

**So how can I create a table that extends the information Schema?**

## Load Plugin

```
mysql> install plugin vmstat SONAME 'libvmstat_is.so';
```

## It Works!

```
mysql> show tables LIKE "vmstat";
+-----+
| Tables_in_information_schema (vmstat) |
+-----+
| vmstat                                |
+-----+
1 row in set (0.00 sec)

mysql>
```

## And the results...

```
mysql> select * from vmstat;
```

```
+-----+
| OUTPUT                                     |
+-----+
| 0 0    0 32224 295624 1198692  0  0   5  61  3   6  5  1 94  0  0  |
| 0 0    0 32224 295624 1198692  0  0   0 164 1009  50  0  0 100  0  0 |
| 0 0    0 32400 295624 1198692  0  0   0   0 1020  52  0  0 100  0  0 |
| 0 0    0 32432 295624 1198692  0  0   0   0 1001  37  0  0 100  0  0 |
| 0 0    0 32432 295624 1198692  0  0   0   0 1021  52  0  0 100  0  0 |
+-----+
```

```
5 rows in set (4.03 sec)
```

## How Was this done?

- Define in information schema plugin definition
- Define the schema
- Write the callback to fill the table!

## Plugin Definition

```
mysql_declare_plugin(vmstat_is)
{
  MYSQL_INFORMATION_SCHEMA_PLUGIN,
  &vmstat_is_plugin,
  "vmstat",
  "Brian Aker",
  "VMStat information schema interface.",
  PLUGIN_LICENSE_GPL,
  vmstat_is_plugin_init, /* Plugin Init */
  vmstat_is_plugin_deinit, /* Plugin Deinit */
  0x0010 /* 1.0 */,
  NULL, /* status variables */
  NULL, /* system variables */
  NULL /* config options */
}
mysql_declare_plugin_end;
```

## Define Schema

```
ST_FIELD_INFO vmstat_field_info[]=  
{  
  {"OUTPUT", 120, MYSQL_TYPE_STRING, 0, 0, "Output"},  
  {0, 0, MYSQL_TYPE_STRING, 0, 0, 0}  
};
```

## Define Callback!

```
static int fill_vmstat_schema(THD *thd, TABLE_LIST *tables, COND *cond)
{
    CHARSET_INFO *scs= system_charset_info;
    TABLE *table= (TABLE *) tables->table;
    DEBUG_ENTER("fill_vmstat_schema");
    FILE *file;
    char buffer[1024];

    file= popen("/usr/bin/vmstat 1 5", "r");
    fgets(buffer, 1024, file);
    fgets(buffer, 1024, file);
    while (fgets(buffer, 1024, file))
    {
        table->field[0]->store(buffer, strlen(buffer), scs);
        if (schema_table_store_record(thd, table))
            DEBUG_RETURN(1);
    }
    fclose(file);

    DEBUG_RETURN(0);
}
```

## URLs!

- [http://hg.tangent.org/vmstat\\_information\\_schema](http://hg.tangent.org/vmstat_information_schema)
- [http://download.tangent.org/vmstat\\_information\\_schema-0.1.tar.gz](http://download.tangent.org/vmstat_information_schema-0.1.tar.gz)
- <http://krow.livejournal.com/>