G-0326-E-46-068	3/25/03	1	409B	46	H. DAUGHTRY				0.00	ANGELE	3/25/03	881
Work Requested: AC LEAKING IN COMPUTER SERVER RM - RM 409B - 4TH FLR												
Work Performed:												

FSR No	Date Issued	Priority	Room	JobCode	Assigned To	Completed By	Date Comp.	Hours	Parts Cost	Input By	Input Date	Prog No
G-0326-E-24-018	3/25/03	1	175TH	24	H. WILSON				0.00	ANGELE	3/25/03	865
Work Requested: TOILET CLOGGED IN CELL - 175TH - 19TH FLR												
Work Performed:												

FSR No	Date Issued	Priority	Room	JobCode	Assigned To	Completed By	Date Comp.	Hours	Parts Cost	Input By	Input Date	Prog No
G-0321-E-24-068	3/21/03	1	6150	24	Karl Joe Roemer				0.00	ANGELE	3/21/03	865
Work Requested: CLOGGED TOILET - RM 6150 - 6TH FLR												
Work Performed:												

FSR No	Date Issued	Priority	Room	JobCode	Assigned To	Completed By	Date Comp.	Hours	Parts Cost	Input By	Input Date	Prog No
G-0324-E-24-062	3/24/03	1	OT 3	24	HILVON REID				0.00	GLORIA	3/24/03	865
Work Requested: TOILET WON'T STOP RUNNING IN JURY ROOM												
Work Performed:												

Page completed and approved by Supervisor or Mgr. _____

All FSRs updated & closed by Admin Support _____

Signature _____

Name _____

Date _____

Signature _____

Name _____

Date _____

Page 3

Figure 7. Daily FSR scheduling report