

# ICEACE Reference Manual

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# 1 ICEACE FLAME Implementation

## 1.1 Firm

Table 1: List of memory variables for Firm agent.

Name	Description
int id	Agent ID.
int bank_id	Bank ID at which the agent maintains its payment account.
employee employee_list	Employee data.

Table 2: List of functions for Firm agent.

Name	Description
firm_notifier	Notifies its id by printf.
firm_consumption_dummy	A dummy stub function.
firm_labour_job_announcement	The agent posts available positions.
firm_labour_job_offer	The agent takes applications and makes offer.
firm_labour_update	The agent updates labour status.

## 1.2 Household

Table 3: List of memory variables for Household agent.

Name	Description
int id	Agent ID.
int bank_id	Bank ID at which the agent maintains its payment account.
int my_employer_id	Employer ID of an household. A 0 means unemployed.
double wage	Current wage earned.
int my_job_position	Position of an household within a firm

Table 4: List of functions for Household agent.

Name	Description
household_notifier	Notifies its id by printf.
household_consumption_dummy	A dummy stub function.

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Name	Description
household_labour_job_application	Receive job announcements.
household_labour_job_update	A job employment or a turnover.

### 1.3 Bank

Table 5: List of memory variables for Bank agent.

Name	Description
int id	Agent ID.

Table 6: List of functions for Bank agent.

Name	Description
bank_notifier	Notifies its id by printf.
bank_consumption_dummy	A dummy stub function.
bank_labour_dummy	A dummy stub function.

### 1.4 Government

Table 7: List of memory variables for Government agent.

Name	Description
int id	Agent ID.

Table 8: List of functions for Government agent.

Name	Description
government_notifier	Notifies its id by printf.
government_consumption_dummy	A dummy stub function.
government_labour_dummy	A dummy stub function.

### 1.5 CentralBank

Table 9: **List of memory variables for CentralBank agent.**

Name	Description
int id	Agent ID.

Table 10: **List of functions for CentralBank agent.**

Name	Description
centralbank_notifier	Notifies its id by printf.
centralbank_consumption_dummy	A dummy stub function.
centralbank_labour_dummy	A dummy stub function.

## 1.6 Messages

See Table 11.

Table 11: **List of messages.**

Name	Description
vacancy	Sent by a Firm to post a vacancy.
int employer_id	Firm agent ID who posts a new position.
int position_no	Identifier of a post within a Firm.
double wage	Amount of salary to be offered.
job_application	Sent by an household to apply a posted vacancy.
int employee_id	Household agent ID who applies a new job.
int employer_id	Firm agent ID who has announced the position.
int position_no	Identifier to refer a postion within a Firm.
job_offer	Sent by a firm posting a filled position.
int employer_id	Firm agent ID that has filled a post.
int employee_id	Household agent ID who has been offered a position.
double wage	Amount of salary that is offered.
int position_no	Position offered by a firm.
job_change	Sent by a worket to notify a resigned position.
int employer_id	Firm agent ID of the position held.
int employee_id	Household aent ID who is changing the job.
int position_no	The position resigned by an household.

## 1.7 Constants

Table 12: **List of constants.**

Name	Description
double beta	A threshold value denoting expenditure on housing, as a proportion of total income

## 1.8 Datatypes

Table 13: **List of attributes for ADTs.**

Name	Description
employee	Employee data.
int id	Agent id of the employee.
double wage	Monthly wage paid.