xymon ASM Monitoring

We monitor ASM filesystems by extending the standard xymon filesystem tests

1. we add the Oracle environment variables to the xymon user

```
vi /home/xymon/.bash_profile
e.g.
ORACLE_BASE=/opt/oracle
ORACLE_HOME=${ORACLE_BASE}/product/12cR1
ORA_CRS_HOME=/opt/crs/product/12cR1
ORACLE_SID=[SID]
NLS_LANG=AMERICAN_AMERICA.AL32UTF8
export ORACLE_BASE ORACLE_HOME ORA_CRS_HOME ORACLE_SID NLS_LANG
```

2. we allow xymon to execute sqlplus via sudo

```
visudo

add
 ORACLE_SID ORACLE_BASE ORACLE_HOME NLS_LANG
to the lines about the env variables which shall be retained
Defaults    env_keep = "COLORS DISPLAY HOSTNAME HISTSIZE INPUTRC KDEDIR


hobbit ALL=(oracle) NOPASSWD: /opt/oracle/product/12cR1/bin/sqlplus
xymon ALL=(oracle) NOPASSWD: /opt/oracle/product/12cR1/bin/sqlplus
```

3. we create the query script for monitoring (as user oracle)

```
vi /home/oracle/scripts/asm_diskgroups_simple.sql

--
+----------------------------------------------------------------------------+
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|
--
|----------------------------------------------------------------------------|
-- |      Copyright (c) 1998-2009 Jeffrey M. Hunter. All rights reserved.
|
--
|----------------------------------------------------------------------------|
-- | DATABASE : Oracle
|
-- | FILE     : asm_diskgroups.sql
|
-- | CLASS    : Automatic Storage Management
|
-- | PURPOSE  : Provide a summary report of all disk groups.
|
-- | NOTE     : As with any code, ensure to test this script in a development
|
-- |            environment before attempting to run it in production.
|
--
+----------------------------------------------------------------------------+
set feedback off
set heading off
SET ECHO OFF
SET LINESIZE  145

COLUMN group_name             FORMAT a19         HEAD 'Disk Group|Name'
COLUMN total_mb JUSTIFY RIGHT FORMAT 999999999   HEAD 'TotalXSize'
COLUMN used_mb                FORMAT 999999999   HEAD 'Used Size (MB)'
COLUMN free_mb                FORMAT 999999999   HEAD 'Available Size (MB)'
COLUMN pct_used               FORMAT a6          HEAD 'Pct. Used'

SELECT
    '/asm/' || name AS                           group_name
  , total_mb                                  total_mb
  , (total_mb - free_mb)                      used_mb
  , free_mb                                   free_mb
  , ROUND((1- (free_mb / total_mb))*100, 0) || '%'  pct_used,
  '/' || LOWER(name) AS MOUNT_POINT
FROM
    v$asm_diskgroup
ORDER BY
    name
/
quit
```

4. we create the external xymon monitoring script (as user xymon)

```
cd client/ext/
vi adf

EXCLUDES=`cat /proc/filesystems | grep nodev | awk '{print $2}' | xargs echo |
sed -e 's! ! -x !g'`
df -Pl -x iso9660 -x $EXCLUDES | sed -e '/^[^   ][^     ]*$/{
N
s/[     ]*\n[   ]*/ /
}'
echo "";
sudo -u oracle /opt/oracle/product/12cR1/bin/sqlplus -S / as sysdba
@/home/oracle/scripts/asm_diskgroups_simple.sql \
| grep -v ^$| awk '{printf "%-20s%10d%10d%10d%9s %-10s\n",  $1, $2, $3, $4,
$5, $6}'
```

5. instruct xymon to use the adf script instead of the df OS command

```
vi ~/client/bin/xymonclient-linux.sh

...
echo "[df]"
/home/xymon/client/ext/adf
...
```