

2007 GSIS User's Conference

SASI Rules Processing

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Rules Processing located in ELA Training Guide

Rule Entry Atoms

You use seven rule entry atoms to set up rules processing. They give you flexibility in defining which student information will be processed and in what manner. These atoms are:

- Action Definition
- Rule Definition
- Group Definition
- Query Definition
- Rule Set Definition
- Atom Connector
- Rule Launcher

If there is District Integration, the atoms exist at the district level and the resulting files are downloaded to school sites.

Five of the rule entry atoms are definition atoms used to set up the processing to be performed and the conditions under which the processing will occur. To understand the relationship of each of these atoms to the others in the group, visualize these atoms as levels of a pyramid. The Action Definition atom serves as the foundation or base of the pyramid and is the atom you access first. The next higher levels are Rule Definition, Group Definition and Query Definition in that order. The Rule Set Definition atom is at the top of the pyramid; it coordinates the processing criteria defined in the lower levels.

Even though these atoms function independently of one another, each fulfills a unique responsibility within rule processing. They must be used in conjunction with one another to process the rules you define.

NOTE: Rules Processing cannot be performed on S2 files.

Rule Entry Definition Atoms

Atom	Definition	Examples
Rule Set Definition	<p>Top level of the pyramid.</p> <p>Rule sets contain one or more groups which are combined with an implied <i>AND</i>.</p> <p>Rules can only be executed through rule sets.</p>	<p>RuleSet1 contains: Group 1 Group 2</p> <p>If Group 1 returns TRUE, then Group 2 is executed.</p> <p>If Group 1 returns FALSE, then Group 2 is <i>not executed</i>.</p>
Group Definition	<p>Directly beneath Rule Set Definition in the pyramid.</p> <p>A group contains one or more queries. Queries can be grouped together with AND or OR.</p> <p>Queries combined in a group with AND must all return TRUE for the group to return TRUE.</p> <p>Only one query combined with OR must return TRUE for the group to return TRUE.</p>	<p>Group 1: Query1 AND Query2 Group 2: Query3 OR Query4</p> <p>Query1 and Query2 must return TRUE for Group1 to return TRUE.</p> <p>Query3 or Query4 must return TRUE for Group2 to return TRUE.</p>
Query Definition	<p>Third tier in the pyramid.</p> <p>A Query is a conditional statement with one or more rules. The statement is either TRUE (Success) or FALSE (Fail).</p>	<p>Query1: If ASTU BirthDate > 01/01/1980 AND ASTU Grade = 11</p> <p>Query2: If ASTU Status = A</p>
Rule Definition	<p>Fourth tier down in the pyramid.</p> <p>Defined as part of a query. Rules describe a condition or a relationship between a data field and another data field or a value.</p>	<p>ASTU BirthDate > 01/01/1980 ASTU Grade = 11 ASTU Status = A</p>
Action Definition	<p>Foundation of the pyramid.</p> <p>Allows for the update of one or more data fields based on the action's attachment to the query or group.</p>	<p>CHANGE ASTU Grade = 9</p> <p>CHANGE ASTU Status = F</p>

Rules Processing Storage Files

AMRS	Master Rule Set Definition
ARLS	Rule Set Definition
ARLG	Group Definition
AMRQ	Master Query Definition
ARLQ	Query Definition
ARUL	Rule Definition
ARAM	Master Action Definition
ARAC	Action Definition

All of the files are non-qualified.

Atom Connector files.

AACA	Atom Connector
AACE	Atom Connector Setup
AAEH	Atom Connector Events Handler
AAME	Atom Connector Atoms Events List

Order of Creation and Processing

1. Define actions with the Action Definition atom.
2. Define rules with the Rule Definition atom.
3. Define groups and create query names with the Group Definition atom.
4. Define the queries named in the Group Definition atom with the Query Definition atom.
5. Define rule sets with the Rule Set Definition atom.
6. Execute a rule set independently with the Rule Launcher atom.

Connect a rule set to another SASI atom with the Atom Connector atom.
The Save command in the other atom causes the rule set to process.

EXAMPLE – Medical Alert from Emergency to Student

Prior to designing the following Rules Processing, the field “Country” was enabled from the School atom (Localization tab).

The screenshot shows a 'Student' form with the following fields and sections:

- Header: Last Name, First Name, Middle Name, Grntrn, Grd, Gen, Student ID
- Page navigation: Page 1, Page 2, Page 3
- Mailing Address: Mailing Address, City, St, Zip Code
- Parent/Guardian: Parent/Guardian Name, Family ID
- Telephone: Telephone, UnL, **Country** (highlighted)
- Birth Date: Birth Date, Soc Sec No., Eth, ConcSch/Home, Bus 1, Bus 2
- Enter Date: Enter Date, Code, Leave Date, Code, OrgEntDate, Code, EntGrd, Yr/Grad
- Advsr#: Advsr# Name, Room#, Couns# Name, ESL IS

The screenshot shows the 'Alert' Action Definition form. The 'Action Name' and 'Action Description' fields are highlighted with a black box and contain the text 'Alert'.

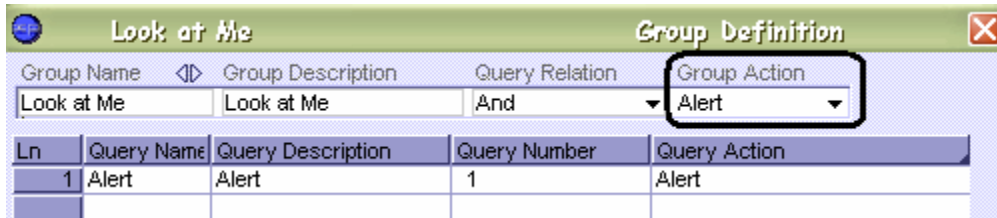
Action ID	To File	To Field	Oper	From File	From Field	Value	Order
1	ASTU	Country	=	AEMG	MedAlert		1

1. Add the Action. Add the Action Part and Define it.

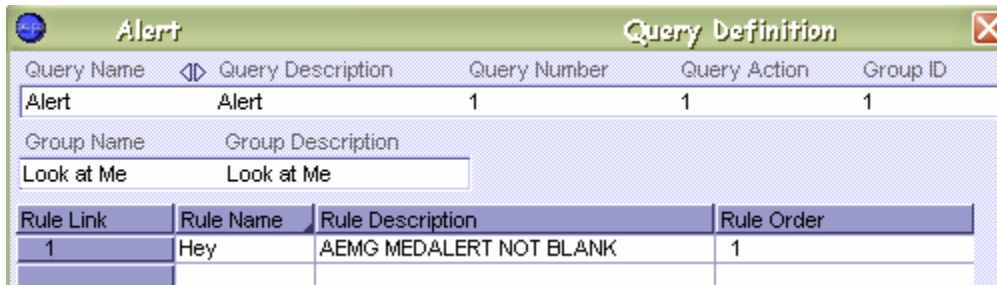
The screenshot shows the 'Rule Definition' form. The 'Description' field is highlighted with a black box and contains the text 'AEMG MEDALERT NOT E'.

Ln	Rule Na	File1	Field1	Ordu	Valu	Oper	File2	Field2	Value	Description	Rule
1	Hey	AEMG	MEDALERT			<=>				AEMG MEDALERT NOT E	1

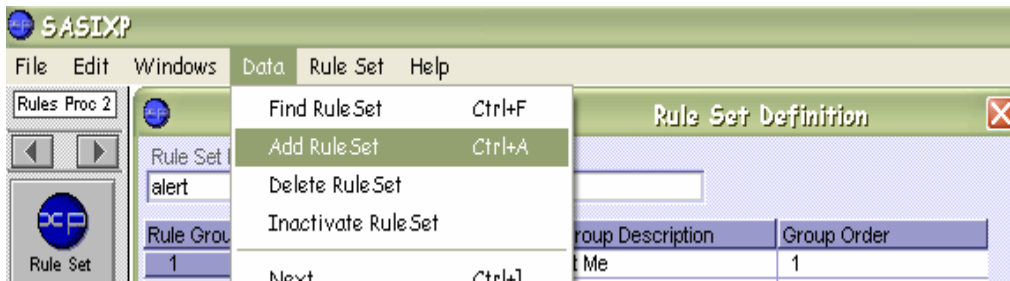
2. Add & Define Rule. This rule is for MedAlert not Blank.



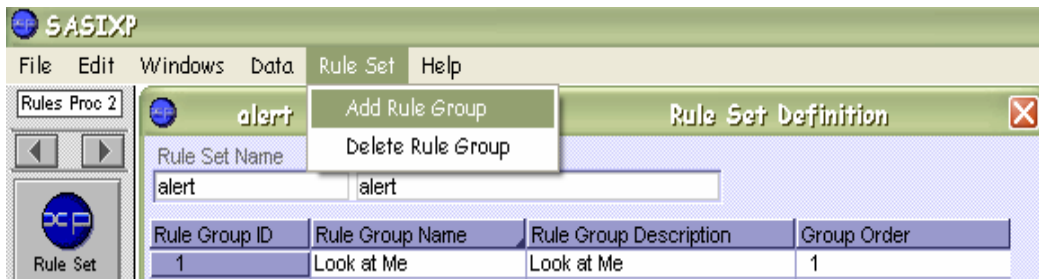
3. Add Group. Add Query. **Note** Query Action from Action Definition



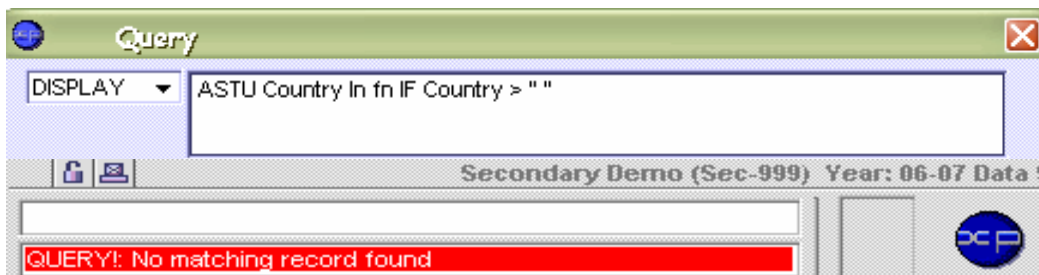
4. Forward to Query & Add Rule(s). Queries are then combined into rule groups.



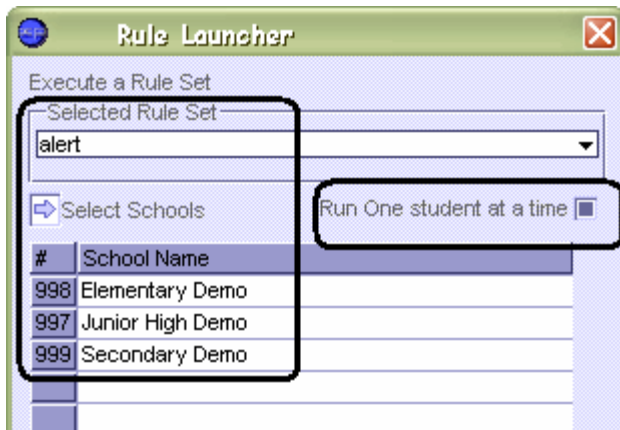
5. Add Rule Set



6. Add Rule Group. **NOTE:** Must get True value for all Rule Groups for Rule Set to process.

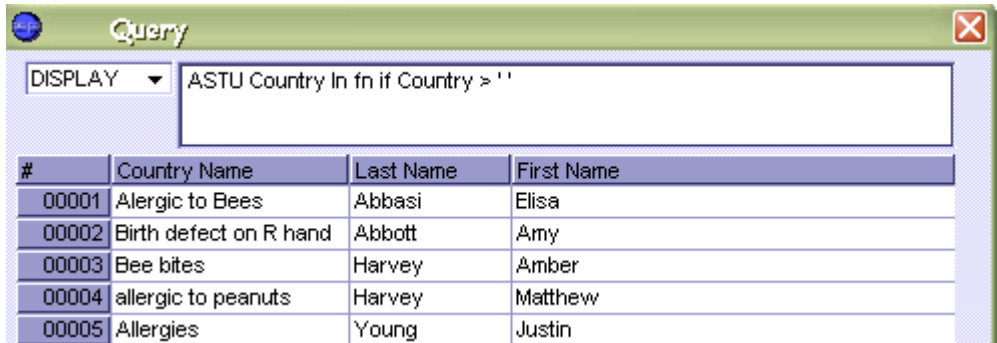


7. Verify data before Rule is launched.

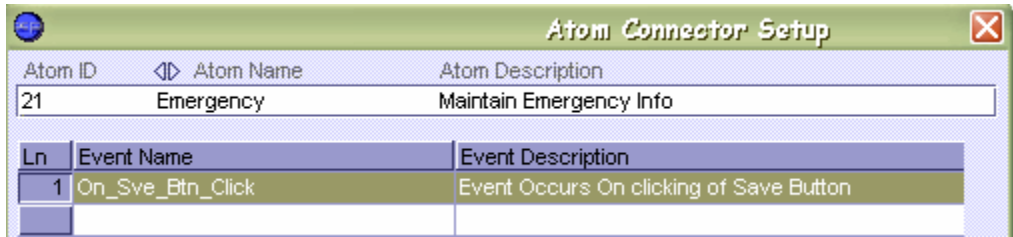


8. Select Rule Set. Select Schools.

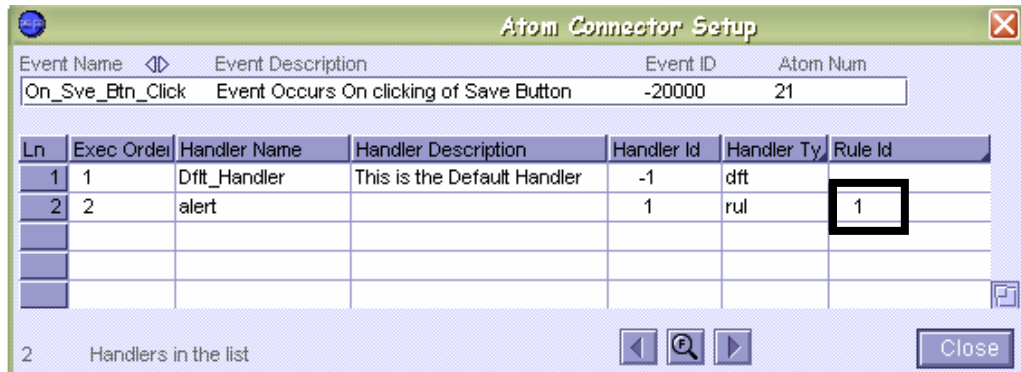
9. The option 'Run One student at a time' allows you run the rule set against one student at a time. If blank, the rule set runs against the entire school at once.
Note: Currently the program only runs one student at a time.



10. Verify data results after rule is launched.



11. Add an Atom, selecting the Atom number from the Atom ID pulldown. Event defaults. SAVE. Then double-click the Ln 1 to popup the next window.



12. Add Handler. NOTE: Handler Type for added Handler MUST be rule!
 Select Rule Set from pulldown. SAVE.

Exec Order –Order of execution of handlers attached to event.
Handler ID –Sequential numbering of handlers. The default is –1. The first new handler is number 1.
Handler Type– The type must be rule. Select Rule from the list.
Rule ID –The number of the rule set selected from the list. Exec Order –Order of execution of handlers attached to event.

Hall, Margaret B. Emergency

Last Name	First Name	Middle Name	Gnrtn	Grd	Gen	Student ID
Hall	Margaret	B		09	F	1043

Emrg Contacts | Other Contacts | **Emrg Info**

Medical Alert 1: Medical Alert 2:

Physician: Telephone: Extn:

Buttons: Undo, Save

13. Enter Medical Alert1. SAVE!

Hall, Margaret B. Student

Last Name	First Name	Middle Name	Gnrtn	Grd	Gen	Student ID
Hall	Margaret	B		09	F	1043

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Mailing Address: City: St: Zip Code:

Parent/Guardian Name: Family ID:

Telephone: UnL: Country:

Birth Date: Soc Sec No.: Eth: ConcSch/Home: Bus 1: Bus 2:

Enter Date: Code: Leave Date: Code: OrgEntDate: Code: EntGrd: Yr/Grad:

Advsr# Name: Room#: Couns# Name: ESL: IS:

Buttons: Close

14. Data copied from Emergency file to Student 'Country' field.

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