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Japanese compilation tools

May 8, 2014

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JCPRG compilation tools

- We require editor and digitizer to output data in NRDF and EXFOR formats simultaneously.
- JCPRG developed and maintains compilation tools, namely the editor "HENDEL" and digitizer "GSYS".
- These tools help our compilation and improve quality.



Web-based Editor for Nuclear Data (HENDEL)

- HENDEL was built in 2001 by Dr. N. Otsuka and is available online.
- It is used by JCPRG staff, and also students who are not familiar with the EXFOR format.

The figure displays three screenshots of the HENDEL web-based editor interface. The left screenshot shows the main article page for "Measurement of proton-production differential cross sections from 290 MeV to 400 MeV on carbon at forward angles" from the Journal of Nuclear Science and Technology, Volume 1, 102. The middle screenshot shows the "Target" and "Accelerator" input forms, which include fields for Target Enrichment, Chemical Form, Physical Form, Target Thickness, Backing, Backing Thickness, Target Polarization, Target Alignment, Accelerator Type and Institute, Inc. Energy Value, Inc. Energy Uncert., Inc. Energy Resol., and Beam Intensity. The right screenshot shows the "Graph List" interface, which includes a plot of differential cross sections (DSIGMA) versus incident energy (ENGY-EMT-1-LAB) and a table of data points.

Quantity	ENGY-EMT-1-LAB	DSIGMA	DOMEGA	DE	DELTA	DSIGMA	DOMEGA	DE	
Unit	MEV	MB	SR/MEV		MB	SR/MEV		MB	SR/MEV



Foreign users

- HENDEL is also used by JCPRG colleagues, including former JCPRG staff, in India, Kazakhstan and Mongolia.



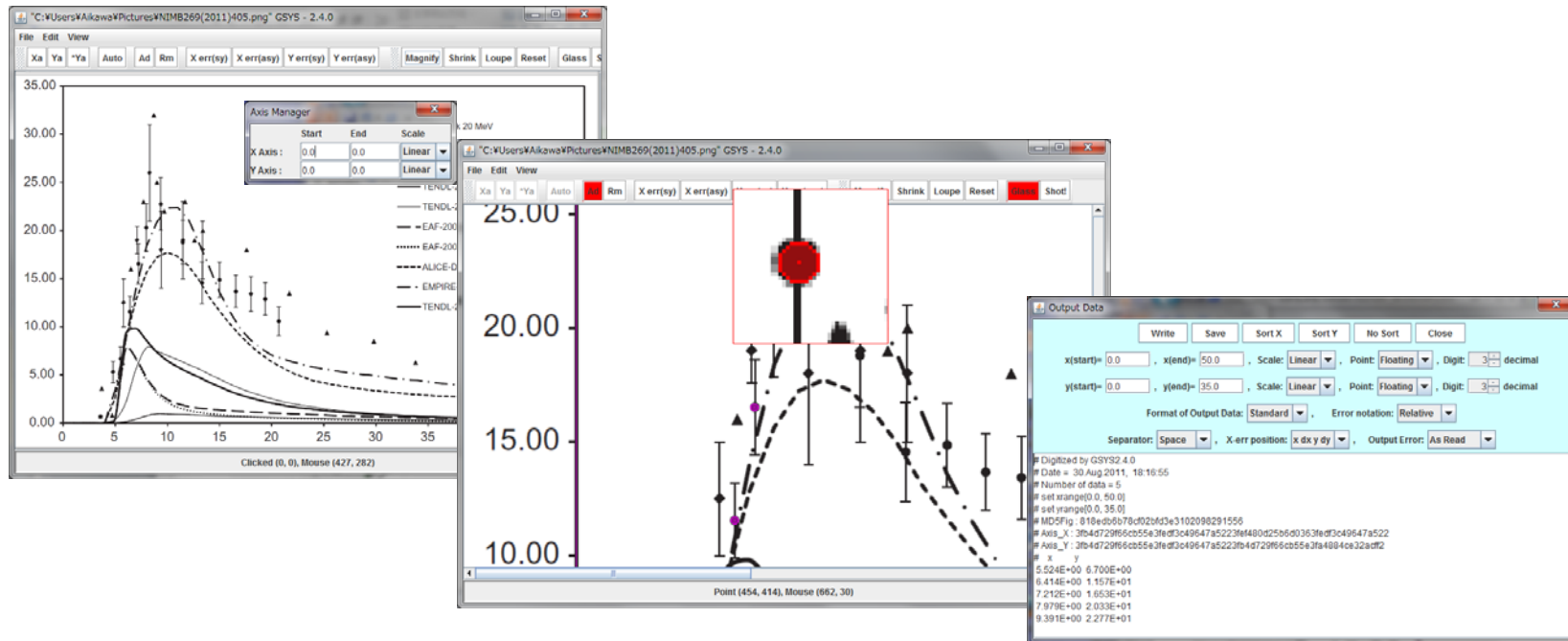
Upgrade and optimization

- Under the current situation, upgrade and optimization for EXFOR compilers are necessary.
- But, unfortunately, it is impossible for the current JCPRG staff to do such improvements.
- We would be very grateful if Dr. N. Otsuka (NDS), the developer, could collaborate with us to upgrade and optimize HENDEL according to comments and requests from users.



Digitizing Software (GSYS)

- The digitizer GSYS was developed by Dr. K. Arai and Dr. R. Suzuki.



Recent updates

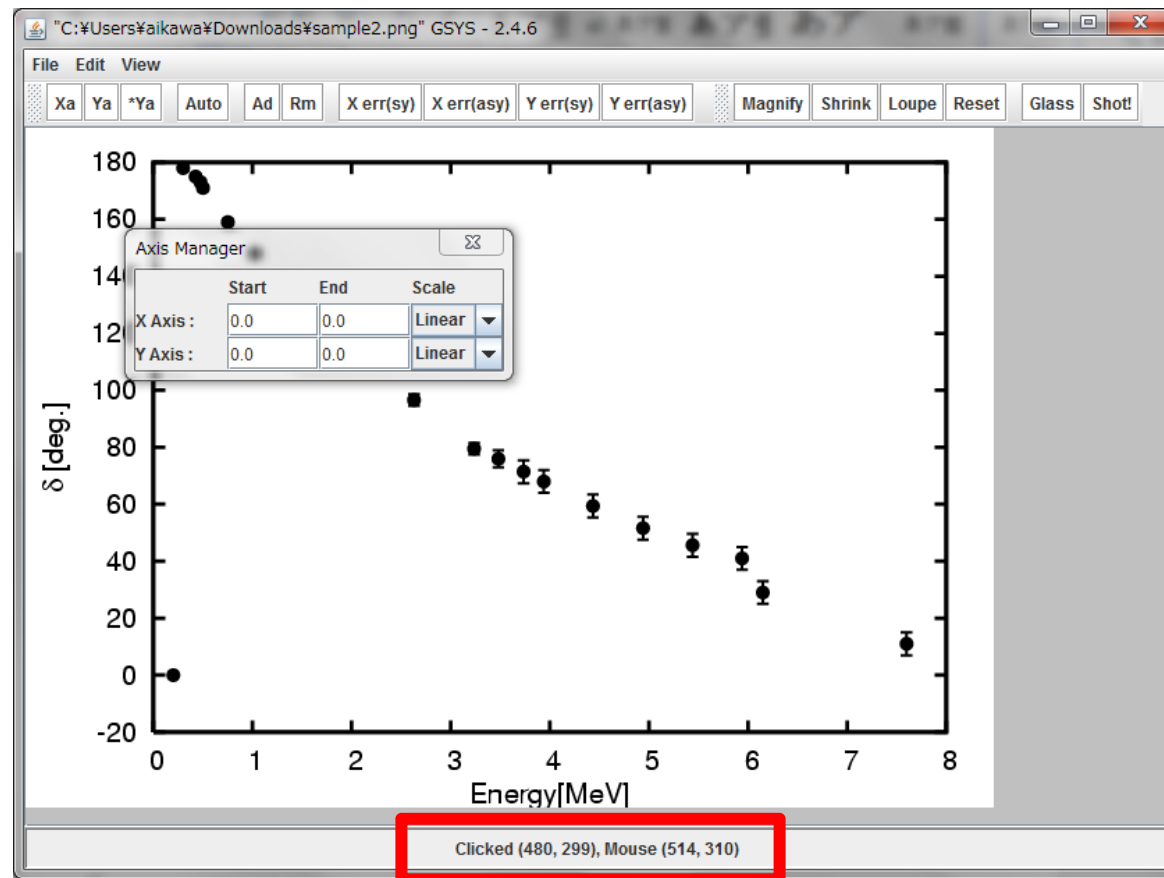
- Dr. R. Suzuki (Hokkaido University Hospital) updated GSYS and plans a major update to version 2.6.

Date	Version	
20 Sep. 2013	GSYS 2.4.6	<ul style="list-style-type: none">● Improve automatic point recognition function. Point is not recognized exclusively at the same point.
23 Aug. 2013	GSYS 2.4.5	<ul style="list-style-type: none">● Bug fix: Enable to drag and drop an image file to Gsys on Max OS.
21 Aug. 2013	GSYS 2.4.4	<ul style="list-style-type: none">● Display digitized value on Status bar.● Enable to read numerical file which have error but numerical values of error are obtained partly in NRDF and Standard format. In EXFOR format, this kind of files have been correctly treated.



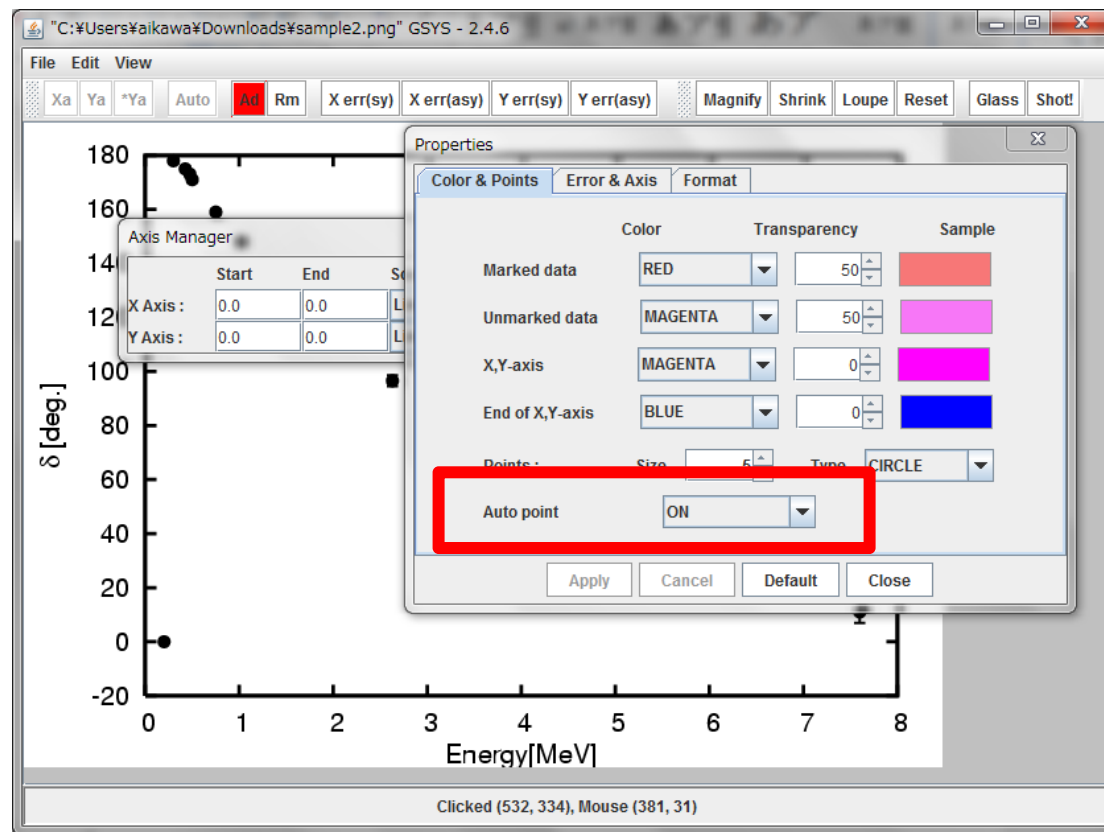
Update on 21 Aug. 2013

- The clicked and mouse positions are displayed on the status bar.



Update on 20 Sep. 2013

- The automatic point recognition function was improved not to recognize the same points.



Summery

- We developed and maintains the editor HENDEL and digitizer GSYS.
- Since upgrade and optimization of HENDEL are necessary, we would be very grateful if Dr. N. Otsuka (NDS), the developer, could collaborate with us.
- GSYS is maintained by Dr. R. Suzuki and will be upgrade to version 2.6 in the near future.

