Metabolome Analysis Software
Install Manual
(MasterHands / JDAMP / dotMZ)
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1 Introduction

1.1 Metabolome Analysis Software
This manual introduces how to install the following metabolome analysis software.

- **dotMZ**
  dotMZ converts AnalystQS for Agilent (CE: G1600AX made in Agilent, TOF-MS and LC/MS-TOF: 6210 made in Agilent) wiff files or CSV files to the input file (ciff files) for MasterHands and JDAMP software.

- **JDAMP** (Java application for Differential Analysis of Metabolite Profiles)
  JDAMP detects and visualizing significant differences among multiple samples obtained by capillary electrophoresis-mass spectrometry (CE-MS). JDAMP processes noise reduction and baseline correction, normalizes time-shift, and reports the detected differences, which suits for high-throughput differential based metabolome studies such as biomarker discovery.

- **MasterHands** (Metabolome Analysis and Screening Tool for Easy and Rapid HANDling of Sample data)
  MasterHands automatically integrates, precisely quantify, and interprets CE-MS data. Users annotate whole peaks interactively through the GUI.

1.2 Constitution
This manual introduces how to install dotMZ, JDAMP and MasterHands. See the dotMZ Users Guide, JDAMP Users Guide or MasterHands Users Guide, for the detail operations.
2 Requirement

Please confirm whether CPU of a PC and a necessary library are installed before installation of dotMZ, JDAMP, MasterHands by a procedure in this chapter.

2.1 Confirmation of the number of bits of the CPU

1. Select [Start menu] > [My Computer] and display a ‘property’
2. From a tag of “the whole”, I confirm the information of the system.
   (Cf. chart below)
   It is displayed with "x64 Edition" in the case of the CPU of 64bit.
   When there is not indication, I become 32bitCPU.

![Property window](attachment:image)

Fig 2-1 Property window

1. Select [Start menu] > [Control Panel] > [Add/Remove Programs].
2. The following program is confirmed from the program list.
   • Microsoft .Net Framework version 3.5
   • J2SE Development Kit or J2SE Runtime Environment version 3.5
   • Microsoft Visual C++ 2005 Redistributable

![Add/Remove application window](attachment:image)

Fig 2-2 Add/Remove application window
3 Installation

3.1 Installation procedure

A procedure of installation is the following flow. When Windows Update is not performed, the installation of an old version may be necessary.

- JRE or J2SE version 6.0
  - Yes
  - No (3.2 P5)

- Installing Java

- Microsoft .Net Framework version 3.5
  - Yes
  - No (3.3 P7)

- Installing Microsoft .Net Framework 3.5

- Microsoft Visual C++ 2005 Redistributable have to be installed
  - Yes
  - No (3.4 P9)

- Installing Microsoft Visual C++ 2005

- Analyzed data is converted to a Ciff file.
  - Yes
  - No

- • Installing AnalystQS and G3300AATOF (4.1 Reference P10)
- • Installing dotMZ (4.2 Reference P14)

- • Installing JDAMP (chapter 5 Reference P15)
- • Installing MasterHands (chapter 6 Reference P17)
3.2 Install Java
When an above site is running out of a link, please search it with "java download" on google.

Download Java Runtime Environment (JRE) 6.0 Update *
(* represents update version number. Any update version is acceptable.)

Select corresponding platform and agree to license agreement.

Download “Windows Offline Installation” to you PC.

Double click the downloaded Java installer to start up install wizard.
Press "next" button.

Press "next" button.

Unchecked "display a Readme file" and press “OK” button.
3.3 Install Microsoft .Net Framework 3.5
Download an installer from;
If the link is not acceptable, “.Net Framework 3.5” on “windows update” window.

Press “Save” button

Double click to start up installer.

Press “OK”.
Process agreement license.

Press "exit" button.
3.4 Install VC++2005 SP1

1. Download the installer corresponding your CPU type.

   - 32bit CPU
     Microsoft Visual C++ 2005 SP1 Redistributable (x86)

   - 64bit CPU
     Microsoft Visual C++ 2005 SP1 Redistributable (x64)

     If the links are not reachable, search “Visual C++ 2005 SP1” on windows update window.

2. Simply double click to start up an installer and follow the install wizard.
4 Install dotMZ
4.1 Introduction

dotMZ requires AnalystQS and G3300A TOF software.
Contact to Agilent Technologies for obtaining both software.

Agilent Tecnologies
http://www.chem-agilent.com/

(JDAMP and MasterHands don't require AnalystQS and G3300A TOF software. Only file converter dotMZ use them.)

The AnalystQS and G3300A TOF software works on the following combinations.

- AnalystQS 1.1    G3300AA TOF Software B.02.02
- AnalystQS for Agilent    G3300AA TOF Software A10.10
4.1.1 Configuration of installed AnalystQS

If the following message is displayed, configure AnalystQS by Administrator user.

Right click AnalystQS and select "Run as".

Select "Administrator" in the User name and input password. Press "OK".

The above procedure requires the administrator’s password. Blank password is not permitted. Then, if you did not set up administrator’s password, setup it through “control panel”->”user setup” beforehand.
Press “Security Configuration”.

Press “Add User” button.

Select your accounts and press “OK” button.
Select "Administrator" in “Not Member of:” field and press "<< Add" button.

Press “OK”.
4.2 Install dotMZ

Unzip the zip file and move the directory anywhere.

(In the following examples, make the directory C:\dotMZ.)

The successful operation is confirmed on Windows XP SP2 (32bit), XP SP2 (62bit), 2000 Server (64bit), and Vista (32bit) OS.
5 Install JDAMP

Access JDAMP web site.

http://software.iab.keio.ac.jp/jdamp/

Download JDAMP zip file.
Press “save” button.

Unzip the zip file and move the directory anywhere.
6 Install MasterHands

Access the Master Hands website with announced account and password.
http://software.iab.keio.ac.jp/mh/

Download Master Hands zip file.
Press "save" button.

Unzip the zip file and move the directory anywhere.
# Revision History

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<th>Contents</th>
<th>Contributor</th>
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<tbody>
<tr>
<td>A</td>
<td>Initial release.</td>
<td>Shinobu Abe</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Masahiro Sugimoto</td>
</tr>
<tr>
<td>B</td>
<td>Revised English</td>
<td>Masahiro Sugimoto</td>
</tr>
<tr>
<td>C</td>
<td>Edited the installation process of AnalystQS</td>
<td>Shinobu Abe</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Masahiro Sugimoto</td>
</tr>
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