The following review of BIM was ordered by the central IT division of
CQUniversity to determine if BIM was okay to be placed on its live
Moodle instance. I don't work for central IT.
I was given permissions to include this review of BIM with the source code
with the intent of helping others save a bit of time.
I've used comments to indicate whether or not a particular recommendation
has been followed.
-- David Jones

Enabling Technology for Education

Moodle Plugin Review
for the
BIM (BAM in Moodle)

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Compiled by:

Tim Lock
Technical Support Engineer
NetSpot Pty Ltd
183 Melbourne Street
NORTH ADELAIDE 5006
T: +61 (08) 8361 6800
F: +61 (08) 8361 6823
E: tim@netspot.com.au

Plugin Details

Name:	BIM (BAM in Moodle)
Author:	David Jones (d.jones@cqu.edu.au)
Version:	*2011013107 (2010-01-31?)*
Source code location:	http://davidtjones.wordpress.com/research/bam-blog-aggregation-management/current-version-of-bim/
Moodle version:	1.9.7

Security

Check-list	N/A	Pass	Warn	Fail
SQL injection vulnerability *Does the plugin allow non-escaped input to be executed within SQL?*		X		
File system vulnerability *All files created by plugin are in a secure location. Delete code is not at risk of removing incorrect files and directories.*		X		
External interface/data exposure *Does plugin insecurely expose internal system components and data.*		X		

Comments:
All fine.

Maintainability

Check-list	N/A	Pass	Warn	Fail
Conforms to Moodle coding standards and is free or errors *Does not modify core code, uses formslib, files (e.g settings.php), lang strings and does not generate errors or warnings.*			X	
Documentation *Meets a minimum standard in terms of code documentation, installation and help files.*			X	
Packaged with 3rd-Party Dependencies *Is the plugin packaged with 3rd-party dependencies (libraries, plugins etc) which may require independent review and updates.*	X			
Database Independent *Does the plugin contain database specific code or queries.*		X		

Comments:
There are several places that custom HTML is used in a Moodle form. Ie: coordinator/question form and marker/marker form.
The documentation states you just unzip the files from the zip file, but this contains files the BIM folder and a duplicate of those files in the root directory.

Usability

Check-list	N/A	Pass	Warn	Fail
Duplicates Core Functionality *Is the functionality catered for by existing core functionality in either the current release or scheduled for a future release.*		X		
Easy to Use *Is the plugin consistent with moodle's interface, uses straightforward terminology and a features a logical work flow.*		X		
Supports Backup/Restore Process *Does the plugin contain valid moodle backup and restore libraries.*		X		

Comments:

Moodle core code is generally widely used in code so no core code is duplicated within the modules.

Backup / Restore is supported.

Performance

Check-list	N/A	Pass	Warn	Fail
Baseline performance with regard to CPU/IO *Are general overheads generated by the plugin reasonable in terms of file IO, memory and CPU performance*		X		
Scalability *Are database queries using indexed fields, will the memory, IO & CPU usage scale with large amounts of data/users accessing system*		X		
Result data is paged where applicable *A paging concept is employed where large sets of data is represented in the Moodle interface.*			X	

Comments:

These module uses Moodle core functionality to add and update the database and the GUI is simple HTML content so performance is based on underlying hardware.

There are several indexes so it should scale well in Moodle, more work could be done test this further. Paging could be introduced to stream line "Find student" or "Your students".

Platform

Check-list	N/A	Pass	Warn	Fail
Server Dependencies *Are any server dependencies part of the standard NetSpot RedHat/CentOS deployment*		X		
Client Dependencies *Does the plugin require clients to install 3rd-party browser plugins etc.*		X		

Comments:

No extra requirements platform wise.

Activity

Who developed the plugin – unknown individual, Moodle core developer, large institution (e.g. Open University), vendor?
- David Jones (d.jones@cqu.edu.au)

How recent is the plugin?
- January 2010

How frequent are releases and fixes?
- Unknown as it is Beta software

Although may be hard to determine:
How many Moodle sites have deployed the plugin?
- Unknown

Are there key large sites that use the plugin?
- Unknown

Comments:
Does the plugin have a vibrant user and development community? Is it likely to be well supported?

Beta software so hard to determine.

Summary/Recommendations

Check-list	Yes	No
Ready-to-Deploy *Can the plugin be deployed in its current state without first applying fixes?*	X	
Are identified risks tolerable *Considering any Security/Maintenance issues identified above would the decision to install and support this plugin contain acceptable risks to NetSpot or the client.*	X	

Check-list	N/A	Low	Med	High
Helpdesk and support overheads *Will the decision to support this plugin for our clients introduce overheads in terms of helpdesk and support that are unjustified to the value it creates*		X		

Comments:
E.g. What bugs will need to fixed and tested before installation? Should any patches be released back to the community?

1. 29 instances of add_to_log("view.php?id=cm....."); when should be add_to_log("view.php?id=$cm->id...");
2. Reference to localhost not $CFG->wwwroot
   - coordinator/find_student.php:151: <a href="http://localhost/moodle...">
3. Initialisation of StdClass elements using "NULL" should use NULL to be hidden if printed or printable phrase like "N/A" or " - " in case the   s aren't updated before it is saved in the database.
   - lib/bim_rss.php:89 to 101.
4. Getting a list of students should be extended to a selectable select of roles instead of hard code role

id of 5.

- lib/groups.php:72 get_role_users(context);

5. Hard coded reference to Brisbane??
    - coordinator/allocate_markers.php $g[0] = "Brisbane";