

# EVP 2.0

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# ENSDF Modernization

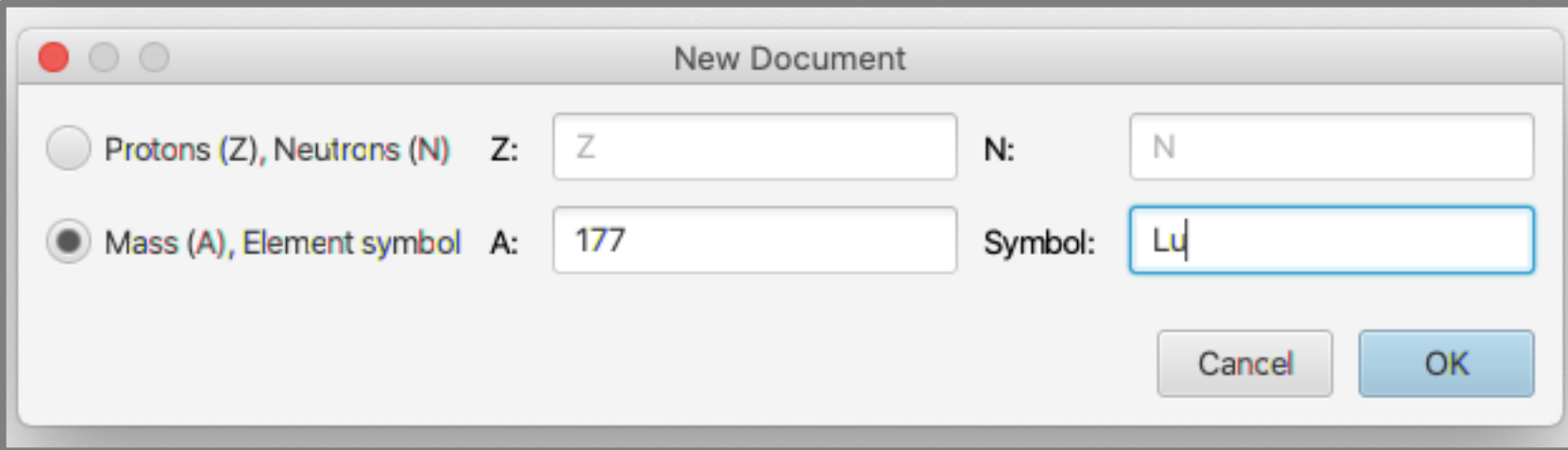
- Recently-funded proposal to update ENSDF format
  - Decisions made now impact how ENSDF will be used in future
- Questions and considerations:
  - What should the new format look like?
  - How will evaluations be performed?
  - How do we make a smooth, convenient transition?

# EVP

- Working title for an ENSDF file editor
  - Still in development, and thus still flexible
- User interface meant to handle reading/writing into new format
- Currently uses an abstract model:
  - Document
    - Nuclide
    - Dataset 1 (i.e. “ADOPTED LEVELS”)
    - Dataset 2 (i.e. “THERMAL (N, G)”)

# Start Screen

- Currently only handles one document at a time
  - Can edit multiple datasets within current document
- To create a document, prompts user for current nuclide

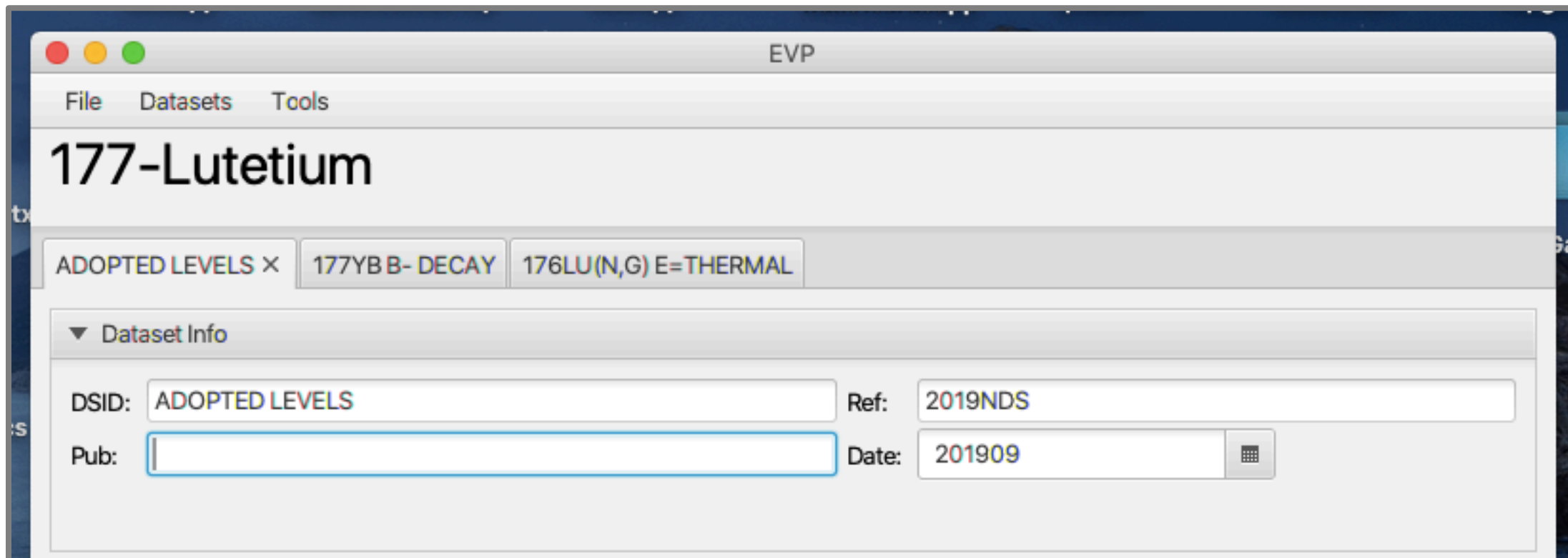


The image shows a 'New Document' dialog box with two radio button options and four input fields. The first option is 'Protons (Z), Neutrons (N)' with 'Z' in the first input field and 'N' in the second. The second option is 'Mass (A), Element symbol' with '177' in the third input field and 'Lu' in the fourth. The 'Symbol' field is highlighted with a blue border. At the bottom right are 'Cancel' and 'OK' buttons.

Option	Z	N	A	Symbol
<input type="radio"/> Protons (Z), Neutrons (N)	Z	N		
<input checked="" type="radio"/> Mass (A), Element symbol			177	Lu

# Adding Datasets

- Currently no limits on how many datasets can be added

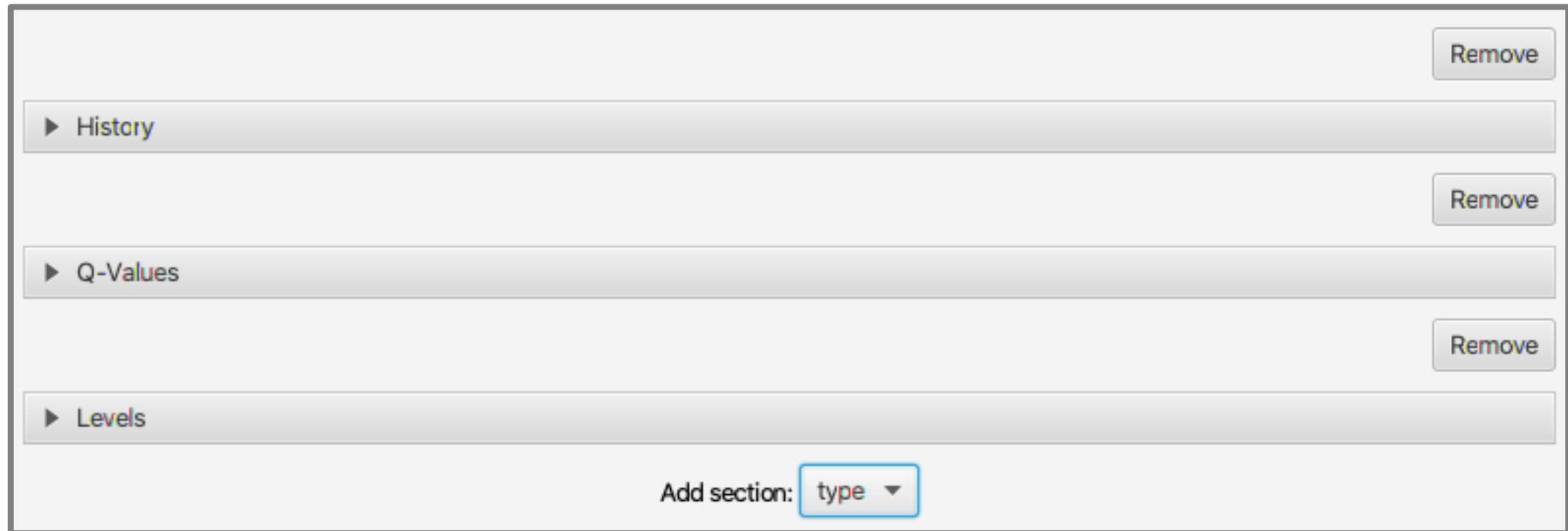


The screenshot shows the EVP software interface. The window title is "EVP". The menu bar includes "File", "Datasets", and "Tools". The main title is "177-Lutetium". Below the title, there are three tabs: "ADOPTED LEVELS ×", "177YB B- DECAY", and "176LU(N,G) E=THERMAL". A section titled "Dataset Info" is expanded, showing the following fields:

DSID:	ADOPTED LEVELS	Ref:	2019NDS
Pub:		Date:	201909

# Building Datasets

- Each dataset can contain several “sections” of information



The image shows a user interface for building a dataset. It features a list of sections, each with a right-aligned 'Remove' button. The sections are:

- History
- Q-Values
- Levels

At the bottom, there is an 'Add section:' label followed by a dropdown menu currently showing 'type'.

# History Section

- Inputs for type, author(s), citation, and cutoff date

▼ History

+ Add

Type:	<input type="checkbox"/>	Authors:	<input type="text"/>	Citation:	<input type="text"/>	Cutoff:	<input type="text"/>	<input type="text"/>	X
Type:	<input type="checkbox"/>	Authors:	<input type="text"/>	Citation:	<input type="text"/>	Cutoff:	<input type="text"/>	<input type="text"/>	X
Type:	<input type="checkbox"/>	Authors:	<input type="text"/>	Citation:	<input type="text"/>	Cutoff:	<input type="text"/>	<input type="text"/>	X
Type:	<input type="checkbox"/>	Authors:	<input type="text"/>	Citation:	<input type="text"/>	Cutoff:	<input type="text"/>	<input type="text"/>	X

# Q-Values Section

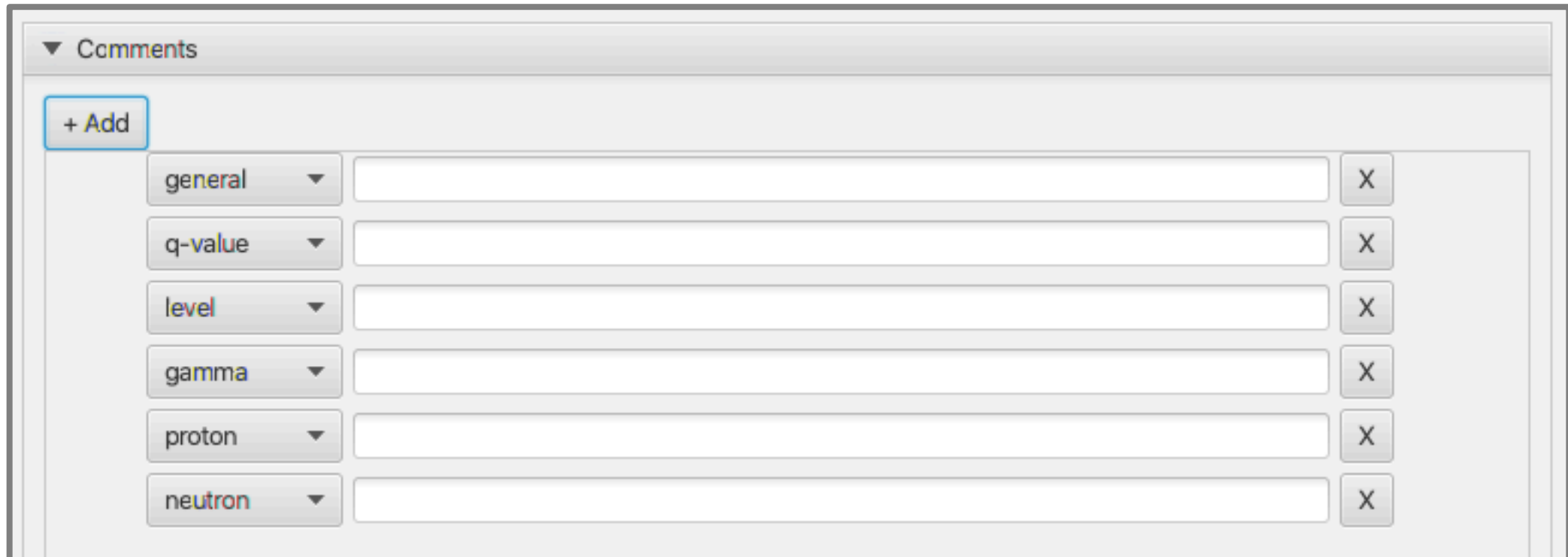
- User can add Q-values and fill in type, value, and uncertainty
  - Current options: Q(B-), S(n), S(p), Q(a), S(2n), S(2p), Q(EC)

The screenshot shows a software interface for entering Q-values. At the top left, there is a dropdown menu labeled 'Q-Values'. Below it is a blue '+ Add' button. The main area contains a 'Ref:' label followed by a text input field. Below this are three rows of input fields. Each row starts with a dropdown menu currently set to 'N/A', followed by two text input fields, and ends with a small 'X' button for deletion.



# Comments Section

- List of entries with “type” and “text” inputs, not attached to any data



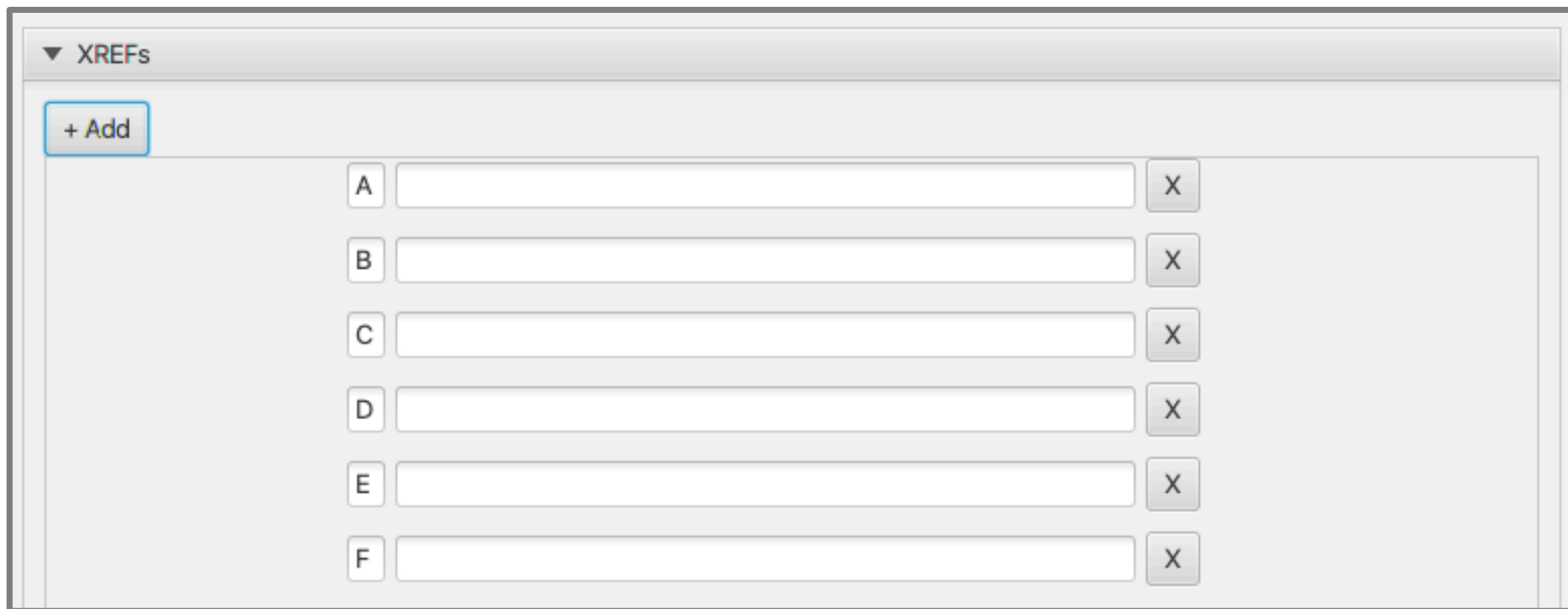
▼ Comments

+ Add

general	<input type="text"/>	X
q-value	<input type="text"/>	X
level	<input type="text"/>	X
gamma	<input type="text"/>	X
proton	<input type="text"/>	X
neutron	<input type="text"/>	X

# XREFs Section

- List of entries with inputs for user-defined symbols and DSIDs

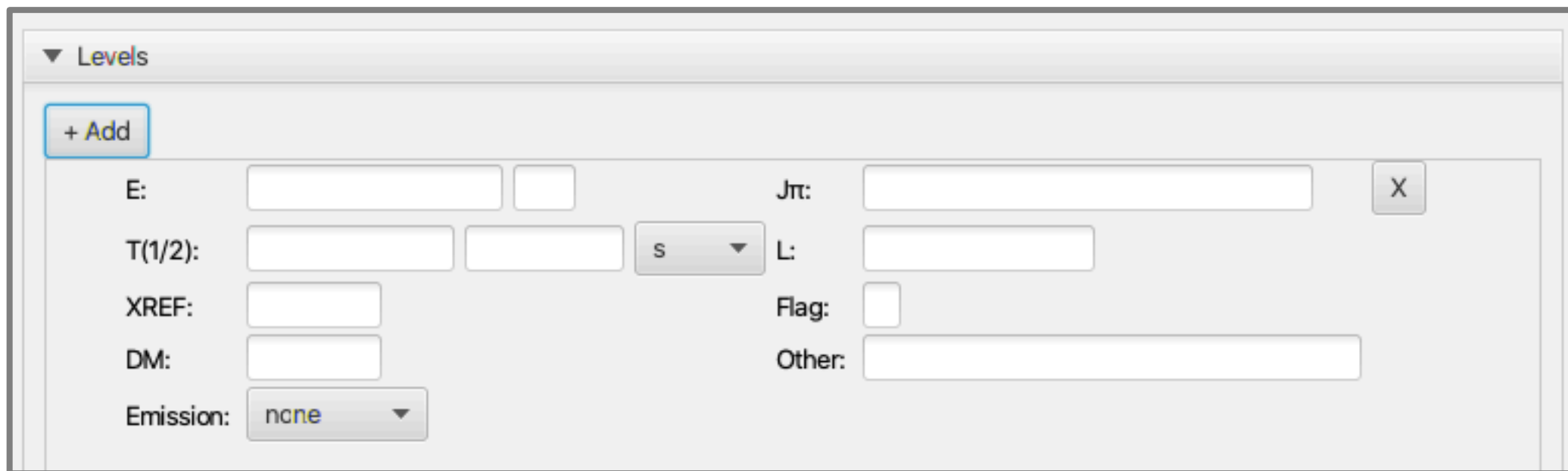


The screenshot shows a software window titled "XREFs" with a dropdown arrow. Inside the window, there is a "+ Add" button in the top-left corner. Below this button is a list of six entries, each consisting of a lettered label (A through F) in a small box, followed by a wide text input field, and a small button with the letter "X" on the right. The input fields are currently empty.

Label	Input Field	Action
A	<input type="text"/>	X
B	<input type="text"/>	X
C	<input type="text"/>	X
D	<input type="text"/>	X
E	<input type="text"/>	X
F	<input type="text"/>	X

# Levels Section

- Lists of entries for defining excitation states



The screenshot shows a software interface window titled "Levels". Inside the window, there is a "+ Add" button in the top left corner. Below the button, there is a form with several input fields and a dropdown menu. The form is organized into two columns. The left column contains fields for "E:", "T(1/2):", "XREF:", "DM:", and "Emission:". The right column contains fields for "Jπ:", "L:", "Flag:", and "Other:". The "Emission:" field is a dropdown menu with "none" selected. The "Jπ:" field has a small "X" button to its right. The "T(1/2):" field has a dropdown menu with "s" selected. The "Other:" field is a wide text input box.

E:	<input type="text"/>	<input type="text"/>	Jπ:	<input type="text"/>	<input type="button" value="X"/>
T(1/2):	<input type="text"/>	<input type="text"/>	s	L:	<input type="text"/>
XREF:	<input type="text"/>		Flag:	<input type="text"/>	
DM:	<input type="text"/>		Other:	<input type="text"/>	
Emission:	none				

# Levels Section (contd.)

- Also supports tracking for gamma ray or particle emissions
  - Options are mutually exclusive – a single particle, or one or more gammas

Emission:

Type:  E:   t:

Emission:

Gammas:

E:   t:

M:  MR:

ICC:   TI:

Coin.:  Q:

# Unplaced Gammas Section

- Additional section for gamma rays not associated with excited states

The screenshot shows a software window titled "Unplaced Gammas" with a dropdown arrow on the left. Below the title bar is a blue button labeled "+ Add". The main area contains two identical sets of input fields for gamma ray parameters, arranged in two columns. Each set includes:

- E:** Energy, with a text box and a small square checkbox.
- M:** Multiplicity, with a text box.
- ICC:** Invariant Charge, with two text boxes.
- Coin.:** Coincidence, with a small square checkbox.
- I:** Intensity, with a text box and a small square checkbox.
- MR:** Magnetic Resonance, with two text boxes.
- TI:** Transition, with two text boxes.
- Q:** Quality, with a small square checkbox.

Each set of input fields is followed by a small grey button with an "X" icon, likely for deleting the entry.