

TARTYP BASED GENERATIVE GRAMMAR OBJECTS

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The README file refers to the folders:

GenInterTARTYPtoolsMax

GenInterTARTYPtoolsPD

The Java codes in these folders are compiled to create **mxj** objects in Max/MSP or **pdj** objects in PD.

For instructions regarding mxj setup and Java Virtual Machine (JVM) installation please see the java-doc folder in the Max/MSP program files.

For instructions regarding pdj setup and Java Virtual Machine (JVM) installation please see the docs in the PDJ package, available from <http://puredata.info/downloads/pdj>.

This folder includes 8 mxj/pdj grammar objects that create (in real time) sets of rewrite rules and construct (in real time) multiple legal paths from these sets of rules.

A grammar object receives a list of integers in the left inlet and interprets the list as the number of rules of each type to be generated as well as an implicit bang, which generates the rule set. The object posts the set of rules in the Max/PD window. Following a generation of the rule-set, for each additional bang received in the left inlet the object outputs a path or a sequence of terminals as a symbol list.

For a full description of the TARTYP Based Generative Grammars please see the paper:

Neuman, Israel. "Generative Grammars for Interactive Composition Based on Schaeffer's TARTYP," *Proceedings of the International Computer Music Conference* (2013)

The following are the specifications of the 8 mxj/pdj grammar objects included in this folder:

argument to create a mxj/pdj object:	grammar (see paper)	left inlet to generate a set of rewrite rules, posted on console:	left inlet to extract a path in the grammar:	outlet a path as list of the terminal symbols:
AccRuleM	<i>Accumulation</i>	int list (e.g., "2 2 14 2")	bang (after rule set was generated)	DEFINITE COMPLEX VARIABLE UNPREDICTABLE ITER_UF
BalRuleM	<i>Balanced</i>	int list (e.g., "2 2 14 2")	bang (after rule set was generated)	DEFINITE COMPLEX VARIABLE IMPULSE FORMED_ITERATION FORMED_SUSTAINMENT
ExcRuleM	<i>Excentric</i>	int list (e.g., "2 2 14 2")	bang (after rule set was generated)	UNPREDICTABLE IMPULSE FORMED_ITER FORMED_SUS ITER_NF ITER_UF HELD_NF HELD_UF
RhhRuleM	<i>RH_Held</i>	int list (e.g., "2 2 14 2")	bang (after rule set was generated)	DEFINITE COMPLEX VARIABLE HELD_NF
RhiRuleM	<i>RH_Iter</i>	int list (e.g., "2 2 14 2")	bang (after rule set was generated)	DEFINITE COMPLEX VARIABLE ITER_NF
SamRuleM	<i>Sample</i>	int list (e.g., "2 2 14 2")	bang (after rule set was generated)	DEFINITE COMPLEX VARIABLE UNPREDICTABLE HELD_UF
STabRuleM	<i>Sub_Table</i>	int list (e.g., "2 8 2")	bang (after rule set was generated)	ACCUMULATION SAMPLE EXCENTRIC
TabRuleM	<i>Table</i>	int list (e.g., "2 8 2")	bang (after rule set was generated)	BALANCED RH_HELD RH_ITER EXCENTRIC