

Introscope EPAgent Monitoring

The Introscope EPAgent is a very powerful process that can be used to gather data from non-java processes so that they can be included into Introscope metrics.

However sometimes the EPAgent can't connect to the Enterprise Manager, although the connection is retired, an Email Alert to the System Administrator could be useful.

A failure to start due to a configuration problem with the EPAgent properties file will also cause an email to be sent.

The following EPAgent perl script runs the EPAgent as normal, but sends an email alert for certain messages.

In addition if a plugin is called but no output is produced, then after the \$tracklimit (default 4) execution of the plugin an email is sent to the administrator with the name of the plugin which has failed and the Monitor terminates.

The condition where no output is returned before the next execution can occur for a number of reasons;

- Plugin execution time is longer than the delay in seconds setting in the EPAgent properties file.
- An execution problem with the plugin where it does not return.

Configuration

The script has a number of variables that must be edited for the environment. These can be found in the source.

<i>Variable Name</i>	<i>Default Values</i>	<i>Description</i>
\$from	YOU@YOURS.COM	Email from address.
\$site	YOUR-DOMAIN	Site name where email is sent from.
\$smtp_host	SMTP-HOSTNAME	Email server name.
\$to	TARGET-EMAIL-ADDRESS	Email recipient.

Uncomment the “*open LOG*” statement for your environment an example is provided for both the Windows NT and Linux environment; ensure that the path names are correct for your environment.

Security Configuration

Consider the security implications of this Email server information and protect the file so that it can only be read and executed by an authorized user.

Messages

The following messages are detected from the EPAgent when it executes.

<i>Message Text</i>	<i>Description</i>
Failed to connect to Introscope Enterprise Manager (10)	After the tenth (10) message an Email is sent.
The Agent will continue to attempt	For every match a message is sent.
Connected Agent to the Introscope Enterprise Manager	For each match a message is sent.
Failed to re-connect to Introscope Enterprise Manager (10)	After the tenth (10) message an Email is sent.
Attempting to connect to Introscope Enterprise Manager (10)	After the tenth (10) message an Email is sent.
Introscope EPAgent failed to start because	For every match a message is sent.
is not valid for type	Detects invalid formats
no such file or directory	Detects when the command specified is not correct

Running the EPAgent

The standard EPAgent which Wily provides is still executed, the only difference is that the execution is wrapped by a perl script which examines all the output from the EPAgent.

```
perl monitor.pl
```

The normal output from the EPAgent will be displayed in standard out. This allows for an operator to see any errors.

Design Assumptions

The perl script uses strings to match the standard output to known strings in the output of EPAgent, you can add strings using the \$match variable by creating a new subscript instance of \$match.

As the monitor.pl script can see all output from EPAgent and scripts it runs (as defined in IntroscopeEPAgent.properties you could add an email page for your own specific environment.

Variable	Description
\$match	Matching string that must be found in the output

Prerequisites

This script requires the following items to be available within the environment.

1. Perl
2. Wily Introscope EPAGENT
3. Net::SMTP perl module available from www.cpan.org

Perl Script

The following is the provided script example, this is delivered as-is with no warranty.

```
#!/bin/perl

use Net::SMTP;

$match[1] = ".Failed to connect to Introscope Enterprise Manager.(10)";
$match[2] = ".The Agent will continue to attempt.";
$match[3] = ".Connected Agent to the Introscope Enterprise Manager.";
$match[4] = ".Failed to re-connect to Introscope Enterprise
Manager.(10).";
$match[5] = ".Attempting to connect to Introscope Enterprise
Manager.(10).";
$match[6] = ".Introscope EPAgent failed to start because.";
$match[7] = ".is not valid for type.";
$match[8] = ".no such file or directory.";

$track = 0;
$tracklimit = 4;
$trackstarttext = "Executing:";
$trackendtext = "Plugin Output:";

chomp(($host = `hostname`));

# The first open statement is for Windows the second is for Linux
#open LOG, "java -
Dcom.wily.introscope.epagent.properties=c:\\Introscope\\config\\Introsco
opeEPAgent.properties -jar c:\\Introscope\\lib\\EPAgent.jar 2>&1|";
open LOG, "java -
Dcom.wily.introscope.epagent.properties=/opt/Introscope/introscope4.1.0
.P7/config/IntroscopeEPAgent.properties -jar
/opt/Introscope/introscope4.1.0.P7/lib/EPAgent.jar 2>&1|";

while (true)
{
$_ = <LOG>;

foreach($_)
{
    for ($i=1; $i < ($#match +1); $i++)
    {
        if (/$match[$i]/) {
            $emailtext = $match[$i];
            &EmailAlert;
        }
    }

    if (/$trackstarttext/) {
        $track++;
    }

    if (/$trackendtext/) {
        $track--;
    }
}
}
```

```

    }
    if ($track gt $tracklimit) {
        print "*****MONITOR STUCK\n";
        $emailtext = "Execution is stuck calling $_";
        &EmailAlert;
        sleep 15;
        die
    }

    print ;
}
}
# This subroutine sends an email.
#
sub EmailAlert {
    my $from = 'YOU@YOURS.COM';
    my $site = 'YOUR-DOMAIN';
    my $smtp_host = 'SMTP-HOSTNAME';
    my $to = 'TARGET-EMAIL-ADDRESS';

#add Debug=>1 to the following line for debugging SMTP issues.
    my $smtp = Net::SMTP->new($smtp_host, Hello => $site);

    $smtp->mail($from);
    $smtp->to($to);
    $smtp->data();

    $smtp->datasend("To: $to\n");
    $smtp->datasend("Subject: Introscope Alert\n");
    $smtp->datasend("\n");
    $smtp->datasend("EPAgent failed on host $host.\n");
    $smtp->datasend("Error was $emailtext \n");

    $smtp->dataend();
    $smtp->quit;
}

```