




PC Doctor

Expert System

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[localhost] [View Problem Selection Main Page](#)

Select the component that's giving the problem:



Web-Based Expert System

Installation Instructions & User Manual

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INSTALLATION INSTRUCTIONS

To begin installing the PC Doctor Expert System on your computer, please verify that you have the following files on the CD provided:

- **wamp5_1.3.1** installation file
- **php_clips-0.5.0.dll** file
- **CLIPSWin** Zip file
- **pcdocbckup20080514.sql** file
- **PCDOC** folder containing source code files.

Once you have verified that you have all five (5) elements on the CD given to you, you can begin.

Installing WAMP

Firstly, install the WAMP server on a computer running Windows by simply running the **wamp5_1.3.1** installation file. This will install the Apache 1.3 web server, the MySQL DBMS, and PHP 5 on your Windows machine.

Once you have finished installing WAMP, copy the **PCDOC** folder to the **www** subdirectory of your **wamp** folder on your computer (i.e. *wamp/www*).

Installing PHLIPS

Secondly, install PHLIPS extensions by copying the **php_clips-0.5.0.dll** file to the **ext** subdirectory in the **php** folder under the **wamp** directory on your computer (i.e. *wamp/php/ext*).

Figure 1

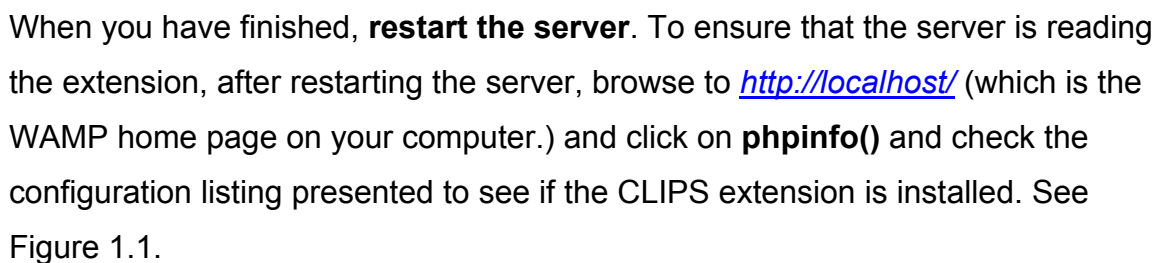
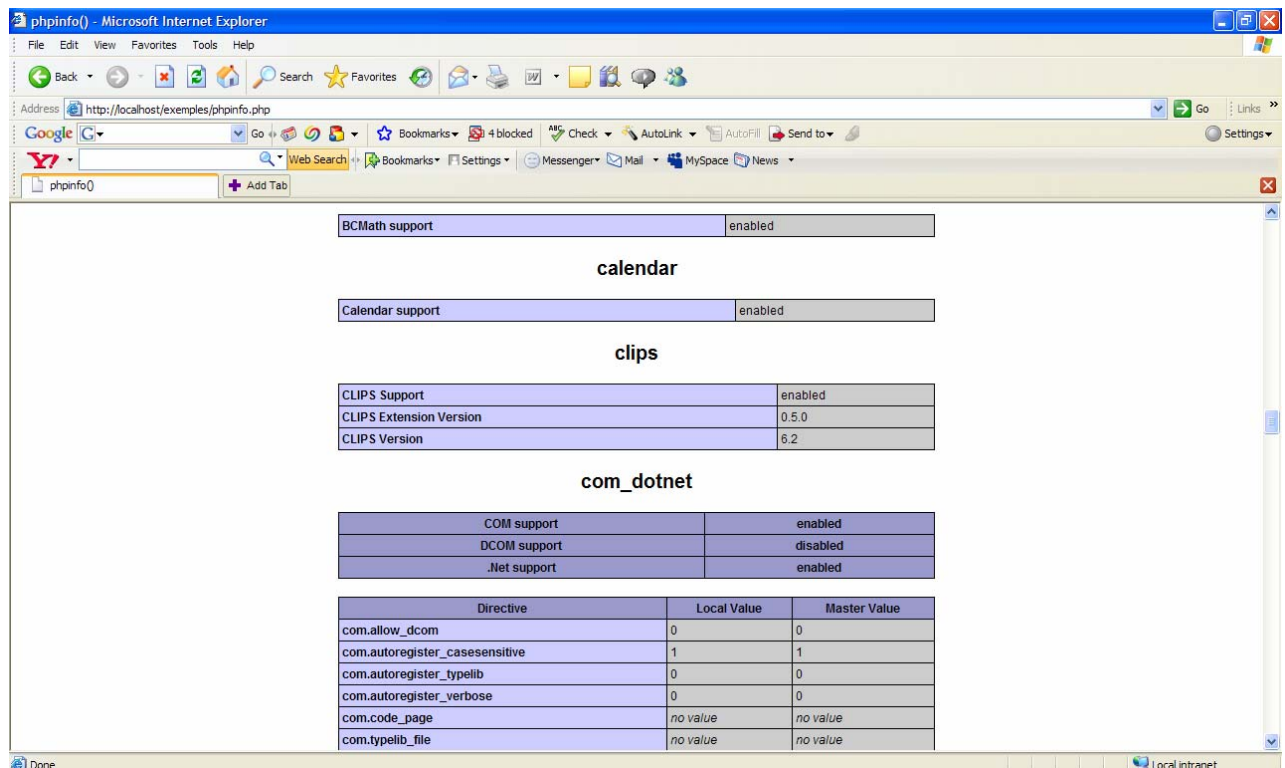


Figure 1.1



For further information about installing and using PHLIPS go to

<http://phlips.sourceforge.net> .

After you have finished installing WAMP, copying over the PCDOC folder, and installing the PHLIPS extension, CONGRATULATIONS! You are almost there! Just one thing left to do:

Copying over the Database

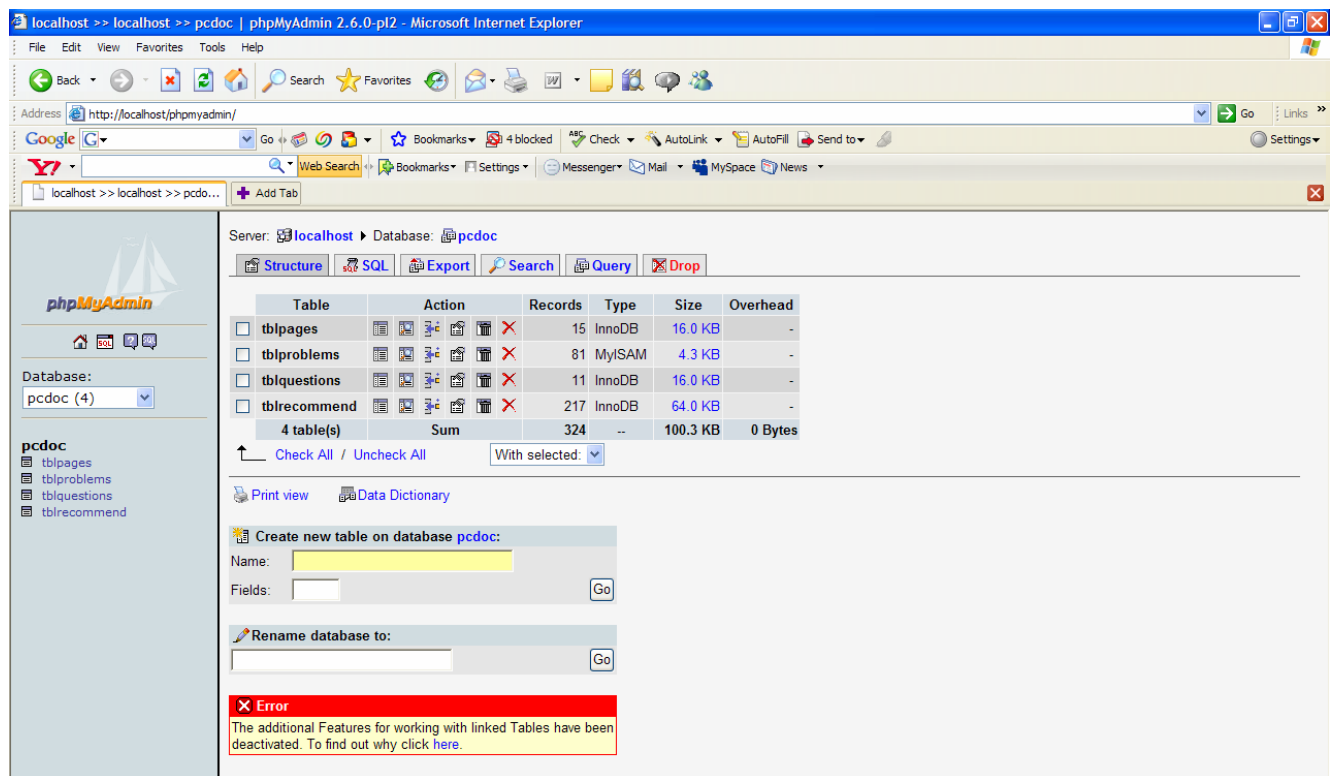
When you installed WAMP, you also installed the MySQL DBMS, because MySQL is a part of the WAMP bundle of applications. To access it, simply go to the WAMP menu mentioned earlier and select **phpMyAdmin**, or browse to <http://localhost/phpmyadmin/>. Once you have accessed it, create a new

database named **pcdoc** (NB. Ensure that the **root** user has a blank password. You can check this by using the **config.php** in the WAMP folder, but don't worry; I think it is set that way by default.).

Once you have created the **pcdoc** database, DO NOT CREATE ANY TABLES YET! I will tell you how to do that. Open the **pcdocbackup20080514.sql** file given to you on the CD, and copy its entire contents (i.e. Select All, then Copy), and paste it under the section labeled **SQL** in **phpMyAdmin** (this is the section that allows you to run SQL queries), then run the queries (i.e. Click "Go").

When this is finished you should see all the tables you need to run the application (NB. You should see 4 tables **tblpages**, **tblquestions**, **tblproblems**, and **tblrecommend**), and lots and lots of data already stored in them! See Figure 1.2.

Figure 1.2



Now you are fully ready to run the PC Doctor Expert System, HAVE FUN!!

NB. We included a version of CLIPS on the CD, but that's only if you want to view the knowledgebase or run the command-line version of the system.

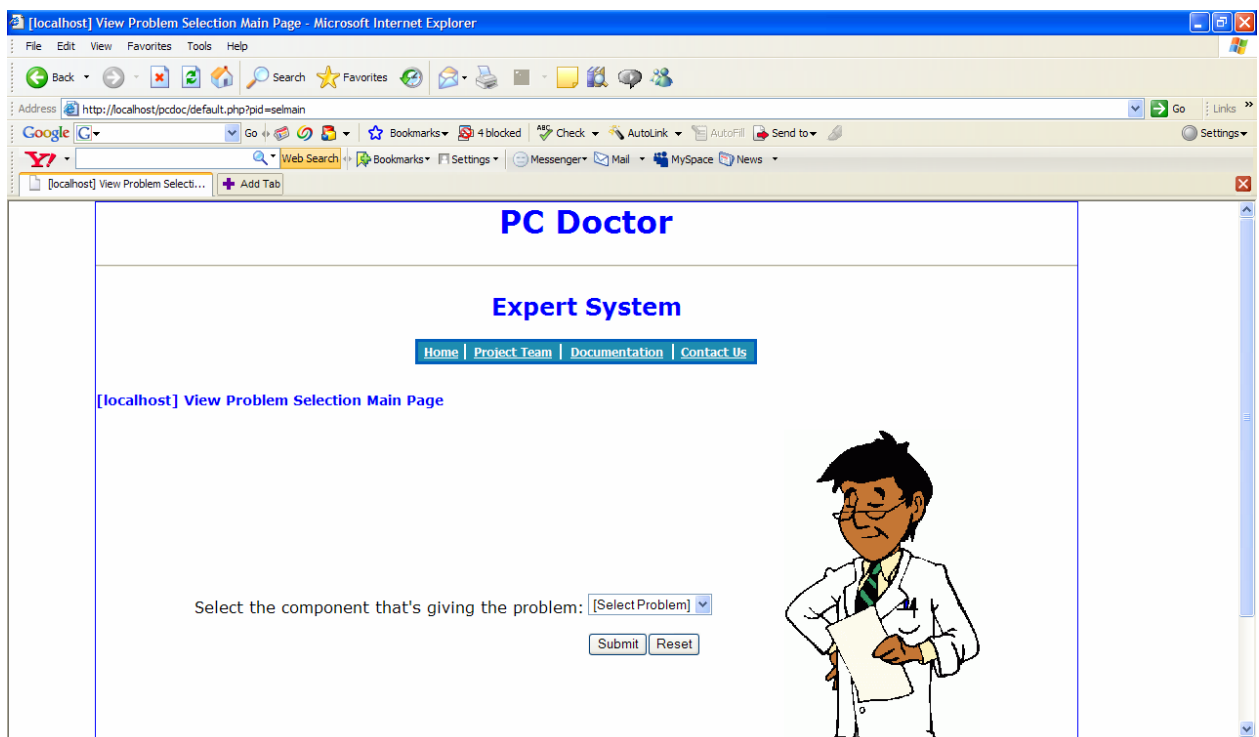
2

USING THE SYSTEM

The Problem Selection Main/Home Page

To access the system, type <http://localhost/pcdoc> in your web browser. This will carry you to the system's Home page, which is also the Problem Selection Main page. See Figure 2.

Figure 2



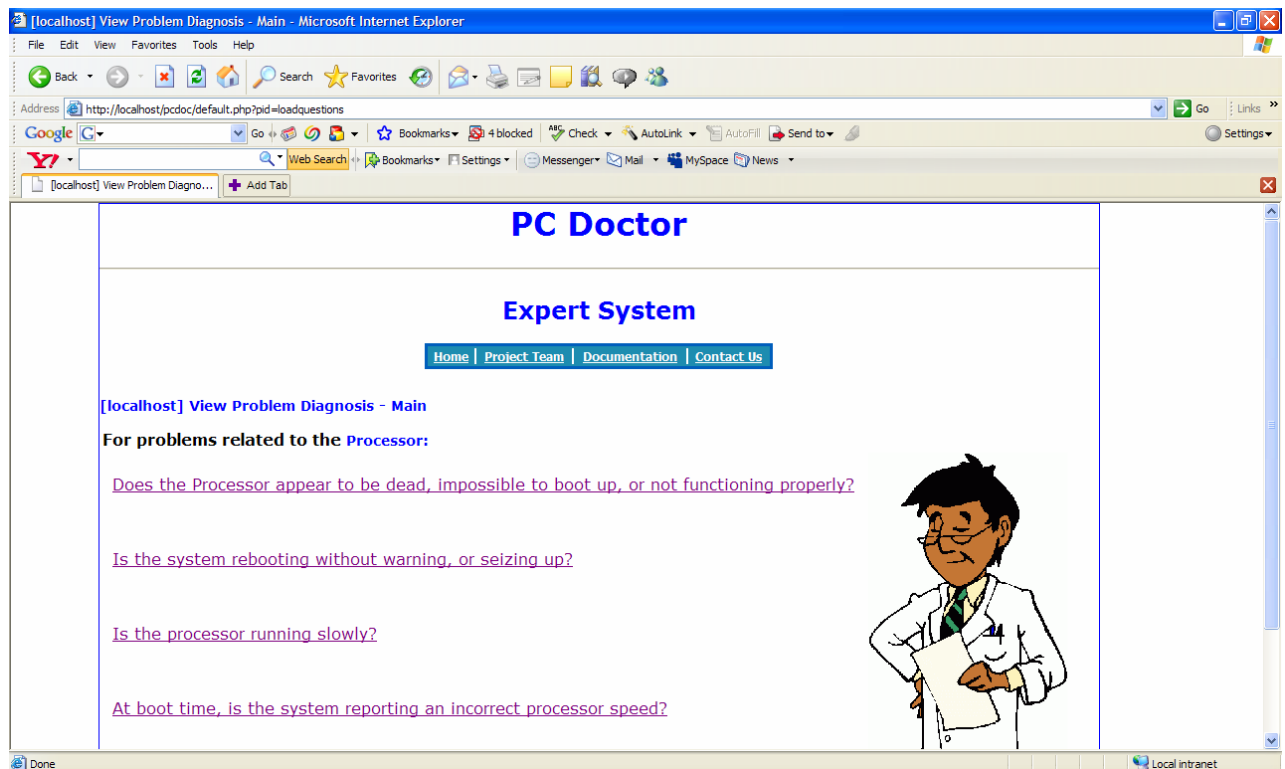
Here users can select the component giving the problem using the drop down box provided. The options are processor, memory, and power supply. When you have finished selecting the component, click the **Submit** button. To clear your selection and start again, click the **Reset** button.

Problem Diagnosis – Main

After selecting a component in the Problem Selection Main page and click Submit, you will be brought to the Problem Diagnosis – Main page. It is here that the system begins diagnosing your problem.

Based on the component selected the system poses some hyperlinked questions to try to get to the root of the problem. Select any problem question that seems closest related to your problem, then click it. See Figure 2.1.

Figure 2.1



The Component's Questions Page

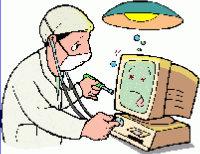
Once the user has selected a problem question from the Problem Diagnosis Main page, the user is brought to the Component's Questions page. Here, further questions are asked to try to get to the root of the problem. For each question, the user is only given the option of selecting a “yes” or “no” answer (NB. If you do not select a response, the system defaults to “No”). See Figure 2.2.

Figure 2.2

[localhost] View Processor Questions - Failure

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[localhost] View Processor Questions - Failure



Have you recently assembled this P.C. or performed an upgrade to it?

☐ Yes ☐ No

Do you have another processor available for a quick test?

☒ Yes ☐ No

Is the processor inserted improperly?

☒ Yes ☐ No

When you have finished answering the relevant questions, click the Submit button at the bottom of the page. Otherwise, click Reset to clear your answers and start again. See Figure 2.3.

Figure 2.3

The screenshot shows a Microsoft Internet Explorer browser window with the title "[localhost] View Processor Questions - Failure - Microsoft Internet Explorer". The address bar displays "http://localhost/pcdoc/default.php?pid=procfail". The browser's toolbar includes buttons for Back, Forward, Stop, Reload, Search, Favorites, and various utility icons. Below the toolbar, there are links for Google, Web Search, Bookmarks, Settings, Messenger, Mail, MySpace, and News. The main content area contains a diagnostic form with the following elements:

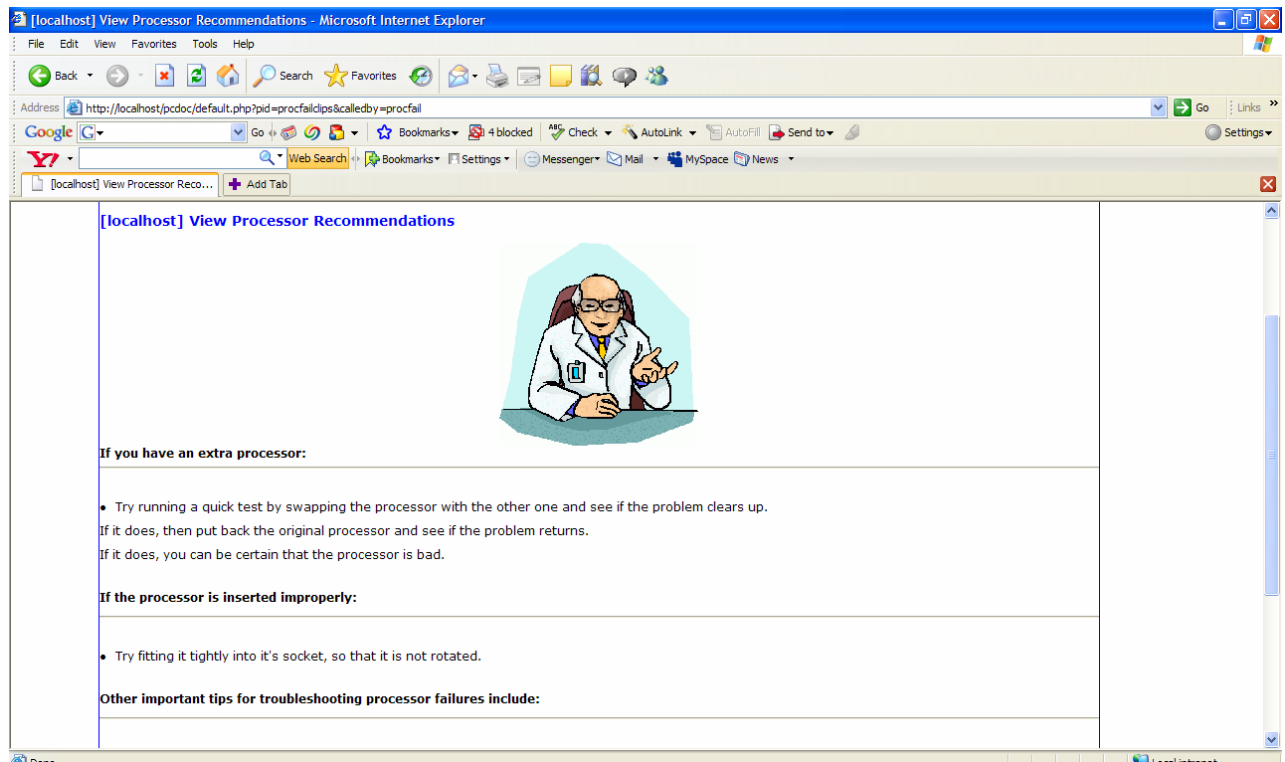
- A "Yes/No" selection row with the "Yes" checkbox checked.
- A horizontal line separator.
- The question: "Is the BIOS settings correct?"
- Another "Yes/No" selection row, both checkboxes are unchecked.
- A horizontal line separator.
- The question: "Is the processor receiving the correct voltage?"
- A third "Yes/No" selection row, both checkboxes are unchecked.
- A horizontal line separator.
- The question: "Is the processor supported by this motherboard?"
- A fourth "Yes/No" selection row, both checkboxes are unchecked.
- A horizontal line separator.
- The question: "Try disabling the secondary cache in the BIOS setup. Does this work?"
- A fifth "Yes/No" selection row, both checkboxes are unchecked.
- A horizontal line separator.
- Two buttons: "Submit" and "Reset".
- A link: [Back To Diagnosis Main](#).

At the bottom of the browser window, a small copyright notice reads: "copyright © 2008 - UTech PHP-CLIPS Research Team".

The Component's Recommendations Page

Once the user has successfully answered the questions and submitted the answers, the user is subsequently sent to the Component's Recommendations Page. Here users are presented with recommendations on possible steps to take to solve the problems specified based on the answers given. See Figure 2.4.

Figure 2.4

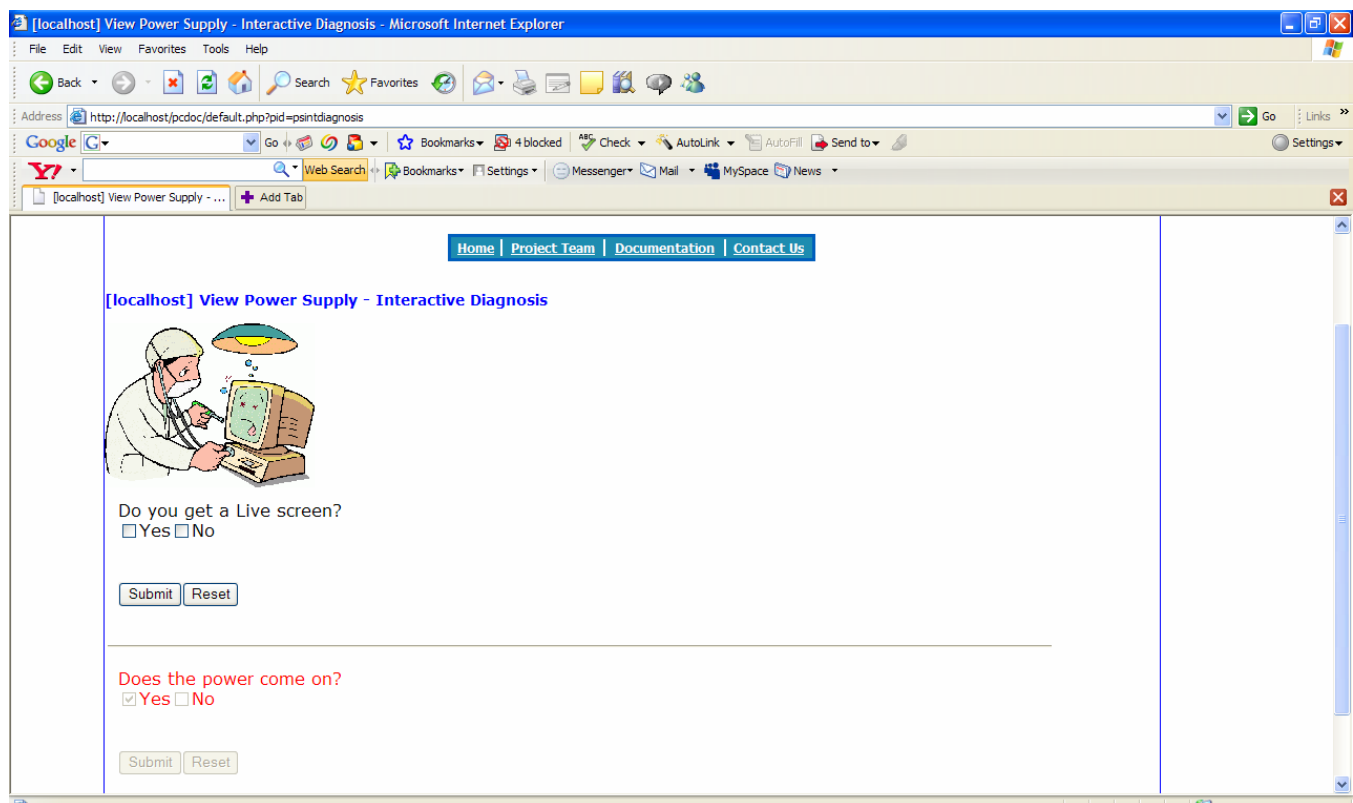


Power Supply Problems (Interactive Diagnosis Page)

Power Supply problems are handled somewhat differently than the design previously mentioned. It uses a more interactive, human-like design. When the user selects to troubleshoot the power supply in the Problem Selection Main Page, he/she is brought to Problem Diagnosis Main Page that has only one option, and that is to [Go To The Interactive Power Supply Diagnosis Page](#).

The Interactive Power Supply diagnosis page only asks the user one question at a time. The idea is that the user is only presented with questions based on their answers until a diagnosis is reached by the system. It simulates a more methodical approach to solving user problems. See Figure 2.5.

Figure 2.5



The screenshot shows a web browser window titled "[localhost] View Power Supply - Interactive Diagnosis - Microsoft Internet Explorer". The address bar displays "http://localhost/pcdoc/default.php?pid=psintldiagnosis". The browser's menu bar includes File, Edit, View, Favorites, Tools, and Help. The toolbar contains buttons for Back, Forward, Stop, Reload, Home, Search, Favorites, and other standard browser functions. Below the toolbar, there are search engines (Google, Yahoo), a bookmarks bar, and a settings menu. The main content area of the browser shows the web page titled "[localhost] View Power Supply - Interactive Diagnosis". At the top of the page, there is a navigation bar with links: Home, Project Team, Documentation, and Contact Us. Below this, there is a cartoon illustration of a person in a white lab coat and mask, using a stethoscope to check a computer monitor. The page contains two questions with checkboxes and "Submit" and "Reset" buttons. The first question is "Do you get a Live screen?" with "Yes" and "No" options. The second question is "Does the power come on?" with "Yes" (checked) and "No" options.

[localhost] View Power Supply - Interactive Diagnosis

Do you get a Live screen?
☐ Yes ☐ No

Submit Reset

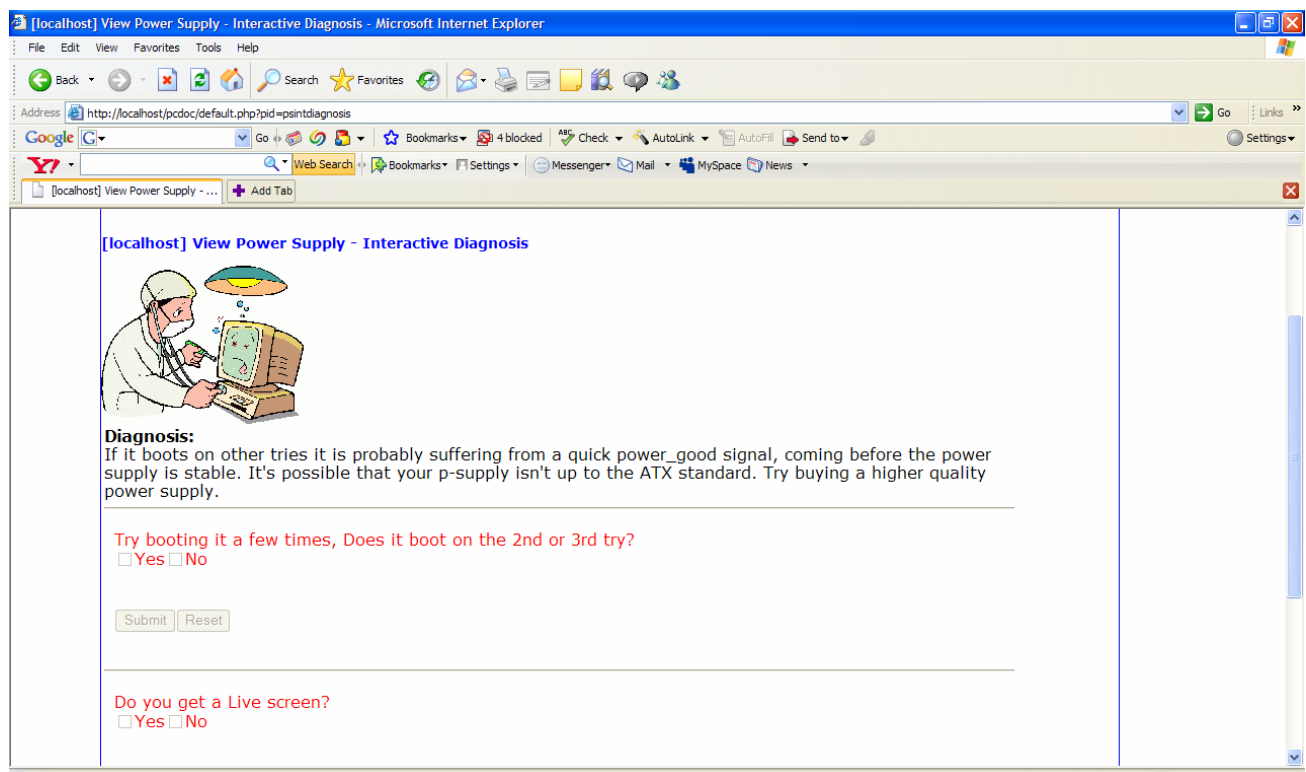
Does the power come on?
☒ Yes ☐ No

Submit Reset

Once again the user is provided with the option of only selecting “yes” or “no” answers, then the user clicks the Submit button to submit the response, or Reset to clear the selection and choose another response. Note however that on this page, the user must select a response (i.e. it does not default to “No”, if no response is selected). If the user wishes to start over the questioning process (i.e. go back to the initial question), click the **Back to Interactive Main** hyperlink at the bottom of the page.

The questioning process will continue until a diagnosis is reached by the system. See Figure 2.6.

Figure 2.6



-----THE END-----