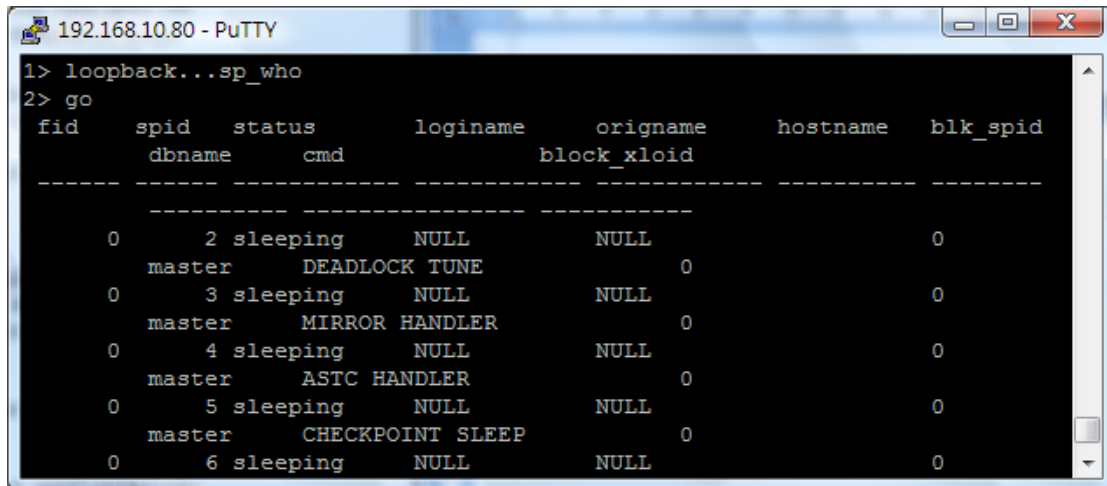



```
go
set cis_rpc_handling on
go
exec loopback...sp_who --注意是 3 個點
go
```

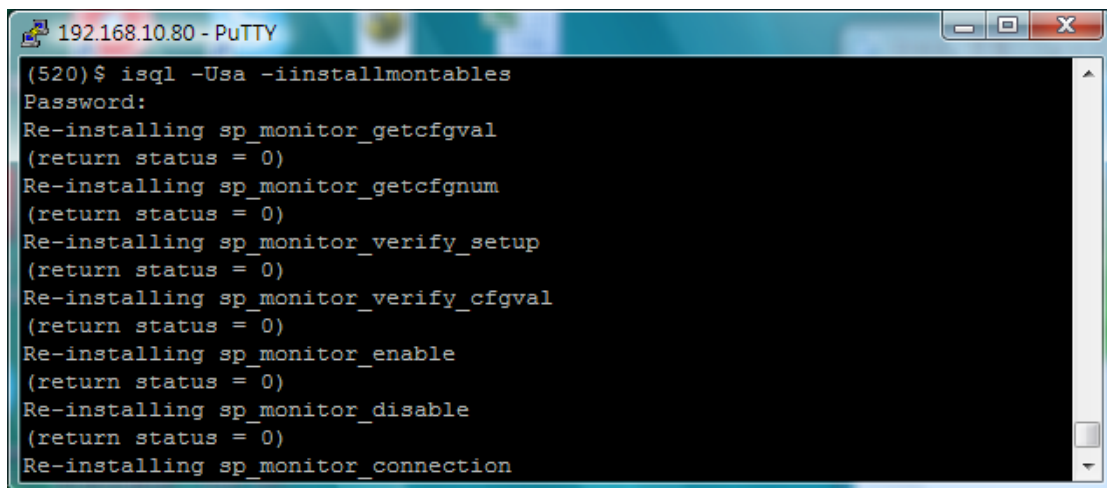


```
192.168.10.80 - PuTTY
1> loopback...sp_who
2> go
  fid  spid  status  loginame  origname  hostname  blk_spid
-----
      0    2  sleeping  NULL      NULL      NULL      0
  master  DEADLOCK TUNE      0
      0    3  sleeping  NULL      NULL      NULL      0
  master  MIRROR HANDLER    0
      0    4  sleeping  NULL      NULL      NULL      0
  master  ASTC HANDLER      0
      0    5  sleeping  NULL      NULL      NULL      0
  master  CHECKPOINT SLEEP  0
      0    6  sleeping  NULL      NULL      NULL      0
```

會顯示幾筆資料表示成功了。

3. 安裝 Monitoring table

```
cd $SYBASE/$SYBASE_ASE/scripts 或 cd %SYBASE%\%SYBASE_ASE%\scripts
isql -Usa -Pyour_password -Syour_server_name -iinstallmontables
```

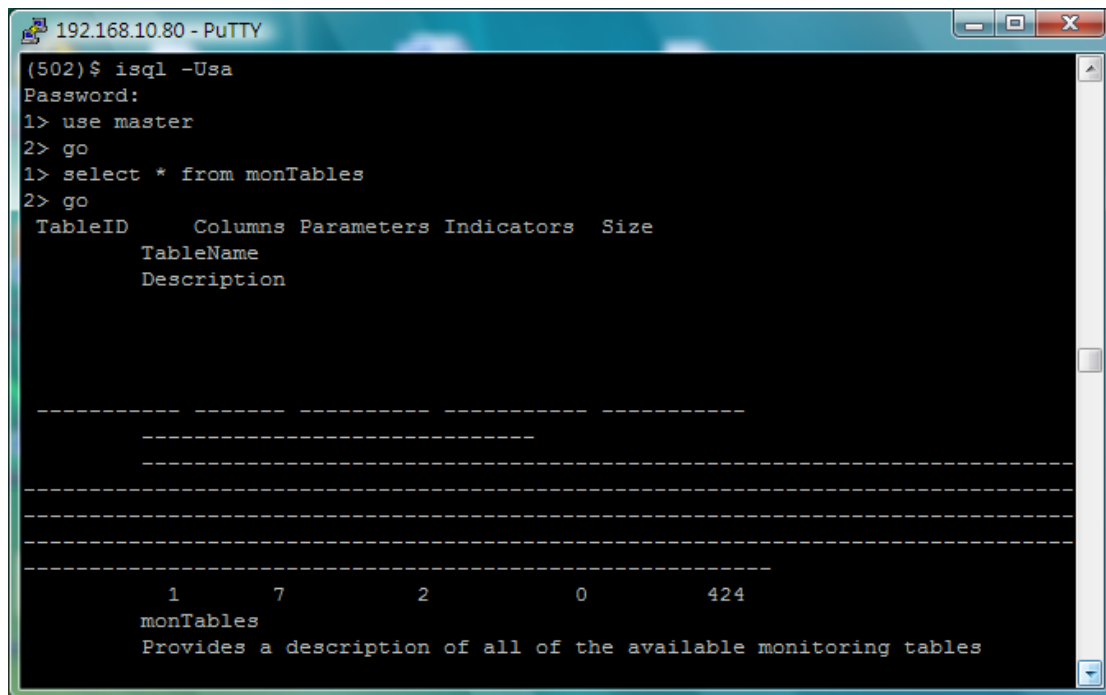


```
192.168.10.80 - PuTTY
(520)$ isql -Usa -iinstallmontables
Password:
Re-installing sp_monitor_getcfgval
(return status = 0)
Re-installing sp_monitor_getcfgnum
(return status = 0)
Re-installing sp_monitor_verify_setup
(return status = 0)
Re-installing sp_monitor_verify_cfgval
(return status = 0)
Re-installing sp_monitor_enable
(return status = 0)
Re-installing sp_monitor_disable
(return status = 0)
Re-installing sp_monitor_connection
```

4. 權限設定

```
查詢 MDA Tables 需要有 mon_role 權限
use master
```

```
go
grant role mon_role to sa --可設定查詢使用者
go
測試是否可查詢到 monitoring tables
use master
go
select * from monTables
go
```



The screenshot shows a PuTTY terminal window titled "192.168.10.80 - PuTTY". The user has entered the following commands in SQL Server Enterprise Manager (isql -Usa):

```
(502)$ isql -Usa
Password:
1> use master
2> go
1> select * from monTables
2> go
```

The output of the query is as follows:

TableID	Columns	Parameters	Indicators	Size
1	7	2	0	424

The table name is `monTables` and its description is "Provides a description of all of the available monitoring tables".

上圖顯示可查詢到 `monTables`，即表示安裝設定成功。

另外，針對 ASE 15.0 ESD#2 以後，安裝上有些許不同例如 `enable cis`, `loopback server` 不必設定，還有 `installmontables script` 已整合至 `installmaster` 中，並增加些許 `monitoring tables`，有興趣者可再參考 ASE 15 相關手冊。

5. 啓動監控

```
sp_configure "enable monitoring",1
go
```

二、如何利用 MDA Tables 監控資料庫

首先要知道每個 MDA Tables 功能說明，可透過以下指令查詢得知

```
use master
go
```

```
select TableName,Description from monTables
```

```
go
```

以下提供幾個 Sample 可平時監控資料庫使用：

1. 如何查詢目前執行 SQL Statement 及相關 memory 及 cpu 資訊

```
select p.SPID, p.CpuTime, p.LogicalReads, p.PhysicalReads, s.SQLText
from master..monProcessStatement p, master..monProcessSQLText s
where p.SPID = s.SPID
order by p.SPID, s.SequenceInLine
```

當然如果有太多筆顯示，您可以針對某個選項作排序，甚至取 TOP-N 運用。

2. 如何查詢目前最熱門前十大 Table

```
select top 10 TableName = object_name(ObjectID, DBID), IndexID,
      LogicalReads, PhysicalReads, Operations, LockWaits
from master..monOpenObjectActivity
order by LogicalReads desc
```

最熱門可依 Logical Reads, Physical Read, 查詢次數, Lock 使用來排序

如果是 12.5.3 以前可拿掉 top 10 改用 set rowcount 10，取消用 set rowcount 0。

3. 如何查詢那些 index 從啟動後未始用過

```
use <dbname>
```

```
go
```

```
select DB = convert(char(20), db_name()),
      TableName = convert(char(20), object_name(i.id, db_id())),
      IndexName = convert(char(20),i.name),
      IndID = i.indid
from master..monOpenObjectActivity a,
      sysindexes i
where a.ObjectID =* i.id
and a.IndexID =* i.indid
and (a.UsedCount = 0 or a.UsedCount is NULL)
and i.indid > 0
group by i.indid
having object_name(i.id, db_id()) not like "sys%"
order by 2, 3 asc
go
```

三、結論

MDA Tables 確實對監控資料庫增加不少方便，或許有人會擔心影響資料庫效能，但這須檢視那些 monitor 參數啓動及主機設備效能，也可以將“enable monitoring”功能設為 0 關閉監控功能。