Department of Computer Science
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Knowledge-Based Systems

Laboratory activity
Ontology title: **TES V: Skyrim Skill Tree**
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Chapter 1

Contents

1.1 Competency questions

Use cases:

- Anyone who wants to play the game TES V: Skyrim.

- Anyone who wants to know which skills can be learnt at current level.

- Anyone who wants to know what perks the skills provide.

- Anyone who wants to know suitable skills based on the character's build.

- Anyone who wants to know the pre-required skill in order to learn a specific skill.

- Anyone who wants to know the level required to learn a specific skill.

- Anyone who wants to know the skills not worth prioritizing.

Competency questions:

- What are the classes of characters I can play?

- What are the skills suitable for build X?

- Should I invest in skill tree X if my character is build Y?

- What skills can I unlock at level X?

- What skill is required for unlocking skill X?

- What level is required for unlocking skill X?

- What are the perks provided by skill X?

1.2 Related ontologies

The ontologies we found were related to ours based on the fact that they all tackle the topic of video games.

- Dota 2 ontology - An ontology describing a scenario from the game - `https://ontohub.org/repositories/dota-2-ontology`

- Core Game Ontology - An ontology classifying games by their properties - `http://autosemanticgame.institutedigitalgames.com/ontologies/core-game-ontology/`

- Dota 2 item ontology - An ontology about the items and builds in Dota 2 - `https://ontohub.org/boc2018/Dota%202%20Item%20ontology`

Unfortunately none of these ontologies are useful to us, as we tackle a very specific topic. None of them will be used.

1.3 Tbox

Our main concepts are Skill_class, Skill, Build and Race. The figure below shows the concepts in a more detailed way.
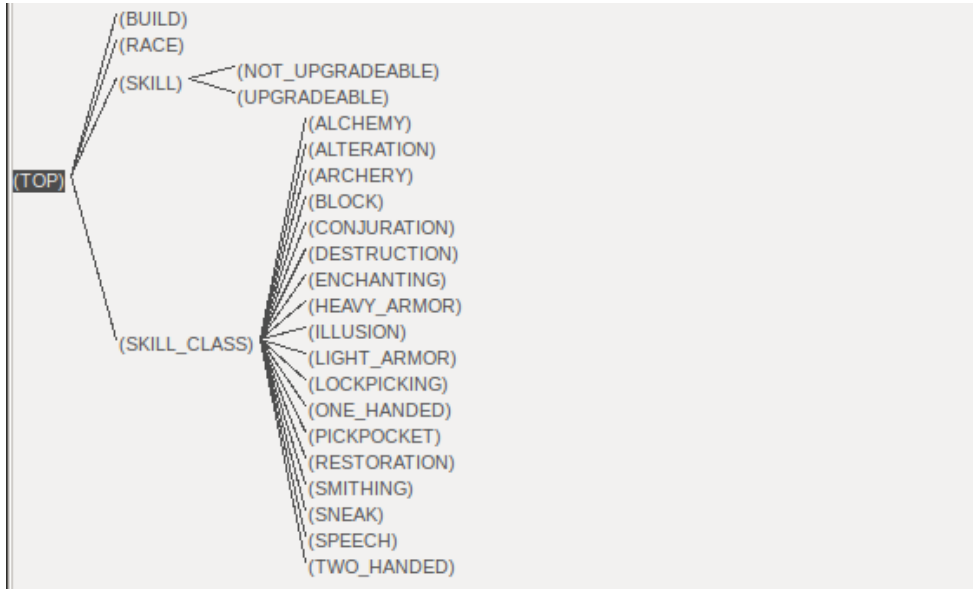
The Skill_class is split into the existing 12 disjoint classes: Archery, Block, Heavy Armor, One-handed, Smithing, Two-handed, Alteration, Conjuration, Destruction, Enchanting, Illusion, Restoration, Alchemy, Light Armor, Lockpicking, Pickpocket, Sneak and Speech. These skill classes contain skills. Builds are paired with skill classes to tell what skill class is suitable for what build.

```
1  (IMPLIES SNEAK SKILL_CLASS)
2  (IMPLIES LOCKPICKING SKILL_CLASS)
3  (IMPLIES PICKPOCKET SKILL_CLASS)
4  (IMPLIES SPEECH SKILL_CLASS)
5  (IMPLIES ALCHEMY SKILL_CLASS)
6  (IMPLIES ILLUSION SKILL_CLASS)
7  (IMPLIES CONJURATION SKILL_CLASS)
8  (IMPLIES DESTRUCTION SKILL_CLASS)
9  (IMPLIES RESTORATION SKILL_CLASS)
10 (IMPLIES ALTERATION SKILL_CLASS)
11 (IMPLIES ENCHANTING SKILL_CLASS)
12 (IMPLIES SMITHING SKILL_CLASS)
13 (IMPLIES HEAVY_ARMOR SKILL_CLASS)
14 (IMPLIES BLOCK SKILL_CLASS)
15 (IMPLIES TWO_HANDED SKILL_CLASS)
16 (IMPLIES ONE_HANDED SKILL_CLASS)
17 (IMPLIES ARCHERY SKILL_CLASS)
18 (IMPLIES LIGHT_ARMOR SKILL_CLASS)
19 (DISJOINT SNEAK LOCKPICKING PICKPOCKET SPEECH ALCHEMY ILLUSION CONJURATION
       DESTRUCTION RESTORATION ALTERATION ENCHANTING SMITHING HEAVY_ARMOR BLOCK
       TWO_HANDED ONE_HANDED ARCHERY LIGHT_ARMOR)
20
21 (define-primitive-role isSuitable :domain SKILL_CLASS :range BUILD)
```

Skills can be either Upgradeable or Not_upgradeable, these two traits are obviously disjoint between eachother. Above this, we need to model the pre-required skill, for which we use a role called *hasSkillRequirement*. For the level requirement and perk description we use attributes.

```
1 (IMPLIES UPGRADEABLE SKILL)
2 (IMPLIES NOT_UPGRADEABLE SKILL)
3 (DISJOINT NOT_UPGRADEABLE UPGRADEABLE)
4
5 (define-primitive-role hasSkillRequirement :domain SKILL :range SKILL)
6
7 (define-concrete-domain-attribute hasLevelRequirement :TYPE INTEGER)
8 (define-concrete-domain-attribute hasDescription :TYPE STRING)
```

1.4   Abox

Our Abox is mainly composed of instances of skills, then some races and some builds. Instances of races and builds are simple, since they are then used to determine which skill class to invest in. An instance of a race and one of a build:

```
1 (INSTANCE REDGUARD RACE)
2
3 (INSTANCE BARBARIAN BUILD)
```

An instance of a skill:

```
1 (INSTANCE ADEPT_ALTERATION SKILL)
2 (INSTANCE ADEPT_ALTERATION ALTERATION)
3 (RELATED ADEPT_ALTERATION APPRENTICE_ALTERATION hasSkillRequirement)
4 (ATTRIBUTE-FILLER ADEPT_ALTERATION 50 hasLevelRequirement)
5 (ATTRIBUTE-FILLER ADEPT_ALTERATION "Cast Adept level Alteration spells for half
    magicka." hasDescription)
```

This can be seen in the tree structure in the images below. The skill is only the root, but since the skill requirement takes another skill as parameter, it extends until it reaches a "leaf skill".
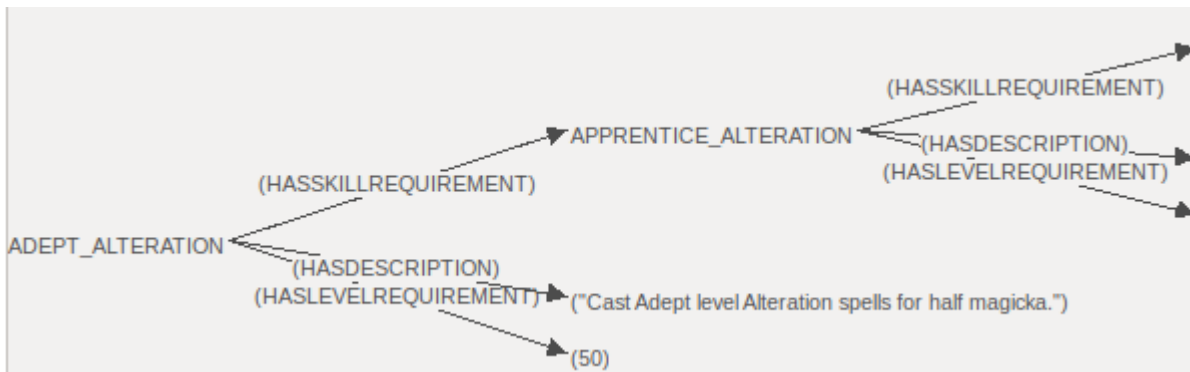
In the images above we can see the ADEPT_ALTERATION skill and its traits: the hasLevelRequirement attribute being 50, the perk description being "Cast Adept level Alteration spells for half magicka." and its skill requirement being the APPRENTICE_ALTERATION. After that we can see how it unrolls until it reaches NOVICE_ALTERATION, which has no skill requirement left.

NOVICE_ALTERATION —___(HASDESCRIPTION)——▶ ("Cast Novice level Alteration spells for half magicka.")
(HASLEVELREQUIREMENT) ▶ (0)

▶ ("Cast Apprentice level Alteration spells for half magicka.")

▶ (25)

1.5 Rules

In our ontology we defined one rule to sort skills into the *NOT_UPGRADEABLE* category. This was necessary since our skills can only belong to one of the two categories: *UPGRADEABLE* or *NOT_UPGRADEABLE*. Using this rule made it easier for us to build the ontology since out of the 180 skills only 27 are upgradeable. After defining the rule, we run it to activate it.

```
1  (define−rule (?x NOT_UPGRADEABLE) (and (?x SKILL) (neg (?x UPGRADEABLE))))
2
3  (run−all−rules)
```

1.6 Queries

The last thing we do as part of loading the ontology and before we run our queries is running all the rules with the *run-all-rules* command. After this step, we can run our evaluation queries. We check the consistency of our ontology with the following queries.

```
1  (abox−consistent?)
2  (tbox−cyclic?)
3  (tbox−coherent?)
4
5  (realize−abox)
6  (classify−tbox)
```

Then we check the size of our ontology with the following queries.

```
1  (evaluate (length (all−individuals)))
2  (evaluate (length (all−atomic−concepts)))
3  (evaluate (length (all−roles)))
4  (evaluate (length (all−rules)))
5
6  (all−concept−assertions)
7  (all−role−assertions)
8  (all−constraints)
9
10 (describe−tbox)
11 (describe−abox)
12
13 (taxonomy)
```

Then we check the expressivity of our ontology with the following queries.

```
1  (get−tbox−language)
2  (get−abox−language)
3
4  (all−features)
5  (all−transitive−roles)
```

Finally we answer some of the competency question we extracted previously with the following queries.

- What are the classes of characters I can play?

```
1  ; −−−−−−−−− REPLACE THIS LINE WITH ANSWER QUERY −−−−−−−−−
```

- What are the skills suitable for build X?

```
1 ; ————————— REPLACE  THIS  LINE  WITH  ANSWER QUERY —————————
```

- Should I invest in skill class X if my character is build Y?

```
1 ; ————————— REPLACE  THIS  LINE  WITH  ANSWER QUERY —————————
```

- What skills can I unlock at level X?

```
1 ; ————————— REPLACE  THIS  LINE  WITH  ANSWER QUERY —————————
```

- What skill is required for unlocking skill X?

```
1 ; ————————— REPLACE  THIS  LINE  WITH  ANSWER QUERY —————————
```

- What level is required for unlocking skill X?

```
1 ; ————————— REPLACE  THIS  LINE  WITH  ANSWER QUERY —————————
```

- What are the perks provided by skill X?

```
1 ; ————————— REPLACE  THIS  LINE  WITH  ANSWER QUERY —————————
```

Appendix A

Original code

A.1   Racer ontology

```
1  (FULL-RESET)
2
3  ; skill classes
4  (IMPLIES SNEAK SKILL_CLASS)
5  (IMPLIES LOCKPICKING SKILL_CLASS)
6  (IMPLIES PICKPOCKET SKILL_CLASS)
7  (IMPLIES SPEECH SKILL_CLASS)
8  (IMPLIES ALCHEMY SKILL_CLASS)
9  (IMPLIES ILLUSION SKILL_CLASS)
10 (IMPLIES CONJURATION SKILL_CLASS)
11 (IMPLIES DESTRUCTION SKILL_CLASS)
12 (IMPLIES RESTORATION SKILL_CLASS)
13 (IMPLIES ALTERATION SKILL_CLASS)
14 (IMPLIES ENCHANTING SKILL_CLASS)
15 (IMPLIES SMITHING SKILL_CLASS)
16 (IMPLIES HEAVY_ARMOR SKILL_CLASS)
17 (IMPLIES BLOCK SKILL_CLASS)
18 (IMPLIES TWO_HANDED SKILL_CLASS)
19 (IMPLIES ONE_HANDED SKILL_CLASS)
20 (IMPLIES ARCHERY SKILL_CLASS)
21 (IMPLIES LIGHT_ARMOR SKILL_CLASS)
22 (DISJOINT SNEAK LOCKPICKING PICKPOCKET SPEECH ALCHEMY ILLUSION CONJURATION
       DESTRUCTION RESTORATION ALTERATION ENCHANTING SMITHING HEAVY_ARMOR BLOCK
       TWO_HANDED ONE_HANDED ARCHERY LIGHT_ARMOR)
23
24 ; character races
25 (INSTANCE ALTMER RACE)
26 (INSTANCE ARGONIAN RACE)
27 (INSTANCE BOSMER RACE)
28 (INSTANCE BRETON RACE)
29 (INSTANCE DUNMER RACE)
30 (INSTANCE IMPERIAL RACE)
31 (INSTANCE KHAJIIT RACE)
32 (INSTANCE NORD RACE)
33 (INSTANCE ORSIMER RACE)
34 (INSTANCE REDGUARD RACE)
35
36 ; character archetype/builds
37 (INSTANCE BARBARIAN BUILD)
38 (INSTANCE BATTLEMAGE BUILD)
39 (INSTANCE STEALTH_ARCHER BUILD)
40 (INSTANCE WARLOCK BUILD)
```

```
41  (INSTANCE PALADIN BUILD)
42  (INSTANCE ASSASIN BUILD)
43  (INSTANCE THIEF BUILD)
44  (INSTANCE PRIEST BUILD)
45
46
47  ; ——————————————————————————————————————————
48  ;  SKILLS , DESCRIPTION AND REQUIREMENTS
49  ; ——————————————————————————————————————————
50
51  ; sneak
52  (INSTANCE STEALTH SKILL)
53  (INSTANCE STEALTH SNEAK)
54  (INSTANCE STEALTH UPGRADEABLE)
55  (ATTRIBUTE–FILLER STEALTH 0 hasLevelRequirement)
56  (ATTRIBUTE–FILLER STEALTH ”You are 20% harder to detect when sneaking.”
        hasDescription )
57
58  (INSTANCE BACKSTAB SKILL)
59  (INSTANCE BACKSTAB SNEAK)
60  (RELATED BACKSTAB STEALTH hasSkillRequirement)
61  (ATTRIBUTE–FILLER BACKSTAB 30 hasLevelRequirement)
62  (ATTRIBUTE–FILLER BACKSTAB ”Sneak attacks with one−handed weapons now do six
        times damage.” hasDescription )
63
64  (INSTANCE DEADLY_AIM SKILL)
65  (INSTANCE DEADLY_AIM SNEAK)
66  (RELATED DEADLY_AIM BACKSTAB hasSkillRequirement)
67  (ATTRIBUTE–FILLER DEADLY_AIM 40 hasLevelRequirement)
68  (ATTRIBUTE–FILLER DEADLY_AIM ”Sneak attacks with bows now do three times damage
        .” hasDescription )
69
70  (INSTANCE ASSASSINS_BLADE SKILL)
71  (INSTANCE ASSASSINS_BLADE SNEAK)
72  (RELATED ASSASSINS_BLADE DEADLY_AIM hasSkillRequirement)
73  (ATTRIBUTE–FILLER ASSASSINS_BLADE 50 hasLevelRequirement)
74  (ATTRIBUTE–FILLER ASSASSINS_BLADE ”Sneak attacks with two daggers now do a total
        of fifteen times normal damage.” hasDescription )
75
76  (INSTANCE MUFFLED_MOVEMENT SKILL)
77  (INSTANCE MUFFLED_MOVEMENT SNEAK)
78  (RELATED MUFFLED_MOVEMENT STEALTH hasSkillRequirement)
79  (ATTRIBUTE–FILLER MUFFLED_MOVEMENT 30 hasLevelRequirement)
80  (ATTRIBUTE–FILLER MUFFLED_MOVEMENT ”Wearing armor makes half as much noise when
        you move.” hasDescription )
81
82  (INSTANCE LIGHT_FOOT SKILL)
83  (INSTANCE LIGHT_FOOT SNEAK)
84  (RELATED LIGHT_FOOT MUFFLED_MOVEMENT hasSkillRequirement)
85  (ATTRIBUTE–FILLER LIGHT_FOOT 40 hasLevelRequirement)
86  (ATTRIBUTE–FILLER LIGHT_FOOT ”You won’t trigger pressure plates.” hasDescription
        )
87
88  (INSTANCE SILENT_ROLL SKILL)
89  (INSTANCE SILENT_ROLL SNEAK)
90  (RELATED SILENT_ROLL LIGHT_FOOT hasSkillRequirement)
91  (ATTRIBUTE–FILLER SILENT_ROLL 50 hasLevelRequirement)
92  (ATTRIBUTE–FILLER SILENT_ROLL ”Sprinting while sneaking executes a silent
        forward roll.” hasDescription )
93
```

```
 94  (INSTANCE SILENCE SKILL)
 95  (INSTANCE SILENCE SNEAK)
 96  (RELATED SILENCE SILENT_ROLL hasSkillRequirement)
 97  (ATTRIBUTE–FILLER SILENCE 70 hasLevelRequirement)
 98  (ATTRIBUTE–FILLER SILENCE "Walking and running does not affect detection."
        hasDescription)
 99
100  (INSTANCE SHADOW_WARRIOR SKILL)
101  (INSTANCE SHADOW_WARRIOR SNEAK)
102  (RELATED SHADOW_WARRIOR SILENCE hasSkillRequirement)
103  (ATTRIBUTE–FILLER SHADOW_WARRIOR 100 hasLevelRequirement)
104  (ATTRIBUTE–FILLER SHADOW_WARRIOR "Crouching stops combat for a moment and forces
        distant opponents to search for a target." hasDescription)
105
106
107  ; lockpicking
108  (INSTANCE NOVICE_LOCKS SKILL)
109  (INSTANCE NOVICE_LOCKS LOCKPICKING)
110  (ATTRIBUTE–FILLER NOVICE_LOCKS 0 hasLevelRequirement)
111  (ATTRIBUTE–FILLER NOVICE_LOCKS "Novice locks are much easier to pick."
        hasDescription)
112
113  (INSTANCE APPRENTICE_LOCKS SKILL)
114  (INSTANCE APPRENTICE_LOCKS LOCKPICKING)
115  (RELATED APPRENTICE_LOCKS NOVICE_LOCKS hasSkillRequirement)
116  (ATTRIBUTE–FILLER APPRENTICE_LOCKS 25 hasLevelRequirement)
117  (ATTRIBUTE–FILLER APPRENTICE_LOCKS "Apprentice locks are much easier to pick."
        hasDescription)
118
119  (INSTANCE QUICK_HANDS SKILL)
120  (INSTANCE QUICK_HANDS LOCKPICKING)
121  (RELATED QUICK_HANDS APPRENTICE_LOCKS hasSkillRequirement)
122  (ATTRIBUTE–FILLER QUICK_HANDS 40 hasLevelRequirement)
123  (ATTRIBUTE–FILLER QUICK_HANDS "Able to pick locks without being noticed."
        hasDescription)
124
125  (INSTANCE WAX_KEY SKILL)
126  (INSTANCE WAX_KEY LOCKPICKING)
127  (RELATED WAX_KEY QUICK_HANDS hasSkillRequirement)
128  (ATTRIBUTE–FILLER WAX_KEY 50 hasLevelRequirement)
129  (ATTRIBUTE–FILLER WAX_KEY "Automatically gives you a copy of a picked lock's key
        if it has one." hasDescription)
130
131  (INSTANCE ADEPT_LOCKS SKILL)
132  (INSTANCE ADEPT_LOCKS LOCKPICKING)
133  (RELATED ADEPT_LOCKS APPRENTICE_LOCKS hasSkillRequirement)
134  (ATTRIBUTE–FILLER ADEPT_LOCKS 50 hasLevelRequirement)
135  (ATTRIBUTE–FILLER ADEPT_LOCKS "Adept locks are much easier to pick."
        hasDescription)
136
137  (INSTANCE GOLDEN_TOUCH SKILL)
138  (INSTANCE GOLDEN_TOUCH LOCKPICKING)
139  (RELATED GOLDEN_TOUCH ADEPT_LOCKS hasSkillRequirement)
140  (ATTRIBUTE–FILLER GOLDEN_TOUCH 60 hasLevelRequirement)
141  (ATTRIBUTE–FILLER GOLDEN_TOUCH "Find more gold in chests." hasDescription)
142
143  (INSTANCE TREASURE_HUNTER SKILL)
144  (INSTANCE TREASURE_HUNTER LOCKPICKING)
145  (RELATED TREASURE_HUNTER GOLDEN_TOUCH hasSkillRequirement)
146  (ATTRIBUTE–FILLER TREASURE_HUNTER 70 hasLevelRequirement)
```

```
147  (ATTRIBUTE–FILLER TREASURE_HUNTER "50% greater chance of finding special
         treasure." hasDescription)
148
149  (INSTANCE EXPERT_LOCKS SKILL)
150  (INSTANCE EXPERT_LOCKS LOCKPICKING)
151  (RELATED EXPERT_LOCKS ADEPT_LOCKS hasSkillRequirement)
152  (ATTRIBUTE–FILLER EXPERT_LOCKS 75 hasLevelRequirement)
153  (ATTRIBUTE–FILLER EXPERT_LOCKS "Expert locks are much easier to pick."
         hasDescription)
154
155  (INSTANCE LOCKSMITH SKILL)
156  (INSTANCE LOCKSMITH LOCKPICKING)
157  (RELATED LOCKSMITH EXPERT_LOCKS hasSkillRequirement)
158  (ATTRIBUTE–FILLER LOCKSMITH 80 hasLevelRequirement)
159  (ATTRIBUTE–FILLER LOCKSMITH "Pick starts close to the lock opening position."
         hasDescription)
160
161  (INSTANCE UNBREAKABLE SKILL)
162  (INSTANCE UNBREAKABLE LOCKPICKING)
163  (RELATED UNBREAKABLE LOCKSMITH hasSkillRequirement)
164  (ATTRIBUTE–FILLER UNBREAKABLE 100 hasLevelRequirement)
165  (ATTRIBUTE–FILLER UNBREAKABLE "Lockpicks never break." hasDescription)
166
167  (INSTANCE MASTER_LOCKS SKILL)
168  (INSTANCE MASTER_LOCKS LOCKPICKING)
169  (RELATED MASTER_LOCKS EXPERT_LOCKS hasSkillRequirement)
170  (ATTRIBUTE–FILLER MASTER_LOCKS 100 hasLevelRequirement)
171  (ATTRIBUTE–FILLER MASTER_LOCKS "Master locks are much easier to pick."
         hasDescription)
172
173
174  ; pickpocket
175  (INSTANCE LIGHT_FINGERS SKILL)
176  (INSTANCE LIGHT_FINGERS PICKPOCKET)
177  (INSTANCE LIGHT_FINGERS UPGRADEABLE)
178  (ATTRIBUTE–FILLER LIGHT_FINGERS 0 hasLevelRequirement)
179  (ATTRIBUTE–FILLER LIGHT_FINGERS "Pickpocketing bonus of 20%. Item weight and
         value reduce pickpocketing odds." hasDescription)
180
181  (INSTANCE NIGHT_THIEF SKILL)
182  (INSTANCE NIGHT_THIEF PICKPOCKET)
183  (RELATED NIGHT_THIEF LIGHT_FINGERS hasSkillRequirement)
184  (ATTRIBUTE–FILLER NIGHT_THIEF 30 hasLevelRequirement)
185  (ATTRIBUTE–FILLER NIGHT_THIEF "+25% chance to pickpocket if the target is asleep
         ." hasDescription)
186
187  (INSTANCE POISONED SKILL)
188  (INSTANCE POISONED PICKPOCKET)
189  (RELATED POISONED NIGHT_THIEF hasSkillRequirement)
190  (ATTRIBUTE–FILLER POISONED 40 hasLevelRequirement)
191  (ATTRIBUTE–FILLER POISONED "Silently harm enemies by placing poisons in their
         pockets." hasDescription)
192
193  (INSTANCE EXTRA_POCKETS SKILL)
194  (INSTANCE EXTRA_POCKETS PICKPOCKET)
195  (RELATED EXTRA_POCKETS NIGHT_THIEF hasSkillRequirement)
196  (ATTRIBUTE–FILLER EXTRA_POCKETS 50 hasLevelRequirement)
197  (ATTRIBUTE–FILLER EXTRA_POCKETS "Carrying capacity is increased by 100."
         hasDescription)
198
```

```
199  (INSTANCE CUTPURSE SKILL)
200  (INSTANCE CUTPURSE PICKPOCKET)
201  (RELATED CUTPURSE NIGHT_THIEF hasSkillRequirement)
202  (ATTRIBUTE–FILLER CUTPURSE 40 hasLevelRequirement)
203  (ATTRIBUTE–FILLER CUTPURSE "Pickpocketing gold is 50% easier." hasDescription)
204
205  (INSTANCE KEYMASTER SKILL)
206  (INSTANCE KEYMASTER PICKPOCKET)
207  (RELATED KEYMASTER CUTPURSE hasSkillRequirement)
208  (ATTRIBUTE–FILLER KEYMASTER 60 hasLevelRequirement)
209  (ATTRIBUTE–FILLER KEYMASTER "Pickpocketing keys almost always works."
        hasDescription)
210
211  (INSTANCE MISDIRECTION SKILL)
212  (INSTANCE MISDIRECTION PICKPOCKET)
213  (RELATED MISDIRECTION CUTPURSE hasSkillRequirement)
214  (ATTRIBUTE–FILLER MISDIRECTION 70 hasLevelRequirement)
215  (ATTRIBUTE–FILLER MISDIRECTION "Can pickpocket equipped weapons." hasDescription
        )
216
217  (INSTANCE PERFECT_TOUCH SKILL)
218  (INSTANCE PERFECT_TOUCH PICKPOCKET)
219  (RELATED PERFECT_TOUCH MISDIRECTION hasSkillRequirement)
220  (ATTRIBUTE–FILLER PERFECT_TOUCH 100 hasLevelRequirement)
221  (ATTRIBUTE–FILLER PERFECT_TOUCH "Can pickpocket equipped items." hasDescription)
222
223
224  ; speech
225  (INSTANCE HAGGLING SKILL)
226  (INSTANCE HAGGLING SPEECH)
227  (INSTANCE HAGGLING UPGRADEABLE)
228  (ATTRIBUTE–FILLER HAGGLING 0 hasLevelRequirement)
229  (ATTRIBUTE–FILLER HAGGLING "Buying and selling prices are 10% better."
        hasDescription)
230
231  (INSTANCE ALLURE SKILL)
232  (INSTANCE ALLURE SPEECH)
233  (RELATED ALLURE HAGGLING hasSkillRequirement)
234  (ATTRIBUTE–FILLER ALLURE 30 hasLevelRequirement)
235  (ATTRIBUTE–FILLER ALLURE "10% better prices with the opposite sex."
        hasDescription)
236
237  (INSTANCE MERCHANT SKILL)
238  (INSTANCE MERCHANT SPEECH)
239  (RELATED MERCHANT ALLURE hasSkillRequirement)
240  (ATTRIBUTE–FILLER MERCHANT 50 hasLevelRequirement)
241  (ATTRIBUTE–FILLER MERCHANT "Can sell any type of item to any kind of merchant."
        hasDescription)
242
243  (INSTANCE INVESTOR SKILL)
244  (INSTANCE INVESTOR SPEECH)
245  (RELATED INVESTOR MERCHANT hasSkillRequirement)
246  (ATTRIBUTE–FILLER INVESTOR 70 hasLevelRequirement)
247  (ATTRIBUTE–FILLER INVESTOR "Can invest 500 gold with a shopkeeper to increase
        his available gold permanently." hasDescription)
248
249  (INSTANCE FENCE SKILL)
250  (INSTANCE FENCE SPEECH)
251  (RELATED FENCE INVESTOR hasSkillRequirement)
252  (ATTRIBUTE–FILLER FENCE 90 hasLevelRequirement)
```

```
253  (ATTRIBUTE–FILLER FENCE "Can barter stolen goods with any merchant you have
         invested in." hasDescription)
254
255  (INSTANCE MASTER_TRADER SKILL)
256  (INSTANCE MASTER_TRADER SPEECH)
257  (RELATED MASTER_TRADER FENCE hasSkillRequirement)
258  (ATTRIBUTE–FILLER MASTER_TRADER 100 hasLevelRequirement)
259  (ATTRIBUTE–FILLER MASTER_TRADER "Every merchant in the world gains 1000 gold for
         bartering." hasDescription)
260
261  (INSTANCE BRIBERY SKILL)
262  (INSTANCE BRIBERY SPEECH)
263  (RELATED BRIBERY HAGGLING hasSkillRequirement)
264  (ATTRIBUTE–FILLER BRIBERY 30 hasLevelRequirement)
265  (ATTRIBUTE–FILLER BRIBERY "Can bribe guards to ignore crimes." hasDescription)
266
267  (INSTANCE PERSUASION SKILL)
268  (INSTANCE PERSUASION SPEECH)
269  (RELATED PERSUASION BRIBERY hasSkillRequirement)
270  (ATTRIBUTE–FILLER PERSUASION 50 hasLevelRequirement)
271  (ATTRIBUTE–FILLER PERSUASION "Persuasion attempts are 30% easier."
         hasDescription)
272
273  (INSTANCE INTIMIDATION SKILL)
274  (INSTANCE INTIMIDATION SPEECH)
275  (RELATED INTIMIDATION PERSUASION hasSkillRequirement)
276  (ATTRIBUTE–FILLER INTIMIDATION 70 hasLevelRequirement)
277  (ATTRIBUTE–FILLER INTIMIDATION "Intimidation is Potions and poisons you make are
         20% strongertwice as likely to be successful." hasDescription)
278
279
280  ; alchemy
281  (INSTANCE ALCHEMIST SKILL)
282  (INSTANCE ALCHEMIST ALCHEMY)
283  (INSTANCE ALCHEMIST UPGRADEABLE)
284  (ATTRIBUTE–FILLER ALCHEMIST 0 hasLevelRequirement)
285  (ATTRIBUTE–FILLER ALCHEMIST "Potions and poisons you make are 20% stronger."
         hasDescription)
286
287  (INSTANCE PHYSICIAN SKILL)
288  (INSTANCE PHYSICIAN ALCHEMY)
289  (RELATED PHYSICIAN ALCHEMIST hasSkillRequirement)
290  (ATTRIBUTE–FILLER PHYSICIAN 20 hasLevelRequirement)
291  (ATTRIBUTE–FILLER PHYSICIAN "Potions you mix that restore Health, Magicka or
         Stamina are 25% more powerful." hasDescription)
292
293  (INSTANCE POISONER SKILL)
294  (INSTANCE POISONER ALCHEMY)
295  (RELATED POISONER PHYSICIAN hasSkillRequirement)
296  (ATTRIBUTE–FILLER POISONER 30 hasLevelRequirement)
297  (ATTRIBUTE–FILLER POISONER "Poisons you mix are 25% more effective."
         hasDescription)
298
299  (INSTANCE CONCENTRATED_POISON SKILL)
300  (INSTANCE CONCENTRATED_POISON ALCHEMY)
301  (RELATED CONCENTRATED_POISON POISONER hasSkillRequirement)
302  (ATTRIBUTE–FILLER CONCENTRATED_POISON 60 hasLevelRequirement)
303  (ATTRIBUTE–FILLER CONCENTRATED_POISON "Poisons applied to weapons last for twice
         as many hits." hasDescription)
304
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305  (INSTANCE GREEN_THUMB SKILL)
306  (INSTANCE GREEN_THUMB ALCHEMY)
307  (RELATED GREEN_THUMB CONCENTRATED_POISON hasSkillRequirement)
308  (ATTRIBUTE–FILLER GREEN_THUMB 70 hasLevelRequirement)
309  (ATTRIBUTE–FILLER GREEN_THUMB "Two ingredients are gathered from plants."
         hasDescription)
310
311  (INSTANCE BENEFACTOR SKILL)
312  (INSTANCE BENEFACTOR ALCHEMY)
313  (RELATED BENEFACTOR PHYSICIAN hasSkillRequirement)
314  (ATTRIBUTE–FILLER BENEFACTOR 30 hasLevelRequirement)
315  (ATTRIBUTE–FILLER BENEFACTOR "Potions you mix with beneficial effects have an
         additional 25% greater magnitude." hasDescription)
316
317  (INSTANCE EXPERIMENTER SKILL)
318  (INSTANCE EXPERIMENTER ALCHEMY)
319  (INSTANCE EXPERIMENTER UPGRADEABLE)
320  (RELATED EXPERIMENTER BENEFACTOR hasSkillRequirement)
321  (ATTRIBUTE–FILLER EXPERIMENTER 50 hasLevelRequirement)
322  (ATTRIBUTE–FILLER EXPERIMENTER "Eating an ingredient reveals first two effects."
         hasDescription)
323
324  (INSTANCE SNAKEBLOOD SKILL)
325  (INSTANCE SNAKEBLOOD ALCHEMY)
326  (RELATED SNAKEBLOOD CONCENTRATED_POISON hasSkillRequirement)
327  (ATTRIBUTE–FILLER SNAKEBLOOD 80 hasLevelRequirement)
328  (ATTRIBUTE–FILLER SNAKEBLOOD "50% resistance to all poisons." hasDescription)
329
330  (INSTANCE PURIFY SKILL)
331  (INSTANCE PURIFY ALCHEMY)
332  (RELATED PURIFY SNAKEBLOOD hasSkillRequirement)
333  (ATTRIBUTE–FILLER PURIFY 100 hasLevelRequirement)
334  (ATTRIBUTE–FILLER PURIFY "All negative effects are removed from created potions,
         and all positive effects are removed from created poisons." hasDescription)
335
336
337  ; illusion
338  (INSTANCE NOVICE_ILLUSION SKILL)
339  (INSTANCE NOVICE_ILLUSION ILLUSION)
340  (ATTRIBUTE–FILLER NOVICE_ILLUSION 0 hasLevelRequirement)
341  (ATTRIBUTE–FILLER NOVICE_ILLUSION "Cast Novice level Illusion spells for half
         magicka." hasDescription)
342
343  (INSTANCE ILLUSION_DUAL_CASTING SKILL)
344  (INSTANCE ILLUSION_DUAL_CASTING ILLUSION)
345  (RELATED ILLUSION_DUAL_CASTING NOVICE_ILLUSION hasSkillRequirement)
346  (ATTRIBUTE–FILLER ILLUSION_DUAL_CASTING 20 hasLevelRequirement)
347  (ATTRIBUTE–FILLER ILLUSION_DUAL_CASTING "Dual casting an Illusion spell
         overcharges the effects into an even more powerful version." hasDescription)
348
349  (INSTANCE APPRENTICE_ILLUSION SKILL)
350  (INSTANCE APPRENTICE_ILLUSION ILLUSION)
351  (RELATED APPRENTICE_ILLUSION NOVICE_ILLUSION hasSkillRequirement)
352  (ATTRIBUTE–FILLER APPRENTICE_ILLUSION 25 hasLevelRequirement)
353  (ATTRIBUTE–FILLER APPRENTICE_ILLUSION "Cast Apprentice level Illusion spells for
         half magicka." hasDescription)
354
355  (INSTANCE ADEPT_ILLUSION SKILL)
356  (INSTANCE ADEPT_ILLUSION ILLUSION)
357  (RELATED ADEPT_ILLUSION APPRENTICE_ILLUSION hasSkillRequirement)
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358  (ATTRIBUTE–FILLER ADEPT_ILLUSION 50 hasLevelRequirement)
359  (ATTRIBUTE–FILLER ADEPT_ILLUSION "Cast Adept level Illusion spells for half
         magicka." hasDescription)
360
361  (INSTANCE EXPERT_ILLUSION SKILL)
362  (INSTANCE EXPERT_ILLUSION ILLUSION)
363  (RELATED EXPERT_ILLUSION ADEPT_ILLUSION hasSkillRequirement)
364  (ATTRIBUTE–FILLER EXPERT_ILLUSION 75 hasLevelRequirement)
365  (ATTRIBUTE–FILLER EXPERT_ILLUSION "Cast Expert level Illusion spells for half
         magicka." hasDescription)
366
367  (INSTANCE MASTER_ILLUSION SKILL)
368  (INSTANCE MASTER_ILLUSION ILLUSION)
369  (RELATED MASTER_ILLUSION EXPERT_ILLUSION hasSkillRequirement)
370  (ATTRIBUTE–FILLER MASTER_ILLUSION 100 hasLevelRequirement)
371  (ATTRIBUTE–FILLER MASTER_ILLUSION "Cast Master level Illusion spells for half
         magicka." hasDescription)
372
373  (INSTANCE HYPNOTIC_GAZE SKILL)
374  (INSTANCE HYPNOTIC_GAZE ILLUSION)
375  (RELATED HYPNOTIC_GAZE NOVICE_ILLUSION hasSkillRequirement)
376  (ATTRIBUTE–FILLER HYPNOTIC_GAZE 30 hasLevelRequirement)
377  (ATTRIBUTE–FILLER HYPNOTIC_GAZE "Calm spells now work on higher level opponents.
          Cumulative with Kindred Mage and Animage." hasDescription)
378
379  (INSTANCE ASPECT_OF_TERROR SKILL)
380  (INSTANCE ASPECT_OF_TERROR ILLUSION)
381  (RELATED ASPECT_OF_TERROR HYPNOTIC_GAZE hasSkillRequirement)
382  (ATTRIBUTE–FILLER ASPECT_OF_TERROR 50 hasLevelRequirement)
383  (ATTRIBUTE–FILLER ASPECT_OF_TERROR "Fear spells work on higher level opponents.
         Cumulative with Kindred Mage and Animage." hasDescription)
384
385  (INSTANCE RAGE SKILL)
386  (INSTANCE RAGE ILLUSION)
387  (RELATED RAGE ASPECT_OF_TERROR hasSkillRequirement)
388  (ATTRIBUTE–FILLER RAGE 70 hasLevelRequirement)
389  (ATTRIBUTE–FILLER RAGE "Frenzy spells work on higher level opponents. Cumulative
          with Kindred Mage and Animage." hasDescription)
390
391  (INSTANCE ANIMAGE SKILL)
392  (INSTANCE ANIMAGE ILLUSION)
393  (RELATED ANIMAGE NOVICE_ILLUSION hasSkillRequirement)
394  (ATTRIBUTE–FILLER ANIMAGE 20 hasLevelRequirement)
395  (ATTRIBUTE–FILLER ANIMAGE "Illusion spells now work on higher level animals."
         hasDescription)
396
397  (INSTANCE KINDRED_MAGE SKILL)
398  (INSTANCE KINDRED_MAGE ILLUSION)
399  (RELATED KINDRED_MAGE ANIMAGE hasSkillRequirement)
400  (ATTRIBUTE–FILLER KINDRED_MAGE 40 hasLevelRequirement)
401  (ATTRIBUTE–FILLER KINDRED_MAGE "All Illusion spells work on higher level people
         ." hasDescription)
402
403  (INSTANCE QUIET_CASTING SKILL)
404  (INSTANCE QUIET_CASTING ILLUSION)
405  (RELATED QUIET_CASTING KINDRED_MAGE hasSkillRequirement)
406  (ATTRIBUTE–FILLER QUIET_CASTING 50 hasLevelRequirement)
407  (ATTRIBUTE–FILLER QUIET_CASTING "All spells you cast from any school of magic
         are silent to others." hasDescription)
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409 (INSTANCE MASTER_OF_THE_MIND SKILL)
410 (INSTANCE MASTER_OF_THE_MIND ILLUSION)
411 (RELATED MASTER_OF_THE_MIND RAGE hasSkillRequirement)
412 (ATTRIBUTE–FILLER MASTER_OF_THE_MIND 90 hasLevelRequirement)
413 (ATTRIBUTE–FILLER MASTER_OF_THE_MIND "Illusion spells work on undead, daedra,
       and automatons." hasDescription)
414
415
416 ; conjuration
417 (INSTANCE NOVICE_CONJURATION SKILL)
418 (INSTANCE NOVICE_CONJURATION CONJURATION)
419 (ATTRIBUTE–FILLER NOVICE_CONJURATION 0 hasLevelRequirement)
420 (ATTRIBUTE–FILLER NOVICE_CONJURATION "Cast Novice level Conjuration spells for
       half magicka." hasDescription)
421
422 (INSTANCE APPRENTICE_CONJURATION SKILL)
423 (INSTANCE APPRENTICE_CONJURATION CONJURATION)
424 (RELATED APPRENTICE_CONJURATION NOVICE_CONJURATION hasSkillRequirement)
425 (ATTRIBUTE–FILLER APPRENTICE_CONJURATION 25 hasLevelRequirement)
426 (ATTRIBUTE–FILLER APPRENTICE_CONJURATION "Cast Apprentice level Conjuration
       spells for half magicka." hasDescription)
427
428 (INSTANCE ADEPT_CONJURATION SKILL)
429 (INSTANCE ADEPT_CONJURATION CONJURATION)
430 (RELATED ADEPT_CONJURATION APPRENTICE_CONJURATION hasSkillRequirement)
431 (ATTRIBUTE–FILLER ADEPT_CONJURATION 50 hasLevelRequirement)
432 (ATTRIBUTE–FILLER ADEPT_CONJURATION "Cast Adept level Conjuration spells for
       half magicka." hasDescription)
433
434 (INSTANCE EXPERT_CONJURATION SKILL)
435 (INSTANCE EXPERT_CONJURATION CONJURATION)
436 (RELATED EXPERT_CONJURATION ADEPT_CONJURATION hasSkillRequirement)
437 (ATTRIBUTE–FILLER EXPERT_CONJURATION 75 hasLevelRequirement)
438 (ATTRIBUTE–FILLER EXPERT_CONJURATION "Cast Expert level Conjuration spells for
       half magicka." hasDescription)
439
440 (INSTANCE MASTER_CONJURATION SKILL)
441 (INSTANCE MASTER_CONJURATION CONJURATION)
442 (RELATED MASTER_CONJURATION EXPERT_CONJURATION hasSkillRequirement)
443 (ATTRIBUTE–FILLER MASTER_CONJURATION 100 hasLevelRequirement)
444 (ATTRIBUTE–FILLER MASTER_CONJURATION "Cast Master level Conjuration spells for
       half magicka." hasDescription)
445
446 (INSTANCE MYSTIC_BINDING SKILL)
447 (INSTANCE MYSTIC_BINDING CONJURATION)
448 (RELATED MYSTIC_BINDING NOVICE_CONJURATION hasSkillRequirement)
449 (ATTRIBUTE–FILLER MYSTIC_BINDING 20 hasLevelRequirement)
450 (ATTRIBUTE–FILLER MYSTIC_BINDING "Bound weapons do more damage." hasDescription)
451
452 (INSTANCE SOUL_STEALER SKILL)
453 (INSTANCE SOUL_STEALER CONJURATION)
454 (RELATED SOUL_STEALER MYSTIC_BINDING hasSkillRequirement)
455 (ATTRIBUTE–FILLER SOUL_STEALER 30 hasLevelRequirement)
456 (ATTRIBUTE–FILLER SOUL_STEALER "Bound weapons cast Soul Trap on targets."
       hasDescription)
457
458 (INSTANCE OBLIVION_BINDING SKILL)
459 (INSTANCE OBLIVION_BINDING CONJURATION)
460 (RELATED OBLIVION_BINDING SOUL_STEALER hasSkillRequirement)
461 (ATTRIBUTE–FILLER OBLIVION_BINDING 50 hasLevelRequirement)
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462  (ATTRIBUTE–FILLER OBLIVION_BINDING "Bound weapons will banish summoned creatures
          and turn raised ones." hasDescription)
463
464  (INSTANCE CONJURATION_DUAL_CASTING SKILL)
465  (INSTANCE CONJURATION_DUAL_CASTING CONJURATION)
466  (RELATED CONJURATION_DUAL_CASTING NOVICE_CONJURATION hasSkillRequirement)
467  (ATTRIBUTE–FILLER CONJURATION_DUAL_CASTING 20 hasLevelRequirement)
468  (ATTRIBUTE–FILLER CONJURATION_DUAL_CASTING "Dual casting a Conjuration spell
          overcharges the spell, allowing it to last longer." hasDescription)
469
470  (INSTANCE NECROMANCY SKILL)
471  (INSTANCE NECROMANCY CONJURATION)
472  (RELATED NECROMANCY NOVICE_CONJURATION hasSkillRequirement)
473  (ATTRIBUTE–FILLER NECROMANCY 40 hasLevelRequirement)
474  (ATTRIBUTE–FILLER NECROMANCY "Greater duration for reanimated undead."
          hasDescription)
475
476  (INSTANCE DARK_SOULS SKILL)
477  (INSTANCE DARK_SOULS CONJURATION)
478  (RELATED DARK_SOULS NECROMANCY hasSkillRequirement)
479  (ATTRIBUTE–FILLER DARK_SOULS 70 hasLevelRequirement)
480  (ATTRIBUTE–FILLER DARK_SOULS "Reanimated undead have 100 points more health."
          hasDescription)
481
482  (INSTANCE TWIN_SOULS SKILL)
483  (INSTANCE TWIN_SOULS CONJURATION)
484  (RELATED TWIN_SOULS DARK_SOULS hasSkillRequirement)
485  (ATTRIBUTE–FILLER TWIN_SOULS 100 hasLevelRequirement)
486  (ATTRIBUTE–FILLER TWIN_SOULS "You can have two atronachs or reanimated zombies."
          hasDescription)
487
488  (INSTANCE SUMMONER SKILL)
489  (INSTANCE SUMMONER CONJURATION)
490  (INSTANCE SUMMONER UPGRADEABLE)
491  (RELATED SUMMONER NOVICE_CONJURATION hasSkillRequirement)
492  (ATTRIBUTE–FILLER SUMMONER 30 hasLevelRequirement)
493  (ATTRIBUTE–FILLER SUMMONER "Can summon atronachs or raise undead twice as far
          away." hasDescription)
494
495  (INSTANCE ALTROMANCY SKILL)
496  (INSTANCE ALTROMANCY CONJURATION)
497  (RELATED ALTROMANCY SUMMONER hasSkillRequirement)
498  (ATTRIBUTE–FILLER ALTROMANCY 40 hasLevelRequirement)
499  (ATTRIBUTE–FILLER ALTROMANCY "Double duration for conjured Atronachs."
          hasDescription)
500
501  (INSTANCE ELEMENTAL_POTENCY SKILL)
502  (INSTANCE ELEMENTAL_POTENCY CONJURATION)
503  (RELATED ELEMENTAL_POTENCY ALTROMANCY hasSkillRequirement)
504  (ATTRIBUTE–FILLER ELEMENTAL_POTENCY 80 hasLevelRequirement)
505  (ATTRIBUTE–FILLER ELEMENTAL_POTENCY "Conjured Atronachs are 50% more powerful."
          hasDescription)
506
507
508  ; destruction
509  (INSTANCE NOVICE_DESTRUCTION SKILL)
510  (INSTANCE NOVICE_DESTRUCTION DESTRUCTION)
511  (ATTRIBUTE–FILLER NOVICE_DESTRUCTION 0 hasLevelRequirement)
512  (ATTRIBUTE–FILLER NOVICE_DESTRUCTION "Cast Novice level Destruction spells for
          half magicka." hasDescription)
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513
514  (INSTANCE DESTRUCTION_DUAL_CASTING SKILL)
515  (INSTANCE DESTRUCTION_DUAL_CASTING DESTRUCTION)
516  (RELATED DESTRUCTION_DUAL_CASTING NOVICE_DESTRUCTION hasSkillRequirement)
517  (ATTRIBUTE-FILLER DESTRUCTION_DUAL_CASTING 20 hasLevelRequirement)
518  (ATTRIBUTE-FILLER DESTRUCTION_DUAL_CASTING "Dual casting a Destruction spell
         overcharges the effects into an even more powerful version." hasDescription)
519
520  (INSTANCE IMPACT SKILL)
521  (INSTANCE IMPACT DESTRUCTION)
522  (RELATED IMPACT DESTRUCTION_DUAL_CASTING hasSkillRequirement)
523  (ATTRIBUTE-FILLER IMPACT 40 hasLevelRequirement)
524  (ATTRIBUTE-FILLER IMPACT "Most destruction spells will stagger an opponent when
         dual cast." hasDescription)
525
526  (INSTANCE APPRENTINCE_DESTRUCTION SKILL)
527  (INSTANCE APPRENTINCE_DESTRUCTION DESTRUCTION)
528  (RELATED APPRENTINCE_DESTRUCTION NOVICE_DESTRUCTION hasSkillRequirement)
529  (ATTRIBUTE-FILLER APPRENTINCE_DESTRUCTION 25 hasLevelRequirement)
530  (ATTRIBUTE-FILLER APPRENTINCE_DESTRUCTION "Cast Apprentice level Destruction
         spells for half magicka." hasDescription)
531
532  (INSTANCE RUNE_MASTER SKILL)
533  (INSTANCE RUNE_MASTER DESTRUCTION)
534  (RELATED RUNE_MASTER APPRENTINCE_DESTRUCTION hasSkillRequirement)
535  (ATTRIBUTE-FILLER RUNE_MASTER 40 hasLevelRequirement)
536  (ATTRIBUTE-FILLER RUNE_MASTER "Can place runes five times farther away."
         hasDescription)
537
538  (INSTANCE ADEPT_DESTRUCTION SKILL)
539  (INSTANCE ADEPT_DESTRUCTION DESTRUCTION)
540  (RELATED ADEPT_DESTRUCTION APPRENTINCE_DESTRUCTION hasSkillRequirement)
541  (ATTRIBUTE-FILLER ADEPT_DESTRUCTION 50 hasLevelRequirement)
542  (ATTRIBUTE-FILLER ADEPT_DESTRUCTION "Cast Adept level Destruction spells for
         half magicka." hasDescription)
543
544  (INSTANCE EXPERT_DESTRUCTION SKILL)
545  (INSTANCE EXPERT_DESTRUCTION DESTRUCTION)
546  (RELATED EXPERT_DESTRUCTION ADEPT_DESTRUCTION hasSkillRequirement)
547  (ATTRIBUTE-FILLER EXPERT_DESTRUCTION 75 hasLevelRequirement)
548  (ATTRIBUTE-FILLER EXPERT_DESTRUCTION "Cast Expert level Destruction spells for
         half magicka." hasDescription)
549
550  (INSTANCE MASTER_DESTRUCTION SKILL)
551  (INSTANCE MASTER_DESTRUCTION DESTRUCTION)
552  (RELATED MASTER_DESTRUCTION EXPERT_DESTRUCTION hasSkillRequirement)
553  (ATTRIBUTE-FILLER MASTER_DESTRUCTION 100 hasLevelRequirement)
554  (ATTRIBUTE-FILLER MASTER_DESTRUCTION "Cast Master level Destruction spells for
         half magicka." hasDescription)
555
556  (INSTANCE AUGMENTED_SHOCK SKILL)
557  (INSTANCE AUGMENTED_SHOCK DESTRUCTION)
558  (INSTANCE AUGMENTED_SHOCK UPGRADEABLE)
559  (RELATED AUGMENTED_SHOCK NOVICE_DESTRUCTION hasSkillRequirement)
560  (ATTRIBUTE-FILLER AUGMENTED_SHOCK 30 hasLevelRequirement)
561  (ATTRIBUTE-FILLER AUGMENTED_SHOCK "Shock spells do 25% more damage."
         hasDescription)
562
563  (INSTANCE DISINTEGRATE SKILL)
564  (INSTANCE DISINTEGRATE DESTRUCTION)
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565  (RELATED DISINTEGRATE AUGMENTED_SHOCK hasSkillRequirement)
566  (ATTRIBUTE-FILLER DISINTEGRATE 70 hasLevelRequirement)
567  (ATTRIBUTE-FILLER DISINTEGRATE "Shock spells disintegrate targets if their
       health is low." hasDescription)
568
569  (INSTANCE AUGMENTED_FROST SKILL)
570  (INSTANCE AUGMENTED_FROST DESTRUCTION)
571  (INSTANCE AUGMENTED_FROST UPGRADEABLE)
572  (RELATED AUGMENTED_FROST NOVICE_DESTRUCTION hasSkillRequirement)
573  (ATTRIBUTE-FILLER AUGMENTED_FROST 30 hasLevelRequirement)
574  (ATTRIBUTE-FILLER AUGMENTED_FROST "Frost spells do 25% more damage."
       hasDescription)
575
576  (INSTANCE DEEP_FREEZE SKILL)
577  (INSTANCE DEEP_FREEZE DESTRUCTION)
578  (RELATED DEEP_FREEZE AUGMENTED_FROST hasSkillRequirement)
579  (ATTRIBUTE-FILLER DEEP_FREEZE 6 hasLevelRequirement)
580  (ATTRIBUTE-FILLER DEEP_FREEZE "Frost damage paralyzes targets if their health is
        low (under 20%)." hasDescription)
581
582  (INSTANCE AUGMENTED_FLAMES SKILL)
583  (INSTANCE AUGMENTED_FLAMES DESTRUCTION)
584  (INSTANCE AUGMENTED_FLAMES UPGRADEABLE)
585  (RELATED AUGMENTED_FLAMES NOVICE_DESTRUCTION hasSkillRequirement)
586  (ATTRIBUTE-FILLER AUGMENTED_FLAMES 30 hasLevelRequirement)
587  (ATTRIBUTE-FILLER AUGMENTED_FLAMES "Fire spells do 25% more damage."
       hasDescription)
588
589  (INSTANCE INTENSE_FLAMES SKILL)
590  (INSTANCE INTENSE_FLAMES DESTRUCTION)
591  (RELATED INTENSE_FLAMES AUGMENTED_FLAMES hasSkillRequirement)
592  (ATTRIBUTE-FILLER INTENSE_FLAMES 30 hasLevelRequirement)
593  (ATTRIBUTE-FILLER INTENSE_FLAMES "Fire damage causes targets to flee if their
       health is low (under 20%)." hasDescription)
594
595
596  ; restoration
597  (INSTANCE NOVICE_RESTORATION SKILL)
598  (INSTANCE NOVICE_RESTORATION RESTORATION)
599  (ATTRIBUTE-FILLER NOVICE_RESTORATION 0 hasLevelRequirement)
600  (ATTRIBUTE-FILLER NOVICE_RESTORATION "Cast Novice level Restoration spells for
       half magicka." hasDescription)
601
602  (INSTANCE RESTORATION_DUAL_CASTING SKILL)
603  (INSTANCE RESTORATION_DUAL_CASTING RESTORATION)
604  (RELATED RESTORATION_DUAL_CASTING NOVICE_RESTORATION hasSkillRequirement)
605  (ATTRIBUTE-FILLER RESTORATION_DUAL_CASTING 20 hasLevelRequirement)
606  (ATTRIBUTE-FILLER RESTORATION_DUAL_CASTING "Dual casting a Restoration spell
       overcharges the effects into an even more powerful version. (220% spell
       effect for 280% magicka cost)" hasDescription)
607
608  (INSTANCE RECOVERY SKILL)
609  (INSTANCE RECOVERY RESTORATION)
610  (INSTANCE RECOVERY UPGRADEABLE)
611  (RELATED RECOVERY NOVICE_RESTORATION hasSkillRequirement)
612  (ATTRIBUTE-FILLER RECOVERY 30 hasLevelRequirement)
613  (ATTRIBUTE-FILLER RECOVERY "Magicka regenerates 25% faster." hasDescription)
614
615  (INSTANCE AVOID_DEATH SKILL)
616  (INSTANCE AVOID_DEATH RESTORATION)
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617  (RELATED AVOID_DEATH RECOVERY hasSkillRequirement)
618  (ATTRIBUTE–FILLER AVOID_DEATH 90 hasLevelRequirement)
619  (ATTRIBUTE–FILLER AVOID_DEATH "Once a day, heals 250 points automatically if you
         fall below 10% health. (Only if the damage does not kill you.)"
       hasDescription)
620
621  (INSTANCE APPRENTICE_RESTORATION SKILL)
622  (INSTANCE APPRENTICE_RESTORATION RESTORATION)
623  (RELATED APPRENTICE_RESTORATION NOVICE_RESTORATION hasSkillRequirement)
624  (ATTRIBUTE–FILLER APPRENTICE_RESTORATION 25 hasLevelRequirement)
625  (ATTRIBUTE–FILLER APPRENTICE_RESTORATION "Cast Apprentice level Restoration
       spells for half magicka." hasDescription)
626
627  (INSTANCE ADEPT_RESTORATION SKILL)
628  (INSTANCE ADEPT_RESTORATION RESTORATION)
629  (RELATED ADEPT_RESTORATION APPRENTICE_RESTORATION hasSkillRequirement)
630  (ATTRIBUTE–FILLER ADEPT_RESTORATION 50 hasLevelRequirement)
631  (ATTRIBUTE–FILLER ADEPT_RESTORATION "Cast Adept level Restoration spells for
       half magicka." hasDescription)
632
633  (INSTANCE EXPERT_RESTORATION SKILL)
634  (INSTANCE EXPERT_RESTORATION RESTORATION)
635  (RELATED EXPERT_RESTORATION ADEPT_RESTORATION hasSkillRequirement)
636  (ATTRIBUTE–FILLER EXPERT_RESTORATION 75 hasLevelRequirement)
637  (ATTRIBUTE–FILLER EXPERT_RESTORATION "Cast Expert level Restoration spells for
       half magicka." hasDescription)
638
639  (INSTANCE MASTER_RESTORATION SKILL)
640  (INSTANCE MASTER_RESTORATION RESTORATION)
641  (RELATED MASTER_RESTORATION EXPERT_RESTORATION hasSkillRequirement)
642  (ATTRIBUTE–FILLER MASTER_RESTORATION 100 hasLevelRequirement)
643  (ATTRIBUTE–FILLER MASTER_RESTORATION "Cast Master level Restoration spells for
       half magicka." hasDescription)
644
645  (INSTANCE WARD_ABSORB SKILL)
646  (INSTANCE WARD_ABSORB RESTORATION)
647  (RELATED WARD_ABSORB NOVICE_RESTORATION hasSkillRequirement)
648  (ATTRIBUTE–FILLER WARD_ABSORB 60 hasLevelRequirement)
649  (ATTRIBUTE–FILLER WARD_ABSORB "Wards recharge your magicka when hit with spells
       ." hasDescription)
650
651  (INSTANCE REGENERATION SKILL)
652  (INSTANCE REGENERATION RESTORATION)
653  (RELATED REGENERATION NOVICE_RESTORATION hasSkillRequirement)
654  (ATTRIBUTE–FILLER REGENERATION 20 hasLevelRequirement)
655  (ATTRIBUTE–FILLER REGENERATION "Healing spells cure 50% more." hasDescription)
656
657  (INSTANCE NECROMAGE SKILL)
658  (INSTANCE NECROMAGE RESTORATION)
659  (RELATED NECROMAGE REGENERATION hasSkillRequirement)
660  (ATTRIBUTE–FILLER NECROMAGE 70 hasLevelRequirement)
661  (ATTRIBUTE–FILLER NECROMAGE "All spells are more effective against undead. (+25%
         effect and +50% effect duration)" hasDescription)
662
663  (INSTANCE RESPITE SKILL)
664  (INSTANCE RESPITE RESTORATION)
665  (RELATED RESPITE NOVICE_RESTORATION hasSkillRequirement)
666  (ATTRIBUTE–FILLER RESPITE 40 hasLevelRequirement)
667  (ATTRIBUTE–FILLER RESPITE "Healing spells also restore Stamina." hasDescription)
668
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669
670  ; alteration
671  (INSTANCE NOVICE_ALTERATION SKILL)
672  (INSTANCE NOVICE_ALTERATION ALTERATION)
673  (ATTRIBUTE–FILLER NOVICE_ALTERATION 0 hasLevelRequirement)
674  (ATTRIBUTE–FILLER NOVICE_ALTERATION "Cast Novice level Alteration spells for
         half magicka." hasDescription)
675
676  (INSTANCE APPRENTICE_ALTERATION SKILL)
677  (INSTANCE APPRENTICE_ALTERATION ALTERATION)
678  (RELATED APPRENTICE_ALTERATION NOVICE_ALTERATION hasSkillRequirement)
679  (ATTRIBUTE–FILLER APPRENTICE_ALTERATION 25 hasLevelRequirement)
680  (ATTRIBUTE–FILLER APPRENTICE_ALTERATION "Cast Apprentice level Alteration spells
         for half magicka." hasDescription)
681
682  (INSTANCE MAGIC_RESITANCE SKILL)
683  (INSTANCE MAGIC_RESITANCE ALTERATION)
684  (INSTANCE MAGIC_RESITANCE UPGRADEABLE)
685  (RELATED MAGIC_RESITANCE APPRENTICE_ALTERATION hasSkillRequirement)
686  (ATTRIBUTE–FILLER MAGIC_RESITANCE 30 hasLevelRequirement)
687  (ATTRIBUTE–FILLER MAGIC_RESITANCE "Blocks 10% of a spell's effects."
         hasDescription)
688
689  (INSTANCE ADEPT_ALTERATION SKILL)
690  (INSTANCE ADEPT_ALTERATION ALTERATION)
691  (RELATED ADEPT_ALTERATION APPRENTICE_ALTERATION hasSkillRequirement)
692  (ATTRIBUTE–FILLER ADEPT_ALTERATION 50 hasLevelRequirement)
693  (ATTRIBUTE–FILLER ADEPT_ALTERATION "Cast Adept level Alteration spells for half
         magicka." hasDescription)
694
695  (INSTANCE EXPERT_ALTERATION SKILL)
696  (INSTANCE EXPERT_ALTERATION ALTERATION)
697  (RELATED EXPERT_ALTERATION ADEPT_ALTERATION hasSkillRequirement)
698  (ATTRIBUTE–FILLER EXPERT_ALTERATION 75 hasLevelRequirement)
699  (ATTRIBUTE–FILLER EXPERT_ALTERATION "Cast Expert level Alteration spells for
         half magicka." hasDescription)
700
701  (INSTANCE MASTER_ALTERATION SKILL)
702  (INSTANCE MASTER_ALTERATION ALTERATION)
703  (RELATED MASTER_ALTERATION EXPERT_ALTERATION hasSkillRequirement)
704  (ATTRIBUTE–FILLER MASTER_ALTERATION 100 hasLevelRequirement)
705  (ATTRIBUTE–FILLER MASTER_ALTERATION "Cast Master level Alteration spells for
         half magicka." hasDescription)
706
707  (INSTANCE ATRONACH SKILL)
708  (INSTANCE ATRONACH ALTERATION)
709  (RELATED ATRONACH EXPERT_ALTERATION hasSkillRequirement)
710  (ATTRIBUTE–FILLER ATRONACH 100 hasLevelRequirement)
711  (ATTRIBUTE–FILLER ATRONACH "Absorb 30% of the magicka of any spells that hit you
         ." hasDescription)
712
713  (INSTANCE STABILITY SKILL)
714  (INSTANCE STABILITY ALTERATION)
715  (RELATED STABILITY ADEPT_ALTERATION hasSkillRequirement)
716  (ATTRIBUTE–FILLER STABILITY 70 hasLevelRequirement)
717  (ATTRIBUTE–FILLER STABILITY "Alteration spells have 50% greater duration."
         hasDescription)
718
719  (INSTANCE MAGE_ARMOR SKILL)
720  (INSTANCE MAGE_ARMOR ALTERATION)
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721  (INSTANCE MAGE_ARMOR UPGRADEABLE)
722  (RELATED MAGE_ARMOR APPRENTICE_ALTERATION hasSkillRequirement)
723  (ATTRIBUTE–FILLER MAGE_ARMOR 30 hasLevelRequirement)
724  (ATTRIBUTE–FILLER MAGE_ARMOR "Protection spells like Stoneflesh are twice as
        strong if not wearing armor." hasDescription)
725
726  (INSTANCE ALTERATION_DUAL_CASTING SKILL)
727  (INSTANCE ALTERATION_DUAL_CASTING ALTERATION)
728  (RELATED ALTERATION_DUAL_CASTING NOVICE_ALTERATION hasSkillRequirement)
729  (ATTRIBUTE–FILLER ALTERATION_DUAL_CASTING 20 hasLevelRequirement)
730  (ATTRIBUTE–FILLER ALTERATION_DUAL_CASTING "Dual casting an Alteration spell
        overcharges the effects into an even more powerful version." hasDescription)
731
732
733  ; enchanting
734  (INSTANCE ENCHANTER SKILL)
735  (INSTANCE ENCHANTER ENCHANTING)
736  (INSTANCE ENCHANTER UPGRADEABLE)
737  (ATTRIBUTE–FILLER ENCHANTER 0 hasLevelRequirement)
738  (ATTRIBUTE–FILLER ENCHANTER "New enchantments are 20% stronger." hasDescription)
739
740  (INSTANCE SOUL_SQUEEZER SKILL)
741  (INSTANCE SOUL_SQUEEZER ENCHANTING)
742  (RELATED SOUL_SQUEEZER ENCHANTER hasSkillRequirement)
743  (ATTRIBUTE–FILLER SOUL_SQUEEZER 20 hasLevelRequirement)
744  (ATTRIBUTE–FILLER SOUL_SQUEEZER "Soul gems provide extra magicka for recharging
        ." hasDescription)
745
746  (INSTANCE SOUL_SIPHON SKILL)
747  (INSTANCE SOUL_SIPHON ENCHANTING)
748  (RELATED SOUL_SIPHON SOUL_SQUEEZER hasSkillRequirement)
749  (ATTRIBUTE–FILLER SOUL_SIPHON 40 hasLevelRequirement)
750  (ATTRIBUTE–FILLER SOUL_SIPHON "Death blows to creatures, but not people, trap 5%
        of the victim's soul, recharging the weapon." hasDescription)
751
752  (INSTANCE INSIGHTFUL_ENCHANTER SKILL)
753  (INSTANCE INSIGHTFUL_ENCHANTER ENCHANTING)
754  (RELATED INSIGHTFUL_ENCHANTER ENCHANTER hasSkillRequirement)
755  (ATTRIBUTE–FILLER INSIGHTFUL_ENCHANTER 50 hasLevelRequirement)
756  (ATTRIBUTE–FILLER INSIGHTFUL_ENCHANTER "Skill enchantments on armor are 25%
        stronger." hasDescription)
757
758  (INSTANCE CORPUS_ENCHANTER SKILL)
759  (INSTANCE CORPUS_ENCHANTER ENCHANTING)
760  (RELATED CORPUS_ENCHANTER INSIGHTFUL_ENCHANTER hasSkillRequirement)
761  (ATTRIBUTE–FILLER CORPUS_ENCHANTER 70 hasLevelRequirement)
762  (ATTRIBUTE–FILLER CORPUS_ENCHANTER "Health, magicka, and stamina enchantments on
        armor are 25% stronger." hasDescription)
763
764  (INSTANCE EXTRA_EFFECT SKILL)
765  (INSTANCE EXTRA_EFFECT ENCHANTING)
766  (RELATED EXTRA_EFFECT CORPUS_ENCHANTER hasSkillRequirement)
767  (ATTRIBUTE–FILLER EXTRA_EFFECT 100 hasLevelRequirement)
768  (ATTRIBUTE–FILLER EXTRA_EFFECT "Can put two enchantments on the same item."
        hasDescription)
769
770  (INSTANCE FIRE_ENCHANTER SKILL)
771  (INSTANCE FIRE_ENCHANTER ENCHANTING)
772  (RELATED FIRE_ENCHANTER ENCHANTER hasSkillRequirement)
773  (ATTRIBUTE–FILLER FIRE_ENCHANTER 30 hasLevelRequirement)
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774  (ATTRIBUTE–FILLER FIRE_ENCHANTER "Fire enchantments on weapons and armor are 25%
         stronger." hasDescription)
775
776  (INSTANCE FROST_ENCHANTER SKILL)
777  (INSTANCE FROST_ENCHANTER ENCHANTING)
778  (RELATED FROST_ENCHANTER FIRE_ENCHANTER hasSkillRequirement)
779  (ATTRIBUTE–FILLER FROST_ENCHANTER 40 hasLevelRequirement)
780  (ATTRIBUTE–FILLER FROST_ENCHANTER "Frost enchantments on weapons and armor are
         25% stronger." hasDescription)
781
782  (INSTANCE STORM_ENCHANTER SKILL)
783  (INSTANCE STORM_ENCHANTER ENCHANTING)
784  (RELATED STORM_ENCHANTER FROST_ENCHANTER hasSkillRequirement)
785  (ATTRIBUTE–FILLER STORM_ENCHANTER 50 hasLevelRequirement)
786  (ATTRIBUTE–FILLER STORM_ENCHANTER "Shock enchantments on weapons and armor are
         25% stronger." hasDescription)
787
788
789  ; smithing
790  (INSTANCE STEEL_SMITHING SKILL)
791  (INSTANCE STEEL_SMITHING SMITHING)
792  (ATTRIBUTE–FILLER STEEL_SMITHING 0 hasLevelRequirement)
793  (ATTRIBUTE–FILLER STEEL_SMITHING "Can create Steel armor and weapons at forges,
         and improve them twice as much." hasDescription)
794
795  (INSTANCE ARCANE_BLACKSMITH SKILL)
796  (INSTANCE ARCANE_BLACKSMITH SMITHING)
797  (RELATED ARCANE_BLACKSMITH STEEL_SMITHING hasSkillRequirement)
798  (ATTRIBUTE–FILLER ARCANE_BLACKSMITH 60 hasLevelRequirement)
799  (ATTRIBUTE–FILLER ARCANE_BLACKSMITH "You can improve magical weapons and armor."
         hasDescription)
800
801  (INSTANCE DWARVEN_SMITHING SKILL)
802  (INSTANCE DWARVEN_SMITHING SMITHING)
803  (RELATED DWARVEN_SMITHING STEEL_SMITHING hasSkillRequirement)
804  (ATTRIBUTE–FILLER DWARVEN_SMITHING 30 hasLevelRequirement)
805  (ATTRIBUTE–FILLER DWARVEN_SMITHING "Can create Dwarven armor and weapons at
         forges, and improve them twice as much." hasDescription)
806
807  (INSTANCE ORCISH_SMITHING SKILL)
808  (INSTANCE ORCISH_SMITHING SMITHING)
809  (RELATED ORCISH_SMITHING DWARVEN_SMITHING hasSkillRequirement)
810  (ATTRIBUTE–FILLER ORCISH_SMITHING 50 hasLevelRequirement)
811  (ATTRIBUTE–FILLER ORCISH_SMITHING "Can create Orcish armor and weapons at forges
         , and improve them twice as much." hasDescription)
812
813  (INSTANCE EBONY_SMITHING SKILL)
814  (INSTANCE EBONY_SMITHING SMITHING)
815  (RELATED EBONY_SMITHING ORCISH_SMITHING hasSkillRequirement)
816  (ATTRIBUTE–FILLER EBONY_SMITHING 80 hasLevelRequirement)
817  (ATTRIBUTE–FILLER EBONY_SMITHING "Can create Ebony armor and weapons at forges,
         and improve them twice as much." hasDescription)
818
819  (INSTANCE DAEDRIC_SMITHING SKILL)
820  (INSTANCE DAEDRIC_SMITHING SMITHING)
821  (RELATED DAEDRIC_SMITHING EBONY_SMITHING hasSkillRequirement)
822  (ATTRIBUTE–FILLER DAEDRIC_SMITHING 90 hasLevelRequirement)
823  (ATTRIBUTE–FILLER DAEDRIC_SMITHING "Can create Daedric armor and weapons at
         forges, and improve them twice as much." hasDescription)
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825  (INSTANCE DRAGON_ARMOR SKILL)
826  (INSTANCE DRAGON_ARMOR SMITHING)
827  (RELATED DRAGON_ARMOR DAEDRIC_SMITHING hasSkillRequirement)
828  (ATTRIBUTE–FILLER DRAGON_ARMOR 100 hasLevelRequirement)
829  (ATTRIBUTE–FILLER DRAGON_ARMOR "Can create Dragon armor at forges , and improve
         them twice as much.*" hasDescription)
830
831  (INSTANCE ELVEN_SMITHING SKILL)
832  (INSTANCE ELVEN_SMITHING SMITHING)
833  (RELATED ELVEN_SMITHING STEEL_SMITHING hasSkillRequirement)
834  (ATTRIBUTE–FILLER ELVEN_SMITHING 30 hasLevelRequirement)
835  (ATTRIBUTE–FILLER ELVEN_SMITHING "Can create Elven armor and weapons at forges ,
         and improve them twice as much." hasDescription)
836
837  (INSTANCE ADVANCED_ARMORS SKILL)
838  (INSTANCE ADVANCED_ARMORS SMITHING)
839  (RELATED ADVANCED_ARMORS ELVEN_SMITHING hasSkillRequirement)
840  (ATTRIBUTE–FILLER ADVANCED_ARMORS 50 hasLevelRequirement)
841  (ATTRIBUTE–FILLER ADVANCED_ARMORS "Can create Scaled and Plate armor at forges ,
         and improve them twice as much." hasDescription)
842
843  (INSTANCE GLASS_SMITHING SKILL)
844  (INSTANCE GLASS_SMITHING SMITHING)
845  (RELATED GLASS_SMITHING ADVANCED_ARMORS hasSkillRequirement)
846  (ATTRIBUTE–FILLER GLASS_SMITHING 70 hasLevelRequirement)
847  (ATTRIBUTE–FILLER GLASS_SMITHING "Can create Glass armor and weapons at forges ,
         and improve them twice as much." hasDescription)
848
849
850  ; heavy armor
851  (INSTANCE JUGGERNAUT SKILL)
852  (INSTANCE JUGGERNAUT HEAVY_ARMOR)
853  (INSTANCE JUGGERNAUT UPGRADEABLE)
854  (ATTRIBUTE–FILLER JUGGERNAUT 0 hasLevelRequirement)
855  (ATTRIBUTE–FILLER JUGGERNAUT "Increases armor rating for Heavy Armor by 20%."
         hasDescription)
856
857  (INSTANCE WELL_FITTED SKILL)
858  (INSTANCE WELL_FITTED HEAVY_ARMOR)
859  (RELATED WELL_FITTED JUGGERNAUT hasSkillRequirement)
860  (ATTRIBUTE–FILLER WELL_FITTED 30 hasLevelRequirement)
861  (ATTRIBUTE–FILLER WELL_FITTED "25% Armor bonus if wearing all Heavy Armor: head ,
         chest , hands , feet." hasDescription)
862
863  (INSTANCE TOWER_OF_STRENGTH SKILL)
864  (INSTANCE TOWER_OF_STRENGTH HEAVY_ARMOR)
865  (RELATED TOWER_OF_STRENGTH WELL_FITTED hasSkillRequirement)
866  (ATTRIBUTE–FILLER TOWER_OF_STRENGTH 50 hasLevelRequirement)
867  (ATTRIBUTE–FILLER TOWER_OF_STRENGTH "50% less stagger when wearing only Heavy
         Armor." hasDescription)
868
869  (INSTANCE MATCHING_SET SKILL)
870  (INSTANCE MATCHING_SET HEAVY_ARMOR)
871  (RELATED MATCHING_SET TOWER_OF_STRENGTH hasSkillRequirement)
872  (ATTRIBUTE–FILLER MATCHING_SET 70 hasLevelRequirement)
873  (ATTRIBUTE–FILLER MATCHING_SET "Additional 25% Armor bonus if wearing a matched
         set of Heavy Armor. " hasDescription)
874
875  (INSTANCE REFLECT_BLOWS SKILL)
876  (INSTANCE REFLECT_BLOWS HEAVY_ARMOR)
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877  (RELATED REFLECT_BLOWS MATCHING_SET hasSkillRequirement)
878  (ATTRIBUTE–FILLER REFLECT_BLOWS 100 hasLevelRequirement)
879  (ATTRIBUTE–FILLER REFLECT_BLOWS "10% chance to reflect melee damage back to the
        enemy while wearing all Heavy Armor: head, chest, hands, feet."
        hasDescription)
880
881  (INSTANCE FISTS_OF_STEEL SKILL)
882  (INSTANCE FISTS_OF_STEEL HEAVY_ARMOR)
883  (RELATED FISTS_OF_STEEL JUGGERNAUT hasSkillRequirement)
884  (ATTRIBUTE–FILLER FISTS_OF_STEEL 30 hasLevelRequirement)
885  (ATTRIBUTE–FILLER FISTS_OF_STEEL "Unarmed attacks with Heavy Armor gauntlets do
        their armor rating in extra damage." hasDescription)
886
887  (INSTANCE CUSHIONED SKILL)
888  (INSTANCE CUSHIONED HEAVY_ARMOR)
889  (RELATED CUSHIONED FISTS_OF_STEEL hasSkillRequirement)
890  (ATTRIBUTE–FILLER CUSHIONED 50 hasLevelRequirement)
891  (ATTRIBUTE–FILLER CUSHIONED "Half damage from falling if wearing all Heavy Armor
        : head, chest, hands, feet." hasDescription)
892
893  (INSTANCE CONDITIONING SKILL)
894  (INSTANCE CONDITIONING HEAVY_ARMOR)
895  (RELATED CONDITIONING CUSHIONED hasSkillRequirement)
896  (ATTRIBUTE–FILLER CONDITIONING 70 hasLevelRequirement)
897  (ATTRIBUTE–FILLER CONDITIONING "Heavy Armor weighs nothing and doesn't slow you
        down when worn." hasDescription)
898
899
900  ; block
901  (INSTANCE SHIELD_WALL SKILL)
902  (INSTANCE SHIELD_WALL BLOCK)
903  (INSTANCE SHIELD_WALL UPGRADEABLE)
904  (ATTRIBUTE–FILLER SHIELD_WALL 0 hasLevelRequirement)
905  (ATTRIBUTE–FILLER SHIELD_WALL "Blocking is 20% more effective. (Actually 10%)"
        hasDescription)
906
907  (INSTANCE POWER_BASH SKILL)
908  (INSTANCE POWER_BASH BLOCK)
909  (RELATED POWER_BASH SHIELD_WALL hasSkillRequirement)
910  (ATTRIBUTE–FILLER POWER_BASH 30 hasLevelRequirement)
911  (ATTRIBUTE–FILLER POWER_BASH "Able to do a power bash." hasDescription)
912
913  (INSTANCE DEADLY_BASH SKILL)
914  (INSTANCE DEADLY_BASH BLOCK)
915  (RELATED DEADLY_BASH POWER_BASH hasSkillRequirement)
916  (ATTRIBUTE–FILLER DEADLY_BASH 50 hasLevelRequirement)
917  (ATTRIBUTE–FILLER DEADLY_BASH "Bashing does five times more damage."
        hasDescription)
918
919  (INSTANCE DISARMING_BASH SKILL)
920  (INSTANCE DISARMING_BASH BLOCK)
921  (RELATED DISARMING_BASH DEADLY_BASH hasSkillRequirement)
922  (ATTRIBUTE–FILLER DISARMING_BASH 70 hasLevelRequirement)
923  (ATTRIBUTE–FILLER DISARMING_BASH "Chance to disarm when power bashing. (50%
        chance)" hasDescription)
924
925  (INSTANCE SHIELD_CHARGE SKILL)
926  (INSTANCE SHIELD_CHARGE BLOCK)
927  (RELATED SHIELD_CHARGE DISARMING_BASH hasSkillRequirement)
928  (ATTRIBUTE–FILLER SHIELD_CHARGE 100 hasLevelRequirement)
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929  (ATTRIBUTE–FILLER SHIELD_CHARGE "USprinting with a shield raised knocks down
         most targets." hasDescription)

930
931  (INSTANCE QUICK_REFLEXES SKILL)
932  (INSTANCE QUICK_REFLEXES BLOCK)
933  (RELATED QUICK_REFLEXES SHIELD_WALL hasSkillRequirement)
934  (ATTRIBUTE–FILLER QUICK_REFLEXES 30 hasLevelRequirement)
935  (ATTRIBUTE–FILLER QUICK_REFLEXES "Time slows down if you are blocking during an
         enemy's power attack." hasDescription)

936
937  (INSTANCE DEFLECT_ARROWS SKILL)
938  (INSTANCE DEFLECT_ARROWS BLOCK)
939  (RELATED DEFLECT_ARROWS SHIELD_WALL hasSkillRequirement)
940  (ATTRIBUTE–FILLER DEFLECT_ARROWS 30 hasLevelRequirement)
941  (ATTRIBUTE–FILLER DEFLECT_ARROWS "Arrows that hit the shield do no damage."
         hasDescription)

942
943  (INSTANCE ELEMENTAL_PROTECTION SKILL)
944  (INSTANCE ELEMENTAL_PROTECTION BLOCK)
945  (RELATED ELEMENTAL_PROTECTION DEFLECT_ARROWS hasSkillRequirement)
946  (ATTRIBUTE–FILLER ELEMENTAL_PROTECTION 50 hasLevelRequirement)
947  (ATTRIBUTE–FILLER ELEMENTAL_PROTECTION "Blocking with a shield reduces incoming
         fire, frost, and shock damage by 50%." hasDescription)

948
949  (INSTANCE BLOCK_RUNNER SKILL)
950  (INSTANCE BLOCK_RUNNER BLOCK)
951  (RELATED BLOCK_RUNNER ELEMENTAL_PROTECTION hasSkillRequirement)
952  (ATTRIBUTE–FILLER BLOCK_RUNNER 70 hasLevelRequirement)
953  (ATTRIBUTE–FILLER BLOCK_RUNNER "Able to move faster with a shield or weapon
         raised." hasDescription)

954

955

956  ; two–handed
957  (INSTANCE BARBARIAN SKILL)
958  (INSTANCE BARBARIAN TWO_HANDED)
959  (INSTANCE BARBARIAN UPGRADEABLE)
960  (ATTRIBUTE–FILLER BARBARIAN 0 hasLevelRequirement)
961  (ATTRIBUTE–FILLER BARBARIAN "Two–Handed weapons do 20% more damage."
         hasDescription)

962
963  (INSTANCE SKULLCRUSHER SKILL)
964  (INSTANCE SKULLCRUSHER TWO_HANDED)
965  (INSTANCE SKULLCRUSHER UPGRADEABLE)
966  (RELATED SKULLCRUSHER BARBARIAN hasSkillRequirement)
967  (ATTRIBUTE–FILLER SKULLCRUSHER 30 hasLevelRequirement)
968  (ATTRIBUTE–FILLER SKULLCRUSHER "Power attacks with two–handed weapons cost 25%
         less stamina." hasDescription)

969
970  (INSTANCE DEEP_WOUNDS SKILL)
971  (INSTANCE DEEP_WOUNDS TWO_HANDED)
972  (INSTANCE DEEP_WOUNDS UPGRADEABLE)
973  (RELATED DEEP_WOUNDS BARBARIAN hasSkillRequirement)
974  (ATTRIBUTE–FILLER DEEP_WOUNDS 30 hasLevelRequirement)
975  (ATTRIBUTE–FILLER DEEP_WOUNDS "Attacks with greatswords have a 10% chance of
         doing critical damage." hasDescription)

976
977  (INSTANCE CHAMPIONS_STANCE SKILL)
978  (INSTANCE CHAMPIONS_STANCE TWO_HANDED)
979  (RELATED CHAMPIONS_STANCE BARBARIAN hasSkillRequirement)
980  (ATTRIBUTE–FILLER CHAMPIONS_STANCE 20 hasLevelRequirement)
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981   (ATTRIBUTE-FILLER CHAMPIONS_STANCE "Power attacks with two-handed weapons cost
          25% less stamina." hasDescription)
982
983   (INSTANCE DEVASTATING_BLOW SKILL)
984   (INSTANCE DEVASTATING_BLOW TWO_HANDED)
985   (RELATED DEVASTATING_BLOW CHAMPIONS_STANCE hasSkillRequirement)
986   (ATTRIBUTE-FILLER DEVASTATING_BLOW 50 hasLevelRequirement)
987   (ATTRIBUTE-FILLER DEVASTATING_BLOW "Standing power attacks do 25% bonus damage
          with a chance to decapitate your enemies." hasDescription)
988
989   (INSTANCE GREAT_CRITICAL_CHARGE SKILL)
990   (INSTANCE GREAT_CRITICAL_CHARGE TWO_HANDED)
991   (RELATED GREAT_CRITICAL_CHARGE CHAMPIONS_STANCE hasSkillRequirement)
992   (ATTRIBUTE-FILLER GREAT_CRITICAL_CHARGE 50 hasLevelRequirement)
993   (ATTRIBUTE-FILLER GREAT_CRITICAL_CHARGE "Can do a two-handed power attack while
          sprinting that does double critical damage." hasDescription)
994
995   (INSTANCE SWEEP SKILL)
996   (INSTANCE SWEEP TWO_HANDED)
997   (RELATED SWEEP GREAT_CRITICAL_CHARGE hasSkillRequirement)
998   (ATTRIBUTE-FILLER SWEEP 70 hasLevelRequirement)
999   (ATTRIBUTE-FILLER SWEEP "Sideways power attacks with two-handed weapons hit all
          targets in front of you." hasDescription)
1000
1001  (INSTANCE WARMASTER SKILL)
1002  (INSTANCE WARMASTER TWO_HANDED)
1003  (RELATED WARMASTER SWEEP hasSkillRequirement)
1004  (ATTRIBUTE-FILLER WARMASTER 100 hasLevelRequirement)
1005  (ATTRIBUTE-FILLER WARMASTER "Backwards power attack has a 25% chance to paralyze
          the target." hasDescription)
1006
1007  (INSTANCE LIMBSPLITTER SKILL)
1008  (INSTANCE LIMBSPLITTER TWO_HANDED)
1009  (INSTANCE LIMBSPLITTER UPGRADEABLE)
1010  (RELATED LIMBSPLITTER BARBARIAN hasSkillRequirement)
1011  (ATTRIBUTE-FILLER LIMBSPLITTER 30 hasLevelRequirement)
1012  (ATTRIBUTE-FILLER LIMBSPLITTER "Attacks with battle axes cause extra bleeding
          damage." hasDescription)
1013
1014
1015  ; one-handed
1016  (INSTANCE ARMSMAN SKILL)
1017  (INSTANCE ARMSMAN ONE_HANDED)
1018  (INSTANCE ARMSMAN UPGRADEABLE)
1019  (ATTRIBUTE-FILLER ARMSMAN 0 hasLevelRequirement)
1020  (ATTRIBUTE-FILLER ARMSMAN "One-Handed weapons do 20% more damage."
          hasDescription)
1021
1022  (INSTANCE DUAL_FLURRY SKILL)
1023  (INSTANCE DUAL_FLURRY ONE_HANDED)
1024  (INSTANCE DUAL_FLURRY UPGRADEABLE)
1025  (RELATED DUAL_FLURRY ARMSMAN hasSkillRequirement)
1026  (ATTRIBUTE-FILLER DUAL_FLURRY 30 hasLevelRequirement)
1027  (ATTRIBUTE-FILLER DUAL_FLURRY "Dual wielding attacks are 20% faster."
          hasDescription)
1028
1029  (INSTANCE DUAL_SAVAGERY SKILL)
1030  (INSTANCE DUAL_SAVAGERY ONE_HANDED)
1031  (RELATED DUAL_SAVAGERY DUAL_FLURRY hasSkillRequirement)
1032  (ATTRIBUTE-FILLER DUAL_SAVAGERY 70 hasLevelRequirement)
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1033 (ATTRIBUTE-FILLER DUAL_SAVAGERY "Dual wielding power attacks do 50% bonus damage
     ." hasDescription)

1034
1035 (INSTANCE BLADESMAN SKILL)
1036 (INSTANCE BLADESMAN ONE_HANDED)
1037 (INSTANCE BLADESMAN UPGRADEABLE)
1038 (RELATED BLADESMAN ARMSMAN hasSkillRequirement)
1039 (ATTRIBUTE-FILLER BLADESMAN 30 hasLevelRequirement)
1040 (ATTRIBUTE-FILLER BLADESMAN "Attacks with swords have a 10% chance of doing
     critical damage (+0% crit damage)*." hasDescription)

1041
1042 (INSTANCE BONE_BREAKER SKILL)
1043 (INSTANCE BONE_BREAKER ONE_HANDED)
1044 (INSTANCE BONE_BREAKER UPGRADEABLE)
1045 (RELATED BONE_BREAKER ARMSMAN hasSkillRequirement)
1046 (ATTRIBUTE-FILLER BONE_BREAKER 30 hasLevelRequirement)
1047 (ATTRIBUTE-FILLER BONE_BREAKER "Attacks with maces ignore 25% of armor."
     hasDescription)

1048
1049 (INSTANCE FIGHTING_STANCE SKILL)
1050 (INSTANCE FIGHTING_STANCE ONE_HANDED)
1051 (RELATED FIGHTING_STANCE ARMSMAN hasSkillRequirement)
1052 (ATTRIBUTE-FILLER FIGHTING_STANCE 20 hasLevelRequirement)
1053 (ATTRIBUTE-FILLER FIGHTING_STANCE "Power attacks with one-handed weapons cost
     25% less stamina." hasDescription)

1054
1055 (INSTANCE CRITICAL_CHARGE SKILL)
1056 (INSTANCE CRITICAL_CHARGE ONE_HANDED)
1057 (RELATED CRITICAL_CHARGE FIGHTING_STANCE hasSkillRequirement)
1058 (ATTRIBUTE-FILLER CRITICAL_CHARGE 50 hasLevelRequirement)
1059 (ATTRIBUTE-FILLER CRITICAL_CHARGE "Can do a one-handed power attack while
     sprinting that does double critical damage." hasDescription)

1060
1061 (INSTANCE PARALYZING_STRIKE SKILL)
1062 (INSTANCE PARALYZING_STRIKE ONE_HANDED)
1063 (RELATED PARALYZING_STRIKE CRITICAL_CHARGE hasSkillRequirement)
1064 (ATTRIBUTE-FILLER PARALYZING_STRIKE 100 hasLevelRequirement)
1065 (ATTRIBUTE-FILLER PARALYZING_STRIKE "Backwards power attack has a 25%** chance
     to paralyze the target." hasDescription)

1066
1067 (INSTANCE SAVAGE_STRIKE SKILL)
1068 (INSTANCE SAVAGE_STRIKE ONE_HANDED)
1069 (RELATED SAVAGE_STRIKE FIGHTING_STANCE hasSkillRequirement)
1070 (ATTRIBUTE-FILLER SAVAGE_STRIKE 50 hasLevelRequirement)
1071 (ATTRIBUTE-FILLER SAVAGE_STRIKE "Standing power attacks do 25% bonus damage with
     a chance to decapitate your enemies." hasDescription)

1072
1073 (INSTANCE HACK_AND_SLASH SKILL)
1074 (INSTANCE HACK_AND_SLASH ONE_HANDED)
1075 (INSTANCE HACK_AND_SLASH UPGRADEABLE)
1076 (RELATED HACK_AND_SLASH ARMSMAN hasSkillRequirement)
1077 (ATTRIBUTE-FILLER HACK_AND_SLASH 30 hasLevelRequirement)
1078 (ATTRIBUTE-FILLER HACK_AND_SLASH "Attacks with war axes cause extra bleeding
     damage." hasDescription)

1079

1080
1081 ; archery
1082 (INSTANCE OVERDRAW SKILL)
1083 (INSTANCE OVERDRAW ARCHERY)
1084 (INSTANCE OVERDRAW UPGRADEABLE)
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1085 (ATTRIBUTE–FILLER OVERDRAW 0 hasLevelRequirement)
1086 (ATTRIBUTE–FILLER OVERDRAW "Bows do 20% more damage." hasDescription)
1087
1088 (INSTANCE CRITICAL_SHOT SKILL)
1089 (INSTANCE CRITICAL_SHOT ARCHERY)
1090 (INSTANCE CRITICAL_SHOT UPGRADEABLE)
1091 (RELATED CRITICAL_SHOT OVERDRAW hasSkillRequirement)
1092 (ATTRIBUTE–FILLER CRITICAL_SHOT 30 hasLevelRequirement)
1093 (ATTRIBUTE–FILLER CRITICAL_SHOT "10% chance of a critical hit that does extra
       damage." hasDescription)
1094
1095 (INSTANCE HUNTERS_DISCIPLINE SKILL)
1096 (INSTANCE HUNTERS_DISCIPLINE ARCHERY)
1097 (RELATED HUNTERS_DISCIPLINE CRITICAL_SHOT hasSkillRequirement)
1098 (ATTRIBUTE–FILLER HUNTERS_DISCIPLINE 50 hasLevelRequirement)
1099 (ATTRIBUTE–FILLER HUNTERS_DISCIPLINE "Recover twice as many arrows from dead
       bodies." hasDescription)
1100
1101 (INSTANCE RANGER SKILL)
1102 (INSTANCE RANGER ARCHERY)
1103 (RELATED RANGER HUNTERS_DISCIPLINE hasSkillRequirement)
1104 (ATTRIBUTE–FILLER RANGER 60 hasLevelRequirement)
1105 (ATTRIBUTE–FILLER RANGER "Able to move faster with a drawn bow." hasDescription)
1106
1107 (INSTANCE BULLSEYE SKILL)
1108 (INSTANCE BULLSEYE ARCHERY)
1109 (RELATED BULLSEYE RANGER hasSkillRequirement)
1110 (ATTRIBUTE–FILLER BULLSEYE 100 hasLevelRequirement)
1111 (ATTRIBUTE–FILLER BULLSEYE "15% chance of paralyzing the target for a few
       seconds." hasDescription)
1112
1113 (INSTANCE EAGLE_EYE SKILL)
1114 (INSTANCE EAGLE_EYE ARCHERY)
1115 (RELATED EAGLE_EYE OVERDRAW hasSkillRequirement)
1116 (ATTRIBUTE–FILLER EAGLE_EYE 30 hasLevelRequirement)
1117 (ATTRIBUTE–FILLER EAGLE_EYE "Pressing Block while aiming will zoom in your view
       ." hasDescription)
1118
1119 (INSTANCE STEADY_HAND SKILL)
1120 (INSTANCE STEADY_HAND ARCHERY)
1121 (INSTANCE STEADY_HAND UPGRADEABLE)
1122 (RELATED STEADY_HAND EAGLE_EYE hasSkillRequirement)
1123 (ATTRIBUTE–FILLER STEADY_HAND 40 hasLevelRequirement)
1124 (ATTRIBUTE–FILLER STEADY_HAND "Zooming in with a bow slows time by 25%."
       hasDescription)
1125
1126 (INSTANCE POWER_SHOT SKILL)
1127 (INSTANCE POWER_SHOT ARCHERY)
1128 (RELATED POWER_SHOT EAGLE_EYE hasSkillRequirement)
1129 (ATTRIBUTE–FILLER POWER_SHOT 50 hasLevelRequirement)
1130 (ATTRIBUTE–FILLER POWER_SHOT "Arrows stagger all but the largest opponents 50%
       of the time." hasDescription)
1131
1132 (INSTANCE QUICK_SHOT SKILL)
1133 (INSTANCE QUICK_SHOT ARCHERY)
1134 (RELATED QUICK_SHOT POWER_SHOT hasSkillRequirement)
1135 (ATTRIBUTE–FILLER QUICK_SHOT 70 hasLevelRequirement)
1136 (ATTRIBUTE–FILLER QUICK_SHOT "Can draw a bow 30% faster." hasDescription)
1137
1138
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1139  ; light armor
1140  (INSTANCE AGILE_DEFENDER SKILL)
1141  (INSTANCE AGILE_DEFENDER LIGHT_ARMOR)
1142  (ATTRIBUTE–FILLER AGILE_DEFENDER 0 hasLevelRequirement)
1143  (ATTRIBUTE–FILLER AGILE_DEFENDER "Increase armor rating for Light armor by 20%."
          hasDescription)
1144
1145  (INSTANCE CUSTOM_FIT SKILL)
1146  (INSTANCE CUSTOM_FIT LIGHT_ARMOR)
1147  (RELATED CUSTOM_FIT AGILE_DEFENDER hasSkillRequirement)
1148  (ATTRIBUTE–FILLER CUSTOM_FIT 30 hasLevelRequirement)
1149  (ATTRIBUTE–FILLER CUSTOM_FIT "25% Armor bonus if wearing all Light Armor: head,
          chest, hands, feet." hasDescription)
1150
1151  (INSTANCE MATCHING_SET_LIGHT SKILL)
1152  (INSTANCE MATCHING_SET_LIGHT LIGHT_ARMOR)
1153  (RELATED MATCHING_SET_LIGHT CUSTOM_FIT hasSkillRequirement)
1154  (ATTRIBUTE–FILLER MATCHING_SET_LIGHT 70 hasLevelRequirement)
1155  (ATTRIBUTE–FILLER MATCHING_SET_LIGHT "Additional 25% Armor bonus if wearing a
          matched set of Light Armor." hasDescription)
1156
1157  (INSTANCE DEFT_MOVEMENT SKILL)
1158  (INSTANCE DEFT_MOVEMENT LIGHT_ARMOR)
1159  (RELATED DEFT_MOVEMENT MATCHING_SET_LIGHT hasSkillRequirement)
1160  (ATTRIBUTE–FILLER DEFT_MOVEMENT 100 hasLevelRequirement)
1161  (ATTRIBUTE–FILLER DEFT_MOVEMENT "10% chance of avoiding all damage from a melee
          attack while wearing all Light Armor: head, chest, hands, feet."
          hasDescription)
1162
1163  (INSTANCE UNHINDERED SKILL)
1164  (INSTANCE UNHINDERED LIGHT_ARMOR)
1165  (RELATED UNHINDERED CUSTOM_FIT hasSkillRequirement)
1166  (ATTRIBUTE–FILLER UNHINDERED 50 hasLevelRequirement)
1167  (ATTRIBUTE–FILLER UNHINDERED "Light Armor weighs nothing and doesn't slow you
          down when worn." hasDescription)
1168
1169  (INSTANCE WIND_WALKER SKILL)
1170  (INSTANCE WIND_WALKER LIGHT_ARMOR)
1171  (RELATED WIND_WALKER UNHINDERED hasSkillRequirement)
1172  (ATTRIBUTE–FILLER WIND_WALKER 60 hasLevelRequirement)
1173  (ATTRIBUTE–FILLER WIND_WALKER "Stamina regenerates 50% faster in all Light Armor
          : head, chest, hands, feet." hasDescription)
1174
1175  ; ————————————————————————————————————————————————
1176  ; LINK SKILL CLASSES AND BUILDS
1177  ; ————————————————————————————————————————————————
1178  ; suitable skill classes for builds
1179  (RELATED TWO_HANDED BARBARIAN isSuitable)
1180  (RELATED HEAVY_ARMOR BARBARIAN isSuitable)
1181  (RELATED SMITHING BARBARIAN isSuitable)
1182
1183  (RELATED ONE_HANDED BATTLEMAGE isSuitable)
1184  (RELATED LIGHT_ARMOR BATTLEMAGE isSuitable)
1185  (RELATED DESTRUCTION BATTLEMAGE isSuitable)
1186
1187  (RELATED SNEAK STEALTH_ARCHER isSuitable)
1188  (RELATED ARCHERY STEALTH_ARCHER isSuitable)
1189  (RELATED LIGHT_ARMOR STEALTH_ARCHER isSuitable)
1190
1191  (RELATED ALCHEMY WARLOCK isSuitable)
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1192  (RELATED ILLUSION WARLOCK isSuitable)
1193  (RELATED CONJURATION WARLOCK isSuitable)
1194  (RELATED DESTRUCTION WARLOCK isSuitable)
1195
1196  (RELATED HEAVY_ARMOR PALADIN isSuitable)
1197  (RELATED ONE_HANDED PALADIN isSuitable)
1198  (RELATED BLOCK PALADIN isSuitable)
1199  (RELATED RESTORATION PALADIN isSuitable)
1200
1201  (RELATED ONE_HANDED ASSASSIN isSuitable)
1202  (RELATED LIGHT_ARMOR ASSASSIN isSuitable)
1203  (RELATED SNEAK ASSASSIN isSuitable)
1204  (RELATED ALCHEMY ASSASSIN isSuitable)
1205  (RELATED PICKPOCKET ASSASSIN isSuitable)
1206
1207  (RELATED PICKPOCKET THIEF isSuitable)
1208  (RELATED SNEAK THIEF isSuitable)
1209  (RELATED POCKPICKING THIEF isSuitable)
1210
1211  (RELATED ONE_HANDED PRIEST isSuitable)
1212  (RELATED SPEECH PRIEST isSuitable)
1213  (RELATED RESTORATION PRIEST isSuitable)
1214  (RELATED ENCHANTING PRIEST isSuitable)
1215  (RELATED ALTERATION PRIEST isSuitable)
1216
1217
1218  ; ————————————————————————————————————————————
1219  ; MISC
1220  ; ————————————————————————————————————————————
1221
1222  ; skills are split among two main sets: upgradeable and not upgradeable
1223  ; the sets are disjoint
1224  (IMPLIES UPGRADEABLE SKILL)
1225  (IMPLIES NOT_UPGRADEABLE SKILL)
1226  (DISJOINT NOT_UPGRADEABLE UPGRADEABLE)
1227
1228  (define−primitive−role isSuitable :domain SKILL_CLASS :range BUILD)
1229  (define−primitive−role hasSkillRequirement :domain SKILL :range SKILL)
1230
1231  ; attributes
1232  (define−concrete−domain−attribute hasLevelRequirement :TYPE INTEGER)
1233  (define−concrete−domain−attribute hasDescription :TYPE STRING)
1234
1235  ; rules
1236  (define−rule (?x NOT_UPGRADEABLE) (and (?x SKILL) (neg (?x UPGRADEABLE))))
1237
1238  (run−all−rules)
```

A.2   Racer evaluation

```
1   (full−reset)
2   (racer−read−file "/home/nicu/Desktop/KBS/TES−V−SkyrimSkillsOntology/onto.racer")
3
4   ————————————————————————————————————————————————————
5   ; Consistency
6   ————————————————————————————————————————————————————
7
8   (abox−consistent?)
9   (tbox−cyclic?)
10  (tbox−coherent?)
```

```
11
12  ( r e a l i z e −abox )
13  ( c l a s s i f y −tbox )
14
15  ; ————————————————————————————————————
16  ;  Size
17  ; ————————————————————————————————————
18
19
20  ( e v a l u a t e  ( l e n g t h  ( a l l −i n d i v i d u a l s ) ) )
21  ( e v a l u a t e  ( l e n g t h  ( a l l −atomic−c o n c e p t s ) ) )
22  ( e v a l u a t e  ( l e n g t h  ( a l l −r o l e s ) ) )
23  ( e v a l u a t e  ( l e n g t h  ( a l l −r u l e s ) ) )
24
25  ( a l l −concept−a s s e r t i o n s )
26  ( a l l −r o l e −a s s e r t i o n s )
27  ( a l l −c o n s t r a i n t s )
28
29  ( d e s c r i b e −tbox )
30  ( d e s c r i b e −abox )
31
32  ( taxonomy )
33
34  ; ————————————————————————————————————
35  ;  E x p r e s s i v i t y
36  ; ————————————————————————————————————
37
38  ( get−tbox−language )
39  ( get−abox−language )
40
41  ( a l l −f e a t u r e s )
42  ( a l l −t r a n s i t i v e −r o l e s )
43
44  ; ————————————————————————————————————
45  ; Domain c o v e r a g e − competency q u e s t i o n s
46  ; ————————————————————————————————————
47
48  ; ————————————————————————————————————
49  ; CQ1:
50  ( e v a l u a t e  ”CQ1:  A l l  i n s t a n c e s  i n  my  o n t o l o g y  a r e : ” )
51  ( concept−i n s t a n c e s  ∗top ∗)
52  ; ————————————————————————————————————
53
54  ; ————————————————————————————————————
55  ; CQ2:
56  ( e v a l u a t e  ”CQ2:  What  a r e  t h e  c l a s s e s  o f  c h a r a c t e r s  I  can  play ? ” )
57  ; ————————— REPLACE THIS LINE WITH ANSWER QUERY —————————
58  ; ————————————————————————————————————
59
60  ; ————————————————————————————————————
61  ; CQ3:
62  ( e v a l u a t e  ”CQ3:  What  a r e  t h e  s k i l l s  s u i t a b l e  f o r  c l a s s  X? ” )
63  ; ————————— REPLACE THIS LINE WITH ANSWER QUERY —————————
64  ; ————————————————————————————————————
65
66  ; ————————————————————————————————————
67  ; CQ4:
68  ( e v a l u a t e  ”CQ4:  Should  I  i n v e s t  i n  s k i l l  t r e e  X  i f  my  c h a r a c t e r  i s  c l a s s  Y? ” )
69  ; ————————— REPLACE THIS LINE WITH ANSWER QUERY —————————
70  ; ————————————————————————————————————
```

```
71
72  ; —————————————————————————————————————————
73  ; CQ5:
74  (evaluate "CQ5: What skills can I unlock at level X?")
75  ; ———————— REPLACE THIS LINE WITH ANSWER QUERY ————————
76  ; —————————————————————————————————————————
77
78  ; —————————————————————————————————————————
79  ; CQ6:
80  (evaluate "CQ6: What skill is required for unlocking skill X?")
81  ; ———————— REPLACE THIS LINE WITH ANSWER QUERY ————————
82  ; —————————————————————————————————————————
83
84  ; —————————————————————————————————————————
85  ; CQ7:
86  (evaluate "CQ7: What level is required for unlocking skill X?")
87  ; ———————— REPLACE THIS LINE WITH ANSWER QUERY ————————
88  ; —————————————————————————————————————————
89
90  ; —————————————————————————————————————————
91  ; CQ8:
92  (evaluate "CQ8: What are the perks provided by skill X?")
93  ; ———————— REPLACE THIS LINE WITH ANSWER QUERY ————————
94  ; —————————————————————————————————————————
95
96  ; racer calls, rule/set querries
97  (CONCEPT–INSTANCES SKILL_CLASS)
98  (CONCEPT–INSTANCES UPGRADEABLE)
99
100 ; role querries
101 (INDIVIDUAL–FILLERS PRIEST (inv isSuitable))
102 (INDIVIDUAL–FILLERS BACKSTAB hasSkillRequirement)
103
104 ; attribute query
105 (INDIVIDUAL–TOLD–ATTRIBUTE–VALUE RUNE_MASTER hasDescription)
```

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