



ISO-TimeML Annotation Guidelines for French Version 1.0

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1 Introduction

This document describes the annotation guidelines for marking up French texts according to the ISO-TimeML specification language [ISO08]. The document is structured in the following way: Section 2 details the various tags ISO-TimeML tags, along with their attributes. Section 3 presents a set of guidelines for annotating various types of constructions and linguistic phenomena, in particular with the <EVENT> tag. Examples are given in French throughout the document, where possible with their unannotated English translations. An index of all event forms mentioned, along with their event class, is given at the end of this document.

2 ISO-TimeML tags for French

2.1 The EVENT tag

The definition of *event* adopted here is the same as that specified in Annex A.2.1 of [LPB⁺07, 40], namely “something that can be said to obtain or hold true, to happen or to occur”. This definition corresponds to what are known in the linguistic and philosophical literature as *eventualities* [Bac86], which encompasses events and states.

The types of expressions denoting events in French are similar to those postulated for English. Various verb forms and nouns, as well as certain adjectives and prepositional phrases may be annotated with the <EVENT> tag.

With respect to the extent of the <EVENT> tag, the element to be annotated is the head word of the minimal event-denoting chunk. Any auxiliaries, specifiers, modifiers, clitics, polarity markers, complements and particles are not included in the annotation. In the following examples, the event-denoting chunk is in bold face and the head to be tagged is underlined. Only one event in each example is annotated.

- Verbs

- (1) *La France **occupe** une place plutôt effacée dans la campagne.*
France occupied a rather unobtrusive position in the campaign.
- (2) *On **n’a pas évoqué** un embargo sur les exportations de pétrole soudanais.*
An embargo on Sudanese oil exports was not mentioned.
- (3) *Le gouvernement a répondu sèchement, **rappelant** l’armée à l’ordre.*
The government responded dryly, calling the army to order.

- Nouns

Deverbal nouns (nominalizations):

- (4) *De **violentes secousses** ont fait trembler l’est du pays tôt dimanche matin.*
Violent tremors shook the east of the country early on Sunday morning.

Nouns which are not derived from a verb, but which have an event reading:

- (5) ***La crise** entre Moscou et Talinn prend de l’ampleur.*
The crisis between Moscow and Talinn escalates.

- Lexically non-eventive nominal predications which are temporally situated

- (6) *M. Fournier est président de la compagnie depuis 2002.*
Mr. Fournier has been president of the company since 2002.

- Adjectives

- (7) *Steve Jobs reconnaît qu'il est malade, mais conserve son poste de PDG d'Apple.*
Steve Jobs recognizes that he is ill, but retains his position as CEO of Apple.

- Prepositional phrases

- (8) *Une artiste américaine était à bord de Tara lors de la dérive arctique.*
An American artist was on board the Tara during the arctic drift.

2.1.1 BNF for the EVENT tag

```

attributes ::= anchor eid eiid class pred pos tense aspect vform polarity
              mood modality mod type comment
anchor ::= IDREF
eid ::= e<integer>
eiid ::= ei<integer>
class ::= ASPECTUAL | CAUSE | EVENT_CONTAINER | I_ACTION | I_STATE | MODAL
         | OCCURRENCE | PERCEPTION | REPORTING | STATE
pred ::= CDATA
pos ::= ADJECTIVE | NOUN | VERB | PREPOSITION | OTHER
tense ::= FUTURE | PAST | PRESENT | IMPERFECT
         | NONE (default, if absent, is NONE)
aspect ::= PROGRESSIVE | PERFECTIVE | PROSPECTIVE | IMPERFECTIVE
         | NONE (default, if absent, is NONE)
vform ::= INFINITIVE | PASTPART | PRESPART | GERUNDIVE
         | NONE (default, if absent, is NONE)
polarity ::= NEG | POS (default, if absent, is POS)
mood ::= SUBJUNCTIVE | CONDITIONAL | NONE (default, if absent, is NONE)
modality ::= CERTAINTY | CONJECTURAL | NECESSITY | OBLIGATION | PERMISSION
           | POSSIBILITY | PROBABILITY | NONE (default, if absent, is NONE)
cardinality ::= CDATA
mod ::= START | MID | END
comment ::= CDATA

```

2.1.2 Attribute anchor

This attribute is used in stand-off annotation to associate the tag to the primary data (e.g. the tokens in a tokenized version of the original text). Details of stand-off annotation are given in [ISO08]. An example is given below.

- (9) *Jean est parti en décembre 2007.*
Jean left in December 2007.

```

<w1="Jean", w2="est", w3="parti", w4="en", w5="décembre", w6="2007">
<ISO-TimeML id="a1">
<MARKABLE id="m1" sourceText="w3"/>
<EVENT eid="e1" eiid="ei1" markable="m1" type="TRANSITION" tense="PAST"/>
<MARKABLE id="m2" sourceText="w4"/>
<SIGNAL id="s1" markable="m2"/>
<MARKABLE id="m3" sourceText="w5..w6"/>
<TIMEX3 tid="t1" markable="m3" type="DATE" value="2007-12"/>
</ISO-TimeML>

```

2.1.3 Attributes `eid` and `eiid`

According to the general ISO-TimeML guidelines, each event must be identified by a unique ID (`eid`). Each instance of a given event is identified by a unique event instance ID (`eiid`). In the following example, the event denoted by the verb has instances at two separate times. This is captured in the creation of two `<EVENT>` tags each with the same `eid` but different `eiid` values.

- (10) *Des avions ont survolé le territoire lundi et mardi soir.*
Planes flew over the territory on Monday and Tuesday evening.

```
Des avions ont <EVENT eid="e1" eiid="ei1" class="OCCURRENCE" pos="VERB"
tense="PAST" pred="SURVOLER">survolé</EVENT> le territoire lundi et mardi soir.
<EVENT eid="e1" eiid="ei2" class="OCCURRENCE" pos="VERB" pred="SURVOLER"
tense="PAST"/>
```

2.1.4 Attribute `class`

As detailed in [ISO08, Annex A.2.1.3, clause B.].

NOTE The verbs provided as examples of each class may have multiple senses, some of which may not belong to that particular class.

REPORTING: Reporting events consist in the action of a person or organization declaring something, narrating an event, informing about an event, or being cited in a text.

- (11) a. *Le porte-parole a **dit** que la convention avait été approuvée.*
The spokesperson said that the convention had been approved.
b. *L'actuel numéro deux mondial a **affirmé** hier qu'il est très motivé.*
The current world number two affirmed yesterday that he is very motivated.

Verbs belonging to this class include *affirmer, alléguer, annoncer, attester, citer, communiquer, confirmer, conter, déclamer, déclarer, dénoter, dire, énoncer, expliquer, formuler, indiquer, informer, insister, mentionner, préciser, raconter, rapporter, répéter, spécifier*.

PERCEPTION: These are events which involve the physical perception of another event.

- (12) a. *Des personnes conduisant leur véhicule le soir disent avoir **vu** des explosions.*
People driving their vehicles that evening say they saw explosions.
b. *Il a **entendu** trois tirs qui provenaient du garage.*
He heard three shots which came from the garage.

Verbs belonging to this class include: *apercevoir, écouter, entendre, entrevoir, épier, mater, observer, ouïr, percevoir, regarder, revoir, visionner, visualiser, voir*.

ASPECTUAL: This class includes verbs which describe different facets of an event's history. For example,

Initiation:	<i>commencer, lancer, initier, se mettre à, démarrer, débiter, déclencher, entamer, initialiser, ouvrir</i>
Reinitiation:	<i>recommencer, redémarrer, reprendre, rentamer, se remettre à</i>
Termination:	<i>abandonner, arrêter, cesser, clore, terminer, interrompre, discontinuer, suspendre</i>
Culmination:	<i>accomplir, achever, finir, compléter, conclure, finaliser, finir, parachever, terminer</i>
Continuation:	<i>continuer, poursuivre, maintenir, procéder, prolonger, rester</i>

A few examples:

- (13) a. L'avion a **commencé** à voler plus bas et il a percuté un palmier.
The plane started to fly lower and it hit a palm tree.
- b. Le service a **poursuivi** la mise en place de mesures de sécurité.
The service continued to put security measures in place.
- c. L'Union européenne **relance** la procédure contre Boeing devant l'OMC.
The European Union is relaunching the proceedings against Boeing before the WTO.
- d. Le fait que l'État n'**interrompt** pas ce projet est très positif.
The fact that the State does not interrupt this project is very positive.

I_ACTION: Intensional action. This event class contains all actions or dynamic situations which introduce another event as argument and which must be explicitly present in the text. This class does not cover states (see the class **I_STATE** below).

a) **essayer, tenter, tâcher, chercher à, viser**

- (14) Des companies comme Microsoft **essaient** de monopoliser l'accès à Internet.
Companies like Microsoft are trying to monopolize Internet access.

b) **examiner, enquêter**

- (15) La FIA a chargé un avocat britannique d'**enquêter** sur le scandale sexuel touchant son président.
The FIA has given a British lawyer the responsibility of investigating the sexual scandal concerning its president.

c) **reporter, remettre, retarder, empêcher, gêner, entraver**

- (16) Cependant, le lancement au niveau national a été **reporté** au 10 décembre prochain.
However, the nationwide launch has been postponed until the 10th of December next year.

d) **éviter, annuler, canceller, abolir, prohiber, arrêter, interdire, opposer**

- (17) La candidate socialiste voulait ces derniers mois **empêcher** l'Iran d'accéder au nucléaire civil.
The socialist candidate wanted, these past few months, to stop Iran from acquiring civilian nuclear facilities.

e) **demander, exiger, ordonner, obliger, commander, persuader, supplier, autoriser, permettre, inciter, accepter, agréer**

- (18) Au départ, l'agression contre le Liban avait **persuadé** la population israélienne de soutenir l'offensive.
At first, aggression against Lebanon had persuaded the Israeli population to support the offensive.

f) **promettre, proposer, assurer, décider**

- (19) Sarkozy aurait **promis** à Jacques Chirac de mettre en oeuvre une amnistie en faveur du chef de l'Etat s'il est élu.
Sarkozy is said to have promised to Jacques Chirac that he would implement an amnesty in favour of the head of State if he is elected.

g) **jurer, certifier, soutenir**

- (20) Il a juré de dire la vérité. He swore to tell the truth.

h) **nommer, déclarer, désigner**

- (21) L'actuel directeur général sera **nommé** président-directeur général du groupe à compter du 30 juin prochain.
The current director general will be named president-director general of the group as of the 30th of June next year.

i) **prétendre, alléguer, suggérer, conseiller, recommander, nier, démentir, refuser**

- (22) Une famille **prétend** avoir vu plusieurs apparitions et entendu d'étranges voix.
A family claims to have seen several apparitions and heard strange voices.

I_STATE: This is similar to the previous class, but denotes stative intensional situations, rather than dynamic ones.

a) **savoir, croire, penser, supposer, imaginer, soupçonner, douter, se souvenir**

- (23) Les français se **souviennent** des disputes internes passés.
The French people remember past internal disputes.

b) **vouloir, désirer, avoir envie, aimer, adorer, préférer, souhaiter**

NOTE These verbs are only considered I_STATES when they introduce a subordinated event argument. For example, the verb *aime* in the sentence *Jean aime Marie* (Jean loves Marie) is not an I_STATE.

- (24) Et les intellectuels, comme les autres, n'ont **voulu** que s'en mettre plein les poches.
And the intellectuals, like the rest, only wanted to fill their pockets.

c) **espérer, s'attendre à, appréhender, aspirer, planifier, imaginer**

- (25) Nous **espérons** collaborer étroitement avec les organismes représentant d'autres domaines de l'industrie.
We hope to collaborate closely with organizations representing other industry sectors.

d) **craindre, avoir peur, détester, s'inquiéter, se préoccuper, redouter, regretter**

- (26) Les agences **craignent** que les vendeurs n'anticipent trop la hausse des prix.
Agencies fear that vendors will preempt the rise in prices.

e) **nécessiter, avoir besoin, requérir**

- (27) Cette procédure ne **nécessite** que l'estimation de régressions.
This process only requires the evaluation of regressions.

f) **être prêt, être préparé, avoir hâte, être pressé**

- (28) La rapide croissance de cette jeune industrie attire des régulateurs qui sont **pressés** de la contrôler.
The rapid growth of this young industry is attracting regulators who are keen to monitor it.

g) **pouvoir, être capable/incapable**

- (29) Le BST dit être **incapable** d'expliquer pourquoi les membres d'équipage n'ont pas corrigé la course du traversier.
The BST says it's unable to explain why the crewmembers did not correct the trajectory of the ferry.

STATE: Circumstances in which something obtains or holds true. Several kinds of states are to be marked up.

a) States that are identifiably changed over the course of the document being marked up.

- (30) a. Tous les 75 passagers **à bord** de l'avion sont morts.
All 75 passengers on board the plane died.
b. Pour la première fois, une **pénurie** de cocaïne a été observée dans 38 villes.
For the first time, a cocaine shortage has been noticed in 38 cities.

b) States that are directly related to a temporal expression.

This criterion includes all states that are linked to a TIMEX3 markable by means of a TLINK (see [ISO08,

A.2.2, A.3.1]). Two examples are given here, where the state is in bold face and the temporal expression associated with it is underlined.

- (31) a. *Il fut **heureux** pendant quelques jours, mais il avait mauvaise conscience.*
He was happy for a few days, but he had a guilty conscience.
 b. *Ils ont **habité** dans des camps de réfugiés pendant 2 ans et demi.*
They lived in refugee camps for 2 and a half years.

c) States that are introduced by an I_ACTION, an I_STATE, or a REPORTING event. The event introducing the state is underlined.

- (32) a. *Le pays a réussi à éviter une **situation** de crise.*
The country managed to avoid a crisis situation.
 b. *Saddam Hussein cherchait la **paix** sur d'autres fronts.*
Saddam Hussein was looking for peace on other fronts.
 c. *Har-Shefi a dit à la police que Rabin était un **traître**.*
Har-Shefi told the police that Rabin was a traitor.

d) Predicative states the validity of which is dependent on the document creation time.

- (33) *Le sénateur congolais Alphonse Gondzia est actuellement **en visite** en Chine.*
The Congolese senator, Alphonse Gondzia, is currently visiting China.

MODAL: Class of modal verbs and adjectives which are to be marked up when they introduce an event complement. Modal verbs include *devoir, falloir, se pouvoir, pouvoir, risquer de*, etc. Modal adjectives to be annotated in impersonal expressions include *obligatoire, nécessaire, possible, certain, probable*, etc.

- (34) a. *Les résultats **devraient** paraître dans les jours qui viennent.*
The results should appear within the next few days.
 b. *Il a **fallu** mettre l'armée en état d'alerte et mobiliser les unités de police.*
It was necessary to put the army in a state of alert and mobilize the police units.
 c. *Il était **nécessaire** que des postes C2 soient comblés à partir du concours.*
It was necessary for the C2 positions to be filled from the competitive exam.

CAUSE: Verbs of causation fall into this class. This includes all verbs which indicate a causal relation between two events, including *causer, provoquer, engendrer, mener à*, etc. Cases in which the agent of the verb of causation is an individual are also to be annotated.

- (35) a. *Cet acte a **causé** un remaniement des formules juridiques d'authentification.*
This act caused a revision of judiciary certification methods.
 b. *L'essor industriel a **provoqué** la naissance des musées d'arts décoratifs.*
The industrial boom led to the birth of the museums of decorative arts.
 c. *Les fortes pluies ont **provoqué** une inondation.*
The strong rains caused a flood.
 d. *Jean a **causé** un incendie dans la cuisine.*
Jean caused a fire in the kitchen.

EVENT_CONTAINER: This class contains verbs, such as *arriver, se passer, avoir lieu* and *survenir*, which have an event nominal as argument. These verbs (called event “containers” by [Ven57]) postulate the existential conditions of their event argument. In the following examples, the event container is in bold and its event argument is underlined.

- (36) *De nombreuses manifestations se sont **produites** dans la journée du dimanche 21 avril.*
A number of protests took place during the day on Sunday the 21st of April.

OCCURRENCE: This class includes all the many other kinds of events describing situations that happen or occur in the world.

- (37) a. *Le système bancaire a **souffert** des **pertes** graves des prêts **employés** pour **acheter** la propriété.*
- b. *Les All Blacks ont **remporté** le **match** contre les Springboks 31 à 27.*
The All Blacks won the match against the Springboks 31 to 27.
- c. *Il a **exprimé** son admiration pour les grands **exploits réalisés** par ce pays dans son **édification** économique et son **progrès** social.*
He expressed his admiration for the great exploits achieved by this country in its economic enlightenment and its social progress.
- d. *Les organisateurs ont **compté** plus de 60 000 manifestants qui sont **sortis** contre la **réforme** portuaire.*
The organizers counted more than 60 000 protesters who came out against the port reforms.

2.1.5 Attribute pos

This attribute (part-of-speech) distinguishes the various grammatical categories which can realize an event. Possible values are ADJECTIVE, for adjectival events, NOUN for event nominals, PREPOSITION for events realized by prepositional phrases, VERB for events realized by verbs or VPs, and OTHER for events which do not belong to one of the other categories.

- (38) *Une saisie de 123kg de cocaïne a été effectué par la douane de Fréjus.*
A seizure of 123kg of cocaine was carried out by the customs of Fréjus.

```
Une <EVENT eid="e1" eiid="e1l" class="OCCURRENCE" pos="NOUN"
pred="SAISIE">saisie</EVENT> de 123kg de cocaïne a été <EVENT eid="e2" eiid="ei2"
class="OCCURRENCE" pos="VERB" pred="EFFECTUER" vform="PASTPART"
tense="PAST">effectué</EVENT>.
```

2.1.6 Attribute pred

This attribute contains the predicative content of an annotated <EVENT>. In the case of discontinuous text spans, such as in multiword expressions or light verb constructions, or in the presence of a nested adverb or other modifier, the pred attribute captures all the semantic information in a single <EVENT> tag.

- (39) *Le petit troupeau de voitures se **mit** en branle.*
The small group of cars began to move.

```
Le petit troupeau de voiture se <EVENT eid="e1" eiid="e1l" class="OCCURRENCE" pos="VERB"
tense="PAST" pred="SE METTRE EN BRANLE">mit</EVENT> en branle.
```

2.1.7 Attribute tense

The following table outlines the correspondence between the classical grammatical tense classification for French and the ISO-TimeML values for the tense attribute.

Grammatical tense classification	ISO-TimeML tense value
plus-que-parfait	PAST
passé antérieur	PAST
passé simple	PAST
passé composé	PAST
imparfait	IMPERFECT
présent	PRESENT
futur simple	FUTURE
futur antérieur	FUTURE

Values for tense and aspect are often to be annotated in tandem. The general paradigm according to which tense and aspect are to be annotated is presented in the tables below. In French, the progressive aspect is expressed through use of a verbal periphrasis such as *en train de*. Non-tense forms are encoded with the attribute *vform*, which defaults to *NONE* when not otherwise specified. It is important to note that the passé composé has two possible interpretations - as a present perfective and a past tense (see examples below).

Active Voice		
Verb group	tense	aspect
mange	PRESENT	NONE
est en train de manger	PRESENT	PROGRESSIVE
a mangé	PRESENT	PERFECTIVE
a mangé	PAST	NONE
mangea	PAST	NONE
mangeait	IMPERFECT	NONE
était en train de manger	PAST	PROGRESSIVE
avait mangé	PAST	PERFECTIVE
avait été en train de manger	PAST	PERFECTIVE_PROGRESSIVE
mangera	FUTURE	NONE
sera en train de manger	FUTURE	PROGRESSIVE
aura mangé	FUTURE	PERFECTIVE
va manger	PRESENT	PROSPECTIVE
allait manger	IMPERFECT	PROSPECTIVE
avoir mangé	PRESENT	PERFECTIVE
Non-tense verb forms		
Verb group	tense	vform
manger	NONE	INFINITIVE
mangé	NONE	PASTPART
mangeant	NONE	PRESPART

Passive Voice		
Verb group	tense	aspect
est enseigné	PRESENT	NONE
est en train d'être enseigné	PRESENT	PROGRESSIVE
a été enseigné	PRESENT	PERFECTIVE
était enseigné	IMPERFECT	NONE
avait été enseigné	PAST	PERFECTIVE
sera enseigné	FUTURE	NONE
sera en train d'être enseigné	FUTURE	PROGRESSIVE
aura été enseigné	FUTURE	PERFECTIVE
va être enseigné	PRESENT	PROSPECTIVE
allait être enseigné	IMPERFECT	PROSPECTIVE
avoir été enseigné	PRESENT	PERFECTIVE
Non-tense verb forms		
Verb group	tense	vform
être enseigné	NONE	INFINITIVE
étant enseigné	NONE	GERUNDIVE
ayant été enseigné	NONE	PASTPART

The values for the passé composé depend on the value of the reference time. The following examples illustrate the two readings of the passé composé. The sentence in (40), interpreted with the speech time in the present, will have a present perfective reading. The annotation is given below.

- (40) *Mesdames et messieurs, Elvis a quitté le bâtiment.*
Ladies and gentlemen, Elvis has left the building.

Elvis a <EVENT eid="e1" eiid="e1l" class="OCCURRENCE" pos="VERB" pred="QUITTER" vform="PASTPART" tense="PRESENT" aspect="PERFECTIVE">quitté</EVENT> le bâtiment.

If the reference time is taken to be the past, however, the value of the passé composé is of a simple past tense, as in (41).

- (41) *Elvis a fait son show et puis il a quitté le bâtiment.*
Elvis did he show and then he left the building.

Elvis a fait son show et puis il <EVENT eid="e1" eiid="e1l" class="OCCURRENCE" pos="VERB" pred="QUITTER" vform="PASTPART" tense="PAST">quitté</EVENT> le bâtiment.

2.1.8 Attribute aspect

Similar to tense, it captures standard distinctions in the grammatical category of grammatical aspect. Values for this attribute are PROGRESSIVE, PROSPECTIVE, PERFECTIVE, IMPERFECTIVE, or NONE.

- (42) *Les Américains sont en train de perdre contrôle de l'Irak.*
The Americans are losing control of Iraq.

Les Américains sont en train de <EVENT eid="e1" eiid="e1l" class="OCCURRENCE" pos="VERB" pred="PERDRE" aspect="PROGRESSIVE" tense="PRESENT" vform="INFINITIVE">perdre</EVENT> le contrôle de l'Irak.

- (43) *Honda va introduire de nombreuses nouveautés aérodynamiques à sa monospace.*
Honda is going to introduce numerous aerodynamic novelties into its minivan.

Honda va <EVENT eid="e1" eiid="e1l" class="OCCURRENCE" pos="VERB" pred="INTRODUIRE" tense="PRESENT" aspect="PROSPECTIVE" vform="INFINITIVE">introduire</EVENT> de nombreuses nouveautés aéro-dynamiques à sa monospace.

2.1.9 Attribute mood

Captures the mood of the event. It can have the following values:

CONDITIONAL: signals the conditional mood, which is realized in French by morphological verb inflection. This mood is used when describing an event the realization of which is subject to some precondition, in particular, but not exclusively, in conditional clauses.

- (44) *Il a promis qu'il mettrait en place le programme du Revenu de solidarité active (RSA)*
He promised he would set up the "Revenu de solidarité active" (RSA) program.

The conditional is also used to express uncertain information or make a conjecture, especially in journalistic texts [RPR94, 320], [Kro02]. See Section 2.1.11 on modality for details on annotating the journalistic conditional.

SUBJUNCTIVE: in French the subjunctive is used in subordinate and some non-dependent clauses to talk about hypothetical, uncertain or envisaged events, or opinions and desires, as opposed to the indicative, which denotes certainty.

- (45) a. *Il est possible que les augmentations des taux d'intérêt n'empêchent la reprise économique.*
It is possible that the increases in interest rates will hinder the economic revival.
 b. *Il voulait que tout mérite s'effaçât.*
He wanted all merit to disappear.
 c. *Nasrallah avait regretté que son organisation ait mené une attaque.*
Nasrallah had regretted that his organization carried out an attack.

NONE: if no inflectional morphology is present to indicate a non-indicative mood then the default value is NONE, which corresponds to the indicative.

2.1.10 Attribute **vform**

Encodes information pertaining to verb forms. Its possible values are INFINITIVE (see (46)), PASTPART (see (47)), PRESPART (see (48)), GERUNDIVE (see (49)) and NONE (the default value, for all finite verb forms).

- (46) *Les candidats vont se présenter dans la journée.*
The candidates are going to introduce themselves during the day.

Les candidats vont se <EVENT eid="e1" eiid="e1l" class="OCCURRENCE" pos="VERB" pred="PRESENTER" vform="INFINITIVE">présenter</EVENT>.

- (47) *Les candidats se sont présentés.*
The candidates introduced themselves.

Les candidats se sont <EVENT eid="e1" eiid="e1l" class="OCCURRENCE" pos="VERB" pred="PRESENTER" vform="PASTPART">présentés</EVENT>.

- (48) *Les candidats entrants se sont présentés.*
The entering candidates introduced themselves during the day.

Les candidats <EVENT eid="e1" eiid="e1l" class="OCCURRENCE" pos="VERB" pred="ENTRER" vform="PRESPART">entrants</EVENT> se sont présentés.

- (49) *Les candidats se sont présentés en entrant.*
The candidates introduced themselves while entering.

Les candidats se sont présentés en <EVENT eid="e1" eiid="e1l" class="OCCURRENCE" pos="VERB" pred="ENTRER" vform="GERUNDIVE">entrant</EVENT>.

2.1.11 Attribute **modality**

This attribute is used to capture the different degrees of modality, mainly epistemic or deontic, governing an event. This attribute is to be given a value in the presence of modal verbs such as *devoir*, *pouvoir* and *falloir* and their paraphrases. It is also to be used in the presence of complex modal expressions (see Section 3.3.4), such as impersonal constructions with a modal adjective.

The possible values for this attribute are CERTAINTY, CONJECTURAL, NECESSITY, OBLIGATION, PERMISSION, POSSIBILITY and PROBABILITY. The **modality** attribute of the subordinate <EVENT> of a modal expression is to be attributed one of these values according to the modal semantics of the subordinating event.

- (50) *Les réfugiés **devront** abandonner leurs maisons.*
The refugees will have to leave their homes.

Les réfugiés <EVENT eid="e1" eiid="e1l" class="MODAL" pos="VERB" pred="DEVOIR" tense="FUTURE">devront</EVENT> <EVENT eid="e2" eiid="ei2" class="OCCURRENCE" pos="VERB" pred="ABANDONNER" vform="INFINITIVE" modality="OBLIGATION">abandonner</EVENT> leurs maisons.

- (51) *Il était nécessaire que des postes C2 soient comblés à partir du concours.*
It was necessary for the C2 positions to be filled from the competitive exam.

Expression	modality
(in)certain, sûr	CERTAINTY
journalistic conditional	CONJECTURAL
falloir; devoir, nécessaire	NECESSITY
devoir; obliger; obligatoire	OBLIGATION
pouvoir; permettre, permis, interdit	PERMISSION
se pouvoir; (im)possible, éventuel	POSSIBILITY
risquer de, (im)probable	PROBABILITY

Il était <EVENT eid="e1" eiid="ei1" class="MODAL" pos="ADJECTIVE" pred="NECESSAIRE" tense="IMPERFECT">nécessaire</EVENT> que des postes C2 soient <EVENT eid="e2" eiid="ei2" class="OCCURRENCE" pos="ADJECTIVE" pred="COMBLER" vform="PASTPART" tense="PRESENT" mood="SUBJUNCTIVE" modality="NECESSITY">comblés</EVENT> à partir du concours.

- (52) *Il paraît probable que le Congrès adoptera trois grands accords.*
It seems likely that Congress will sign three large agreements.

Il paraît <EVENT eid="e1" eiid="ei1" class="MODAL" pos="ADJECTIVE" pred="PROBABLE" tense="PRESENT">probable</EVENT> que le Congrès <EVENT eid="e2" eiid="ei2" class="OCCURRENCE" pos="VERB" pred="ADOPTER" tense="FUTURE" modality="PROBABILITY">adoptera</EVENT> trois grands accords.

- (53) *Le processus est engagé et il ne semble pas possible de faire marche arrière.*
The process is underway and it doesn't seem possible to turn back.

Le processus est engagé et il ne semble pas <EVENT eid="e1" eiid="ei1" class="MODAL" pos="ADJECTIVE" pred="POSSIBLE" tense="PRESENT" polarity="NEG">possible</EVENT> de <EVENT eid="e2" eiid="ei2" class="OCCURRENCE" pos="VERB" pred="FAIRE MARCHE ARRIERE" vform="INFINITIVE" modality="POSSIBILITY">faire marche arrière</EVENT>.

Journalistic conditional: in French, the conditional is often used, without specifying a precondition, to relate uncertain information or make a conjecture [RPR94, 320], [Kro02]. This is especially common in journalistic texts when the veracity of an assertion is not guaranteed. It is typically used in written and spoken press to disown responsibility for reported events. This use of the conditional expresses a modality of uncertainty, rather than being simply a verbal mood and is to be marked up using the `modality` attribute with the value `CONJECTURAL` (as proposed for Korean in [LPB⁺07]).

- (54) a. *Le porte-parole de la LCR aurait été espionné par une officine privée de renseignement durant plusieurs mois.*
The LCR's spokesperson is said to have been spied on by private investigation office for several months.
b. *Selon nos informations, Airbus serait en mesure de battre son rival américain.*
According to our sources, Airbus is capable of beating its American rival.

Le porte-parole de la LCR aurait été <EVENT eid="e1" eiid="ei1" class="OCCURRENCE" pos="VERB" pred="ESPIONNER" tense="PAST" vform="PASTPART" mood="CONDITIONAL" modality="CONJECTURAL">espionné</EVENT> par une officine privée de renseignement durant plusieurs mois.

The following table contains a summary of the different values for the modality attribute along with example expressions for each value.

2.1.12 Attribute polarity

This attribute captures the polarity associated with an event. If an event falls in the scope of a negative polarity element the value is NEG, otherwise it is POS, the default value.

- (55) *Le président n'est pas venu.*
The president did not come.

Le président n'est pas <EVENT eid="e1" eiid="ei1" class="OCCURRENCE" pos="VERB" pred="VENIR" tense="PAST">venu</EVENT>.

2.1.13 Attribute cardinality

This attribute is used to capture explicit quantification over event nominals.

- (56) a. *Deux séismes ont secoué le pays en mars.*
Two earthquakes rocked the country in March.
b. *Plusieurs séismes ont secoué le pays en mars.*
Several earthquakes rocked the country in March.
c. *Aucun séisme n'a secoué le pays en mars.*
No earthquakes rocked the country in March.

The annotation for the nominal in (56-a) is to be as follows:

Deux <EVENT eid="e1" eiid="ei1" class="OCCURRENCE" pos="NOUN" cardinality="2">séismes</EVENT> on secoué le pays en mars.

Table 1 summarizes various possible values for this attribute.

French quantifying expression	English equivalent	cardinality value
<i>zéro, aucun, 0</i>	<i>zero, no, 0</i>	0
<i>dix-neuf</i>	<i>nineteen</i>	19
<i>sept cents soixante-quinze</i>	<i>seven hundred and seventy five</i>	775
<i>plusieurs, beaucoup</i>	<i>several, many</i>	>1
<i>plus de 90</i>	<i>more than 90</i>	>90
<i>moins de 90</i>	<i>fewer than 90</i>	<90
<i>pas plus de 90</i>	<i>no more than 90</i>	<=90
<i>pas moins de 90</i>	<i>no fewer than 90</i>	>=90

Table 1: Values for nominal quantification with the cardinality attribute.

2.1.14 Attribute mod

This attribute for the <EVENT> tag is used to capture the semantic contribution of aspectual modifiers which may appear with event nominals. This is akin to the attribute of the same name used for the <TIME3> tag (see Section 2.2). Aspectual modifiers such as *au début de*, *au commencement de*, *au milieu de* and *à la fin de* represent different stages (respectively the beginning and the end) in the history of a durative event. The mod attribute may take the values START, MID and END accordingly.

- (57) *Au début de la guerre, les généraux opposés s'attendaient à des victoires rapides.*
At the beginning of the war, the generals were expecting rapid victories.

Au début de la <EVENT eid="e1" eiid="ei1" class="OCCURRENCE" pos="NOUN" pred="GUERRE" mod="START">guerre</EVENT>, les généraux opposés s'attendaient à des victoires rapides.

2.1.15 Attribute `comment`

This attribute is used by annotators to make notes or comments pertaining to the annotation. It is an optional attribute in all ISO-TimeML tags.

2.2 The `TIMEX3` tag

The `<TIMEX3>` tag is used to annotate temporal expressions of several types.

Dates:

- numeric dates - *10.11.07, 2002.07.03, 19/11/1929*
- days - *lundi 15 janvier 1979, le 8 avril 1979, vendredi dernier, samedi, le jour de l'an*
- weeks - *la semaine prochaine, la dernière semaine d'août*
- months - *novembre 2009, le mois prochain, septembre*
- years - *2002, l'année dernière, l'an 2000*
- seasons - *l'été, cet hiver, l'automne prochain*
- decades, centuries, millenia - *les années 80, le 20ème siècle, le 2ème millénaire*

Times:

- numeric times - *10:30.32, 13h42*
- literal times - *midi, deux heures moins dix, l'après-midi, le soir, ce matin*

Durations: *deux ans, trois heures, quelques millisecondes, ces derniers jours*

Sets: *tous les jours, chaque mois, certains mardi*

The `<TIMEX3>` tag used for annotation of temporal expressions in French is as described in [LPB⁺07, A.2.2.2] and [LPB⁺07, A.2.2.3].

The full extent of the annotation of a temporal expression must correspond to one of the following syntactic categories:

- Noun phrase - *lundi, le 2 février, cette période, la veille*
- Adjective phrase - *journalier, hebdomadaire, mensuelle, estival*
- Adverbial phrase - *hier, désormais, hebdomadairement*

Prepositions (or other types of expressions markable as `<SIGNAL>`) preceding a temporal expression are to be excluded from annotation (see Section 2.3 for details on annotation of these makers).

(58) *pendant la journée*

```
pendant <TIMEX3 tid="t1" type="TIME" value="TDT">la journée</TIMEX3>
```

(59) *avant lundi*

```
avant <TIMEX3 tid="t1" type="DATE" value="XXXX-WXX-1">lundi</TIMEX3>
```

(60) *il y a deux ans*

`il y a <TIMEX3 tid="t1" type="DURATION" value="P2Y" endPoint="t0">deux ans</TIMEX3>`

All pre- and post-modifiers of temporal expressions must be included in the scope of the tag, with the exception of those describing an event, as in (62). Modifiers which have values corresponding to the possible `mod` attribute values (see [LPB⁺07, 7.2.2] for the BNF and possible values) are to be included within the tag's scope, for example (63) and (64).

(61) *pas moins d'une heure (no less than one hour)*

`<TIMEX3 tid="t1" type="DURATION" value="P1H" mod="EQUAL_OR_MORE">pas moins d'une heure</TIMEX3>`

(62) *3 heures de vol (3 hours flight)*

`<TIMEX3 tid="t1" type="DURATION" value="P3H">3 heures</TIMEX3>
de<EVENT>vol</EVENT>`

(63) *plus de trois ans (more than three years)*

`<TIMEX3 tid="t1" type="DURATION" value="P3Y" mod="MORE_THAN">plus de trois ans</TIMEX3>`

(64) *environ 10 secondes (about 10 seconds)*

`<TIMEX3 tid="t1" type="DURATION" value="P10S" mod="APPROX">environ 10 secondes</TIMEX3>`

When two temporal expressions are in a specification relation (as described in [LPB⁺07, A.2.2.1]), they are to be marked up with a single `<TIMEX3>` tag if:

- the two expressions belong to the same class (specified in Table 6 of [LPB⁺07, A.2.2.1.B]). For example, *vendredi 11 juillet 2008, 11h du matin*
- the two expressions are part of the same syntactic constituent. In the following examples, single constituents are underlined. In (65), the 2 temporal expressions are part of the same constituent, whereas in (66) they are not (see [LPB⁺07, A.2.2.1.B] for further details).

(65) *Les deux équipes s'affronteront à 11h, le 3 janvier 2005*
The two teams will face off at 11 a.m. on the 3rd of January 2005

(66) *Les deux équipes s'affronteront le 3 janvier 2005 à 11h*
The two teams will face off on the 3rd of January 2005 at 11 a.m.

- the second expression is introduced by the preposition *de* and represents a definite temporal specification:

(67) *le matin du 20 juin, le mois d'octobre de 1969, janvier de cette année*
the morning of the 20th of June, the month of October 1969, January of this year

Similarly to Italian, in French it is important to distinguish temporal expressions of the form NP + PP, where the PP is headed by *de* from cases where the preposition is *à*. In the former case, the expressions are viewed as being part of the same constituent, while in the latter the temporal expression expressed by the PP may be attached to the preceding NP or another higher-level syntactic constituent, such as the VP. For example, in the sentence *il est venu à la soirée de mardi à 11h*, the PP containing the expression *11h* is attached to the VP headed by the verb *venu*.

Two temporal expressions in an anchoring (68) or conjunction (69) relation are to be marked up using two separate `<TIMEX3>` tags.

- (68) *deux semaines à partir de demain*
two weeks from tomorrow
- (69) *six mois ou un an*
six months or a year

2.2.1 BNF for the TIMEX3 tag

```

markup{attributes ::= id anchor type functionInDocument beginPoint endPoint quant fr
anchor ::= IDREF
tid ::= ID
{ID ::= TimeID
TimeID ::= t<integer>}
{IDREF ::= (token<integer>)*}
type ::= DATE | TIME | DURATION | SET
functionInDocument ::= CREATION_TIME | EXPIRATION_TIME | MODIFICATION_TIME
                        | PUBLICATION_TIME | RELEASE_TIME | RECEPTION_TIME
                        | NONE (default, if absent, is NONE)
beginPoint ::= IDREF
{beginPoint ::= TimeID}
endPoint ::= IDREF
{endPoint ::= TimeID}
quant ::= CDATA
freq ::= Duration
temporalFunction ::= TRUE | FALSE (default, if absent, is FALSE)
{temporalFunction ::= boolean}
value ::= Duration | Date | Time | WeekDate | WeekTime
        | Season | PartOfYear | PaPrFu
valueFromFunction ::= IDREF
{valueFromFunction ::= TemporalFunctionID
  TemporalFunctionID ::= tf$<$integer$>$}
mod ::= BEFORE | AFTER | ON_OR_BEFORE | ON_OR_AFTER | LESS_THAN | MORE_THAN
      | EQUAL_OR_LESS | EQUAL_OR_MORE | START | MID | END | APPROX
anchorTimeID ::= IDREF
{anchorTimeID ::= TimeID}
comment ::= CDATA

```

2.2.2 Attribute anchor

This attribute is used in stand-off annotation to associate the tag to the primary data (e.g. the tokens in a tokenized version of the original text). Details of stand-off annotation are given in [ISO08]. See Section 2.1.2 for an annotated example.

2.2.3 Attribute tid

This attribute contains the unique identifier for a marked temporal expression. Every TIMEX3 tag has this attribute.

2.2.4 Attribute type

This attribute specifies the type of the temporal expression annotated with the TIMEX3 tag. Possible values for this attribute are DATE, TIME, DURATION and SET.

DATE: This type is attributed to all temporal expression representing a calendar time, for example full or partial dates with or without clock times.

- (70) *La cérémonie aura lieu le 22 juin 2009.*
The ceremony will take place on the 22nd of June.

Les délégués sont arrivés <TIMEX3 tid="t1" type="DATE" value="2009-06-22">le 22 juin 2009</TIMEX3>.

TIME: This type represents times of day, including clock times.

- (71) *La cérémonie commence à 20h30.*
The ceremony begins at 8.30pm.

La cérémonie commence à <TIMEX3 tid="t1" type="TIME" value="T20:30">20h30</TIMEX3>.

DURATION: Temporal expressions which denote a duration, a “length of time” are attributed this type value.

- (72) *La cérémonie a duré 3 heures.*
The ceremony lasted 3 hours.

La cérémonie a duré <TIMEX3 tid="t1" type="DATE" value="P3H">3 heures</TIMEX3>.

SET: Temporal expressions which describe a set of times, such as quantified temporal expressions or frequency expressions. In annotating sets of times, the TIMEX3 tag must contain either the quant or freq attribute, if not both.

- (73) *La cérémonie a lieu chaque année.*
The ceremony takes place every year.

La cérémonie a lieu <TIMEX3 tid="t1" type="SET" quant="EVERY" value="P1Y">chaque année</TIMEX3>.

- (74) *La cérémonie a lieu trois fois par an.*
The ceremony takes place three times a year.

La cérémonie a lieu <TIMEX3 tid="t1" type="SET" freq="3" value="P1Y">trois fois par an</TIMEX3>.

2.2.5 Attribute value

This attribute stores the normalized value of the temporal expression. The value is a calendar date, clock time or duration according to the ISO 8601 standard [Int04] and the TIDES Standard for the Annotation of Temporal Expressions [FGM⁺05]. The following (non-exhaustive) tables give examples of values for various types of temporal expressions. The unspecified XXXX value is to be replaced with the value for the year, if it is known. Similarly, WXX is to be replaced with the week number if it is known, and XX by the day or month, accordingly.

Expression type DATE	Example	value
Full numeric date	<i>15.01.2009</i>	2009-01-15
Full alphanumeric date	<i>le (jeudi) 15 janvier 2009</i>	2009-01-15
Millenium	<i>le troisième millénaire</i>	2
Century	<i>le 20e siècle</i>	19
Decade	<i>les années 80</i>	198
Year	<i>2009</i>	2009
Month and year	<i>janvier 2009</i>	2009-01
Month (year unknown)	<i>janvier</i>	XXXX-01
Day of month (year unknown)	<i>le 15 janvier</i>	XXXX-01-15
Day of week (year, week unknown)	<i>jeudi</i>	XXXX-WXX-4
Week	<i>la dernière semaine de janvier</i>	XXXX-W04
Weekend	<i>le week-end</i>	XXXX-WXX-WE
Semester	<i>le deuxième semestre</i>	XXXX-H2
Trimester	<i>le premier trimestre</i>	XXXX-Q1
Quarter	<i>le troisième quart</i>	XXXX-Qu3
Season	<i>l'été</i>	XXXX-SU
	<i>le printemps</i>	XXXX-SP
	<i>l'automne</i>	XXXX-FA
	<i>l'hiver</i>	XXXX-WI
Vague past reference	<i>récemment</i>	PAST_REF
Vague present reference	<i>actuellement</i>	PRESENT_REF
Vague future reference	<i>le futur</i>	FUTURE_REF

Expression type TIME	Example	value
Numeric clock time	<i>15h30</i>	XXXX-XX-XXT15:30
Alphabetical clock time	<i>trois heures et demie de l'après-midi</i>	XXXX-XX-XXT15:30
Times of day	<i>le matin</i>	XXXX-XX-XXTMO
	<i>la journée</i>	XXXX-XX-XXTDT
	<i>midi</i>	XXXX-XX-XXTMI
	<i>l'après-midi</i>	XXXX-XX-XXTAF
	<i>le soir</i>	XXXX-XX-XXTEV
	<i>la nuit</i>	XXXX-XX-XXTNI

Expression type DURATION	Example	value
Clock time unit	<i>deux secondes</i>	PT2S
	<i>deux minutes</i>	PT2M
	<i>deux heures</i>	PT2H
	<i>deux heures et demie</i>	PT2.5H
	<i>deux heures trente</i>	PT2H30M
Larger time units	<i>deux jours</i>	P2D
	<i>deux semaines</i>	P2W
	<i>deux mois</i>	P2M
	<i>deux ans</i>	P2Y
	<i>deux décennies</i>	P20Y
	<i>deux siècles</i>	P200Y
	<i>deux millénaires</i>	P2000Y

Expression type SET	Example	value	quant
Quantified expressions	tous les jours	P1D	EVERY
	certaines jours	P1D	SOME
	chaque semaine	P1W	EVERY
	certaines semaines	P1W	SOME
	tous les mercredis	XXXX-WXX-03	EVERY
	certaines mercredis	XXXX-WXX-03	SOME

2.2.6 Attribute `functionInDocument`

This optional attribute indicates the role of a temporal expression in providing a temporal reference (or anchor) from which to evaluate other temporal expressions. The default value for this attribute is `NONE` if no other value is specified. The non-empty values for this attribute are as follows:

`CREATION_TIME`: the time the document is created

`MODIFICATION_TIME`: the time of the last modification of the document

`PUBLICATION_TIME`: the time the document is published

`RELEASE_TIME`: the authorized release time of the document. “This comes up in documents that are syndicated and where the issuing organization wants to delay publication by syndicators, so as not to be scooped” [ISO08]

`RECEPTION_TIME`: the time the document is received by a reader

2.2.7 Attribute `temporalFunction`

This is a boolean attribute; with values `TRUE` or `FALSE`, that indicates whether a temporal expression requires interpretation via evaluation of a temporal function. Temporal expressions which take the value `TRUE` are expressions which obtain their temporal referent relative to another temporal reference point. This attribute appears with the attribute `valueFromFunction`.

- (75) *La cérémonie a commencé hier.* (today’s date is assumed to be 2009-07-31)
The ceremony began yesterday.

```
La cérémonie a commencé <TIMEX3 tid="t1" type="DATE" temporalFunction="TRUE"
valueFromFunction="tf1" value="2009-07-30">hier</TIMEX3>.
```

2.2.8 Attribute `valueFromFunction`

The value of this attribute is the identifier of the temporal function that determines the value of the temporal expression. As specified in [ISO08], this attribute is not relevant for the purposes of manual annotation, but only for postprocessing. The human annotator should ignore it.

2.2.9 Attribute `mod`

This attribute is optional and is used to capture values of temporal modifiers which cannot be expressed either in the `value` attribute itself or through links and temporal functions.

- (76) *La cérémonie a commencé en fin d’après-midi et a duré plus d’une heure.*
The ceremony began at the end of the afternoon and lasted more than an hour.

```
La cérémonie a commencé en <TIMEX3 tid="t1" type="TIME" value="TAF"
mod="START">hier</TIMEX3> et a duré <TIMEX3 tid="t2" type="DURATION"
value="P1H" mod="MORE.THAN">plus d’une heure</TIMEX3>.
```

2.2.10 Attributes `quant` and `freq`

These attributes are used to specify sets that denote quantified times. The value for the attribute `quant` is derived from a literal in the text that quantifies over the temporal expression, such as *tout* or *chaque*. The value of the `freq` attribute is an integer value followed by a time unit granularity (Y, M, D, etc), in the same way as durations

2.2.11 Attributes `beginPoint` and `endPoint`

“`beginPoint` and `endPoint` are used to anchor durations to other time expressions in the document. If there is no explicit `tid` to assign to one of these values, then an empty `TIMEX3` tag is created to represent the unspecified point. Conversely, if both the beginning and end points of a duration are explicitly stated in the document, an empty `TIMEX3` tag is created to represent the unspecified duration.” [ISO08].

2.2.12 Attribute `comment`

This attribute is used by annotators to make notes or comments pertaining to the annotation. It is an optional attribute in all ISO-TimeML tags.

2.3 The `SIGNAL` tag

The `SIGNAL` tag is used to mark up sections of text which indicate a relation between events and/or temporal expressions. Relations may hold in three different configurations:

EVENT – EVENT: a relation between two events
EVENT – TIMEX3: a relation between an event and a temporal expression
TIMEX3 – TIMEX3: a relation between two temporal expressions

Linguistic expressions which realize a relation include temporal prepositions, such as *avant* and *après*, temporal coordinating conjunctions like *quand* and *lorsque*, and subordinating conjunctions such as *si*.

In French, prepositional compounds exist in which a preposition, *de* or *à*, is combined with the masculine definite article *le* to form *au*, *aux*, *du* or *des*. The `SIGNAL` tag is to be used as follows to annotate these compounds:

```
<SIGNAL id="s1">du</SIGNAL> 1er janvier <SIGNAL id="s2">au</SIGNAL> 27 septembre
```

```
<SIGNAL id="s1">jusqu'au</SIGNAL> 23 août
```

In the case where automated preprocessing of the text separates the constituents of these compounds, the general guidelines are to be followed. That is, only the preposition is to be annotated, omitting the article, as follows:

```
<SIGNAL id="s1">de</SIGNAL> le 1er janvier <SIGNAL id="s2">à</SIGNAL> le 27 septembre
```

2.3.1 BNF for the `SIGNAL` tag

```
attributes ::= id anchor comment
id ::= ID
{ID ::= SignalID
  SignalID ::= s<integer>}
anchor ::= IDREF
{IDREF ::= (token<integer>)*}
pred ::= CDATA
comment ::= CDATA
```

2.3.2 Attribute `id`

As with other tags, the value of this attribute is the unique identifier of the `SIGNAL` tag.

2.3.3 Attribute `anchor`

This attribute is used in stand-off annotation to associate the tag to the primary data (e.g. the tokens in a tokenized version of the original text). Details of stand-off annotation are given in [ISO08]. See Section 2.1.2 for an annotated example.

2.3.4 Attribute `comment`

This attribute is used by annotators to make notes or comments pertaining to the annotation. It is an optional attribute in all ISO-TimeML tags.

2.4 The `ALINK` tag

An `ALINK` is an aspectual link. It indicates an aspectual subordination between two events. An aspectual relation typically holds between an aspectual element, an aspectual verb, such as *commencer* or *terminer*, for example, and a subordinated event complement.

2.4.1 BNF for the `ALINK` tag

```
attributes ::= id eventID [signalID]
              relatedToEvent relType [comment] [syntax]
id ::= ID
{ID ::= LinkID
LinkID ::= l<integer>}
eventID ::= ID
{eventID ::= EventID}
signalID ::= IDREF
{signalID ::= SignalID}
relatedToEvent ::= IDREF
{relatedToEvent ::= EventID}
relType ::= INITIATES | CULMINATES | TERMINATES | CONTINUES | REINITIATES
comment ::= CDATA
syntax ::= CDATA
```

2.4.2 Attribute `id`

The value of this attribute is the unique identifier for the `ALINK` tag. It should be automatically attributed by an annotation tool.

2.4.3 Attribute `eventID`

This attribute contains the id of the subordinating event in the aspectual relation. This is the event which carries the aspectual semantics.

2.4.4 Attribute `signalID`

This attribute contains the id of the `SIGNAL` element which realizes the aspectual relation, if there is one.

2.4.5 Attribute `relatedToEvent`

This attribute contains the id of the subordinated event instance argument in the aspectual relation. Note that this event may not be syntactically subordinated. For example, it may be an event nominal in subject position of an aspectual verb.

2.4.6 Attribute `reltype`

This attribute specifies the type of the aspectual relation. The type depends on the semantics of the subordinating event. This attribute may have the following values: `INITIATES`, `CULMINATES`, `TERMINATES`, `CONTINUES` and `REINITIATES`. Examples of the various linguistic expressions which realize these different types of relations are given in Section 2.1.4.

`INITIATES`: marks the beginning of an event.

- (77) *Jackson a commencé le tournage en 1998.*
Jackson began filming in 1998.

```
Jackson a <EVENT eid="e1" eiid="ei2" class="ASPECTUAL" pos="VERB"
pred="COMMENCER" vform="PASTPART" tense="PAST">commencé</EVENT> le <EVENT
eid="e2" eiid="ei2" class="OCCURRENCE" pos="NOUN"
pred="TOURNAGE">tournage</EVENT> en 1998.
<ALINK id="l1" eventID="ei1" relatedToEvent="ei2" relType="INITIATES"/>
```

`CULMINATES`: marks the completion of an event.

- (78) *Jackson a achevé le tournage en 2001.*
Jackson finished filming in 2001.

```
Jackson a <EVENT eid="e1" eiid="ei2" class="ASPECTUAL" pos="VERB"
pred="ACHEVER" vform="PASTPART" tense="PAST">achecé</EVENT> le <EVENT
eid="e2" eiid="ei2" class="OCCURRENCE" pos="NOUN"
pred="TOURNAGE">tournage</EVENT> en 2001.
<ALINK id="l1" eventID="ei1" relatedToEvent="ei2"
relType="CULMINATES"/>
```

`TERMINATES`: indicates the termination of an event.

- (79) *Le réalisateur a interrompu le tournage.*
The director interrupted the filming.

```
Le réalisateur a <EVENT eid="e1" eiid="ei2" class="ASPECTUAL" pos="VERB"
pred="INTERROMPRE" vform="PASTPART" tense="PAST">interrompu</EVENT> le
<EVENT eid="e2" eiid="ei2" class="OCCURRENCE" pos="NOUN"
pred="TOURNAGE">tournage</EVENT>.
<ALINK id="l1" eventID="ei1" relatedToEvent="ei2"
relType="TERMINATES"/>
```

`CONTINUES`: marks the continuation of an event.

- (80) *Le réalisateur a continué le tournage.*
The director continued filming.


```

Le réalisateur a <EVENT eid="e1" eiid="ei2" class="ASPECTUAL" pos="VERB"
pred="CONTINUER" vform="PASTPART" tense="PAST">continué</EVENT> le <EVENT
eid="e2" eiid="ei2" class="OCCURRENCE" pos="NOUN"
pred="TOURNAGE">tournage</EVENT>.
<ALINK id="l1" eventID="e1" relatedToEvent="e2" relType="CONTINUES"/>

```

REINITIATES: indicates the recommencing of an event.

- (81) *Le réalisateur a recommencé le tournage.*
The director recommenced filming.

```

Le réalisateur a <EVENT eid="e1" eiid="ei2" class="ASPECTUAL" pos="VERB"
pred="RECOMMENCER" vform="PASTPART" tense="PAST">recommencé</EVENT> le
<EVENT eid="e2" eiid="ei2" class="OCCURRENCE" pos="NOUN"
pred="TOURNAGE">tournage</EVENT>.
<ALINK id="l1" eventID="e1" relatedToEvent="e2"
relType="REINITIATES"/>

```

2.4.7 Attribute origin

The origin attribute is optional in all ISO-TimeML links. It is used solely for post-processing efforts such as closure and can be ignored by the human annotator.

2.5 The SLINK tag

This tag encodes a subordination relation between two events. It is used in contexts involving modality, evidentials and factives. The SLINK tag is used when one event instance subordinates another. These are typically cases where a verb subordinates the event instance described by its complement.

2.5.1 BNF for the SLINK tag

```

attributes ::= [id] [origin] eventID [signalID]
              subordinatedEvent relType [comment] [syntax]
id ::= ID
{id ::= LinkID
LinkID ::= l<integer>}
origin ::= CDATA
eventID ::= IDREF
{eventID ::= EventID}
subordinatedEvent ::= IDREF
{subordinatedEvent ::= EventID}
signalID ::= IDREF
{signalID ::= SignalID}
relType ::= INTENSIONAL | EVIDENTIAL | NEG_EVIDENTIAL | FACTIVE
          | COUNTER_FACTIVE | CONDITIONAL

```

2.5.2 Attribute id

The value of this attribute is the unique identifier for the SLINK tag.

2.5.3 Attribute eventID

This attribute contains the id of the subordinating event in the relation.

2.5.4 Attribute signalID

This attribute contains the id of the SIGNAL element which realizes the subordinating relation, if there is one.

2.5.5 Attribute subordinatedEvent

This attribute contains the id of the subordinated event instance argument in the relation.

2.5.6 Attribute relType

The event classes I_ACTION, I_STATE, MODAL, PERCEPTION and REPORTING interact with SLINK. SLINKs may be of several types: INTENSIONAL, FACTIVE, COUNTER_FACTIVE, EVIDENTIAL or NEG.EVIDENTIAL.

INTENSIONAL: This relation is realized by events introducing a reference to a possible world - mainly I_ACTIONS, I_STATES and MODALS.

- (82) *Jean veut acheter de la bière*
Jean wants to buy some beer.

```
Jean <EVENT eid="e1" eiid="ei1" class="I_STATE" pos="VERB" pred="VOULOIR"
tense="PRESENT">veut</EVENT> <EVENT eid="e2" eiid="ei2"
class="OCCURRENCE" pos="VERB" pred="ACHETER"
vform="INFINITIVE">acheter</EVENT> de la bière.
<SLINK id="l1" eventID="ei1" relatedToEvent="ei2"
relType="INTENSIONAL"/>
```

EVIDENTIAL: Evidential relations are typically introduced by REPORTING or PERCEPTION events.

- (83) a. *Jean dit qu'il a acheté de la bière.*
Jean says he bought some beer.
b. *Marie a vu Jean acheter de la bière.*
Marie saw Jean buy some beer.

```
Jean <EVENT eid="e1" eiid="ei1" class="REPORTING" pos="VERB" pred="DIRE"
tense="PRESENT">dit</EVENT> qu'il a <EVENT eid="e2" eiid="ei2"
class="OCCURRENCE" pos="VERB" pred="ACHETER"
vform="PASTPART">acheté</EVENT> de la bière.
<SLINK id="l1" eventID="ei1" relatedToEvent="ei2"
relType="EVIDENTIAL"/>
```

NEG.EVIDENTIAL: Negative evidential relations are introduced by I_ACTION, I_STATE, REPORTING or PERCEPTION verbs expressing a negative polarity.

- (84) *Jean nie qu'il a acheté de la bière.*
Jean denied he bought beer.

```
Jean <EVENT eid="e1" eiid="ei1" class="I_ACTION" pos="VERB" pred="NIER"
tense="PRESENT">nie</EVENT> qu'il a <EVENT eid="e2" eiid="ei2"
class="OCCURRENCE" pos="VERB" pred="ACHETER"
vform="PASTPART">acheté</EVENT> de la bière.
<SLINK id="l1" eventID="ei1" relatedToEvent="ei2"
relType="NEG.EVIDENTIAL"/>
```

FACTIVE: Factive relations are realized by verbs that presuppose or entail the veradicity (or factuality) of their event argument. They include *oublier que*, *regretter que*, and *réussir* (in positive contexts).

- (85) a. *Jean a oublié qu'il a acheté de la bière.*
Jean forgot that he bought some beer.
 b. *Jean regrette qu'il a acheté de la bière.*
Jean regrets having bought beer.
 c. *Jean a réussi a acheter de la bière.*
Jean managed to buy some beer.

```
Jean a <EVENT eid="e1" eiid="ei1" class="I_ACTION" pos="VERB"
pred="OUBLIER" tense="PAST" vform="PASTPART">oublié</EVENT> qu'il a <EVENT
eid="e2" eiid="ei2" class="OCCURRENCE" pos="VERB" pred="ACHETER"
tense="PAST" vform="PASTPART">acheté</EVENT> de la bière.
<SLINK id="l1" eventID="ei1" relatedToEvent="ei2" relType="FACTIVE"/>
```

COUNTER_FACTIVE: Contrary to the previous relation, in this case the event presupposes the non-veracity of its argument; e.g., *oublier (de)*, *incapable de* (in past tense), *prévenir*, *annuler*, *éviter*, *refuser*, etc.

- (86) a. *Jean a oublié d'acheter de la bière.*
Jean forgot to buy beer.
 b. *Jean a refusé d'acheter de la bière.*
Jean refused to buy beer.

```
Jean a <EVENT eid="e1" eiid="ei1" class="I_ACTION" pos="VERB"
pred="OUBLIER" tense="PAST" vform="PASTPART">oublié</EVENT> d'<EVENT
eid="e2" eiid="ei2" class="OCCURRENCE" pos="VERB" pred="ACHETER"
vform="INFINITIVE">acheter</EVENT> de la bière.
<SLINK id="l1" eventID="ei1" relatedToEvent="ei2"
relType="COUNTER_FACTIVE"/>
```

2.5.7 Attribute origin

The `origin` attribute is optional in all ISO-TimeML links. It is used solely for post-processing efforts such as closure and can be ignored by the human annotator.

2.5.8 Annotating SLINK

SLINKs can be triggered in several ways:

Lexically:

They are triggered by an event of class `I_ACTION`, `I_STATE`, `MODAL`, `PERCEPTION`, or `REPORTING`, which are events that generally take a clausal complement or an NP headed by an event-denoting nominal. The `SLINK` is established between those events and the one denoted by the complement.

An `SLINK` is introduced for every `REPORTING` or `PERCEPTION` event. In the following examples, the `REPORTING` and `PERCEPTION` events are in bold face, whereas the subordinated events are underlined:

- (87) a. *Des témoins ont **vu** l'avion s'écraser au sol.*
Witnesses saw the plane crash into the ground.
 b. *"J'ai vu l'avion s'écraser au sol", a **expliqué** un témoin.*
"I saw the plane crash into the ground", explained a witness.

```
Des témoins ont <EVENT eid="e1" eiid="ei1" class="PERCEPTION" pos="VERB"
pred="VOIR" tense="PAST" vform="PASTPART">vu</EVENT> l'avion s'<EVENT
eid="e2" eiid="ei2" class="OCCURRENCE" pos="VERB" pred="ECRASER"
vform="INFINITIVE">écraser</EVENT> au sol.
<SLINK id="l1" eventID="ei1" relatedToEvent="ei2"
relType="EVIDENTIAL"/>
```

Similarly, an SLINK is introduced for every I_ACTION and I_STATE event.

- (88) a. *Les seismologues ont **essayé** d'expliquer les secousses.* Seismologists attempted to explain the shaking.
 b. *Des salariés **veulent** participer au procès Kerviel.* Employees want to take part in the Kerviel trial.

```
Les seismologues ont <EVENT eid="e1" eiid="ei1" class="I_ACTION" pos="VERB"
pred="ESSAYER" tense="PAST" vform="PASTPART">essayé</EVENT> d'<EVENT
eid="e2" eiid="ei2" class="OCCURRENCE" pos="VERB" pred="EXPLIQUER"
vform="INFINITIVE">expliquer</EVENT> les secousses.
<SLINK id="l1" eventID="ei1" relatedToEvent="ei2"
relType="INTENSIONAL"/>
```

The subordinating event class constrains the SLINK relation type in the following way:

- i. PERCEPTION events: They will always introduce SLINKS of type EVIDENTIAL or NEG_EVIDENTIAL.
- ii. I_ACTION, I_STATE events: They can introduce SLINKs of type INTENSIONAL, FACTIVE, and COUNTER_FACTIVE.
- iii. REPORTING events: They can introduce SLINKs of any type.
- iv. MODAL events: Always introduce an SLINK of type INTENSIONAL.

Structurally:

Purpose clauses: In a sentence involving a purpose clause, an SLINK relates the event in the main clause (bold face) and the one in the purpose clause modifying it (underlined).

- (89) *La commission doit **adopter** des normes afin d'assurer la sécurité des habitants.*
The commission must adopt standards in order to ensure the safety of the inhabitants.

Conditional constructions: In a conditional construction, an SLINK relates the event in the antecedent section and the one in the consequent section.

- (90) *Marcos a promis de **revenir** aux négociations si la zone de conflit était démilitarisée.*
Marcos promised to return to negotiations if the conflict zone was demilitarized.

2.6 The TLINK tag

TLINK is a temporal link. It represents the relation between two temporal elements (EVENT-TIMEX3, EVENT-EVENT or TIMEX3-TIMEX3).

```
attributes ::= [lid] [origin] (eventID | timeID)
              [signalID] (relatedToEvent | relatedToTime)
              relType [comment][syntax]

id ::= ID
{ID ::= LinkID
  LinkID ::= l<integer>}
```

```

origin ::= CDATA
eventID ::= IDREF
{IDREF ::= e<ineger>}
timeID ::= IDREF
{IDREF ::= t<integer>}
signalID ::= IDREF
{IDREF ::= s<integer>}
relatedToEvent ::= IDREF
{IDREF ::= eventID}
relatedToTime ::= IDREF
{IDREF ::= timeID}
relType ::= BEFORE | AFTER | INCLUDES | IS_INCLUDED | DURING | SIMULTANEOUS
          | IAFter | IBEFORE | IDENTITY | BEGINS | ENDS
          | BEGUN_BY | ENDED_BY | DURING_INV
comment ::= CDATA
syntax ::= CDATA

```

2.6.1 Attribute `id`

The value of this attribute is the unique identifier for the `TLINK` tag.

2.6.2 Attribute `eventID`

This attribute contains the id of one of events in the temporal relation, if there is one.

2.6.3 Attribute `relatedToEvent` or `relatedToTime`

Obligatory attribute (one or the other of these needs to be present). This is the ID of the entity that is being related to the event instance with `ID=eventID` or time expression with `ID=timeID`.

2.6.4 Attribute `signalID`

This attribute contains the id of the `SIGNAL` element which realizes the aspectual relation, if there is one.

2.6.5 Attribute `relType`

Obligatory attribute. This is the temporal relation holding between the entities. Possible values are: `BEFORE`, `AFTER`, `INCLUDES`, `IS_INCLUDED`, `DURING`, `DURING_INV`, `SIMULTANEOUS`, `IAFTER`, `IBEFORE`, `IDENTITY`, `BEGINS`, `ENDS`, `BEGUN_BY`, `ENDED_BY`. There will be only one relation type assigned per `TLINK`.

2.6.6 Attribute `origin`

The `origin` attribute is optional in all ISO-TimeML links. It is used solely for post-processing efforts such as closure and can be ignored by the human annotator.

2.6.7 Annotating `TLINK`

(91) *Jean a enseigné 20 minutes chaque lundi.*

```
Jean a <EVENT eid="e1" pred="ENSEIGNER" class="OCCURRENCE" type="PROCESS"
pos="VERB" tense="PAST" vform="PASTPART">enseigné</EVENT>
<TIMEX3 tid="t1" type="DURATION" value="PT20M">20 minutes</TIMEX3>
<TIMEX3 tid="t2" type="SET" value="XXXX-WXX-1" quant="EVERY">chaque
lundi</TIMEX3>
<TLINK timeID="t1" relatedToTime="t2" relType="IS_INCLUDED"/>
<TLINK eventID="e1" relatedToTime="t1" relType="SIMULTANEOUS"/>
```

(92) *Jean est parti 5 minutes après l'explosion.*

```
Jean est <EVENT eid="e1" pred="PARTIR" class="OCCURRENCE" type="TRANSITION"
tense="PAST" vform="PASTPART">parti</EVENT>
<TIMEX3 id="t1" type="DURATION" value="PT5M" beginPoint="t2"
endPoint="t3">5 minutes</TIMEX3>
<SIGNAL id="s1">après</SIGNAL>
l'<EVENT eid="e2" pred="EXPLOSION" class="OCCURRENCE" type="TRANSITION"
pos="NOUN">explosion</EVENT>.
<TLINK eventID="e2" relatedToTime="t1" relType="BEGINS"/>
<TLINK timeID="t1" relatedToEvent="e2" relType="ENDS"/>
<TLINK eventID="e1" relatedToTime="t1" relType="ENDS"/>
<TLINK timeID="t1" relatedToEvent="e1" relType="BEGINS"/>
<TLINK eventID="e1" signalID="s1" relatedToEvent="e2" relType="AFTER"/>
```

(93) *Jean a enseigné la semaine dernière.*

```
Jean a <EVENT eid="e1" pred="ENSEIGNER" class="OCCURRENCE" type="PROCESS"
pos="VERB" tense="PAST" vform="PASTPART">enseigné</EVENT>
<TIMEX3 id="t2" type="DATE" value="2010-W01" temporalFunction="TRUE"
anchorTimeID="t1">la semaine dernière</TIMEX>.
<TIMEX3 tid="t1" type="DATE" value="2010-01-11"
functionInDocument="CREATION_TIME"/>
<TLINK eventID="e1" relatedToTime="t2" relType="IS_INCLUDED"/>
```

3 Annotation Guidelines

3.1 Annotating Verbs

This section presents guidelines for annotating verbal event expressions. In the following illustrative examples, which show a range of verbal constructions, the head of the event-denoting verbal chunk is shown in bold type. Again, only one event in each case has been highlighted for the purpose of illustration.

- (94) *Le ministre **annonce** qu'il ne démissionnera pas.*
The minister announced that he will not resign.
- (95) *Des milliers de personnes ont **manifesté**.*
Thousands of people protested.
- (96) *Plus de 130 civils ont été **tués**.*
More than 130 civilians were killed.
- (97) *Elle voulait **empêcher** l'Iran d'accéder au nucléaire civil.*
She wanted to stop Iran from acquiring civilian nuclear facilities.

As a general rule, most (finite and non-finite) verbs are candidates for annotation with the <EVENT> tag. It is obviously important to bear in mind the possible readings of verbs, which may vary depending on their

argument structure, the construction in which they are used, or other contextual elements.

3.1.1 Modal verbs (class MODAL)

Modal verbs in French (as in other Romance languages) bear a much richer inflectional morphology than English modals. They may be conjugated in all tenses and moods and may be attributed aspectual properties. Instances of French modals that introduce an <EVENT> must be annotated to capture this information. Occurrences of modal verbs such as *devoir*, *falloir*, *vouloir*, *pouvoir* are marked up with the <EVENT> tag. This section deals in particular with the verbs *devoir*, *falloir* and the reflexive *se pouvoir* (which appears in impersonal constructions). The other verbs mentioned, although modals, belong to different event classes to these three (see Section 2.1.4 for details).

The verb *devoir* is to be annotated when it introduces an infinitival <EVENT> complement, as in the following example.

- (98) *Les résultats **devraient** paraître dans les jours qui viennent.*
The results should appear within the next few days.

The verb *falloir* must be annotated when it has a nominal (99) or infinitival (100) <EVENT> in direct object position, or when it introduces a complementizer phrase (CP in *que*) which contains an <EVENT> as its main verb (101). In the examples below, the modal to annotate is in bold face, its event argument is underlined.

- (99) *Ce qui devient toujours ne saurait être, il **faut** un commencement.*
What is constantly becoming knows not how to be, a beginning is necessary.
- (100) *Il a **fallu** mettre l'armée en état d'alerte et mobiliser les unités de police.*
It was necessary to put the army in a state of alert and mobilize the police units.
- (101) *Il **faudra** que la reconstruction définitive s'effectue sur des bases financières saines.*
The definitive reconstruction will have to be carried out on sound financial foundations.

The verb *se pouvoir* appears in impersonal constructions (where the subject is an impersonal pronoun *il* or *ça*, for example). Similarly to *falloir*, this verb must be annotated when it introduces a complementizer phrase (CP in *que*) which contains an <EVENT> as its main verb. In the following examples, the modal is in bold face and its event complement is underlined.

- (102) *Il se **peut** que les descriptions se fassent simultanément.*
It is possible that the descriptions be made simultaneously.
- (103) *Il se **pourrait** que la quatrième république la laisse tomber en désuétude.*
It may be possible that the Fourth Republic let it fall into disuse.

The `tense`, `mood` and `aspect` attributes must be set according to the values expressed by the modal verb's morphology and the tense of the construction in which it appears. Any event complement of a modal verb must also have its `modality` attribute set in accordance with the value expressed by the modal subordination. The value for the `modality` attribute of the subordinate event is determined according to the ontology outlined in the section on the `modality` attribute, 2.1.11.

```
Les résultats <EVENT eid="e1" eiid="ei1" class="MODAL" pos="VERB" pred="DEVOIR"
mood="CONDITIONAL">devraient</EVENT> <EVENT eid="e2" eiid="ei2"
class="OCCURRENCE" pos="VERB" pred="PARAITRE" vform="INFINITIVE"
modality="PROBABILITY">paraître</EVENT> dans les jours qui viennent.
```

Modals which do not have an <EVENT> as complement are **not** to be annotated. For example, the main verb of the subordinate CP in (104) is not an <EVENT>, so the modal must not be annotated. Similarly, when the verb *falloir* has a direct object which is not an <EVENT>, such as in (145) above, (105) and (106) below, it is not to be annotated.

- (104) *Il se peut qu'il y ait plus de petites unités que de grandes.*
It is possible that there are more small-sized units than large ones.
- (105) *Il a fallu trois mois pour arriver à ce résultat.*
Three months were required to achieve this result.
- (106) *La voix du lecteur est si volontairement terne qu'il faut un effort pour le suivre.*
The voice of the reader is so deliberately dull that an effort is required to follow it.

Certain modals are polysemous. Depending on their arguments, verbs such as *devoir* also have interpretations which are not modal. The verb *devoir* also has the interpretation of *to owe*, as in *Jean doit cinq euros à Marie* (*Jean owe Marie five euros*), which expresses a state. The verb is to be marked up in this case, but will not be classified as MODAL.

```
Jean <EVENT eid="e1" eiid="ei1" class="STATE" pos="VERB" pred="DEVOIR"
tense="PRESENT"> doit</EVENT> 5 euros à Marie.
```

The subordinating relation between a modal verb and its event complement is realized in the annotation by an SLINK tag. Details of this tag are given in Section 2.5.

3.1.2 Verbs of causation (class CAUSE)

Verbs such as *causer*, *engendrer*, *mener à*, *provoquer*, *entraîner*, etc indicate a causal relation, and thus a temporal ordering, between their arguments, which are typically events. These verbs do not denote events in their own right, but provide important information pertaining to the temporal ordering of their event arguments.

- (107) *L'essor industriel a **provoqué** la naissance des musées d'arts décoratifs.*
The industrial boom lead to the birth of the museums of decorative arts.
- (108) *La rotation de la fusée **engendre** le glissement de celle-ci sur le coussinet.*
The rotation of the rocket caused its sliding on the bearing.

```
L'<EVENT eid="e1" eiid="ei1" class="OCCURRENCE" pos="NOUN"
pred="ESSOR">essor</EVENT>industriel a <EVENT eid="e2" eiid="ei2" class="CAUSE"
pos="VERB" pred="PROVOQUER" tense="PAST" vform="PASTPART"> provoqué</EVENT> la
<EVENT eid="e3" eiid="ei3" class="OCCURRENCE" pos="NOUN" pred="NAISSAINCE">
naissance</EVENT> des musées d'arts décoratifs.
```

Although the semantic arguments of these verbs are events, the syntactic argument positions may not be occupied by events. Some of these verbs, like *causer* and *provoquer* may have non-eventive subjects. In the following examples, the non-eventive subject is underlined and event arguments are in bold:

- (109) *Jean a causé un **incendie** dans la cuisine.*
Jean caused a fire in the kitchen.

In such cases the causal relation is syntactically realized between an individual and an event, rather than between two events. The subject of the causal verb is in fact agent of an unspecified (non-lexicalized) event which is the actual cause of the event denoted by the direct object of the causal verb. As proposed in [PLS06] an event instance (represented by *ei3* in the following example) is introduced to represent the underlying unspecified event in the causation relation. The class attributed to this event instance is OCCURRENCE, the default event class.

```
Jean a <EVENT eid="e1" eiid="ei1" class="CAUSE" pos="VERB" pred="CAUSER"
tense="PAST" vform="PASTPART">causé</EVENT> un <EVENT eid="e2" eiid="ei2"
class="OCCURRENCE" pos="NOUN" pred="INCENDIE">incendie</EVENT> dans la cuisine.
<EVENT eid="e3" eiid="ei3" class="OCCURRENCE" pos="OTHER" tense="NONE"
aspect="NONE"/>
```


3.1.3 Causative constructions (class CAUSE)

This section deals with the annotation of causative constructions of the type *faire* + infinitive + (NP) and *rendre* + adjective .

Constructions of the type *faire* + infinitive + (NP), in which *faire* introduces an infinitival complement, express a causal relation in which the subject of the matrix verb is the causer of the event expressed by the infinitive. The nested infinitive may appear without a subject. Semantically, these constructions denote two events - a causing event, realized by the verb *faire* and a resulting event realized by the infinitive. The verb *faire* leaves the actual semantics of the causal event underspecified. For example:

- (110) *Jean fait pleurer Marie.*
Jean made Marie cry.

Here it is not explicit how the event realized by the verb *pleurer* is brought about, merely that *Jean*, the agent of the event expressed by the verb *fait*, is the instigator. In cases where the infinitive appears without a subject, it denotes an event with an indeterminate agent.

- (111) *Ce produit fait dormir.*
This product causes drowsiness.

- (112) *Jean fait relire son travail.*
Jean gets his work proofread.

In control verb constructions with the verb *faire* the object of the infinitive is realized by a reflexive pronoun which precedes the main verb.

- (113) *Jean s'est fait embaucher par Marie.*
Jean got himself hired by Marie.

Annotation of causative constructions of the type described above is to capture both the causative verb *faire* and its infinitival event complement. The verb *faire* in these constructions is to have the value CAUSE for its class attribute. The infinitival event complement is to be marked up with the <EVENT> tag and classified according to its semantics and the ISO-TimeML classification for events. In the examples below the nested event instance is of class OCCURRENCE.

Jean fait pleurer Marie. (Jean makes Marie cry.)

```
Jean <EVENT eid="e1" eiid="e1l" class="CAUSE" pos="VERB" pred="FAIRE"
tense="PRESENT"> fait</EVENT> <EVENT eid="e2" eiid="ei2" class="OCCURRENCE"
pos="VERB" pred="PLEURER" vform="INFINITIVE">pleurer</EVENT> Marie.
```

Constructions of the type *rendre* + (NP) adjective , in which the verb *rendre* introduces a predicative adjectival complement, expresses a causal relation in which the subject of the main verb is the causer of the state expressed by the adjective. The adjective may appear without a subject. Semantically, such constructions denote a causing event, realized by the verb *rendre*, and a resulting state, realized by the adjective.

Jean s'est fait embaucher par Marie. (Jean got himself hired by Marie.)

```
Jean s'est <EVENT eid="e1" eiid="e1l" class="CAUSE" pos="VERB" pred="FAIRE"
tense="PAST" vform="PASTPART">fait</EVENT> <EVENT eid="e2" eiid="ei2"
class="OCCURRENCE" pos="VERB" pred="EMBAUCHER"
vform="INFINITIVE">embaucher</EVENT> par Marie.
```

Constructions with the verb *laisser* require a similar treatment to the above constructions with *faire*. Constructions of the type NP + *laisser* + infinitive + (NP) express a lack of action on the part of the agent which allows an event to take place. In terms of semantics, these constructions express the occurrence of one event, with or without a specified agent, which was allowed to happen because of a state of inaction on the part of another (or the same) agent. It is important to note that the subject of the verb *laisser* is not necessarily

agentive, however. It may also be an inanimate object (and, thus, non-agentive), such as in example (115). The verb *laisser* may also be used reflexively, as in example (116).

- (114) *Jean laisse pleurer Marie.*
Jean lets Marie cry.
- (115) *La porte d’acajou ne laissait pas rentrer la poussière.*
The mahogany door didn’t let dust enter.
- (116) *Marcel s’est laissé énerver par des petites choses.*
Marcel let himself get annoyed by little matters.

In each of these types of situations, the verb *laisser* is to be annotated with the <EVENT> tag. The class attribute is given the value I_STATE. Values for tense, modality, polarity and mood are determined according to the usual guidelines for verbs. The infinitival event complement of the verb *laisser* is also to be marked up with the <EVENT> tag and classified according to the ISO-TimeML classification for events. In the following examples, the infinitival complement is of the class OCCURRENCE.

Jean laisse pleurer Marie. (Jean lets Marie cry.)

```
Jean <EVENT eid="e1" eiid="ei1" class="I_STATE" pos="VERB" pred="LAISSER"
tense="PRESENT">laisse</EVENT> <EVENT eid="e2" eiid="ei2" class="OCCURRENCE"
pos="VERB" pred="PLEURER" vform="INFINITIVE">pleurer</EVENT> Marie.
```

La porte d’acajou ne laissait pas rentrer la poussière. (The mahogany door didn’t let dust enter.)

```
La porte d’acajou ne <EVENT eid="e1" eiid="ei1" class="I_STATE" pos="VERB"
pred="LAISSER" tense="IMPERFECT" polarity="NEG">laissait</EVENT> pas <EVENT
eid="e2" eiid="ei2" class="OCCURRENCE" pos="VERB" pred="RENTRE"
vform="INFINITIVE">rentrer</EVENT> la poussière.
```

Marcel s’est laissé énerver par des petites choses. (Marcel let himself get annoyed by little matters.)

```
Marcel s’est <EVENT eid="e1" eiid="ei1" class="I_STATE" pos="VERB" pred="LAISSER"
tense="PAST" vform="PASTPART">laissé</EVENT> <EVENT eid="e2" eiid="ei2"
class="OCCURRENCE" pos="VERB" pred="ENERVER" vform="INFINITIVE">énervé</EVENT>
par des petites choses.
```

3.1.4 Event containers (class EVENT_CONTAINER)

Event containers (after [Ven57]) are predicative contexts which require the presence of an event in subject position. Verbs which fall into this category are *arriver*, *se passer*, *avoir lieu*, *survenir*, *se dérouler*, *se tenir* and *se produire* [GJ94]. The arguments of these verbs are typically events in (pro-)nominal form. These verbs are not events in themselves, but rather predicate existential properties of events. They may also link their event arguments to linguistic markers of temporal (and/or spatial) localization, such as temporal adverbials.

- (117) *De nombreuses manifestations ont eu lieu dans la journée du dimanche 21 avril.*
A number of events occurred during the day on Sunday the 21st of April.
- (118) *La cérémonie de commémoration ne se tiendra peut-être pas demain matin.*
The commemorative ceremony may not be held tomorrow morning.

These verbs must be annotated with the <EVENT> tag in order to capture the important tense, aspectual, modality and polarity information they may contain. A <TLINK> with relType value IDENTITY is established between the event container and the event nominal, as in regular support verb constructions.

La <EVENT eid="e2" eiid="ei2" class="OCCURRENCE" pos="NOUN">cérémonie</EVENT> ne se <EVENT eid="e1" eiid="ei1" class="EVENT_CONTAINER" pos="VERB" polarity="NEG" modality="POSSIBILITY">tiendra</EVENT> peut-être pas demain matin.

Only instances of these verbs which have an explicit nominal event subject are considered as event containers and need to be annotated as `EVENT_CONTAINER`. Uses of the same verbs without an event subject will typically be attributed another class or will not be annotated. In the following examples, the verb in question may or may not be annotated with another event class. In example (119), the verb *produit* should be annotated with the class `OCCURRENCE` as its subject is a human entity as opposed to an event. The verb *arrivait* in (120) should be annotated with the class `I_ACTION`, as it describes an action which has an event complement. In example (121) the verb *manqué* takes the class `STATE` to capture coherently the reading of the verb in this context (the absence or lack of something).

- (119) *Depuis ses débuts, le groupe s'est produit sur plus d'une centaine de scènes partout au Québec.*
Since its debut, the group has appeared on more than a hundred stages throughout Quebec.
- (120) *Il n'arrivait pas à trouver une commune mesure.*
He couldn't manage to find a common measure.
- (121) *Les offensives ont manqué de réalisme, ce qui fait que le match s'est terminé sur un score nul.*
The offenses lacked realism, which is what made the match end in a draw.

Some event containers may appear in impersonal constructions, with the pronoun *il* as subject and an event nominal (122) or a complementizer phrase (headed by the preposition *de* or by the relative pronoun *que*) (123) and (124) in direct object position. In such cases, the event container and its <EVENT> argument are to be annotated separately. Care must be taken, however, in the annotation as some cases may, even in this configuration, be ambiguous (see example (125)).

- (122) *En 1999, il est **arrivé** un événement où les camionneurs ont fait une grève qui a contrôlé tout l'accès à la région.*
In 1999, an event took place in which the truck drivers went on a strike that controlled all access to the region.

En 1999, il est <EVENT eid="e1" eiid="ei1" class="EVENT_CONTAINER" pos="VERB" pred="ARRIVER" tense="PAST" vform="PASTPART">arrivé</EVENT> un <EVENT eid="e2" eiid="ei2" class="OCCURRENCE" pos="NOUN" pred="EVENEMENT">événement</EVENT> où les camionneurs ont fait une grève qui a contrôlé tout l'accès à la région.

- (123) *Il leur **arrivait** de se baigner dans la mer.*
It would come about that they would bathe themselves in the sea.

Il leur <EVENT eid="e1" eiid="ei1" class="EVENT_CONTAINER" pos="VERB" pred="ARRIVAIT" tense="IMPERFECT">arrivait</EVENT> de se <EVENT eid="e2" eiid="ei2" class="OCCURRENCE" pos="VERB" pred="BAIGNER" vform="INFINITIVE">baigner</EVENT> dans la mer.

- (124) *Il **advient** que l'analyse parapsychologique échoue.*
It comes about that the parapsychological analysis fails.

Il <EVENT eid="e1" eiid="ei1" class="EVENT_CONTAINER" pos="VERB" pred="ADVENIR" tense="PRESENT">advient</EVENT> que l'analyse <EVENT eid="e2" eiid="ei2" class="OCCURRENCE" pos="VERB" pred="ECHOUER" tense="PRESENT" mood="SUBJUNCTIVE">échoue</EVENT>.

In the following example, the verb *manqué*, which appears in an impersonal construction, has an event NP as direct object. The verb is, however, not an event container (at least pragmatically) in this context and its

reading is the same as that in (121) above. The verb here indicates the lack or non-occurrence of an event, which is best captured with the class `STATE`. The verb *manqué* in this example must be marked up with the `<EVENT>` tag with this value for its `class` attribute.

- (125) *Il n'a manqué qu'une guerre pour que la terre soit détruite.*
All that was lacking was a war for the earth to be destroyed.

```
Il a <EVENT eid="e1" eiid="ei1" class="STATE" pos="VERB" pred="MANQUER"
tense="PAST" vform="PASTPART">manqué</EVENT> une <EVENT eid="e2" eiid="ei2"
class="OCCURRENCE" pos="NOUN" pred="GUERRE">guerre</EVENT> pour que la terre soit détruite.
```

Furthermore, when the context is even more reduced, it will be necessary to resort to broader contextual indicators in order to resolve ambiguities. The following example, which is similar to (125), but without the subordinate clause, is ambiguous due to the fact that the pronoun *il* may possibly be anaphoric.

- (126) *Il a manqué une guerre.*
He missed a war. or A war was lacking.

In the case the pronoun is indeed an anaphor, the verb *manquer* will have the semantics of an event container and will be marked up with the class `EVENT_CONTAINER`. If the verb turns out not to be anaphoric, the annotation of the verb *manquer* will be as in example (125) above.

This highlights the importance of wider context in determining the class of certain event verbs. The decision in such a case may be fairly straightforward for a human annotator as the ambiguity may be merely virtual. This may make decision-making more problematic during an automatic annotation procedure and specific preprocessing, for example pronominal anaphora resolution or detection of impersonal expressions [Dan05], may be required.

3.1.5 Impersonal existential expressions (class `EVENT_CONTAINER`)

This section contains annotation guidelines for the impersonal existential expression *il y + avoir*. This construction is followed by an NP whose referent is introduced into the discourse (whence the term existential expression). The verb *avoir* (in bold in the following examples) in this construction may be conjugated in all tenses and its instances are to be annotated with the `<EVENT>` tag when its NP complement (underlined in the following examples) is headed by an event nominal. The `pred` attribute for the `<EVENT>` tag is to have the value `IL Y AVOIR` to capture the semantics of the existential expression.

- (127) *Il y **aura** tous les ans un exercice public en présence du corps municipal.*
Every year there will be a public exercise in the presence of the municipal corp.
- (128) *Il y **avait** la vente d'un vieil hôtel qu'ils se sont acharnés à disputer aux créanciers.*
There was the sale of an old hotel which they kept fiercely argued over with the creditors.
- (129) *Les dirigeants de la mission sont contents qu'il n'y ait pas **eu** le moindre conflit dans la zone est depuis quelques jours.*
The leaders of the mission are happy that there hasn't been the slightest conflict in the area for several days.

Similarly to event containers, discussed in Section 3.1.4, these constructions predicate the existence of an event represented by a nominal. The `class` attribute of the `<EVENT>` tag is to be attributed the value `EVENT_CONTAINER`. The following is the annotation for the sentence in (127).

```
Il y <EVENT eid="e1" eiid="ei1" class="EVENT_CONTAINER" pos="VERB" pred="IL Y
AVOIR" tense="FUTURE">aura</EVENT> tous les ans un <EVENT eid="e2" eiid="ei2"
class="OCCURRENCE" pos="NOUN" pred="EXERCICE">exercice</EVENT> public en présence du
corps municipal.
```

Values for `polarity`, `modality` and `mood` attributes are derived as usual. The annotation for example (129) is as follows.

```
Les dirigeants de la mission sont contents qu'il n'y ait pas <EVENT eid="e1" eiid="ei1"
class="EVENT_CONTAINER" pos="VERB" pred="IL Y AVOIR" tense="PAST"
mood="SUBJUNCTIVE" vform="PASTPART" polarity="NEG">eu</EVENT> le moindre <EVENT
eid="e2" eiid="ei2" class="OCCURRENCE" pos="NOUN">conflit</EVENT> dans la zone depuis
quelques jours.
```

3.1.6 Grammatical tense

Verb tense can play a part in determining the eventiveness of verbs. For example, verbs in the passé composé will often acquire an event reading, even if they are not strictly events when conjugated in other tenses. An example is the verb *savoir* which is used with an event interpretation when the verb is conjugated in a past compound tense, such as the passé composé (ex. (130)), the plus-que-parfait (pluperfect) (ex. (131)), the futur antérieur (future perfect) (ex. (132)), or the conditionnel passé (past conditional).

- (130) *Jean a su la réponse.*
Jean learnt the answer.
- (131) *Jean avait su la réponse.*
Jean had learnt the answer.
- (132) *Jean aura su la réponse.*
Jean will have learnt the answer.
- (133) *Jean aurait su la réponse.*
Jean would have learnt the answer.

Here, the direct object, *la réponse* is non-eventive, but when conjugated in this tense, the verb has an event reading and an interpretation akin to that of *apprendre* (*to learn*). In this context *savoir* is to be marked up as an `<EVENT>` of class `OCCURRENCE`. In other tenses, such as the present (ex. (134)) or future (ex. (135)), the verb *savoir* would be classified as `STATE`.

- (134) *Jean sait la réponse*
Jean knows the answer.
- (135) *Jean saura la réponse.*
Jean will know the answer.

When annotating verbs in compound tenses the participle is annotated with an `<EVENT>` tag. The tag's `tense` and `polarity` attributes (as well as `mood` in the case of a conditional or subjunctive construction) correspond to the values exhibited by the auxiliary. See Section 2.1.7 for details on the `tense` attribute values for each type of grammatical verb tense.

3.1.7 The imperative mood

Unlike the indicative and subjunctive, the imperative is not a temporal mood [RPR94]. Verbs in the imperative represent orders, the realization of which may only ever occur in the future (relative to the time of enunciation) without any certainty. Verbs in the imperative are not to be annotated in any case. In the following example, the event-denoting verb in the imperative is in bold.

- (136) ***Rappelez-vous*** que *Madame Yacout a été la première femme à la tête de la direction.*
Remember that Mrs Yacout was the first woman at the head of management.

Even if explicitly modified by a temporal expression, verbs in the imperative mood merely denote hypothetical occurrences. The temporal localization is also hypothetical. In the following example, the event-denoting

verb (in bold type) is an order, the temporal expression (underlined) is merely part of the hypothetical situation expressed by the sentence. Event verbs in such cases are not to be annotated.

- (137) **Viens** me voir lundi matin.
Come and see me on Monday morning.

3.1.8 Infinitive verbs

In French two forms of the infinitive are defined, the present infinitive (e.g. *chanter, voter, aller*) and the past infinitive (e.g. *avoir chanté, avoir voté, être allé*). These two forms contrast on an aspectual, rather than temporal, level; the former representing an unaccomplished event, the latter on the other hand, having the properties of accomplished aspect [RPR94].

The infinitive is temporally situated according to the relation it shares with the clause's main verb (in the case of dependant/subordinating constructions). An event denoted by a present infinitive may be temporally situated simultaneous to the main verb, as in (138), or may be subsequent to the main verb, especially when the latter is oriented towards the future, as in (139). In the examples that follow, the infinitive is in bold and the main verb underlined.

- (138) *Le seul à **envisager** des sanctions est Nicolas Sarkozy.*
The only one to envisage sanctions is Nicolas Sarkozy.

- (139) *Il voulait s'**orienter** vers la neurochirurgie.*
He wanted to get into neurosurgery.

The <EVENT> tag for infinitives has the attribute `vform` with the value `INFINITIVE`. Verbs in the present infinitive do not have a value for the `aspect` attribute.

```
Le seul à <EVENT eid="e1" eiid="e11" class="I.STATE" pos="VERB" pred="ENVISAGER"
vform="INFINITIVE">envisager</EVENT> des sanctions est Nicolas Sarkozy.
```

The past infinitive can realize a relation of temporal precedence relative to any temporal location expressed by a finite verb tense. For example,

- (140) *Le Kenya dément **avoir arrêté** un fugitif recherché pour son implication dans le génocide rwandais.*
Kenya denies having arrested a fugitive wanted for his involvement in the Rwandan Genocide.
- (141) *Le RPM regrettera d'**avoir pactisé** avec le diable.*
The RPM will regret having made a deal with the devil.

In the annotation of verbs in the past infinitive, the `aspect` attribute is to have the value `PERFECTIVE`, for example:

```
Le Kenya dément avoir <EVENT eid="e1" eiid="e11" class="OCCURRENCE" pos="VERB"
pred="ARRETER" aspect="PERFECTIVE" vform="INFINITIVE">arrêté</EVENT> un fugitif
recherché pour son implication dans le génocide rwandais.
```

As a general rule, event infinitives are to be annotated with the <EVENT> tag in clauses in which the main verb is finite and is also to be marked up with this tag (examples (142) and (143)), or in which the main verb is a finite copula or stative verb (e.g. when the infinitive has a nominal function and is in a clause in subject position) (144).

- (142) *Chávez doit **apprendre** à écouter.*
Chávez must learn to listen.
- (143) *L'ex-juge a quitté la magistrature en 2002 pour **devenir** conseiller du gouvernement norvégien.*
The ex-judge left public office in 2002 to become an adviser of the Norwegian government.
- (144) ***Préserver** le patrimoine artistique des bombardements, incendies et autres fléaux de guerre était encore insuffisant.*

Preserving the artistic heritage from bombings, fires and other scourges of war was still insufficient.

Annotation guidelines for infinitival complements in causative constructions, such as *faire* + infinitive, are detailed in Section 3.1.3.

Infinitives are not to be marked up in cases where the main verb is not considered an <EVENT>. In the following example, the infinitive is not to be annotated, as the main verb, *faudrait*, is not an <EVENT> in this case (see Section 3.1.1 for information on annotation of modal verbs like *falloir*).

- (145) *Encore faudrait-il plusieurs pages pour épuiser le sujet.*
Several pages would still be necessary to exhaust the subject.

Instances of infinitives which are complement of an adjective are to be considered as part of the adjectival predication. The rules for marking up adjectives are to be followed in this case, see Section 3.3 for details. Another context in which infinitives are not to be marked up is when they appear in a complex NP as a nominal complement in a prepositional phrase (typically introduced by the preposition *à*, such as *salle à manger*, *machine à laver* and *presse à mouler* etc.

In French the infinitive may serve the function of imperative, expressing an order or advice. This use typically appears in documents containing instructions (user manuals, recipes, the road code etc.). Such cases, as with verbs in the imperative mood (see Section 3.1.7), are not to be annotated. For example,

- (146) *Voir aussi la fonction Refaire.*
See also the Redo function.
- (147) *Ne pas dépasser les 50km/h en agglomération.*
Do not exceed 50km/h in built-up areas.

3.1.9 Aspectual auxiliaries

In addition to grammatical verb tense, certain verbal constructions are used to express various complex tenses and aspectual and modal properties. Verbal constructions consisting of an aspectual auxiliary, such as *aller* or *venir*, followed by a verb in the infinitive are to be annotated with specific values for tense and aspect which correspond to the temporal semantics of the construction. This section details annotation guidelines for constructions containing aspectual auxiliaries.

venir de + infinitive

The construction consisting of an inflected form of the verb *venir* followed by an infinitive expresses a recent past tense. This corresponds to the English *to have just* + past participle. This construction also captures a given event immediately after its final stage, expressing a perfective aspect [RPR94, 253]. As an aspectual auxiliary, the verb *venir* may be conjugated in the present, imperfect and simple future tenses (examples (148), (149) and (150) respectively).

- (148) *Le Parlement vient de voter la loi autorisant la ratification du Traité de Lisbonne.*
The parliament has just voted the bill authorizing the ratification of the Treaty of Lisbon.
- (149) *Cette jeune étudiante venait de se marier car elle portait un enfant.*
This young student had just got married because she was carrying a child.
- (150) *Elle viendra de faire l'unité du Parti socialiste.*
She will have just united the Socialist Party.

The inflected form of the verb *venir* does not have its usual lexical semantic value in this context. It acts merely as an auxiliary, contributing the syntactic framework necessary to construct the aspectual expression. The event semantic content lies in the verbal infinitive, which denotes the event type in question. This type of construction exemplifies perfective aspectual properties; the action or event described by the infinitive has

been fully terminated, irrespective of the verb tense.

The infinitival complement of the aspectual auxiliary is to be annotated with the <EVENT> tag. The auxiliary itself is not marked up. The `tense` attribute of the <EVENT> tag for the infinitive will correspond to the tense of the auxiliary *venir* (that is, either PRESENT, IMPERFECT or FUTURE). The `aspect` attribute of the tag will have the value PERFECTIVE.

The annotation corresponding to example (148) is given below:

```
Le parlement vient de <EVENT eid="e2" eiid="ei2" class="OCCURRENCE" pos="VERB"
pred="VOTER" tense="PRESENT" aspect="PERFECTIVE"
vform="INFINITIVE">voter</EVENT> la loi autorisant la ratification du Traité de Lisbonne.
```

aller + infinitive

This construction represents an event at the stage before the beginning of its realization. The verb *aller*, as an aspectual auxiliary, may only appear conjugated in the imperfect or present tense. The infinitival complement describes an event that has not yet commenced.

- (151) *Honda **va introduire** de nombreuses nouveautés aérodynamiques à sa monospace.*
Honda is going to introduce numerous aerodynamic novelties into its minivan.
- (152) *L'Iran **allait franchir** le “point de non-retour” dans son programme nucléaire.*
Iran was going to breach the “point of no return” in its nuclear program.

In each case, it is the infinitival complement and not the auxiliary that is to be marked up with the <EVENT> tag. Annotations will vary in accordance with the tense of the auxiliary. In the case of a present tense auxiliary, the value of the `tense` attribute for the <EVENT> tag is PRESENT. If the auxiliary is conjugated in the imperfect tense, the value of the `tense` attribute remains IMPERFECT. In both cases, the `aspect` attribute of this tag is to have the value PROSPECTIVE (as described in [Lar08, 168]). The tag's other attributes are to be set appropriately according to the general verb annotation guidelines.

The corresponding annotation for example (151), where the auxiliary is in the present tense, is as follows:

```
Honda va <EVENT eid="e1" eiid="ei1" class="OCCURRENCE" pos="VERB"
tense="PRESENT" pred="INTRODUIRE" aspect="PROSPECTIVE"
vform="INFINITIVE">introduire</EVENT> de nombreuses nouveautés aéro-dynamiques à sa
monoplace.
```

The corresponding annotation for example (152), with an imperfect tense auxiliary, is as follows:

```
L'Iran allait <EVENT eid="e1" eiid="ei1" class="OCCURRENCE" pos="VERB"
pred="FRANCHIR" tense="IMPERFECT" aspect="PROSPECTIVE"
vform="INFINITIVE">franchir</EVENT> le “point de non-retour” dans son programme nucléaire.
```

It is important to note that the verb *aller* in these constructions may have either a purely functional reading (as an auxiliary, in the previous two examples and also in (153)) or a possible movement reading (as a lexical verb meaning *to go* (154)). This is not the case for *venir* + infinitive.

- (153) *La défaite **allait** provoquer un incendie volontaire de toutes les embarcations.*
The defeat was going to provoke a deliberate burning of all the boats.
- (154) *Il y pénètre d'un air assuré et **va** frapper à la loge du concierge.*
He enters with an air of confidence and goes and knocks on the superintendent's door.

Sufficient context is usually available for ambiguity to be minimal and the human annotator will in the majority of cases be able to decide which reading to attribute. In automated text processing, many contex-

tual elements may aid with disambiguation, or at least indicate a preferred reading. For the verb *aller* the following contextual elements, if present, indicate a preference for a functional reading :

- A subordinate clause is present expressing a condition that stops or hinders the action in the main clause.

(155) *Jean allait manger un champignon vénéneux quand Robert l'a arrêté.*
Jean was going to eat a poisonous mushroom when Robert stopped him.

- The verbal complement (underlined) of the verb *aller* is a stative verb, such as *croire*, *vouloir*, *aimer*, *etc.*, or copula, such as *devenir*, *paraître*, *sembler*, *être*, *etc.* in an adjectival or nominal predication.

(156) *Mme De Rênal crut sincèrement qu'elle **allait** devenir folle.*
Mrs De Rênal sincerely believed that she was going to go crazy.

(157) *Lewis Hamilton **va** être champion du monde de la Formule 1 cette année.*
Lewis Hamilton is going to be world champion of Formula 1 this year.

- The subject (underlined) of the verb *aller* is inanimate.

(158) *Cette raideur politique **allait** provoquer la naissance d'une opposition clandestine.*
This political stiffness was going to lead to the birth of a clandestine opposition.

- The infinitival complement (underlined) can only take an inanimate subject.

(159) *La crise économique **va** durer assez longtemps et **va** avoir des conséquences très graves pour le pays.*
The economic crisis is going to last quite a long time and is going to have very serious consequences for the country.

- The infinitive complement (underlined) is only used in impersonal constructions.

(160) *Il **allait** pleuvoir.*
It was going to rain.

(161) *Il **va** falloir se battre pour sauver l'environnement vert et rural de Mennecy.*
It is going to be necessary to fight to save the green and rural environment of Mennecy.

- The verb *aller* is modified by the temporal adverbial *bientôt* or an equivalent.

(162) *Il **va** bientôt manger dans son restaurant préféré.*
He is going to eat at his favorite restaurant soon.

(163) *Il **allait** bientôt manger dans son restaurant préféré.*
He was soon going to eat at his favorite restaurant.

On the other hand, the following contextual elements will most likely indicate a preference for a lexical reading of the verb *aller*:

- A temporal quantifier expression (underlined), such as *tous les jours*, *chaque fois*, *souvent* *etc.*, modifies the verb *aller* (it is possible that the quantified expression modify the infinitival complement, but the preference is nonetheless for modification to apply to the verb *aller*). This is particularly applicable when *aller* is conjugated in the *imparfait*. The adverb *bientôt*, however, represents an exception to this rule and imposes a functional reading (see above).

- (164) *Lucile **allait** arpenter l'Avenue du Bois tous les matins.*
Lucile would stride up and down the Avenue du Bois every morning.
- (165) *Les gens plus scolarisés **allaient** souvent voir le député ou l'organisateur pour faire accélérer la procédure.*
The more educated people would often go to see the deputy or the organizer to speed up the proceedings.

- The verb *aller* has a locative prepositional phrase (underlined) as argument.

- (166) *Le mannequin se lève et **va** à la fenêtre regarder ce qui passe dans la rue.*
The model gets up and goes to the window to see what's going on in the street.
- (167) *Le soir il **allait** à la bibliothèque travailler.*
In the evening, he would go to the library to work.

- The verb *aller* is employed in its pronominal use (*s'en aller*).

- (168) *Il s'en **allait** chercher des insectes.*
He would go off and look for insects.

3.1.10 Multiword verbal expressions

Multiword verbal expressions consist of a verb, such as *faire*, *donner*, *mettre*, *rendre* etc., which combine with a noun, adjective or prepositional phrase, to construct a complex form functionally equivalent to a verb (see also the section on light verb constructions, 3.1.11). The combinations of verb + complement in question are typically co-occurring.

- (169) *Il doit être **fait appel** au peuple pour sanctionner le vote sur le jugement du roi.*
An appeal must be made to the people to sanction the vote on the judgment of the king.
- (170) *La petite troupe se **mit lentement en branle** dans la campagne.*
The small flock set itself slowly into motion in the countryside.
- (171) *Il **fait lourd**, une chaleur énervante et malsaine.*
It's humid, an irritating and unhealthy heat.

In annotating this type of construction, the entire expression is to be marked up with the event tag, including any pronouns for inherently pronominal verb forms, such as in the example below.

```
La petite troupe <EVENT eid="e1" eiid="e11" class="OCCURRENCE" pos="VERB"
tense="PAST" pred="SE METTRE EN BRANLE">se mit en branle</EVENT> dans la campagne.
```

In cases where the construction is represented by a discontinuous span of text, such as when there is a nested modifier, the two separate parts of the expression are to be marked up with individual <EVENT> tags. The *pred* attribute contains the base form of the entire expression.

- (172) *La petite troupe se **mit** lentement **en branle** dans la campagne.*
The small flock set itself slowly into motion in the countryside.

Both tags must share the same values for *eid* and *eiid* attributes in order to capture the fact that they are part of the same event-denoting expressions. The <EVENT> tag placed around the verb is to have values for all other attributes, where necessary, namely *aspect*, *class*, *tense*, *modality*, *mood* and *polarity*. The tag annotating the verb's complement only has *eid*, *eiid* attributes, in order to avoid redundancy in the annotation.

The annotation corresponding to example (172) above, in which the construction is split by an adverb, is as

follows:

```
La petite troupe <EVENT eid="e1" eiid="ei1" class="OCCURRENCE" pos="VERB"
tense="PAST" pred="SE METTRE EN BRANLE">se mit</EVENT> lentement <EVENT eid="e1"
eiid="ei1">en branle</EVENT> dans la campagne.
```

3.1.11 Light verb constructions

Light verb constructions consist of a verb, such as *faire*, *commettre*, *donner*, *effectuer* and *réaliser*, which introduces a predicative NP which denotes an eventuality, such as *voyage*, *leçon*, *repas* and *agression*, as complement. For example,

- (173) *Une mère de famille a commis une violente agression contre une institutrice à Bourges.*
A mother committed a violent attack against a primary school teacher in Bourges.

Similarly to multiword verbal expressions, the extent of the event-denoting expression is to be annotated with the <EVENT> tag. The *pred* attribute of the <EVENT> tag is to be used to capture the semantics of the entire expression. The annotation corresponding to example (173) is as follows:

```
Une mère de famille a <EVENT eid="e1" eiid="ei1" class="OCCURRENCE" pos="VERB"
pred="COMMETTRE" tense="PAST">commis</EVENT> une violente <EVENT eid="e2"
eiid="ei2" pos="NOUN" pred="AGRESSION">agression</EVENT> contre une institutrice à Bourges.
```

3.1.12 Generic event sentences

This section gives guidelines for the annotation of sentences or clauses which consist of a generic event description¹. Generic sentences express generalizations about objects or situations in the world. The *existence* of the properties they express is not temporally delimited. Generic event sentences express generalizations about things that occur in the world, without expressing the temporal bounds during which the event takes place or reoccurs. They may have a habitual interpretation, as in (174), where the (optional) presence of a temporal quantifier in the form of the adverb *souvent* exaggerates the habitual nature of the event. In (175), a sentential modifier in the form of the adverb *d'habitude*, expresses the fact that the event described by the main clause is a generality.

- (174) *Marie boit (souvent) de la bière.*
Marie (often) drinks beer.
- (175) *D'habitude, c'est la question qui précède la réponse.*
Usually, it's the question that precedes the answer.

Other adverbials which have a similar effect and make for generic event sentences include *rarement*, *peu*, *parfois*, *couramment*, *en général*, *ordinairement*, etc.

Generic event sentences in French appear typically in the present tense and their main event verb is not modified by a precise temporal expression, such as *ce matin*, *le 4 février*, *jeudi*. One notices the difference between the first of the following sentences, which describes a generic event, and the following two, which describe punctual event instances. Example (176) contains a present tense main verb with no temporal modifiers. The sentence describes a general property of romanian students, holding over time. The main verb in example (177) contains a verb in the passé composé, which forces an instance reading on the event. Example (178), in which a temporal expression modifies the event verb, further specifies the temporal location of the event instance, even if the verb is in the present tense.

- (176) *Les étudiants roumains parlent français.*
Romanian students speak French.

¹These notes draw on the page on genericness in the Sémanticopédie : <http://www.semantique-gdr.net/dico/index.php/Généricité>

- (177) *Les étudiants roumains ont parlé français.*
The Romanian students spoke French.
- (178) *Les étudiants roumains parlent français ce matin.*
The Romanian students are speaking French this morning.

Generic event sentences are not to be marked up as they do not have a specific temporal localization, but rather describe properties which hold throughout time. For the human annotator generic sentences are relatively easy to detect. A number of indicators, mentioned below, can be used in identifying such sentences, which should provide heuristics implementable in automated systems based on a reasonable syntactic and morphological analysis.

- A temporal adverb, such as *souvent*, *généralement*, *rarement* or *d'habitude* modifies the verb.
- The event verb is in the present tense.
- The main verb is not modified by an explicit temporal expression, such as *ce matin*, *dimanche 24 mars* or *dans une heure*, which would attribute a temporal localization to the event.
- The subject of the event verb is a definite NP (see Section 3.2.3 for a discussion of generic noun phrases).

3.2 Annotating Nouns

Nouns to be annotated are typically either nominalizations (e.g. deverbal or deadjectival nouns) or non-derived nouns which have an event interpretation (event-denoting nouns).

- (179) *Le congrès du Brésil exige le **rapatriement** des brésiliens vivant en Haïti.*
The Brazilian Congress demands the repatriation of Brazilians living in Haïti.
- (180) *Il est malheureux de constater un tel **cafouillage** sur un sujet aussi sensible.*
It is unfortunate to observe such a foul-up over such a sensitive issue.
- (181) *Une faille dans le système de distribution d'énergie serait à l'origine de la **panne**.*
A fault in the energy distribution system was said to be the reason for the breakdown.
- (182) *Les juges chargés de l'**affaire** n'entendent pas faciliter la vie de l'accusé.* *The judges responsible for the matter do not intend to make life easy for the accused.*

These nouns are often polysemous and (in or out of context) may be ambiguous between two or more different type readings. For example, *présentation* may have an event interpretation (the act of presenting) as well as an objet reading (a file on a computer) (see [Pus95] for an account). As mentioned in the core ISO-TimeML guidelines (see [LPB⁺07]), nominals which do not have an event reading in the text are not to be marked up. A number of contextual indicators which may be used to disambiguate nominals are mentioned in Section 3.2.4 below.

There are also other situations in which event nominals must not be marked up, notably, when they exhibit a generic or kind reading, rather than an instance reading (see Section 3.2.3). This may depend on the semantics and/or the argument structure of the predication in which the nominal appears, or the configuration of the NP, for example the absence of a determiner (see Section 3.2.2).

As a general rule, the annotator should aim to mark up all event nominals which are able to be temporally located. An event nominal may be temporally located either with respect to the verbal predicate to which it is argument or with respect to a temporal expression which explicitly localizes the event in time (often associated with a `SIGNAL`). The following is the annotation for the event nominal in example (181).

```
Une faille dans le système de distribution d'énergie serait à l'origine de la <EVENT eid="e1"
eiid="ei1" class="OCCURRENCE" pos="NOUN" pred="PANNE">panne</EVENT>.
```

3.2.1 Nominal predication

In some cases, nominals which are not lexically events are to be marked up. Predicate nominals are also to be annotated when they appear in a predication which is explicitly modified by a temporal expression (markable as a <TIME3>). In these constructions, a copula, such as *être*, *sembler*, *paraître*, *avoir l'air* etc., links the subject of the sentence to the nominal predicate. As with strict event nominals, the head of the predicate nominal is to be marked up with the <EVENT> tag. In the following examples, the nominal to be annotated is in bold and temporal modifiers or adjectives are underlined.

- (183) *M. Fournier est le **président** de la compagnie depuis 1998.*
Mr. Fournier has been the president of the company since 1998.

The <EVENT> tag is to be given the value STATE for its class attribute. The pos attribute is to have the value NOUN. The tag must also have a value for the tense attribute to capture the tense of the copula. The modality and polarity attributes are also to be derived from the context surrounding the verb. In the following example, the annotation corresponding to example (183), the temporal expression 1998 is marked up as a <TIME3> (see Section 2.2) and the preposition *depuis* as a <SIGNAL> (see Section 2.3):

```
M. Fournier est le <EVENT eid="e1" eiid="e1l" class="STATE" pos="NOUN"
pred="PRESIDENT" tense="PRESENT">président</EVENT> de la compagnie <SIGNAL
id="s1">depuis</SIGNAL> <TIME3 tid="t1" type="DATE" value="1998">1998</TIME3>.
```

3.2.2 Bare nominals

In French, as in other Romance languages, bare nominals (nouns appearing without a determiner), typically represent a set of properties, a type [DSL03]. For example,

- (184) *Il fut **président de l'association**.*
He was president of the association.
- (185) ***Manifestants criards et pères de famille** se poussaient du coude pour voir le spectacle.*
Exuberant protesters and fathers of families jostled with each other to see the show.

Bare event nominals denote an event type rather than a particular event instance. This means that they do not have an explicit spatio-temporal localization and, as a general rule, are not to be annotated.

Bare event nominals appearing as nominal complement in a predicative PP in *de*, such as in (186), are not to be annotated. The nested event nominal does not refer to a particular event, but rather restricts the type of the subordinating nominal (*prisonniers* in this example).

- (186) *Un des prisonniers de **guerre** a été libéré.*
One of the prisoners of war was freed.

Bare nominals appearing as complement of the preposition *sans*, as in example (187), are not to be annotated either.

- (187) *L'absence de preuve matérielle nous avertit, en effet sans **hésitation** possible, d'un "changement de temps".*
The absence of material evidence warns us, indeed without possible hesitation, of a "change of time".

When an event nominal is introduced by a prepositional phrase which forms a fixed collocation, such as *en cours de réalisation*, the extent of the expression must be annotated. See Section 3.4.1 for details.

There are certain contexts in which bare event nominals are to be annotated. In the following situations, the bare event nominal is to be marked up:

- if explicitly temporally anchored, by a temporal expression (TIME3)

- if in argument position of a preposition marking a relation with an EVENT or a TIMEX3 (SIGNAL) (188)
- if appearing in argument position of a verb which subcategorizes an event argument (see Section 3.1.4 on event containers for details), e.g. *avoir lieu*, *se passer*, *se produire*, *assister à* etc. (189)

(188) *Deux sympathisants de l'opposition ont été tués lors d'**affrontements** avec des partisans du gouvernement.*

Two sympathizers of the opposition were killed during confrontations with government supporters.

(189) *Le monde a été témoin de **destructions** causées par le tsunami de 2004.*

The world bore witness to the destruction caused by the 2004 tsunami.

For a more detailed description of contexts which impose an event reading on lexically ambiguous nominals, see Section 3.2.4.

3.2.3 Generic event NPs

Generic NPs are those which refer to a kind of entity rather than a particular instance of that kind. Generic event NPs refer to a kind of event as opposed to any particular occurrence. In the following example the generic event NP is in bold:

(190) ***La guerre** est un conflit armé, opposant au moins deux groupes sociaux organisés.*

War is an armed conflict opposing at least two organized social groups.

(191) ***La dépossession** est l'action qui consiste à priver quelqu'un d'un bien par un moyen coercitif.*

Dispossession is the action that consists in depriving someone of a possession by coercive means.

Nominal reference to a kind, in French, as in other romance languages, is made by use of a definite NP, as can be seen in the above examples. In these sentences, reference to the kind is imposed by the predicate, which does not allow for a specific (i.e. instance) reading of the subject NP. These types of sentences describe properties of a particular kind of event and are typical of definitions (e.g. from a dictionary or encyclopedia).

Generic event nominals, such as those in the above examples, are not to be annotated, as they do not denote instances which can be attributed a specific temporal localization. The properties attributed in such sentences are true of the generic NP irrespective of time.

Generic event NPs can also appear in argument position of verbal predicates describing a punctual event, provided the event has a particular significance for the kind in question. In the following examples the generic event NP is in bold face and the event predicate to which it is argument is underlined.

(192) ***L'usage de la lingette** est apparu en France en 1994.*

The use of the baby wipe appeared in France in 1994.

(193) *Le gouvernement a interdit **le mariage par échange**.*

The government has banned exchange marriage.

As in the previous examples, in these types of sentences, the generic nominal is not to be annotated. Again, it is not possible to attribute a particular temporal location to the generic nominal itself, although the verbal predicate to which it is complement may be temporally located (as in example (192) with an explicit temporal expression).

3.2.4 Contextual indicators for event nominals

It is sometimes difficult to determine whether a lexically ambiguous nominal has an event interpretation or not. However, certain elements appearing in the context may give indications as to the appropriate reading. This section details some linguistic elements which may impose an event reading on ambiguous nominals.

As mentioned in Section 3.1.4, event containers are verbs which take event nominals as arguments. A nominal in subject position of a verb such as *arriver*, *se passer*, *se produire* or *avoir lieu*, for example, is likely to be an event. The verbs *manquer*, *louper*, *rater* and *assister à*, *être témoin de* take events in direct object and oblique object positions respectively [GJ94, ADR06]. Lexically ambiguous nominals (potentially having an event reading) in argument position of these verbs will have an event reading and must be annotated. The following examples illustrate two possible readings of such nominals, as object (a) and event (b). Event containers are underlined.

- (194) a. *Les dignitaires ont eu droit à **un somptueux repas** de 18 services.*
The dignitaries were entitled to a sumptuous 18 course meal.
 b. ***Un repas** provençal aura lieu ce week-end à la mairie de Grasse.*
A provençal meal will take place this weekend at the Grasse town hall.
- (195) a. ***La présentation** a été réalisée avec l'utilisation de la classe Beamer.*
The presentation was produced using the Beamer class.
 b. *Cécilia, malade, a manqué **la présentation** de son mari.*
Cécilia, ill, missed her husband's presentation.
- (196) a. *Les particuliers peuvent placer **une annonce** dans ce quotidien.*
Private individuals can place an ad in this daily paper.
 b. *De nombreux experts ont assisté à **l'annonce** officielle.*
Numerous experts were present at the official announcement.

In the absence of lexicalized markers allowing for disambiguation of a given nominal, the annotator may ask whether the nominal in this context could appear in argument position of one of these predicative contexts. The idea is that if the nominal in question designates something which is going to happen or come about, then it has an event interpretation in context.

Lexically ambiguous nominals which appear as complements of temporal prepositions, such as *avant*, *après*, *pendant*, *depuis*, *dès* and *lors de*, are also likely to have an event reading. Again, the following examples illustrate two different possible readings for each nominal, namely as object. The lexically ambiguous NPs are in bold and temporal prepositions are underlined.

- (197) a. ***Un tsunami** est créé lorsqu'une grande masse d'eau est déplacée.*
A tsunami is created when a great mass of water is displaced.
 b. *Lors du tsunami, l'évacuation a été une opération colossale.*
During the tsunami, evacuation was a colossal operation.
- (198) a. ***L'envoi** doit être placé sous double enveloppe.*
The parcel must be placed in a dual envelope.
 b. *Le logiciel permet de redimensionner les photos avant **l'envoi**.*
The software allows for the resizing of photos before sending.

The presence of an agentive complement (introduced by the preposition *par*) is another good indicator that a lexically ambiguous nominal has an event reading. The first example, repeated from above, exhibits an object reading. The second example, with an agentive complement (underlined) introduced by *par* exhibits an event reading. The patient is often also expressed at the same time and is introduced by the preposition *de*.

- (199) a. ***La présentation** a été réalisée avec l'utilisation de la classe Beamer.*
The presentation was produced using the Beamer class.
 b. *Cécilia, malade, n'a pas vu **la présentation** du plan par son mari.*
Cécilia, ill, didn't see her husband's presentation of the plan.

The general schema for an event nominal with these two arguments realized is NP *de* NP *par* NP.

If no elements in the local context are available for disambiguation, it may be possible for the annotator to resolve ambiguities in nominals by referring to a wider context. For example, if the nominal in question is

used elsewhere in the same text in a non-ambiguous context and is coreferent with the supposedly ambiguous instance, the local ambiguity may possibly be resolved. However, if this is not the case and the ambiguity remains, the annotator may choose to annotate the nominal in order to capture a maximum of information.

3.3 Annotating Adjectives

Adjectives, which typically denote states, are to be marked up when they have a predicative function, appearing in a construction with a copula or state verb. For example,

- (200) *Les trois candidats étaient **favorables** à un durcissement des sanctions.*
The three candidates were in favor of a toughening of sanctions.
- (201) *Le président réélu semble **prêt** pour un nouveau mandat.*
The re-elected president seems ready for a new mandate.

In the annotation, the tense of the copula or state verb is to be stored in the `tense` attribute of the adjective's `<EVENT>` tag. Similarly, any aspectual, negative polarity or modality markers are to be captured in the `aspect`, `polarity` and `modality` attributes of this tag. For example,

- (202) *Le président réélu ne semble pas **prêt** pour un nouveau mandat.*
The re-elected president does not seem ready for a new mandate.

```
Le Président réélu ne semble pas <EVENT eid="e1" eiid="e11" class="STATE"
pos="ADJECTIVE" pred="PRET" tense="PRESENT" polarity="NEG">prêt</EVENT> pour un
nouveau mandat.
```

3.3.1 Predicate classes

The distinction drawn by [Car80], between individual-level predicates and stage-level predicates, is to be taken into account when annotating adjectives.

Individual-level predicates are true of an entity throughout the existence of that entity. For example, if we say *Jean est humain* (*Jean is human*), the property holds of Jean regardless of which point in time is considered.

Stage-level predicates are true of a particular entity over a temporal stage of its existence. For example, in the sentence *Jean est fatigué* (*Jean is tired*), the property expressed by the adjectival predicate applies for only a certain amount of time and not throughout Jean's entire existence.

Only stage-level adjectives are to be annotated with the `<EVENT>` tag. Individual-level predicates are to be excluded from annotation as they do not represent potentially dynamic properties of their subject.

Contextual factors, especially the tense of the predication, are to be taken into account when deciding on the class of the predicate. For example, an adjective which is generally considered to be lexically individual-level may be coerced into having a stage-level reading by a copula in a past tense. For example, the adjective *intelligent* in the following example has a stage-level reading and is to be annotated accordingly.

- (203) *Wilson a été très **intelligent** dans sa façon de présenter le contenu.*
Wilson has been very intelligent in his way of presenting the content.

```
Wilson a été très <EVENT eid="e1" eiid="e11" class="STATE" pos="ADJECTIVE"
pred="INTELLIGENT" tense="PAST">intelligent</EVENT> dans sa façon de présenter le contenu.
```

Apart from modal adjectives (see Section 3.3.4), adjectives are not to be annotated in impersonal constructions. The following examples illustrate cases in which adjectives must not be marked up.

- (204) *Il n'est donc pas surprenant que les deux anciens des Canadiens croient aux chances des Sénateurs.*
It is, therefore, not surprising that the two former Canadiens believe in the chances of the Senators.

- (205) *Il est difficile de chiffrer la valeur de Souray étant donné qu'il peut être joueur autonome à compter du 1er juillet.*
It is difficult to put a figure on the value of Souray given that he may be an autonomous player as of the 1st of July.
- (206) *C'est indigne qu'il ait tenu de tels propos envers le Tricolore.*
It's disgraceful that he made such comments about the Tricolore.

3.3.2 Past participial adjectives

Past participles which have a predicative adjectival function are also to be marked up with the <EVENT> tag.

- (207) *Presque la moitié des vols internes d'Air France seront **annulés**.*
Almost half of Air France's domestic flights will be cancelled.

Presque la moitié des vols internes d'Air France seront <EVENT eid="e1" eiid="ei1" class="STATE" pos="ADJECTIVE" vform="PASTPART" tense="FUTURE">annulés</EVENT>.

- (208) *Leur position était **affaiblie** par le fait qu'ils avaient été associés.*
Their position was weakened by the fact that they had been associates.

Leur position était <EVENT eid="e1" eiid="ei1" class="STATE" pos="ADJECTIVE" vform="PASTPART" tense="IMPERFECT">affaiblie</EVENT> par le fait qu'ils avaient été associés.

3.3.3 Grammatical function

Adjectives with an attributive function (adjectives which are part of an NP) which are not modified by a temporal expression are **not** to be annotated, as they do not denote states which have explicitly defined temporal boundaries or localization.

- (209) *La **nouvelle** plateforme sera présentée dans le cadre des activités du congrès.*
The new platform will be presented in the framework of the activities of the conference.

Adjectives appearing in impersonal constructions are not to be annotated, excluding the case of modal adjectives (see Section 3.3.4). Such impersonal constructions are those containing an impersonal pronoun, such as *il* or *ce* followed by a copula or state verb and an adjective. In the following examples, the adjective in the impersonal construction is not to be annotated.

- (210) *Il est évident que la technique qui permet ces allègements est bien plus difficile que celle d'un dévernisage intégral.*
It is obvious that the technique which allows these reductions is much more difficult than the complete removal of varnish.
- (211) *Il semble normal que le périmètre des abattoirs actuellement existants soit étendu.*
It seems normal that the existing perimeter of the abattoirs be extended.
- (212) *C'est bête que ce soit arrivé à cause d'un simple manque d'attention.*
It's a shame that this happened because of a simple lack of attention.

Any adjective explicitly modified by a temporal expression must also be marked up, regardless of its function. This is in accordance with the guidelines for annotating states in general. In the following example the adjective in question is in bold type, the temporal expression is underlined.

- (213) *Le cadavre d'un homme **mort** depuis six mois a été retrouvé dans sa maison.*
The corpse of a man dead for six months was found in his house.

Le cadavre d'un homme <EVENT eid="e1" eiid="ei1" class="STATE" pos="ADJECTIVE" pred="MORT">mort</EVENT> depuis six mois a été retrouvé dans sa maison.

3.3.4 Impersonal modal expressions (class MODAL)

Complex modal expressions may also have an impact on the vericonditional status of events in the propositions they introduce. Certain modalities may also leave the instantiation of events undetermined, such as in *il est possible que Jean vienne* (it is possible that Jean will come), or yet again express a deontic attitude, as in *il est nécessaire que Jean vienne* (it is necessary that Jean comes).

The modal properties of impersonal expressions of the form *il + state verb + modal adjective*, which introduce a clause containing an <EVENT>, must be captured in the annotation². Examples of modal adjectives to be annotated are *nécessaire*, *possible*, *impossible*, *probable*, *improbable*, *vrai* and *faux*. In the following examples, the modal expression is in bold and the subordinated event instance is underlined.

- (214) ***Il était nécessaire que*** des postes C2 soient comblés à partir du concours.
It was necessary for the C2 positions to be filled from the competitive exam.
- (215) ***Il paraît probable que*** le Congrès adoptera trois grands accords.
It seems likely that Congress will sign three large agreements.
- (216) *Le processus est engagé et il ne semble pas possible de faire* marche arrière.
The process is underway and it doesn't seem possible to turn back.

In these expressions, the modal adjective is to be marked up with the <EVENT> tag. The value of the tag's `polarity` attribute will be derived from the polarity of the context in which the state verb is found. Tense and aspectual information is also derived from the state verb. The <EVENT> tag of the modal adjective will have values for the `tense`, `aspect` and `polarity` attributes. In the same way, in the following example, the subordinated event complement receives the `mood` value of `SUBJUNCTIVE` from the copula in the passive construction. The value of the `modality` attribute is determined according to the ontology outlined in Section 2.1.11.

```
Il était <EVENT eid="e1" eiid="ei1" class="MODAL" pos="ADJECTIVE"
pred="NECESSAIRE" tense="IMPERFECT">nécessaire</EVENT>que des postes C2 soient <EVENT
eid="e2" eiid="ei2" class="OCCURRENCE" pos="ADJECTIVE" pred="COMBLER"
vform="PASTPART" tense="PAST" mood="SUBJUNCTIVE"
modality="NECESSITY">comblés</EVENT> à partir du concours.
```

The relation between an impersonal modal expression and its event complement is realized in the annotation by an `SLINK` tag. Details of this tag are given in Section 2.5.

3.4 Annotating Prepositional Phrases

Prepositional phrases which have a predicative adjectival function (e.g. if introduced as complement of a state verb such as *être*, *sembler* or *paraître*) are to be marked up with the <EVENT> tag. The aspect, modality, mood, polarity and tense properties of the state verb are captured in the corresponding attributes of the <EVENT> tag that marks up the prepositional phrase.

- (217) *La relance de l'économie est en panne* avec un chômage oscillant entre 25% et 50%.
The economic revival is out of order with unemployment swinging between 25% and 50%.
- (218) *Les 29 personnes qui étaient à bord* du navire ont survécu.
The 29 people who were on board the ship survived.

```
La relance de l'économie est <EVENT eid="e1" eiid="ei1" class="STATE"
pos="PREPOSITION" tense="PRESENT">en panne</EVENT> avec un chômage oscillant entre 25% et
50%.
```

As with adjectives, prepositional phrases with an attributive function, such as in *le moteur en panne*, are not to be annotated, unless explicitly qualified by a temporal expression, as in the following example.

²The term *state verb* is used here as a translation of the French *verbe d'état*, which is not to be confused with *stative verbs* (*les verbes statifs*). Examples of state verbs are *être*, *sembler*, *paraître* and *avoir l'air*.

- (219) *Le président français Nicolas Sarkozy aura fort à faire pour relancer le processus européen **en panne** depuis 2 mois.*
The French president, Nicolas Sarkozy, will have to work extremely hard to restart the european process, out of order for the past two months.

Le président français aura fort à faire pour relancer le processus européen <EVENT eid="e1" eiid="e11" class="STATE" pos="PREPOSITION" pred="EN PANNE">**en panne**</EVENT> depuis 2 mois.

3.4.1 Aspectual expressions

Certain prepositional phrases exhibit particular aspectual properties which must be captured. This section provides annotation guidelines for the event complements of several prepositional constructions, such as *en train de* + infinitive, *en cours de* + N and *en voie de* + infinitive, which express different temporal and/or aspectual properties.

en train de + infinitive

This construction expresses a process which is in progress. It exhibits similar aspectual properties to those apparent in the English present continuous tense (*John is eating fish and chips*), which has a progressive aspectual reading. The prepositional phrase *en train de* appears most frequently as complement of the verb *être* (220) and less frequently as complement to the verb *sembler*. It may also appear in passive constructions as complement to a verbal predicate (but semantic argument of the subject NP) (222), or as an NP complement (223). The aspectual PP is in bold face and its event argument is underlined in the following examples.

- (220) *Les Américains sont **en train de** perdre contrôle de l'Irak.*
The Americans are losing control of Iraq.
- (221) *À d'autres endroits, en revanche, quelque chose semble **en train de** se terminer.*
On the other hand, in other places so,ething seems to be coming to an end.
- (222) *Un salarié a été surpris **en train de** fumer un joint dans l'entreprise.*
An employee was caught smoking a joint in the offices.
- (223) *On a **aperçu** Pierre **en train de** faire de l'aqua gym à la piscine des Halles.*
Pierre was seen doing aquarobics at the swimming pool in les Halles.

The prepositional phrase *en train de*, a fixed collocation, contains the aspectual information regarding the event. The infinitival complement of this expression is to be marked up with the <EVENT> tag with an aspect attribute of value PROGRESSIVE.

The respective values for the polarity, mood and tense attributes will be derived from the copula or state verb, in examples such as (220) and (221), where the PP is complement of a copula or state verb. In passive constructions, such as in example (222), where the PP is attached to a verb, but is semantic argument of the subject NP, the values for mood, modality and tense are derived from the main verb. The same applies for cases such as in example (223), where the PP is attached directly to an NP.

Les Américains sont en train de <EVENT eid="e1" eiid="e11" class="OCCURRENCE" pos="VERB" pred="PERDRE" aspect="PROGRESSIVE" tense="PRESENT" vform="INFINITIVE">**perdre**</EVENT> le contrôle de l'Irak.

en voie/passe de and *sur le point de* + infinitive

In the expression *en voie/passe de* and *sur le point de* + infinitive, the infinitive is typically a type of punctual event (an achievement in Vendler's terms) which culminates instantaneously. The expression itself indicates that the event realized by the infinitive will take place in the near future and that the conditions for the

event's occurrence are being fulfilled. This is an indication of prospective aspect. In the following example, the aspectual expression is in bold and its infinitival complement is underlined.

- (224) *Le conformisme politique est **en passe de** supplanter le loyalisme d'antan.*
Political conformity is about to override the loyalism of yesteryear.
- (225) *Volta, déjà renommé, était **en voie de** découvrir le courant électrique.*
Volta, already famous, was about to discover electric current.
- (226) *Les grandes firmes ne sont pas **sur le point de** négoier une entente.*
The large companies are not about to negotiate an agreement.

The infinitival event complement of the expression *en voie/passe de* or *sur le point de* is to be annotated with the <EVENT> tag. It will take values for the attributes of tense, mood, modality and polarity from the copula which introduces the expression. It will have the value PROSPECTIVE for its aspect attribute to reflect the semantics of the construction. The following is the annotation corresponding to example (226) above.

```
Les grandes firmes ne sont pas sur le point de <EVENT eid="e1" eiid="e11" class="OCCURRENCE"
pos="VERB" pred="NEGOCIER" vform="INFINITIVE" tense="PRESENT" polarity="NEG"
aspect="PROSPECTIVE">négoier</EVENT> une entente.
```

en voie de + N

The interpretation of the expression *en voie de*, when followed by an event nominal complement, depends on the nature of the event realized by the nominal. When the nominal is a punctual event (an achievement), the reading for the aspectual expression is the same as for *en voie de* + infinitive. In this case, the event in question is to occur in the near future, or the conditions for its occurrence are being fulfilled, a prospective aspectual reading. In the examples the aspectual expression is in bold and its nominal complement underlined. The first set of examples contain event nominals which represent achievements.

- (227) *Les vidéocassettes sont **en voie d'**extinction.*
Video cassettes are becoming extinct.
- (228) *La fabrication était juste **en voie de** commencement à l'est comme à l'ouest.*
Mass manufacturing was just beginning in the East and West alike.
- (229) *Les structures sociales, modifiées dans le même mouvement que nos économies, sont **en voie de** renouvellement.*
Social structures, modified in the same movement as our economies, are being renewed.

When the aspectual expression has an achievement as complement, the complement is to be marked up with the <EVENT> tag. The tag will take values for the attributes of tense, mood, modality and polarity from the copula which introduces the expression. The value PROSPECTIVE is used for the attribute aspect.

```
Les vidéocassettes sont en voie de <EVENT eid="e1" eiid="e11" class="OCCURRENCE"
pos="NOUN" pred="EXTINCTION" tense="PRESENT"
aspect="PROSPECTIVE">extinction</EVENT> .
```

On the other hand, if the event realized by the nominal complement is a durative event (an activity or process), the aspectual expression has a different interpretation. In this second case, the event in question is understood to be already underway. the reading is the same as for the expression *en cours de/en plein(e)* + N (see below).

- (230) *Les procédures de financement et de construction des établissements sont **en voie de** modification.*
The procedures of financing and construction of institutions are being modified.
- (231) *Ces pays sont sensiblement les mêmes que ceux qui sont encore **en voie de** développement.*
These countries are noticeably the same as those which are still developing.

- (232) *Beaucoup de pays musulmans sont actuellement **en voie de** modernisation.*
Many muslim countries are currently being modernized.

The nominal complement of the expression *en voie de*, when it is a durative event, will have the value PROGRESSIVE for the attribute *aspect*, as in the following example.

```
Beaucoup de pays musulmans sont actuellement en voie de <EVENT eid="e1" eiid="e1l"
class="OCCURRENCE" pos="NOUN" pred="DEVELOPPEMENT" tense="PRESENT"
aspect="PROGRESSIVE"> développement</EVENT> .
```

en cours de/en plein(e) + N

Aspectual expressions of this type characterize events in progress. All three of these constructions often, although not obligatorily, introduce event nominals in the form of nominalizations.

- (233) *Un guide des procédures de gestion **est en cours d'élaboration**.*
A guide to management procedures is being drafted.
- (234) *L'industrie de la biotechnologie **est en plein essor**.*
The biotechnology industry is booming.

In such cases the nominal complement of the prepositional construction is to be marked up with the <EVENT> tag. It is to be annotated according to the guidelines for annotating nouns. The tense of the copula is also captured in this tag with the *tense* attribute. The <EVENT> tag has an *aspect* attribute with the value PROGRESSIVE.

```
Un guide des procédures de gestion est en cours d' <EVENT eid="e1" eiid="e1l"
class="OCCURRENCE" pos="NOUN" pred="ELABORATION" aspect="PROGRESSIVE"
tense="PRESENT"> élaboration</EVENT> .
```

3.5 Underspecified Temporal Expressions

Certain temporal expressions are not able to be attributed a specific normalized value. Vague expressions such as *plus tôt*, *plus tard* and *en même temps (que)* are temporal functions which cannot be attributed a specific value. They do, nonetheless, provide useful information regarding the temporal location of events, namely whether an event occurs respectively before, after or simultaneous to the temporal focus. They are therefore to be annotated with the <SIGNAL> tag.

- (235) *Un peu **plus tard** d'autres services furent créés par Hachette.*
A bit later other services were created by Hachette.

```
Un peu <SIGNAL id="s1">plus tard</SIGNAL> d'autres services furent créés par Hachette.
```

- (236) *Il partirait beaucoup **plus tôt** qu'il ne pensait.*
He would leave a lot earlier than he thought.

```
Il partirait beaucoup <SIGNAL id="s1">plus tôt</SIGNAL> qu'il ne pensait.
```

- (237) *La soutenance de thèse a eu lieu **en même temps que** le séminaire du labo.*
The Phd defense took place at the same time as the lab's seminar.

```
La soutenance de thèse a eu lieu <SIGNAL id="s1">en même temps que</SIGNAL> le séminaire du labo.
```

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