WELCOME TO **ENTERPRISESCHEDULE**

This presentation will outline many of the features and implementations of EnterpriseSCHEDULE, the foremost scheduling solution available for Windows, OpenVMS, Linux, Sun Solaris, HP-UX and AIX

When you're done reading, contact ISE to set up a free WEBEX remote demo or a 45 day product demo

The Americas and Asia
www.i-s-e.com
(310) 643-7310
Fax:(310) 643-7549

UK and Europe
www.xuis.com
+44 (0)1372 728881
+44 (0)1372 722245

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WHAT IS ENTERPRISESCHEDULE?

EnterpriseSCHEDULE gives users the ability to administer, control and monitor workflows across an enterprise. It can initiate and manage a stream of jobs based on time, internal or external events or manual intervention.

Using Windows, Web-based and command line clients it provides a single point of control for all job processing in a distributed network of computers.

HOW WILL ENTERPRISESCHEDULE REDUCE MY WORKLOAD ?

Optimizes automated processing allowing more work to be accomplished without intervention.

Reduces personnel costs by allowing employees to focus on less repetitive and time consuming tasks

Launches jobs based on time or events reducing potential for human error

WHY IS A JOB SCHEDULER NECESSARY FOR TODAY'S GROWING ENTERPRISES?

Enterprise job scheduling has become a vital part of today's enterprises both large and small. It has become an essential tool to perform the many automated processes that IT managers are responsible for.

EnterpriseSCHEDULE is the preeminent Enterprise wide job scheduler on Windows, OpenVMS, Linux, HP-UX, Sun Solaris and AIX and is backed by more than 25 years of experience in the field.

ENTERPRISESCHEDULE FEATURES

Single point of Control

- Administer, control and monitor scheduling activity on a heterogeneous Enterprise from a single client

Time based Scheduling

- Base job flow on time intervals, days of the week or marked calendars

Event based Scheduling

- Base job flow on availability of files, variable states, resource states

Interdependencies between jobs

- Base job flow on jobs initiating each other (initiates) or jobs holding up others until complete (prerequisites)

ENTERPRISESCHEDULE FEATURES

Availability across heterogeneous platforms

- OpenVMS, Windows, Linux, AIX,
  Solaris and HP-UX

Scalable

- Standalone

- Workgroups

- Cluster

- LAN/WAN installations (TCP/IP or DECnet)

ENTERPRISESCHEDULE FEATURES

Server to Server design

- Cooperative Architecture (Agents to each other)
- Fault tolerant (No single point of failure as in Master/Agent Architecture
- Distributes processing (Highly scalable)

High Availability fault tolerant server logic

- Multiple level exception handling at code level
- Handles system errors and unforeseen errors
- Server rollover at cluster level
- Definable server activity classes

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ENTERPRISESCHEDULE FEATURES

Distributed, Centralized or Replicated database

- Distributed database allows for individual nodes to store their own data (jobs, calendars, variables etc.) in a peer to peer network or limited cluster

- Centralized database is a single database in a cluster providing a central location for the storage of data

- Replicated database is used to maintain a copy of the data set on all nodes in a job scheduling Workgroup thus providing excellent fault tolerance

ENTERPRISESCHEDULE FEATURES

- **Embedded data**
  - **The EnterpriseSCHEDULE database is embedded, independent and complete. There is need for third party database support necessary**

- **Object oriented data set**
  - **Database is organized to keep jobs, calendar definitions, variables and other data in an object oriented fashion that makes accessing and modifying data easier**

- **Comprehensive Data set security**
  - **Allows the assignment of multiple levels of access to the jobs, directories, calendars etc. to determine who can submit or modify jobs**

ENTERPRISESCHEDULE FEATURES

Windows Client

- Manage job streams across platforms using the layout window to set up jobs and dependencies by drawing job boxes and connecting lines

- Administer jobs, calendars, variables etc. using the Windows style Explorer

- Monitor job progress across the Enterprise using the job monitor module

Web Client

- Maintain job sets, control job submissions and view job status from a browser anywhere in the world

Command line client

- Perform all job scheduling duties using a command line client from the native operating system or a DOS prompt from the Windows client

ENTERPRISESCHEDULE FEATURES

Simple usage with complex functionality

- Single point of control from Windows, Web and Command line clients
- Explorer view allows Windows style administration of jobs, calendars etc.
- Job streams can be edited and controlled in Windows graphical layout
- Objects are organized in file/directory hierarchy
- Intuitive command set

ENTERPRISESCHEDULE FEATURES

Initiates signal subsequent jobs to execute based on exit status

Prerequisites hold up subsequent jobs

Prejob actions check conditions before job executes

Unlimited numbers of resource requirements

Post job actions execute after job runs

ENTERPRISESCHEDULE FEATURES

Distribute the Workload across servers

- Method 1: Automatically chooses least busy server in a workgroup freeing up resources on busy servers
- Method 2: Round Robin method runs jobs in a sequence across the workgroup
- Method 3: Runs jobs on the first accessible server in a workgroup

Replication of database across workgroup

- A complete copy of all jobs, calendars, variables etc in the database is replicated across all nodes. Provides solid fault tolerance in the event of inaccessible or faulty servers.

ENTERPRISESCHEDULE FEATURES

Connection type	Protocol
Windows or UNIX/Linux server to "all platforms" server	TCP/IP
Unix/Linux client to UNIX/Linux server	"Unix domain" socket protocol
Windows/Unix client to "all platforms" server	TCP/IP
OpenVMS server to UNIX server	TCP/IP
OpenVMS client to server	Standard mailbox protocol
OpenVMS server to server	Decnet and/or TCP/IP

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ENTERPRISESCHEDULE FEATURES

Event Queues maintain current job state info. Some examples are:

B queue holds Jobs waiting for scheduled start time

E queue - Jobs waiting for prerequisite job(s) to complete. Jobs that reach the completion queue P, signal an event to the E queue for prerequisite validation.

H queue - Jobs waiting for a independent resource variable state to change

P queue maintains old job completion status. The data is maintained for a database value retention period

CONFIGURATION EXAMPLES

Web Client (Browser Based)
Remote connection to server over Internet or Intranet

Internet

Firewall

EnterpriseSCHEDULE Server

Windows
HP-UX
Linux
Solaris
AIX
OpenVMS

EnterpriseSCHEDULE Windows Client
Remote Connection to Server

Web Client
(Mobile)
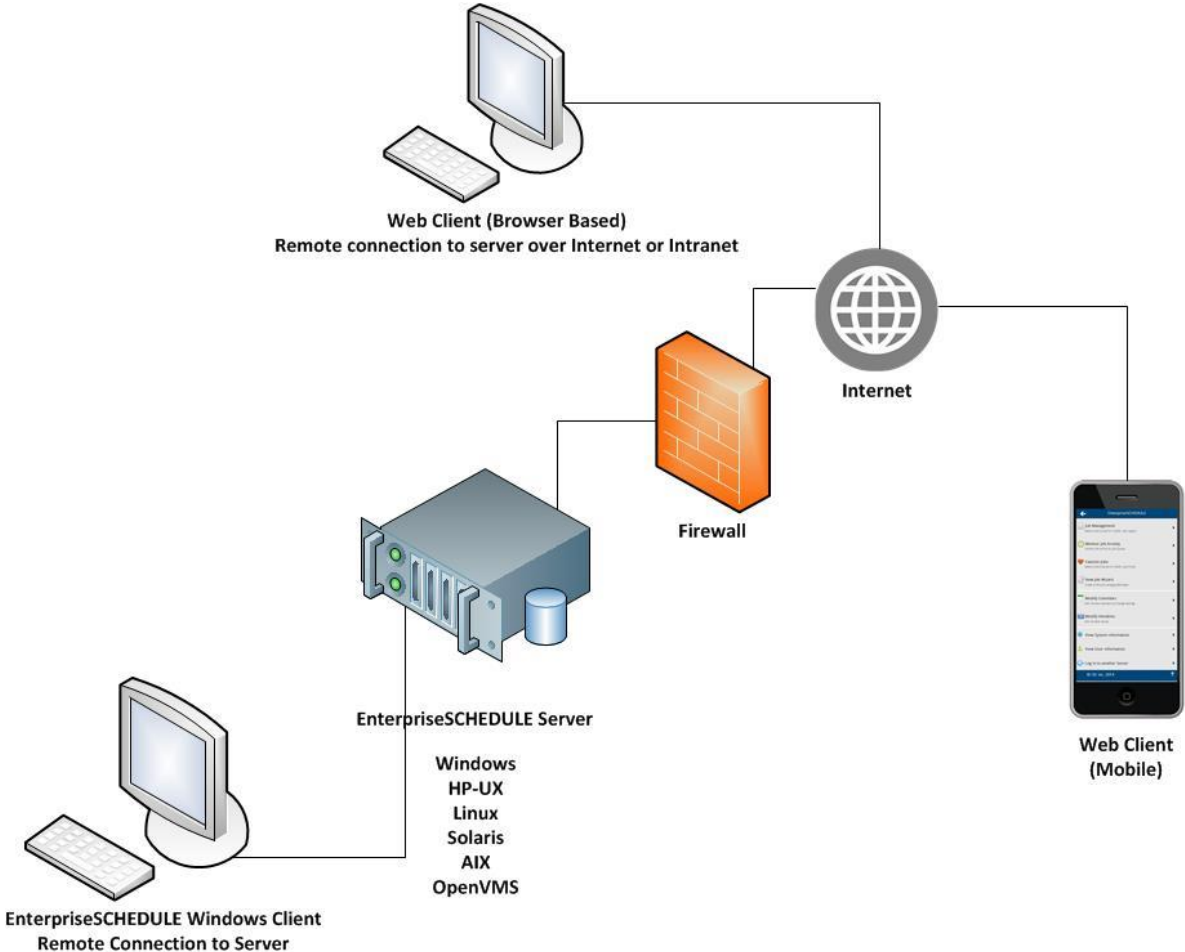
Windows/Web Remote Client

CONFIGURATION EXAMPLES
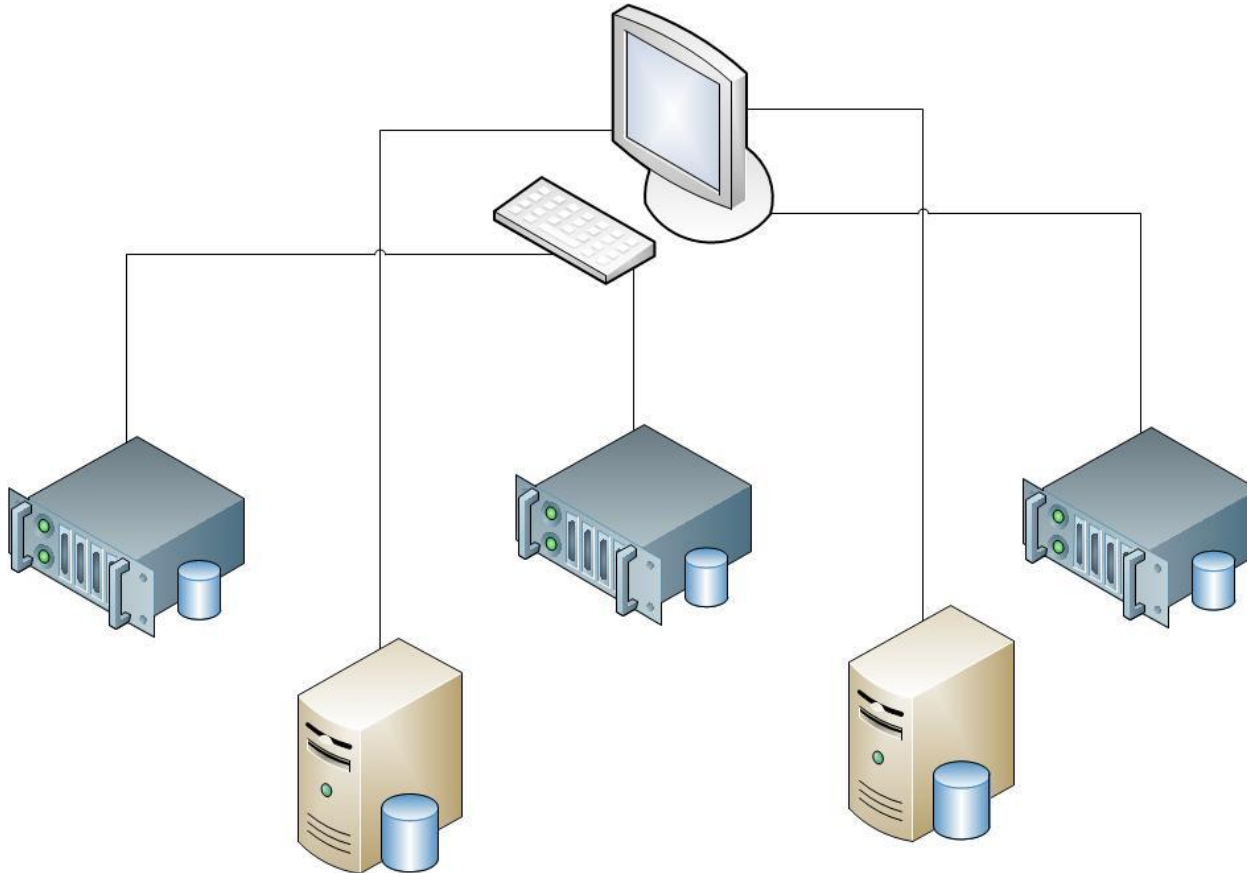
Single point of control – The Windows client can administer monitor and control job activity on any number of Windows, HP-UX, OpenVMS, Solaris, Linux or AIX servers

Single point of control

WINDOWS CLIENT
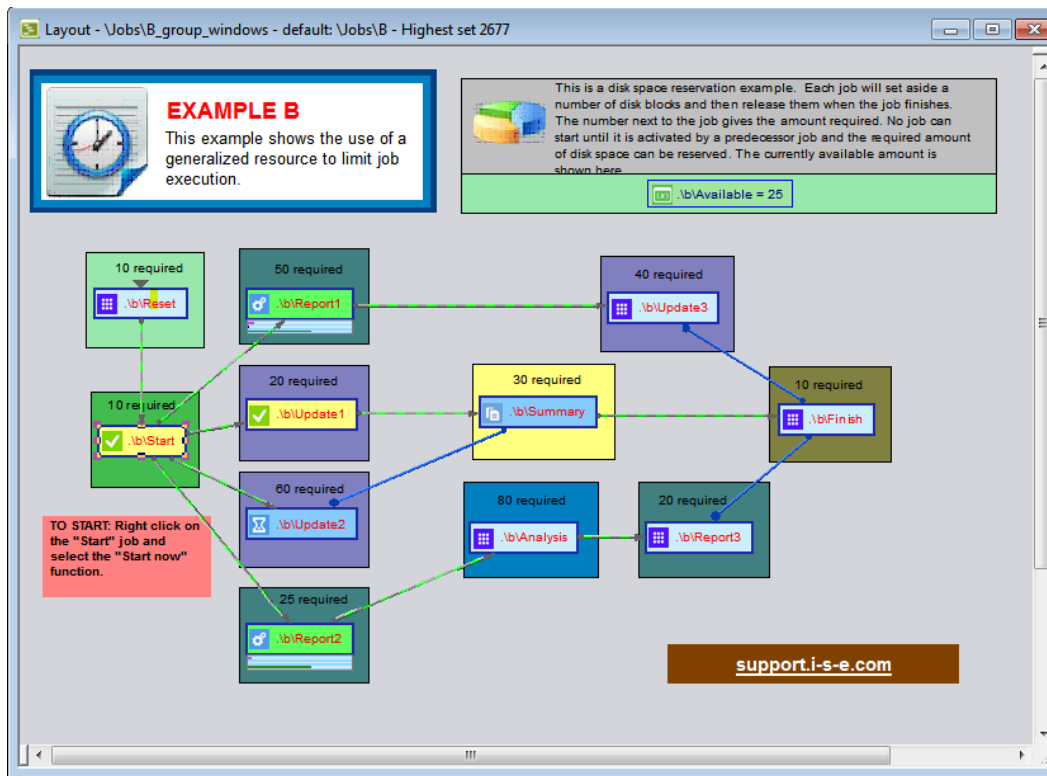
The EnterpriseSCHEDULE Windows Client interface features an assortment of valuable modules that makes working in the job scheduling environment faster and easier than ever before. From the familiar Explorer view to the powerful Job Layout window, it was designed to make scheduling jobs a breeze.

MODULES — JOB LAYOUT

Jobs can be created in the layout, their properties modified and updated, submitted for execution or stopped and restarted if necessary. Job dependencies (the connections between jobs) can be created, modified and updated.
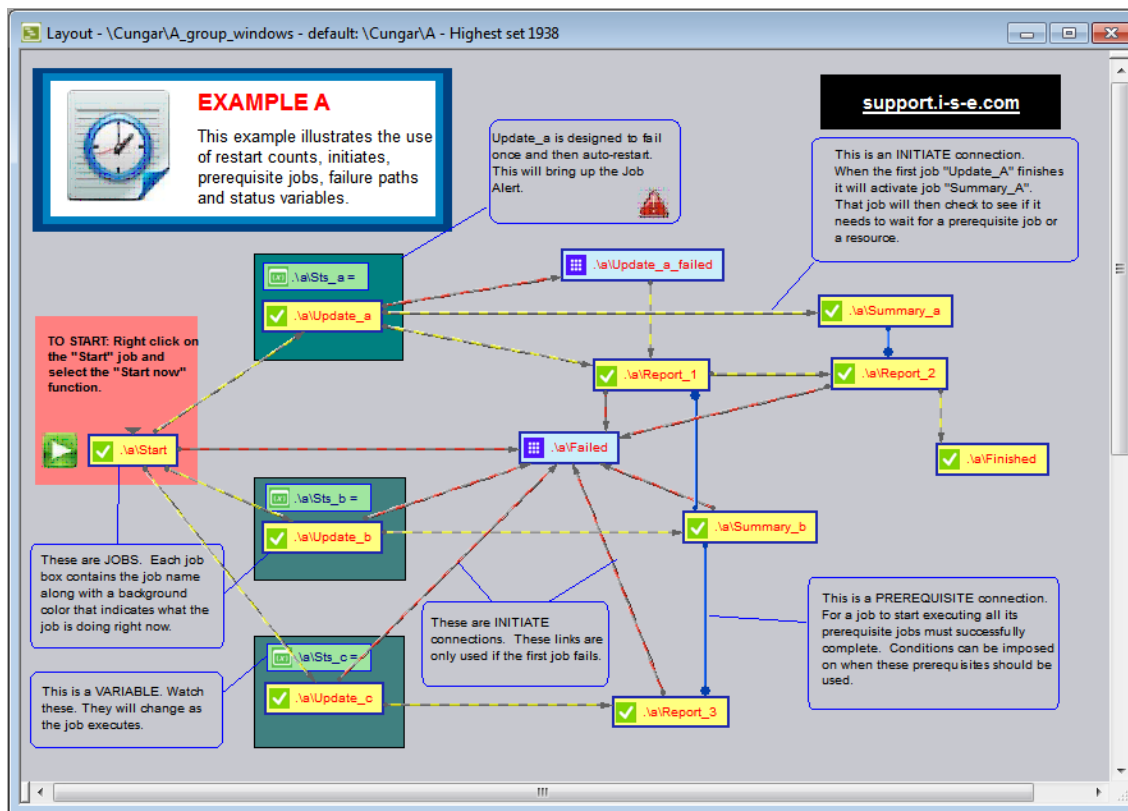
MODULES – JOB EXPLORER

The Job Explorer uses a Windows style explorer view to create, modify and delete all the objects in the database as well as control job activity. Maintaining jobs, calendars, variables etc becomes simple using common Windows operations like Cut and Paste and drag and drop
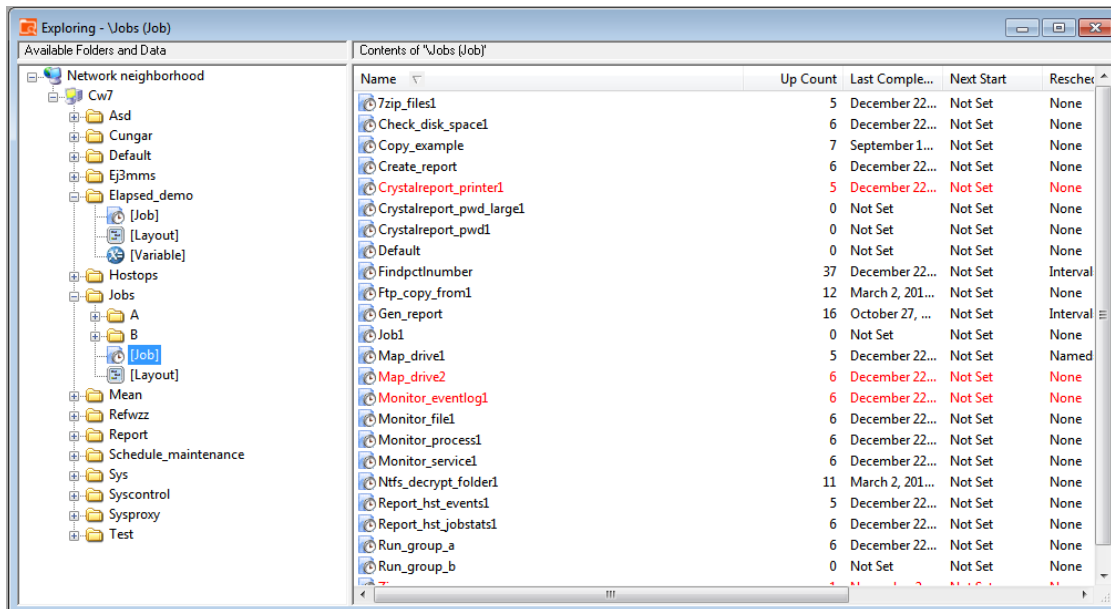
MODULES — JOB MONITOR

Monitoring job activity has never been easier or more informative. Job Activity can be monitored from a variety of levels within the monitor window. As jobs progress through their critical states, the **Job monitor** window shows you the state of that particular job, how many resources that are being consumed and whether the job is experiencing delays, holds or failures.

JOB PROPERTIES

Job Properties Include

- **Rescheduling method**

- **Batch commands**

- **Notification settings**

- **Runtime statistics**

- **Variable resources**

- **Submission settings**

- **Parameters**

- **Job interdependencies**

- **History data**

JOB STREAM
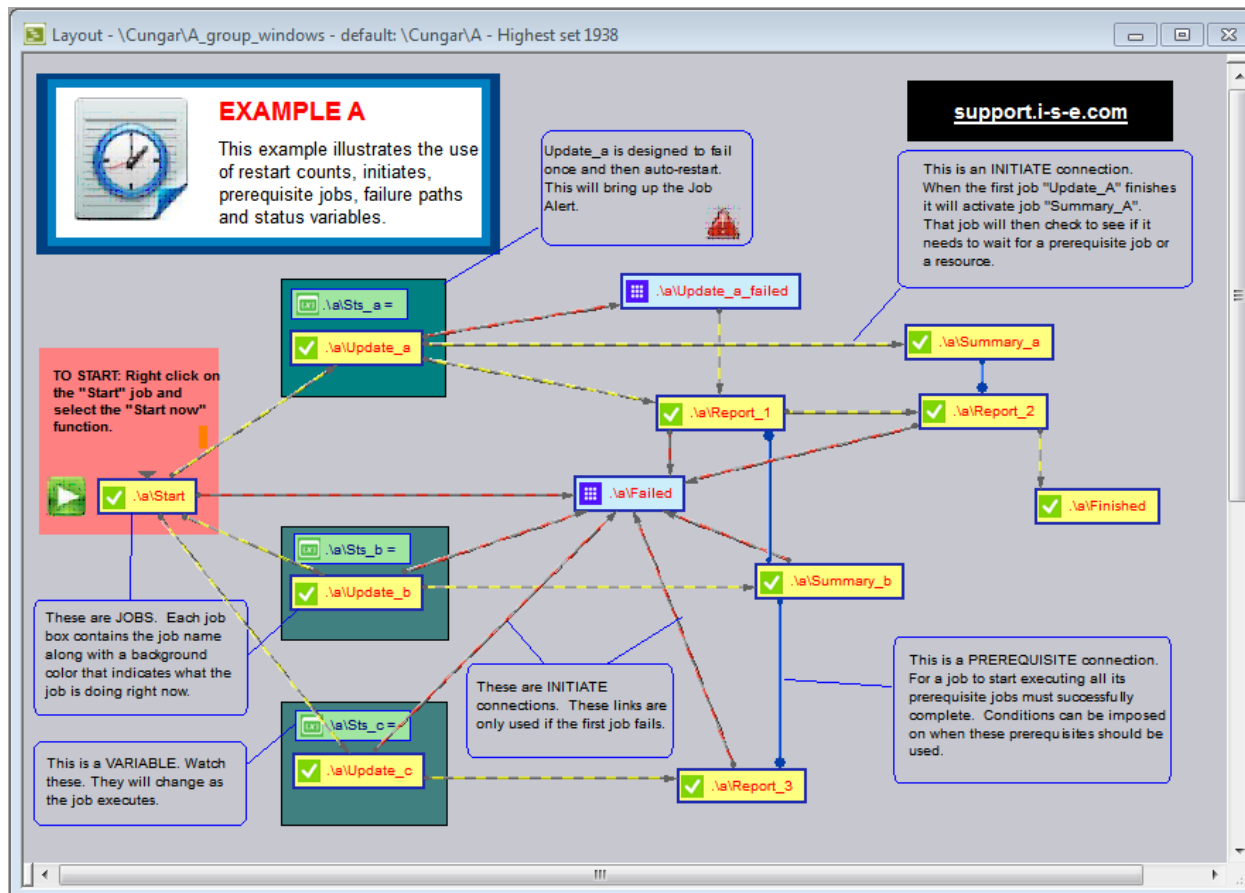
JOB STREAM

Icon and color changes indicate **state changes**

Other jobs will **initiate** upon completion
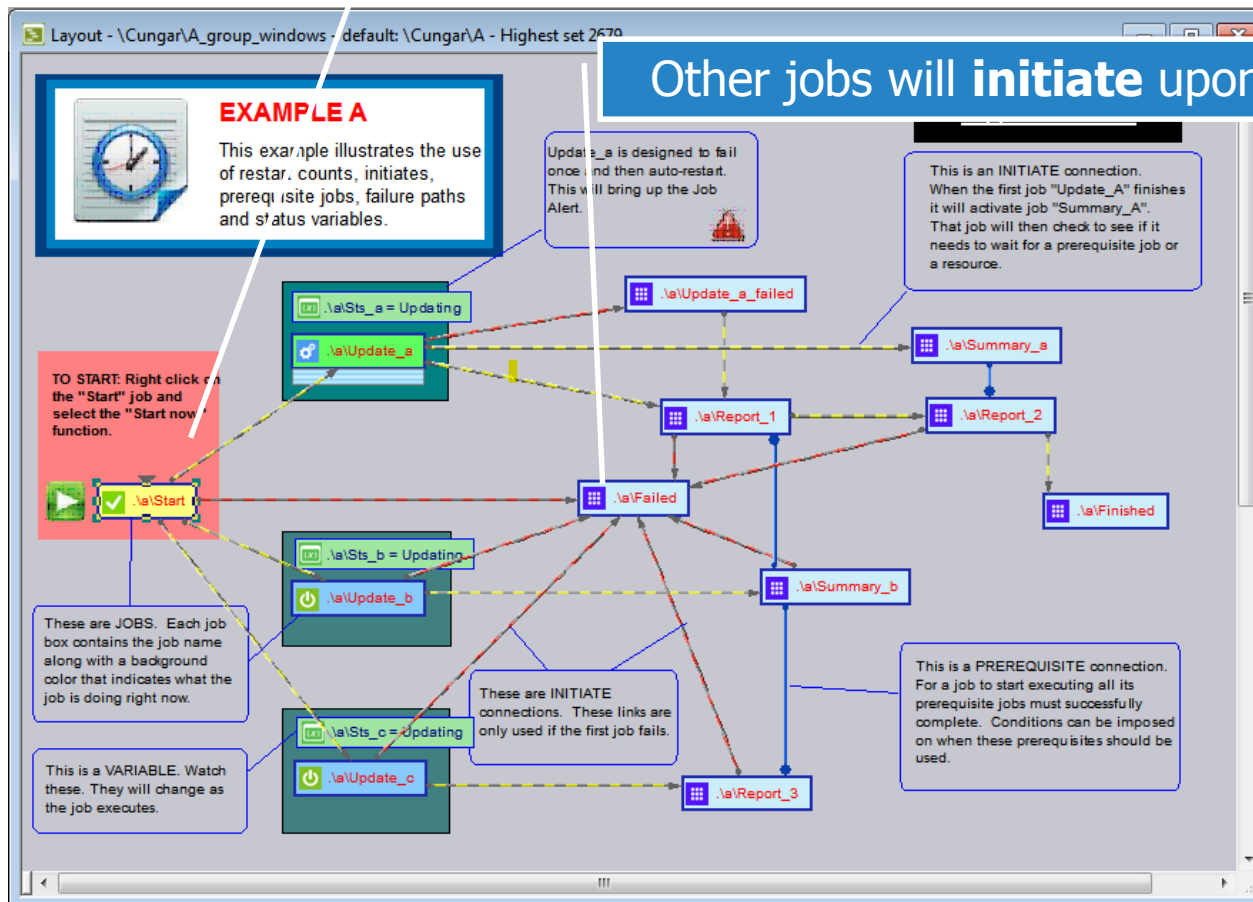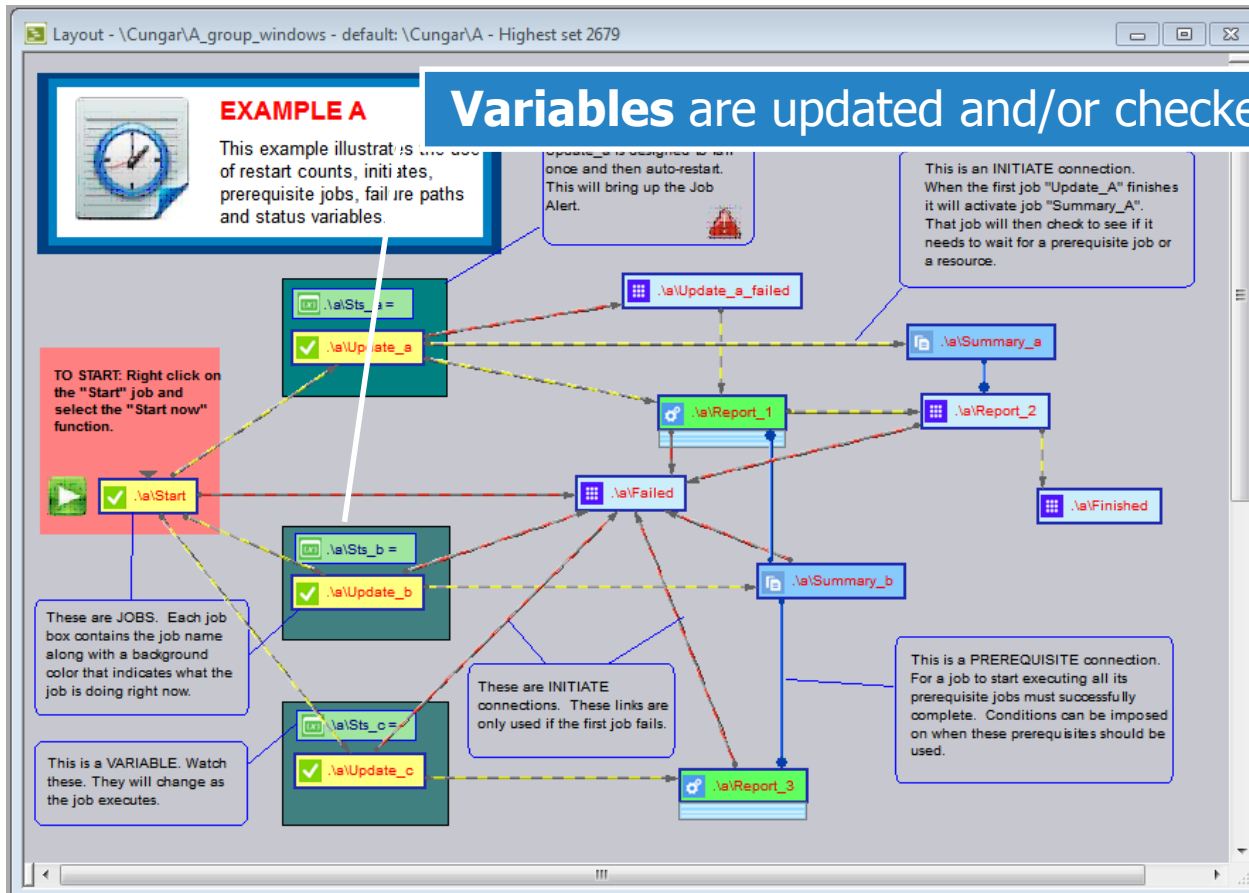
JOB STREAM

Variables are updated and/or checked by job logic

JOB STREAM
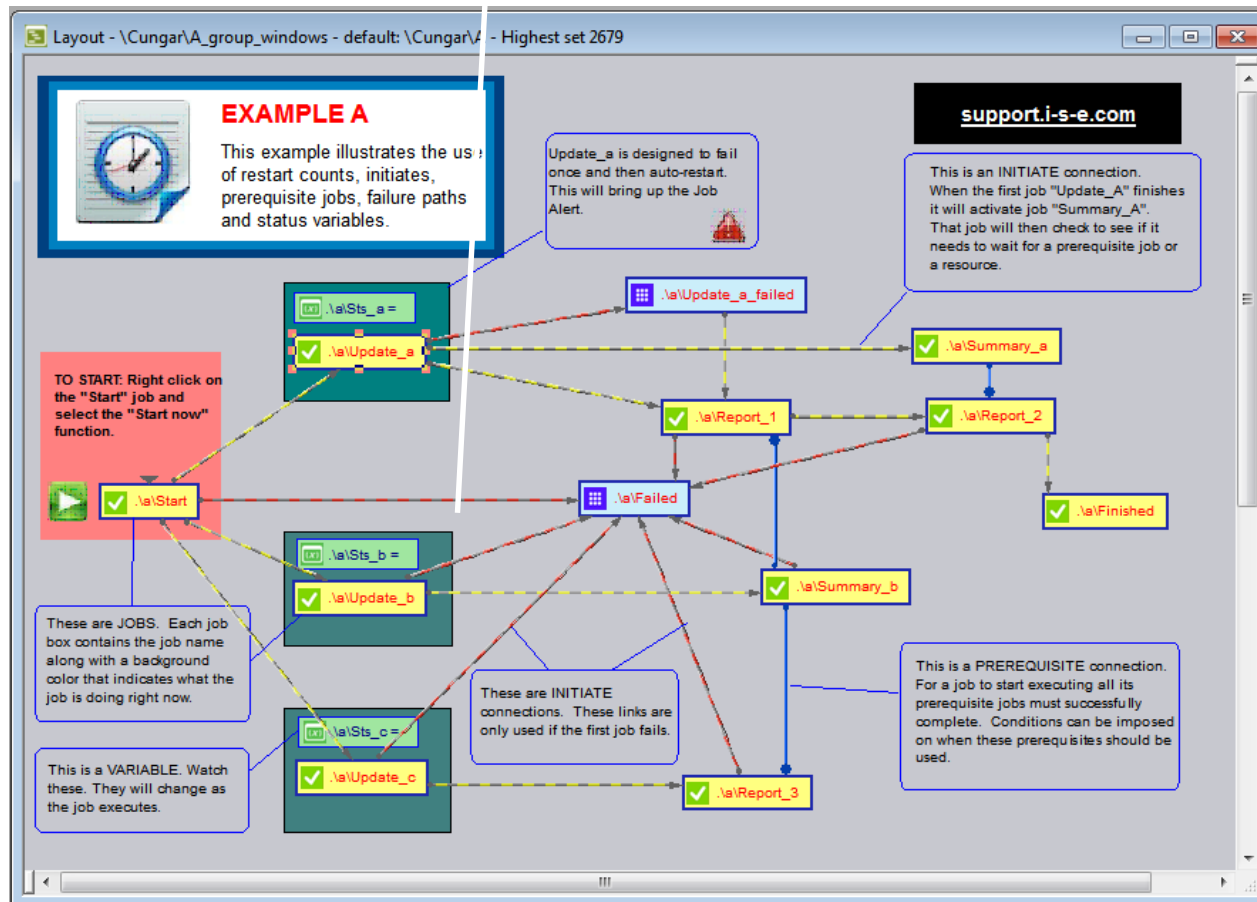
JOB STREAM

Monitor tracks vital state changes from submission to completion

JOB STREAM

JOB STREAM

Detailed **current state** information available

JOB STREAM
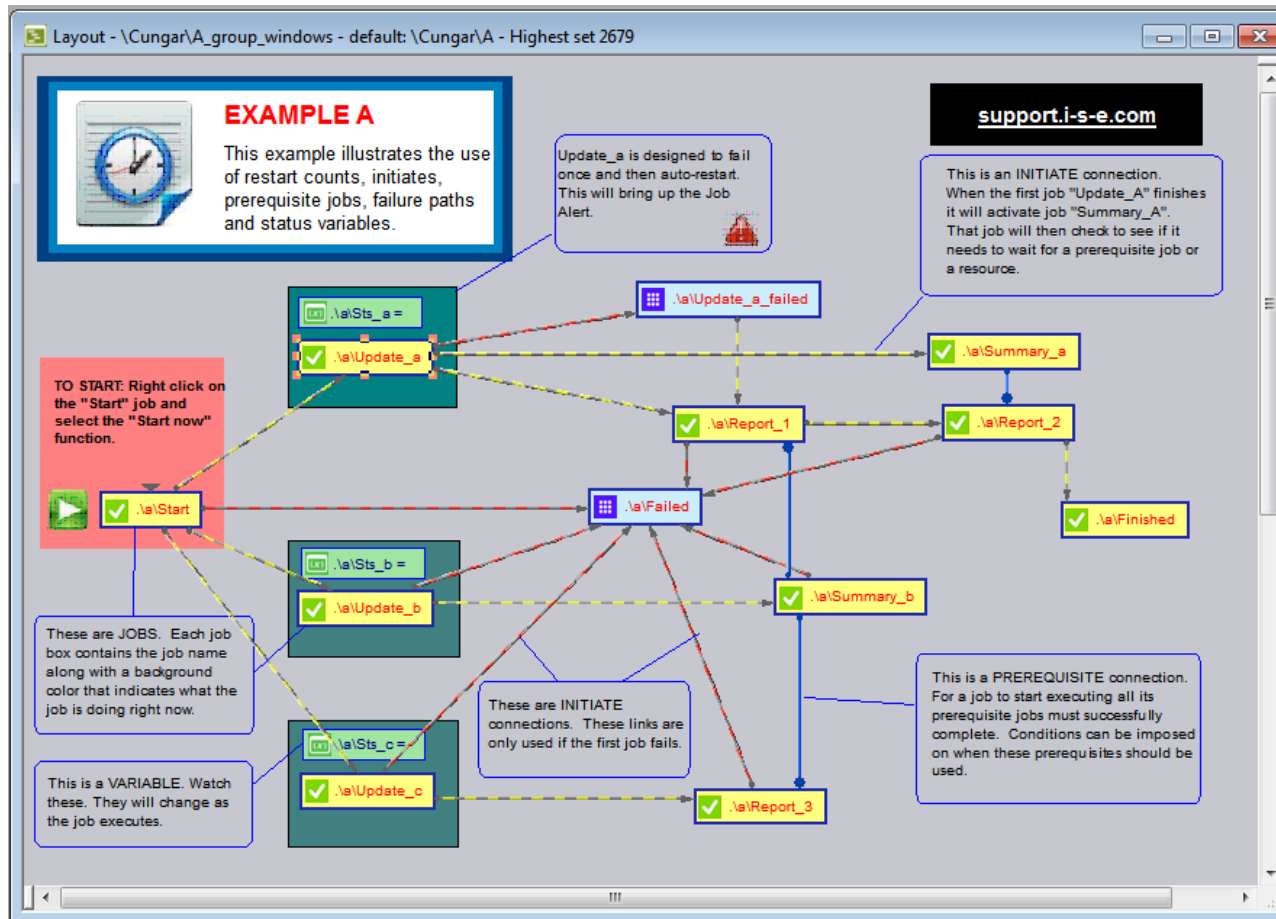
JOB NOTIFICATION SENT VIA EMAIL

Reply   Reply All   Forward

Fri 10/23/2015 8:36 AM

ibmaix3 Schedule notification <root@ibmaix3.i-s-e.com>

3061. //IBMAIX3/cungar/job26 (82) - Job completed, %X003780cd

To

Enterprise SCHEDULE Event Notification	
/cungar/job26 - Job completed	
Job Name	/cungar/job26
	Test
Message time	Fri Oct 23 08:36:17 PDT 2015
Set Information	
Set id	82
Set tag	
Set parameter	
Step number	0
Run Information	
Scheduling entry	3061
Node	ISE>IBMAIX3
Started	Oct 23 08:36:14 2015
Finished	Oct 23 08:36:16 2015
Status	%X003780cd
	Fusr-X-UNKCOD, Unknown message code 0x3780cd
Elapse time	2 secs.
CPU time	42
I/O count	0

WEB CLIENT

The EnterpriseSCHEDULE Web Client allows you to maintain job sets, control job submissions and view job status from a browser or mobile device anywhere in the world. The program is installed on a Windows IIS server and can access any Windows server on your network regardless of platform. The web interface provides remote management of EnterpriseSCHEDULE servers. View job status, reports, event logs and trigger jobs on remote computers.
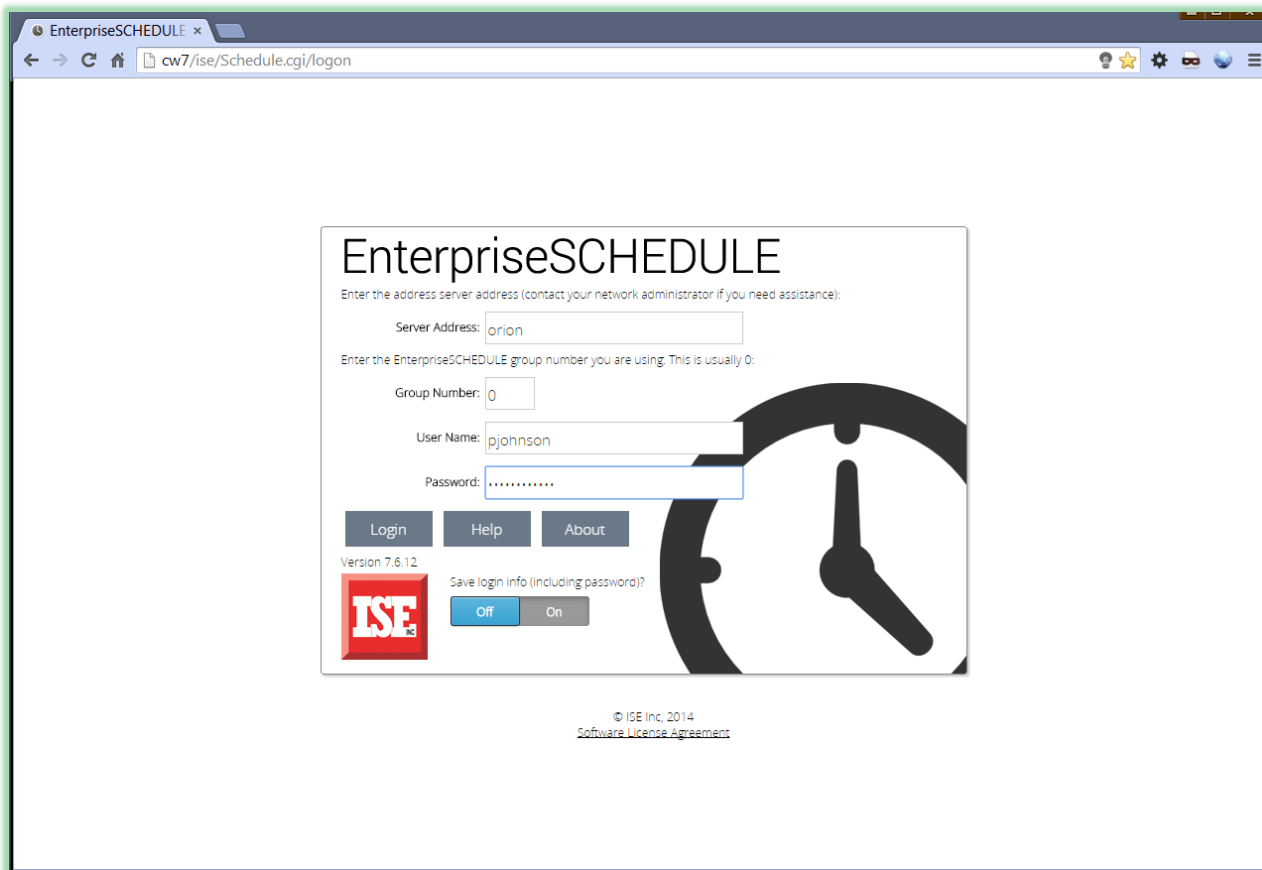
MOBILE ACCESS

EnterpriseSCHEDULE now features mobile access to your job scheduling activity and data. Monitor job activity, submit jobs, modify job properties from any mobile device anywhere.
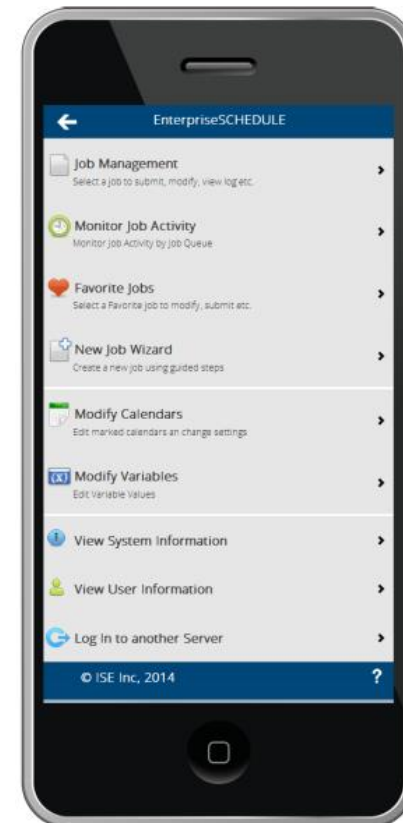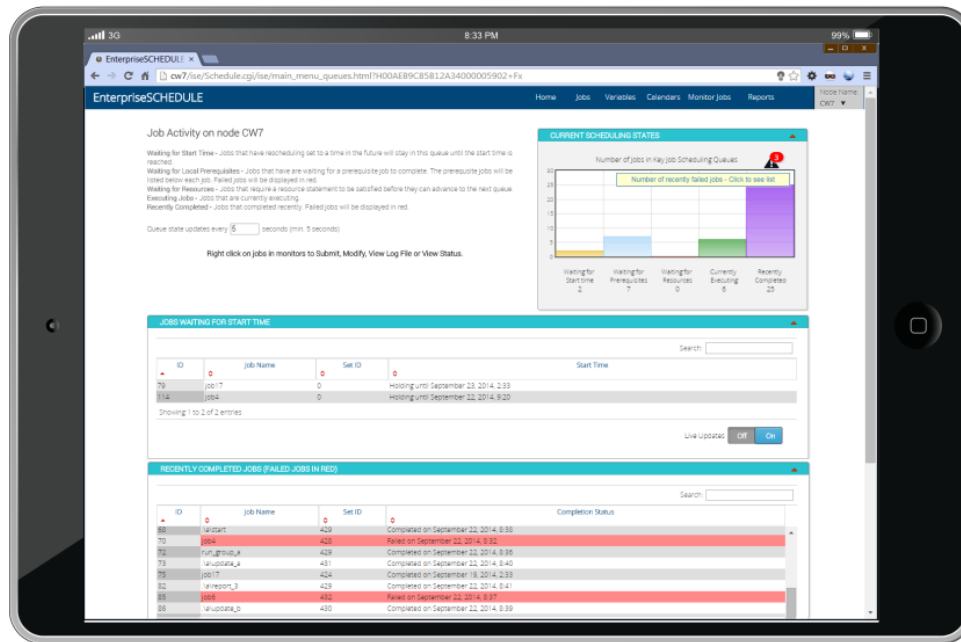
CONNECT TO ANY ACCESSIBLE SERVER RUNNING ENTERPRISESCHEDULE
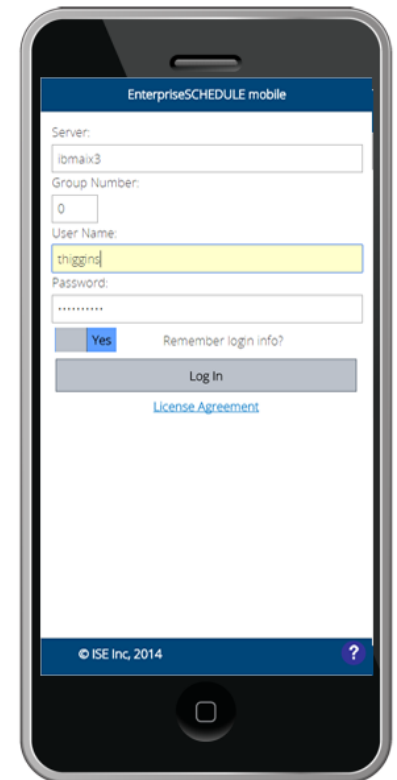
MONITOR JOB ACTIVITY IN THE LIVE MONITOR

CHOOSE FROM A VARIETY OF OPERATIONS

EXPLORER TREE VIEW ALLOWS USERS TO MODIFY, CREATE, SUBMIT, DELETE JOBS, FOLDER, VARIABLES ETC.
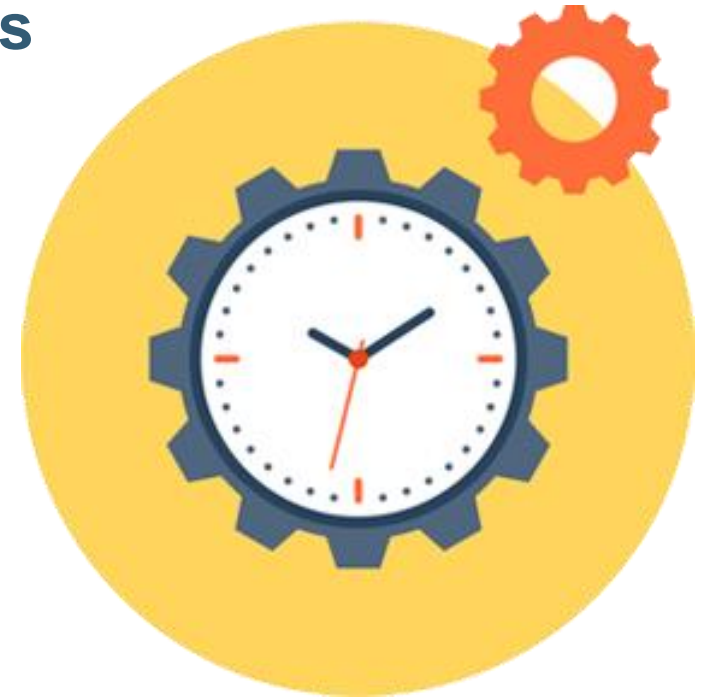
PROPERTY PAGES ALLOW YOU TO MODIFY ANY ASPECT OF A JOB
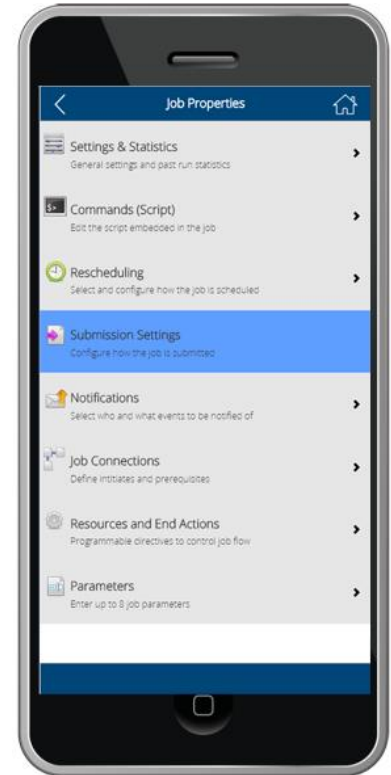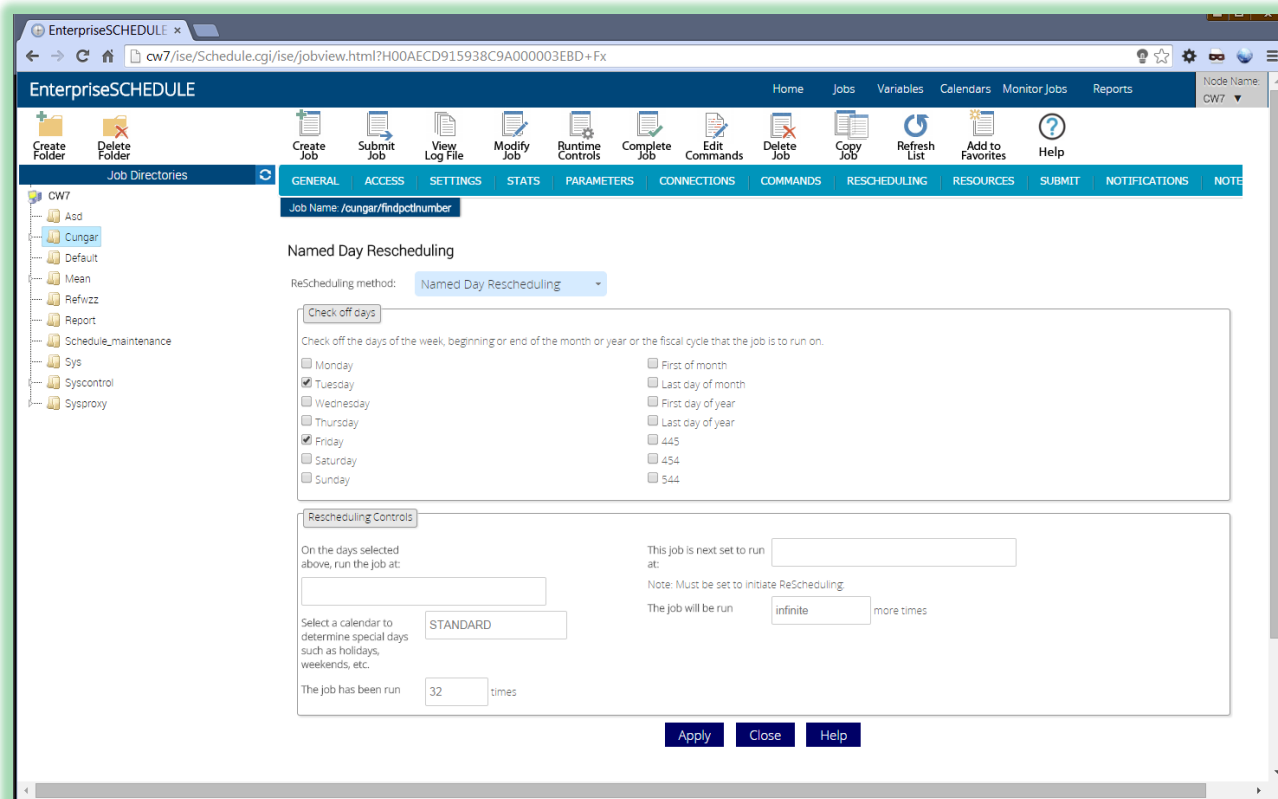
ENTERPRISESCHEDULE

This presentation discusses only a small segment of the many features of EnterpriseSCHEDULE. If you want to learn more or have a specific question contact us by e-mail or phone so we can discuss your needs

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