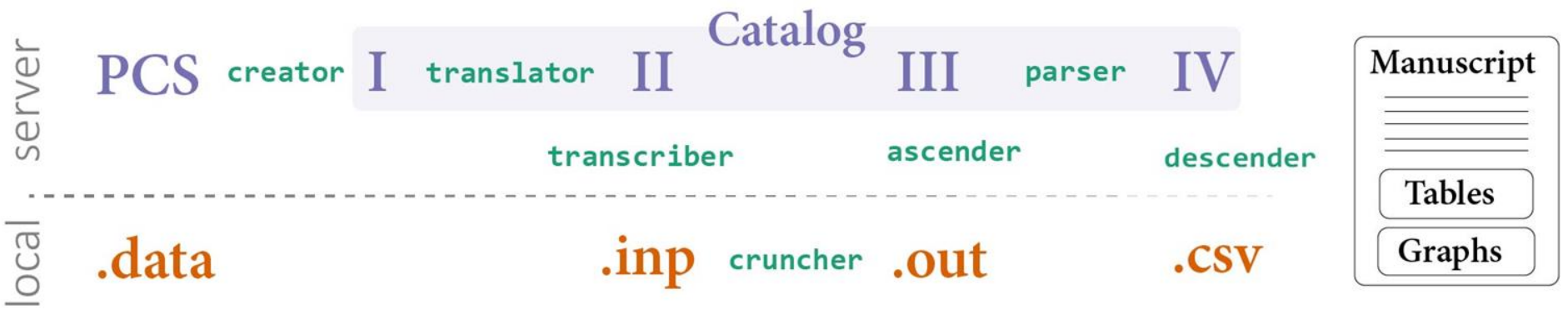
server
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transcriber
ascender
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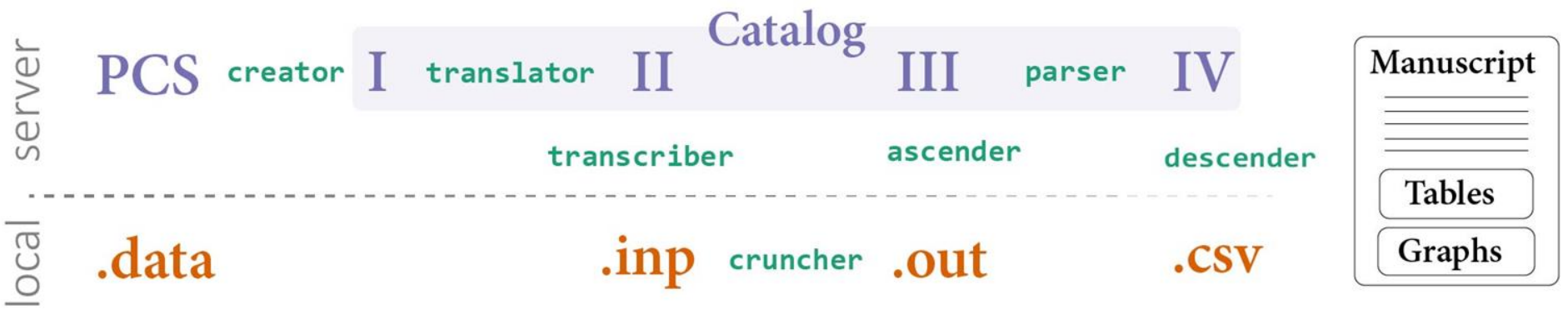
server
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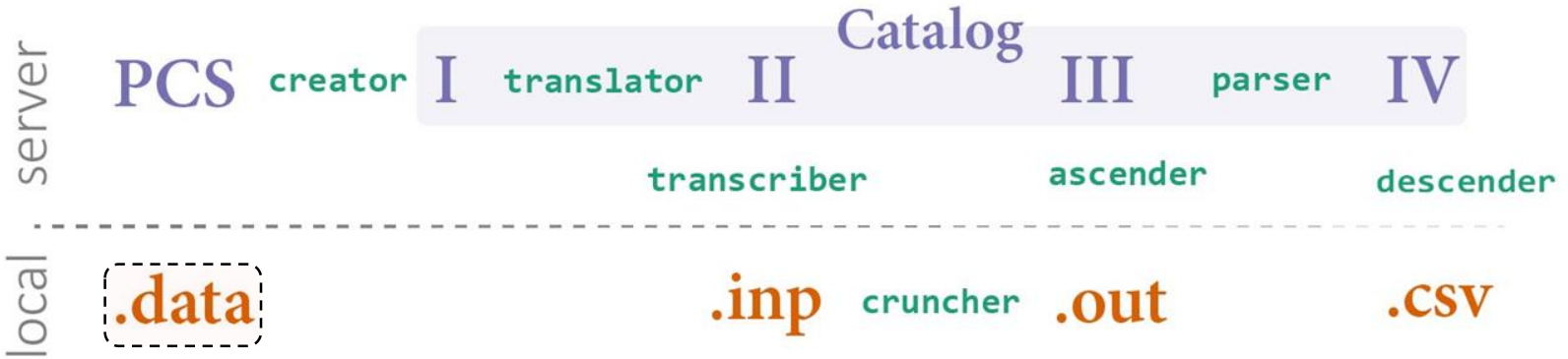

Wide

	id	year_bl	age_bl	year_born	male_bl	edu_bl	height_cm_bl	diabetes_bl	cardio_bl	smoke_bl	age_t1	age_t2	age_t3	age_t4	age_t5	age_t6	animals_t1	animals_t2	animals_t3	animals_t4	animals_t5	anima
1	103712	2002	55	1947	0	4	172.20	1	0	0	55	57	59	61	63	65	18	24	15	16	23	NA
2	103713	2002	71	1931	1	3	NA	0	0	0	71	73	75	NA	NA	NA	10	9	8	NA	NA	NA
3	103714	2002	51	1950	0	4	169.50	0	0	0	51	53	55	57	59	61	33	27	19	28	31	NA

Long / Stacked

	id	wave	year_born	years_since_bl	year_bl	year	age_bl	age	male_bl	edu_bl	height_cm_bl	diabetes_bl	cardio_bl	smoke_bl	fev	fvc	pef	grip	gait	word_recall_im	word_recall_de	animals
1	103712	1	1947	0	2002	2002	55	55	0	4	172.20	1	0	0	NA	NA	NA	NA	NA	6	6	18
2	103712	2	1947	2	2002	2004	55	57	0	4	172.20	1	0	0	2.99	2.99	4.99	26.833333	NA	6	6	24
3	103712	3	1947	4	2002	2006	55	59	0	4	172.20	1	0	0	NA	NA	NA	NA	NA	10	8	15
4	103712	4	1947	6	2002	2008	55	61	0	4	172.20	1	0	0	2.58	2.58	3.78	21.333333	0.687679112	7	7	16
5	103712	5	1947	8	2002	2010	55	63	0	4	172.20	1	0	0	NA	NA	NA	NA	1.105990767	7	6	23
6	103712	6	1947	10	2002	2012	55	65	0	4	172.20	1	0	0	NA	NA	NA	25.500000	1.019108295	6	6	NA
7	103713	1	1931	0	2002	2002	71	71	1	3	NA	0	0	0	NA	NA	NA	NA	0.108572721	5	1	10
8	103713	2	1931	2	2002	2004	71	73	1	3	NA	0	0	0	NA	NA	3.62	17.166667	0.096793711	3	4	9
9	103713	3	1931	4	2002	2006	71	75	1	3	NA	0	0	0	NA	NA	NA	NA	NA	4	2	8
10	103714	1	1950	0	2002	2002	51	51	0	4	169.50	0	0	0	NA	NA	NA	NA	NA	8	7	33

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ELSA

Image credit: https://support.novell.com/techcenter/articles/ana19920502.html

server

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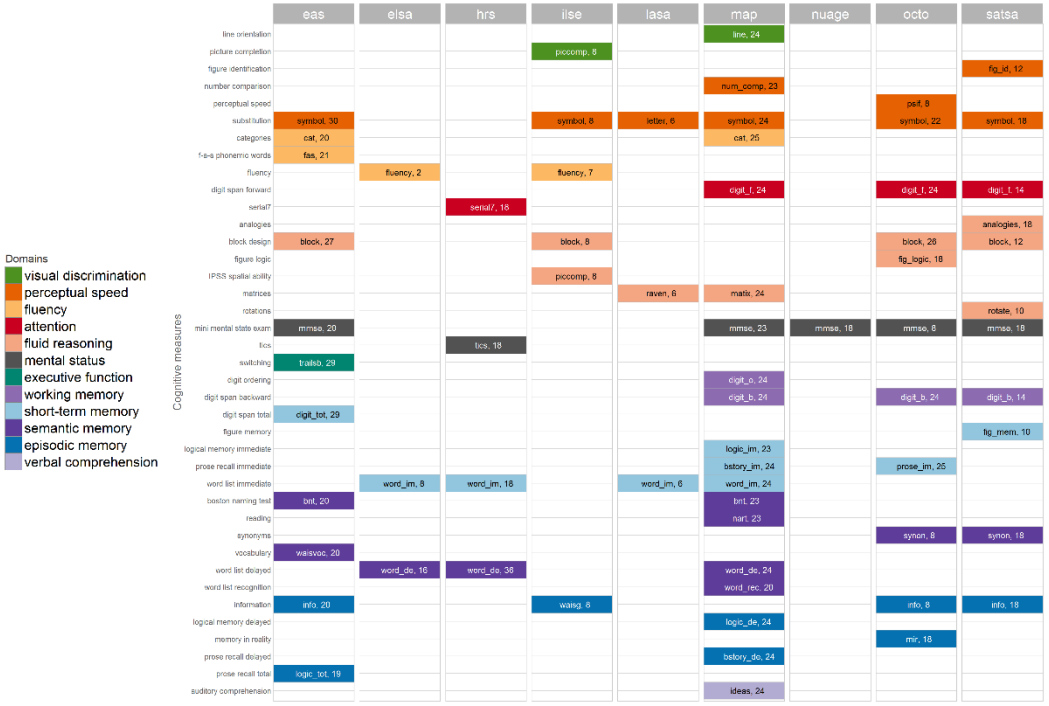

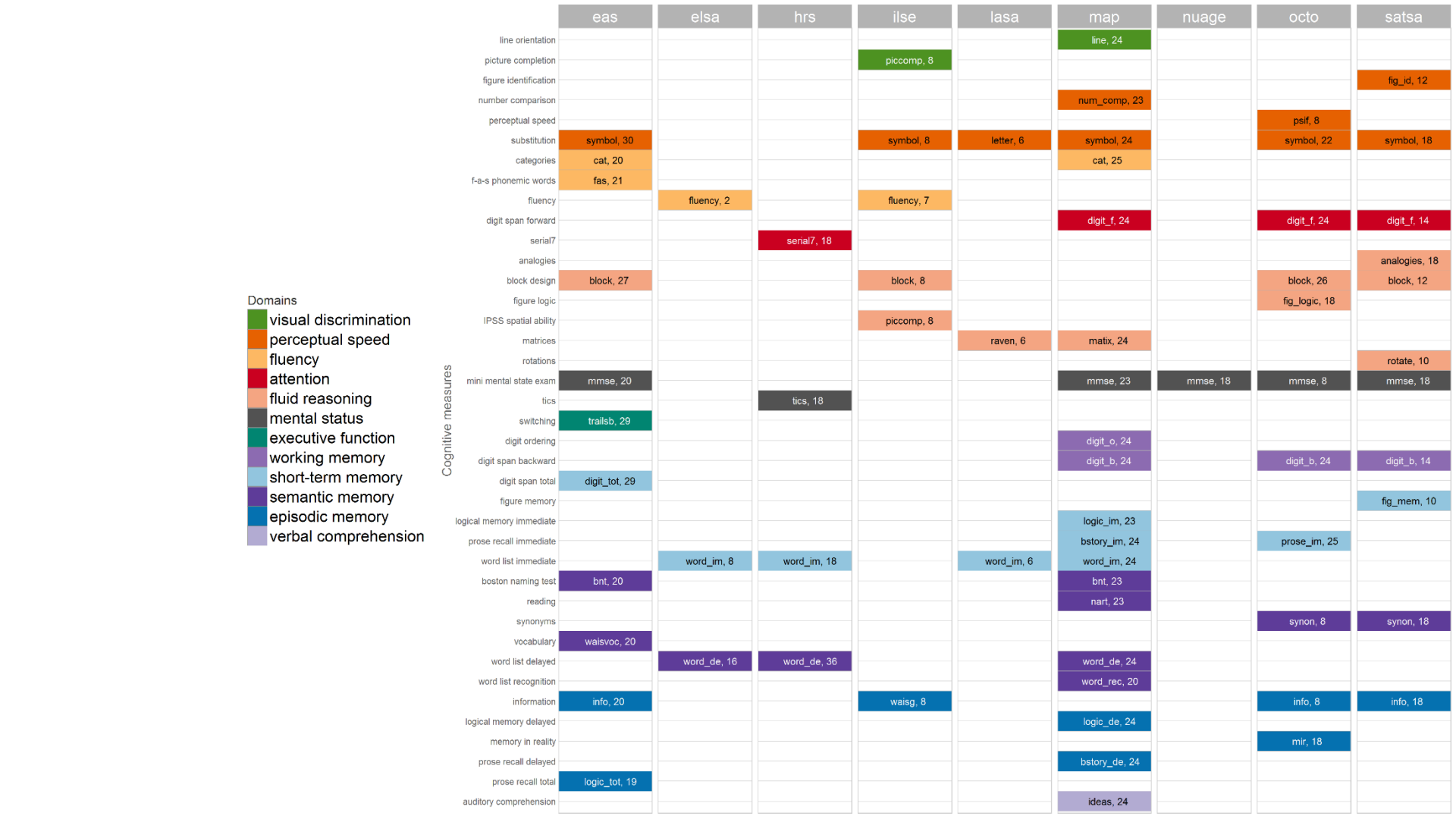
Domains
visual discrimination
perceptual speed
fluency
attention
fluid reasoning
mental status
executive function
working memory
short-term memory
semantic memory
episodic memory
verbal comprehension
Cognitive measures
line orientation
picture completion
figure identification
number comparison
perceptual speed
substitution
categories
f-a-s phonemic words
fluency
digit span forward
serial7
analogies
block design
figure logic
IPSS spatial ability
matrices
rotations
mini mental state exam
tics
switching
digit ordering
digit span backward
digit span total
figure memory
logical memory immediate
prose recall immediate
word list immediate
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reading
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vocabulary
word list delayed
word list recognition
information
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memory in reality
prose recall delayed
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waisvoc, 20
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word_de, 16
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serial7, 18
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word_im, 18
word_de, 36
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waisg, 8
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letter, 6
raven, 6
word_im, 6
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matix, 24
mmse, 23
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bnt, 23
nart, 23
word_de, 24
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bstory_de, 24
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octo
psif, 8
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prose_im, 25
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satsa
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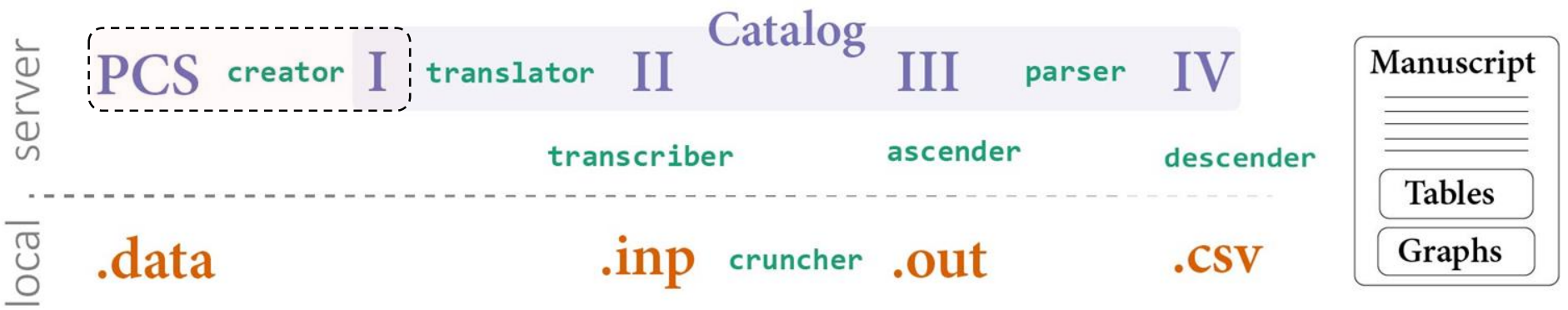
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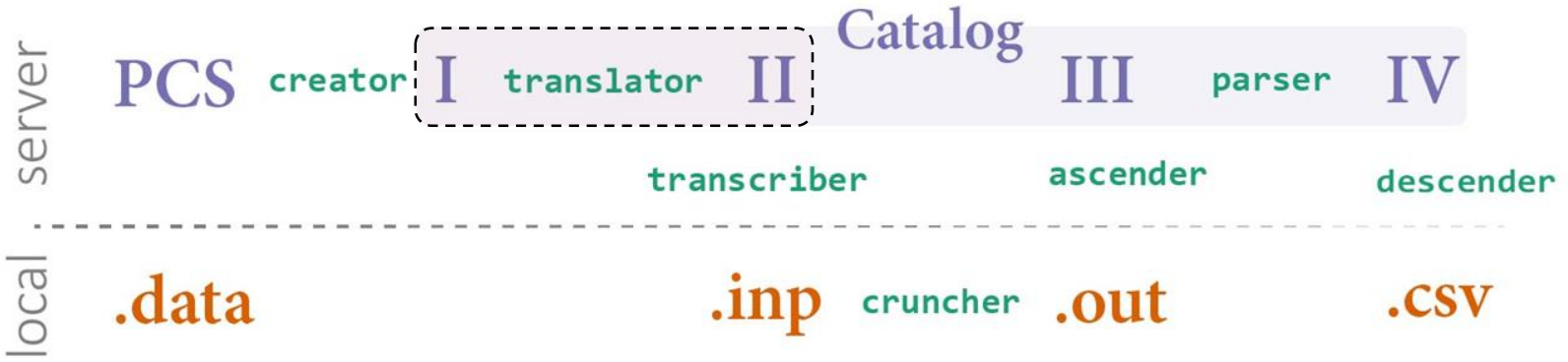

	id	year_bl	age_bl	year_born	male_bl	edu_bl	height_cm_bl	diabetes_bl	cardio_bl	smoke_bl	age_t1	age_t2	age_t3	age_t4	age_t5	age_t6	animals_t1	animals_t2	animals_t3	animals_t4	animals_t5	anima
1	103712	2002	55	1947	0	4	172.20	1	0	0	55	57	59	61	63	65	18	24	15	16	23	NA
2	103713	2002	71	1931	1	3	NA	0	0	0	71	73	75	NA	NA	NA	10	9	8	NA	NA	NA
3	103714	2002	51	1950	0	4	169.50	0	0	0	51	53	55	57	59	61	33	27	19	28	31	NA

$$_{o=\text{Physical}}\beta_{0i} = {}_{p}\gamma_{00} + {}_{p}\Gamma_{0k}(CovSet) + {}_{p}u_{0i}$$

$$_{o=\text{Physical}}\beta_{1i} = {}_{p}\gamma_{10} + {}_{p}\Gamma_{1k}(CovSet) + {}_{p}u_{1i}$$

$${}_{o}y_{ti} = {}_{o}\beta_{0i} + {}_{o}\beta_{1i}(Time_{ti}) + {}_{o}\varepsilon_{ti}$$

$$_{o=\text{Cognitive}}\beta_{1i} = {}_{c}\gamma_{10} + {}_{c}\Gamma_{1k}(CovSet) + {}_{c}u_{1i}$$

$$_{o=\text{Cognitive}}\beta_{0i} = {}_{c}\gamma_{00} + {}_{c}\Gamma_{0k}(CovSet) + {}_{c}u_{0i}$$

Fixed Effects

Physical Intercept
Physical Slope
Cognitive Slope
Cognitive Intercept

$$\begin{matrix} {}_{p}\gamma_{00} & {}_{p}\gamma_{01} & {}_{p}\gamma_{02} \cdots {}_{p}\gamma_{0k} \\ {}_{p}\gamma_{10} & {}_{p}\gamma_{11} & {}_{p}\gamma_{12} \cdots {}_{p}\gamma_{1k} \\ {}_{c}\gamma_{10} & {}_{c}\gamma_{11} & {}_{c}\gamma_{12} \cdots {}_{c}\gamma_{1k} \\ {}_{c}\gamma_{00} & {}_{c}\gamma_{01} & {}_{c}\gamma_{02} \cdots {}_{c}\gamma_{0k} \end{matrix}$$

Random Effects

$$\begin{matrix} {}_{pp}\tau_{00} & {}_{pp}\tau_{01} & {}_{pc}\tau_{01} & {}_{pc}\tau_{00} \\ & {}_{pp}\tau_{11} & {}_{pc}\tau_{11} & {}_{pc}\tau_{10} \\ & & {}_{cc}\tau_{11} & {}_{cc}\tau_{10} \\ & & & {}_{cc}\tau_{00} \end{matrix}$$

Residuals

$${}_{p}\sigma^{2} \quad {}_{pc}\sigma^{2} \quad {}_{c}\sigma^{2}$$

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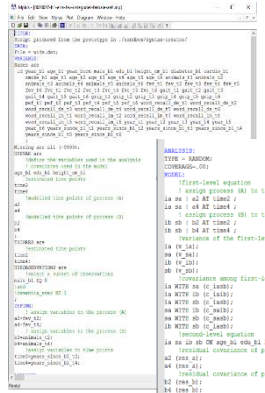

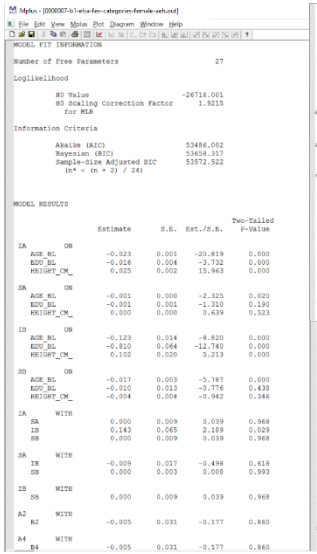

$$_{o=\text{Physical}}\beta_{0i} = {}_{p}\gamma_{00} + {}_{p}\Gamma_{0k}(CovSet) + {}_{p}u_{0i}$$

$$_{o=\text{Physical}}\beta_{1i} = {}_{p}\gamma_{10} + {}_{p}\Gamma_{1k}(CovSet) + {}_{p}u_{1i}$$

$${}_{o}y_{ti} = {}_{o}\beta_{0i} + {}_{o}\beta_{1i}(Time_{ti}) + {}_{o}\varepsilon_{ti}$$

$$_{o=\text{Cognitive}}\beta_{1i} = {}_{c}\gamma_{10} + {}_{c}\Gamma_{1k}(CovSet) + {}_{c}u_{1i}$$

$$_{o=\text{Cognitive}}\beta_{0i} = {}_{c}\gamma_{00} + {}_{c}\Gamma_{0k}(CovSet) + {}_{c}u_{0i}$$

	Fixed Effects	Random Effects	Residuals
Physical Intercept	${}_{p}\gamma_{00}$ ${}_{p}\gamma_{01}$ ${}_{p}\gamma_{02}\cdots{}_{p}\gamma_{0k}$	${}_{pp}\tau_{00}$ ${}_{pp}\tau_{01}$ ${}_{pc}\tau_{01}$ ${}_{pc}\tau_{00}$	${}_{p}\sigma^2$ ${}_{pc}\sigma^2$
Physical Slope	${}_{p}\gamma_{10}$ ${}_{p}\gamma_{11}$ ${}_{p}\gamma_{12}\cdots{}_{p}\gamma_{1k}$	${}_{pp}\tau_{11}$ ${}_{pc}\tau_{11}$ ${}_{pc}\tau_{10}$	
Cognitive Slope	${}_{c}\gamma_{10}$ ${}_{c}\gamma_{11}$ ${}_{c}\gamma_{12}\cdots{}_{c}\gamma_{1k}$	${}_{cc}\tau_{11}$ ${}_{cc}\tau_{10}$	${}_{c}\sigma^2$
Cognitive Intercept	${}_{c}\gamma_{00}$ ${}_{c}\gamma_{01}$ ${}_{c}\gamma_{02}\cdots{}_{c}\gamma_{0k}$	${}_{cc}\tau_{00}$	

	id	year_bl	age_bl	year_born	male_bl	edu_bl	height_cm_bl	diabetes_bl	cardio_bl	smoke_bl	age_t1	age_t2	age_t3	age_t4	age_t5	age_t6	animals_t1	animals_t2	animals_t3	animals_t4	animals_t5	anima
1	103712	2002	55	1947	0	4	172.20	1	0	0	55	57	59	61	63	65	18	24	15	16	23	NA
2	103713	2002	71	1931	1	3	NA	0	0	0	71	73	75	NA	NA	NA	10	9	8	NA	NA	NA
3	103714	2002	51	1950	0	4	169.50	0	0	0	51	53	55	57	59	61	33	27	19	28	31	NA

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	id	year_bl	age_bl	animals_t3	animals_t4	animals_t5	anima
1	103712	2002	55	15	16	23	NA
2	103713	2002	71	8	NA	NA	NA
3	103714	2002	51	19	28	31	NA

o=Physical β_{0i} =

o=Phys

$_{o}y_{ti} = {}_{o}\beta_{0i}$ +

o=Cogni

o=Cognitive β_{0i} =

Mplus - [0000007-b1-elsa-fev-categories-female-aeh.inp]

File Edit View Mplus Plot Diagram Window Help

```
TITLE:
Script produced from the prototype in ./sandbox/syntax-creator/
DATA:
File = wide.dat;
VARIABLE:
Names are
 id year_bl age_bl year_born male_bl edu_bl height_cm_bl diabetes_bl cardio_bl
     smoke_bl age_t1 age_t2 age_t3 age_t4 age_t5 age_t6 animals_t1 animals_t2
     animals_t3 animals_t4 animals_t5 animals_t6 fev_t1 fev_t2 fev_t3 fev_t4 fev_t5
     fev_t6 fvc_t1 fvc_t2 fvc_t3 fvc_t4 fvc_t5 fvc_t6 gait_t1 gait_t2 gait_t3
     gait_t4 gait_t5 gait_t6 grip_t1 grip_t2 grip_t3 grip_t4 grip_t5 grip_t6
     pef_t1 pef_t2 pef_t3 pef_t4 pef_t5 pef_t6 word_recall_de_t1 word_recall_de_t2
     word_recall_de_t3 word_recall_de_t4 word_recall_de_t5 word_recall_de_t6
     word_recall_im_t1 word_recall_im_t2 word_recall_im_t3 word_recall_im_t4
     word_recall_im_t5 word_recall_im_t6 year_t1 year_t2 year_t3 year_t4 year_t5
     year_t6 years_since_bl_t1 years_since_bl_t2 years_since_bl_t3 years_since_bl_t4
     years_since_bl_t5 years_since_bl_t6
     ;
Missing are all (-9999);
USEVAR are
    !define the variables used in the analysis
    ! covariates used in the model
age_bl edu_bl height_cm_bl
    !estimated time points
time2
time4
    !modelled time points of process (A)
a2
a4
    !modelled time points of process (B)
b2
b4
;
TSCORES are
    !estimated time points
time2
time4;
USEOBSERVATIONS are
    !select a subset of observations
male_bl EQ 0
!and
!dementia_ever NE 1
;
DEFINE:
    ! assign variables to the process (A)
a2=fev_t2;
a4=fev_t4;
    ! assign variables to the process (B)
b2=animals_t2;
b4=animals_t4;
    !assign variables to time points
time2=years_since_bl_t2;
time4=years_since_bl_t4;
```

Ready Ln 1, Col 1 NUM

Cognitive Intercept

```
ANALYSIS:
TYPE = RANDOM;
COVERAGE=.00;
MODEL:
    !first-level equation
    ! assign process (A) to time points
ia sa | a2 AT time2 ;
ia sa | a4 AT time4 ;
    ! assign process (B) to time points
ib sb | b2 AT time2 ;
ib sb | b4 AT time4 ;
    !variance of the first-level terms
ia (v_ia);
sa (v_sa);
ib (v_ib);
sb (v_sb);
    !covariance among first-level terms
ia WITH sa (c_iasb);
ia WITH ib (c_iaib);
ia WITH sb (c_iasb);
sa WITH ib (c_saib);
sa WITH sb (c_sasb);
ib WITH sb (c_iasb);
    !second-level equation
ia sa ib sb ON age_bl edu_bl height_cm_bl;
    !residual covariance of process (A)
a2 (res_a);
a4 (res_a);
    !residual covariance of process (B)
b2 (res_b);
b4 (res_b);
    !Paired covariances constrained to be equal across t
a2 pwith b2 (res_cov);
a4 pwith b4 (res_cov);
MODEL CONSTRAINT:
    !assigns labels to new parameters;
NEW r_iaib;
NEW r_sasb;
NEW r_res_ab;
    !compute confidence intervals for correlation coefficients;
r_iaib = c_iaib/((v_ia**0.5)*(v_ib**0.5));
r_sasb = c_sasb/((v_sa**0.5)*(v_sb**0.5));
r_res_ab = res_cov/((res_a**0.5)*(res_b**0.5));
OUTPUT: sampstat cinterval;
PLOT: Type is Plot1 Plot2 Plot3;
```

Ready Ln 1, Col 1 NUM

Residuals

$_{p}\sigma^{2}$

$_{pc}\sigma^{2}$

$_{c}\sigma^{2}$

Mplus - [0000007-b1-elsa-fev-categories-female-aeh.inp]

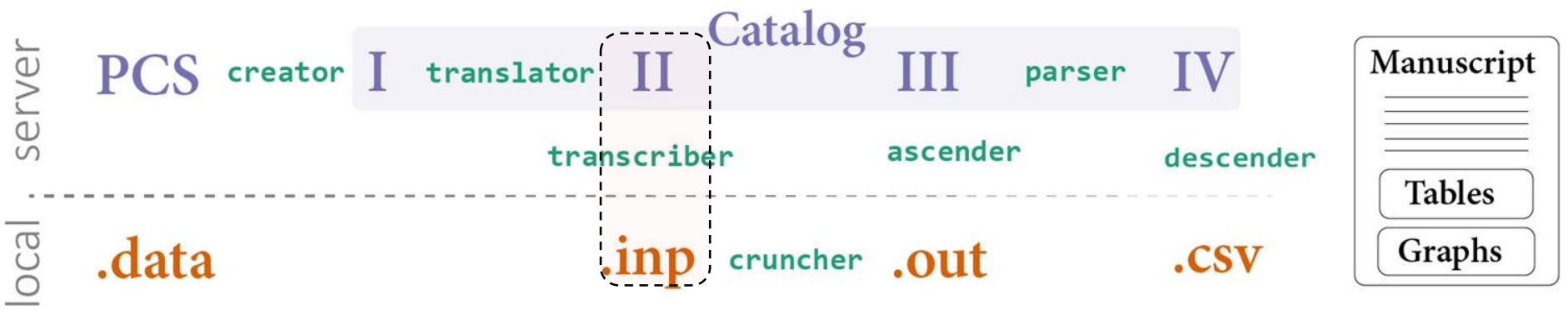
File Edit View Mplus Plot Diagram Window Help

```
TITLE:
Script produced from the prototype in ./sandbox/syntax-creator/
DATA:
File = wide.dat;
VARIABLE:
Names are
 id year_bl age_bl year_born male_bl edu_bl height_cm_bl diabetes_bl cardio_bl
    smoke_bl age_t1 age_t2 age_t3 age_t4 age_t5 age_t6 animals_t1 animals_t2
    animals_t3 animals_t4 animals_t5 animals_t6 fev_t1 fev_t2 fev_t3 fev_t4 fev_t5
    fev_t6 fvc_t1 fvc_t2 fvc_t3 fvc_t4 fvc_t5 fvc_t6 gait_t1 gait_t2 gait_t3
    gait_t4 gait_t5 gait_t6 grip_t1 grip_t2 grip_t3 grip_t4 grip_t5 grip_t6
    pef_t1 pef_t2 pef_t3 pef_t4 pef_t5 pef_t6 word_recall_de_t1 word_recall_de_t2
    word_recall_de_t3 word_recall_de_t4 word_recall_de_t5 word_recall_de_t6
    word_recall_im_t1 word_recall_im_t2 word_recall_im_t3 word_recall_im_t4
    word_recall_im_t5 word_recall_im_t6 year_t1 year_t2 year_t3 year_t4 year_t5
    year_t6 years_since_bl_t1 years_since_bl_t2 years_since_bl_t3 years_since_bl_t4
    years_since_bl_t5 years_since_bl_t6
    ;
Missing are all (-9999);
USEVAR are
    !define the variables used in the analysis
    ! covariates used in the model
age_bl edu_bl height_cm_bl
    !estimated time points
time2
time4
    !modelled time points of process (A)
a2
a4
    !modelled time points of process (B)
b2
b4
;
TSCORES are
    !estimated time points
time2
time4;
USEOBSERVATIONS are
    !select a subset of observations
male_bl EQ 0
!and
!dementia_ever NE 1
;
DEFINE:
    ! assign variables to the process (A)
a2=fev_t2;
a4=fev_t4;
    ! assign variables to the process (B)
b2=animals_t2;
b4=animals_t4;
    !assign variables to time points
time2=years_since_bl_t2;
time4=years_since_bl_t4;
```

Ready

```
ANALYSIS:
TYPE = RANDOM;
COVERAGE=.00;
MODEL:
    !first-level equation
    ! assign process (A) to time points
ia sa | a2 AT time2 ;
ia sa | a4 AT time4 ;
    ! assign process (B) to time points
ib sb | b2 AT time2 ;
ib sb | b4 AT time4 ;
    !variance of the first-level terms
ia (v_ia);
sa (v_sa);
ib (v_ib);
sb (v_sb);
    !covariance among first-level terms
ia WITH sa (c_iasb);
ia WITH ib (c_iaib);
ia WITH sb (c_iasb);
sa WITH ib (c_saib);
sa WITH sb (c_sasb);
ib WITH sb (c_iasb);
    !second-level equation
ia sa ib sb ON age_bl edu_bl height_cm_bl;
    !residual covariance of process (A)
a2 (res_a);
a4 (res_a);
    !residual covariance of process (B)
b2 (res_b);
b4 (res_b);
    !Paired covariances constrained to be equal across t
a2 pwith b2 (res_cov);
a4 pwith b4 (res_cov);
MODEL CONSTRAINT:
    !assigns labels to new parameters;
NEW r_iaib;
NEW r_sasb;
NEW r_res_ab;
    !compute confidence intervals for correlation coefficients;
r_iaib = c_iaib/((v_ia**0.5)*(v_ib**0.5));
r_sasb = c_sasb/((v_sa**0.5)*(v_sb**0.5));
r_res_ab = res_cov/((res_a**0.5)*(res_b**0.5));
OUTPUT: sampstat cinterval;
PLOT: Type is Plot1 Plot2 Plot3;
```

Ready Ln 1, Col 1 NUM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local
PCS
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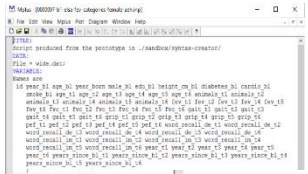

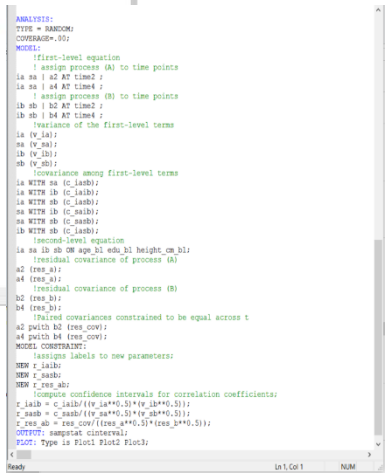

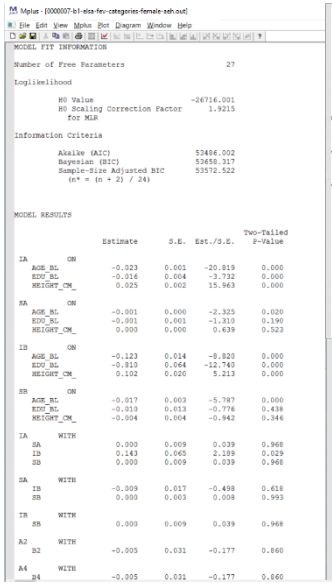

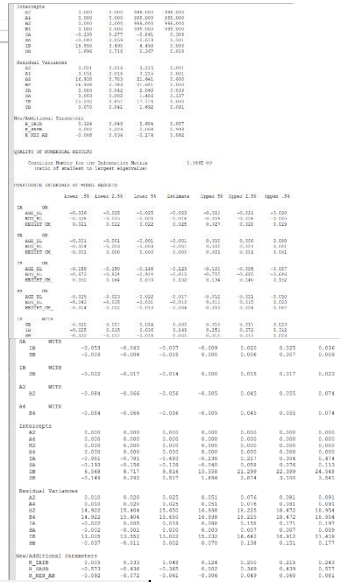

Mplus - [0000007-b1-elsa-fev-categories-female-aeh.inp]

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```
TITLE:
Script produced from the prototype in ./sandbox/syntax-creator/
DATA:
File = wide.dat;
VARIABLE:
Names are
 id year_bl age_bl year_born male_bl edu_bl height_cm_bl diabetes_bl cardio_bl
    smoke_bl age_t1 age_t2 age_t3 age_t4 age_t5 age_t6 animals_t1 animals_t2
    animals_t3 animals_t4 animals_t5 animals_t6 fev_t1 fev_t2 fev_t3 fev_t4 fev_t5
    fev_t6 fvc_t1 fvc_t2 fvc_t3 fvc_t4 fvc_t5 fvc_t6 gait_t1 gait_t2 gait_t3
    gait_t4 gait_t5 gait_t6 grip_t1 grip_t2 grip_t3 grip_t4 grip_t5 grip_t6
    pef_t1 pef_t2 pef_t3 pef_t4 pef_t5 pef_t6 word_recall_de_t1 word_recall_de_t2
    word_recall_de_t3 word_recall_de_t4 word_recall_de_t5 word_recall_de_t6
    word_recall_im_t1 word_recall_im_t2 word_recall_im_t3 word_recall_im_t4
    word_recall_im_t5 word_recall_im_t6 year_t1 year_t2 year_t3 year_t4 year_t5
    year_t6 years_since_bl_t1 years_since_bl_t2 years_since_bl_t3 years_since_bl_t4
    years_since_bl_t5 years_since_bl_t6
    ;
Missing are all (-9999);
USEVAR are
    !define the variables used in the analysis
    ! covariates used in the model
age_bl edu_bl height_cm_bl
    !estimated time points
time2
time4
    !modelled time points of process (A)
a2
a4
    !modelled time points of process (B)
b2
b4
;
TSCORES are
    !estimated time points
time2
time4;
USEOBSERVATIONS are
    !select a subset of observations
male_bl EQ 0
!and
!dementia_ever NE 1
;
DEFINE:
    ! assign variables to the process (A)
a2=fev_t2;
a4=fev_t4;
    ! assign variables to the process (B)
b2=animals_t2;
b4=animals_t4;
    !assign variables to time points
time2=years_since_bl_t2;
time4=years_since_bl_t4;

ANALYSIS:
TYPE = RANDOM;
COVERAGE=.00;
MODEL:
    !first-level equation
    ! assign process (A) to time points
ia sa | a2 AT time2 ;
ia sa | a4 AT time4 ;
    ! assign process (B) to time points
ib sb | b2 AT time2 ;
ib sb | b4 AT time4 ;
    !variance of the first-level terms
ia (v_ia);
sa (v_sa);
ib (v_ib);
sb (v_sb);
    !covariance among first-level terms
ia WITH sa (c_iasb);
ia WITH ib (c_iaib);
ia WITH sb (c_iasb);
sa WITH ib (c_saib);
sa WITH sb (c_sasb);
ib WITH sb (c_iasb);
    !second-level equation
ia sa ib sb ON age_bl edu_bl height_cm_bl;
    !residual covariance of process (A)
a2 (res_a);
a4 (res_a);
    !residual covariance of process (B)
b2 (res_b);
b4 (res_b);
    !Paired covariances constrained to be equal across t
a2 pwith b2 (res_cov);
a4 pwith b4 (res_cov);
MODEL CONSTRAINT:
    !assigns labels to new parameters;
NEW r_iaib;
NEW r_sasb;
NEW r_res_ab;
    !compute confidence intervals for correlation coefficients;
r_iaib = c_iaib/((v_ia**0.5)*(v_ib**0.5));
r_sasb = c_sasb/((v_sa**0.5)*(v_sb**0.5));
r_res_ab = res_cov/((res_a**0.5)*(res_b**0.5));
OUTPUT: sampstat cinterval;
PLOT: Type is Plot1 Plot2 Plot3;
```

Ready | Ln 1, Col 1 | NUM

Mplus - [0000007-b1-elsa-fev-categories-female-aeh.out]

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MODEL FIT INFORMATION

Number of Free Parameters 27

Loglikelihood

H0 Value	-26716.001
H0 Scaling Correction Factor for MLR	1.9215

Information Criteria

Akaike (AIC)	53486.002
Bayesian (BIC)	53658.317
Sample-Size Adjusted BIC (n* = (n + 2) / 24)	53572.522

MODEL RESULTS

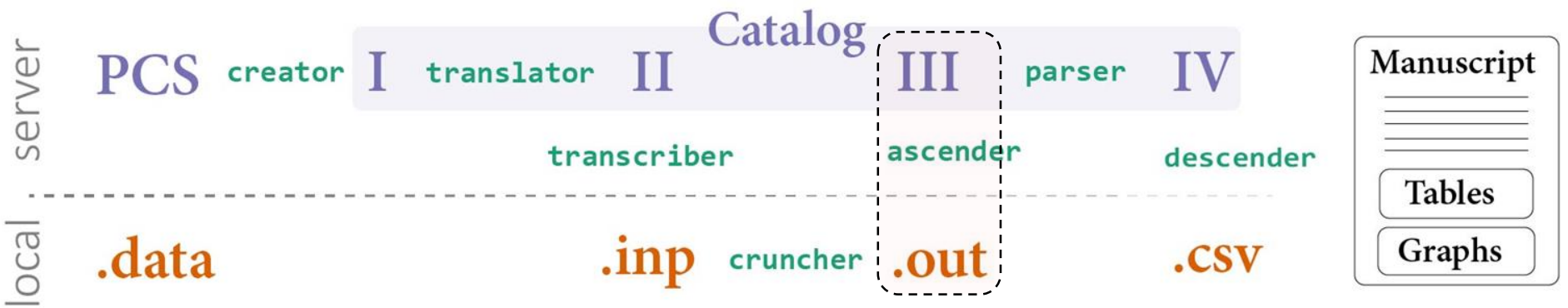
	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
IA ON				
AGE_BL	-0.023	0.001	-20.819	0.000
EDU_BL	-0.016	0.004	-3.732	0.000
HEIGHT_CM_	0.025	0.002	15.963	0.000
SA ON				
AGE_BL	-0.001	0.000	-2.325	0.020
EDU_BL	-0.001	0.001	-1.310	0.190
HEIGHT_CM_	0.000	0.000	0.639	0.523
IB ON				
AGE_BL	-0.123	0.014	-8.820	0.000
EDU_BL	-0.810	0.064	-12.740	0.000
HEIGHT_CM_	0.102	0.020	5.213	0.000
SB ON				
AGE_BL	-0.017	0.003	-5.787	0.000
EDU_BL	-0.010	0.013	-0.776	0.438
HEIGHT_CM_	-0.004	0.004	-0.942	0.346
IA WITH				
SA	0.000	0.009	0.039	0.968
IB	0.143	0.065	2.189	0.029
SB	0.000	0.009	0.039	0.968
SA WITH				
IB	-0.009	0.017	-0.498	0.618
SB	0.000	0.003	0.008	0.993
IB WITH				
SB	0.000	0.009	0.039	0.968
A2 WITH				
B2	-0.005	0.031	-0.177	0.860
A4 WITH				
B4	-0.005	0.031	-0.177	0.860
Intercepts				
A2	0.000	0.000	999.000	999.000
A4	0.000	0.000	999.000	999.000
B2	0.000	0.000	999.000	999.000
B4	0.000	0.000	999.000	999.000
IA	-0.238	0.277	-0.861	0.389
SA	-0.040	0.059	-0.673	0.501
IB	15.558	3.490	4.458	0.000
SB	1.696	0.716	2.367	0.018
Residual Variances				
A2	0.051	0.016	3.215	0.001
A4	0.051	0.016	3.215	0.001
B2	16.938	0.783	21.641	0.000
B4	16.938	0.783	21.641	0.000
IA	0.088	0.042	2.068	0.039
SA	0.003	0.002	1.486	0.137
IB	15.232	0.857	17.774	0.000
SB	0.070	0.041	1.692	0.091
New/Additional Parameters				
R_IAIB	0.124	0.046	2.684	0.007
R_SASB	0.002	0.223	0.008	0.993
R_RES_AB	-0.006	0.034	-0.174	0.862

QUALITY OF NUMERICAL RESULTS

Condition Number for the Information Matrix 0.360E-09
(ratio of smallest to largest eigenvalue)

CONFIDENCE INTERVALS OF MODEL RESULTS

	Lower .5%	Lower 2.5%	Lower 5%	Estimate	Upper 5%	Upper 2.5%	Upper .5%
IA ON							
AGE_BL	-0.026	-0.025	-0.025	-0.023	-0.021	-0.021	-0.020
EDU_BL	-0.028	-0.025	-0.024	-0.016	-0.009	-0.008	-0.005
HEIGHT_CM_	0.021	0.022	0.022	0.025	0.027	0.028	0.029
SA ON							
AGE_BL	-0.001	-0.001	-0.001	-0.001	0.000	0.000	0.000
EDU_BL	-0.004	-0.003	-0.003	-0.001	0.000	0.001	0.001
HEIGHT_CM_	-0.001	0.000	0.000	0.000	0.001	0.001	0.001
IB ON							
AGE_BL	-0.159	-0.150	-0.146	-0.123	-0.100	-0.095	-0.087
EDU_BL	-0.973	-0.934	-0.914	-0.810	-0.705	-0.685	-0.646
HEIGHT_CM_	0.052	0.064	0.070	0.102	0.134	0.140	0.152
SB ON							
AGE_BL	-0.025	-0.023	-0.022	-0.017	-0.012	-0.011	-0.010
EDU_BL	-0.043	-0.035	-0.031	-0.010	0.011	0.015	0.023
HEIGHT_CM_	-0.014	-0.012	-0.010	-0.004	0.003	0.004	0.007
IA WITH							
SA	-0.022	-0.017	-0.014	0.000	0.015	0.017	0.023
IB	-0.025	0.015	0.036	0.143	0.251	0.272	0.312
SB	-0.022	-0.017	-0.014	0.000	0.015	0.017	0.023
SA WITH							
IB	-0.053	-0.043	-0.037	-0.009	0.020	0.025	0.036
SB	-0.009	-0.006	-0.005	0.000	0.006	0.007	0.009
IB WITH							
SB	-0.022	-0.017	-0.014	0.000	0.015	0.017	0.023
A2 WITH							
B2	-0.084	-0.066	-0.056	-0.005	0.045	0.055	0.074
A4 WITH							
B4	-0.084	-0.066	-0.056	-0.005	0.045	0.055	0.074
Intercepts							
A2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
A4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
B2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
B4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
IA	-0.951	-0.781	-0.693	-0.238	0.217	0.304	0.474
SA	-0.193	-0.156	-0.138	-0.040	0.058	0.076	0.113
IB	6.568	8.717	9.816	15.558	21.299	22.399	24.548
SB	-0.149	0.292	0.517	1.696	2.874	3.100	3.541
Residual Variances							
A2	0.010	0.020	0.025	0.051	0.076	0.081	0.091
A4	0.010	0.020	0.025	0.051	0.076	0.081	0.091
B2	14.922	15.404	15.650	16.938	18.225	18.472	18.954
B4	14.922	15.404	15.650	16.938	18.225	18.472	18.954
IA	-0.022	0.005	0.018	0.088	0.158	0.171	0.197
SA	-0.002	-0.001	0.000	0.003	0.007	0.007	0.009
IB	13.025	13.552	13.822	15.232	16.642	16.912	17.439
SB	-0.037	-0.011	0.002	0.070	0.138	0.151	0.177
New/Additional Parameters							
R_IAIB	0.005	0.033	0.048	0.124	0.200	0.215	0.243
R_SASB	-0.573	-0.436	-0.365	0.002	0.369	0.439	0.577
R_RES_AB	-0.092	-0.072	-0.061	-0.006	0.049	0.060	0.081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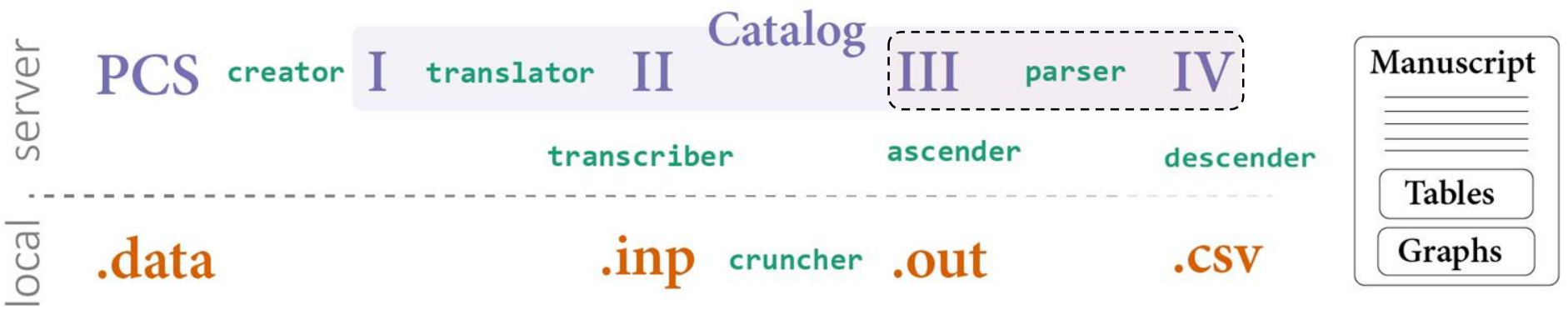
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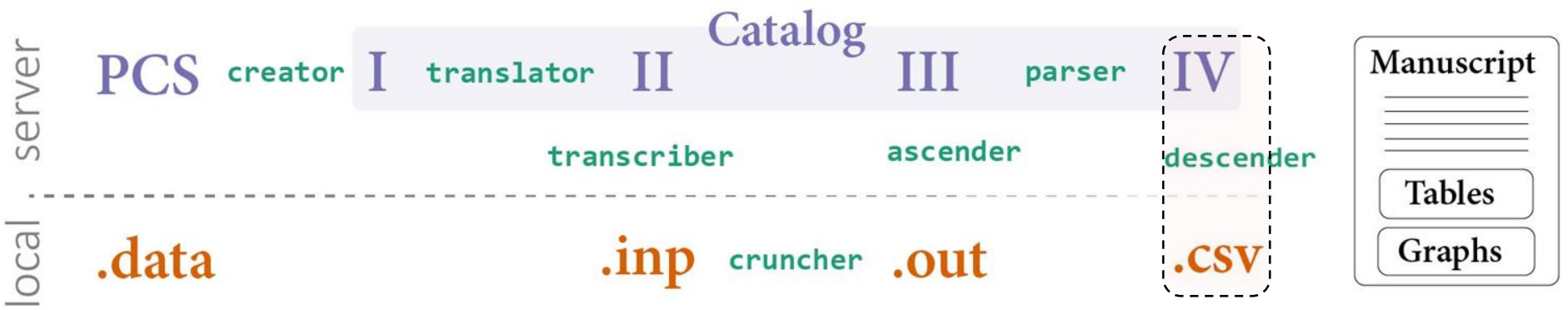
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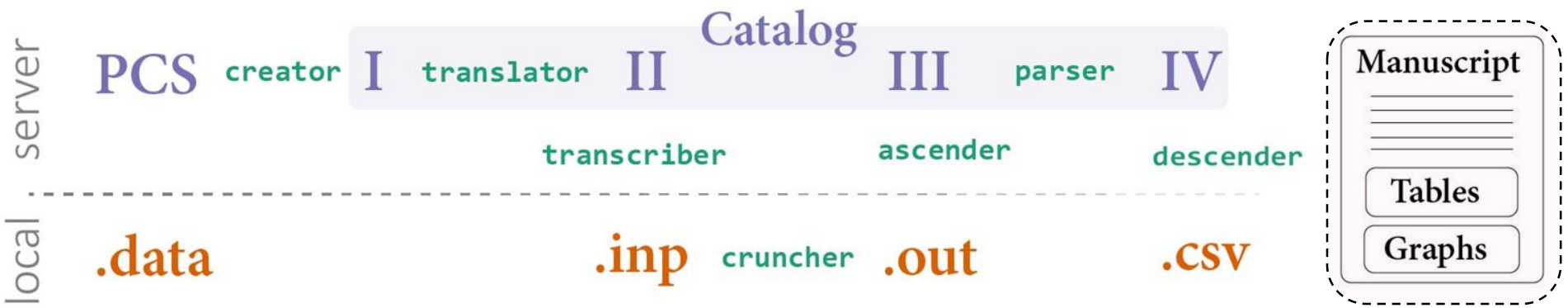
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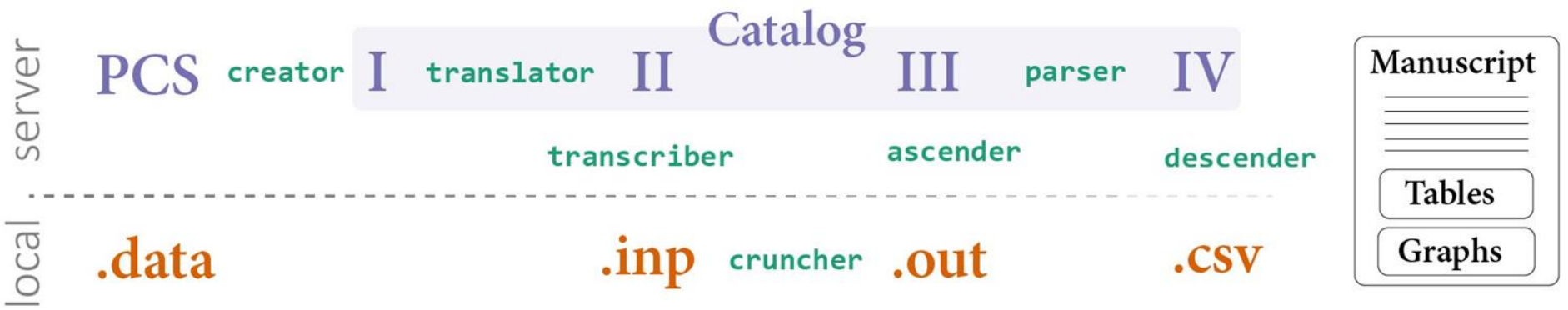
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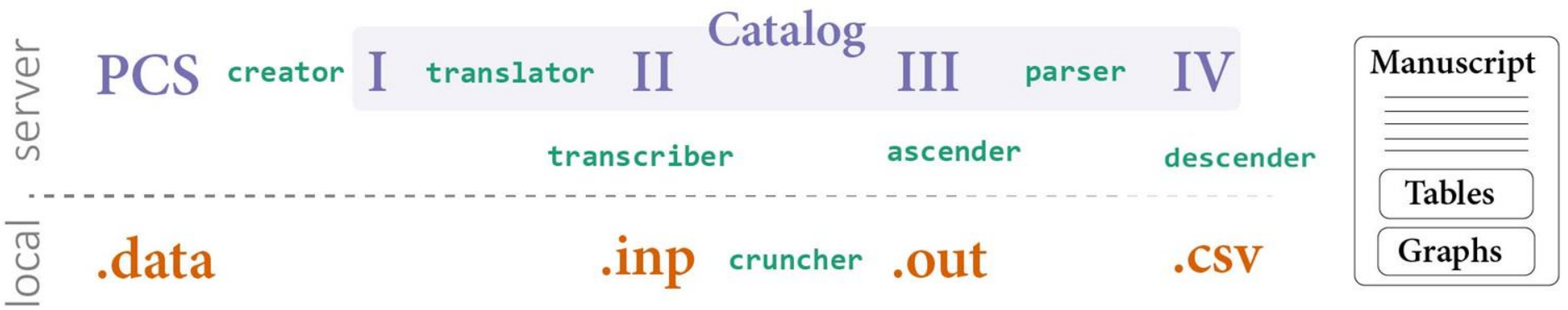
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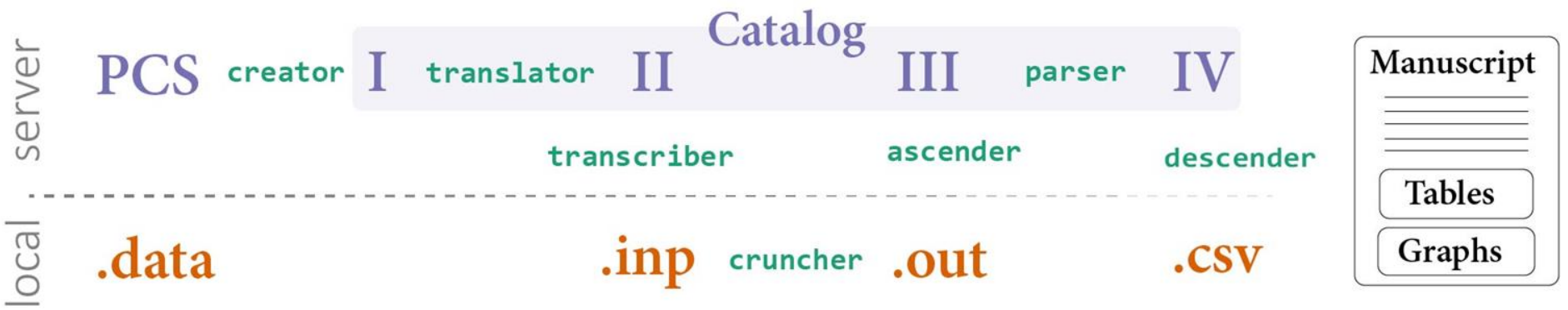
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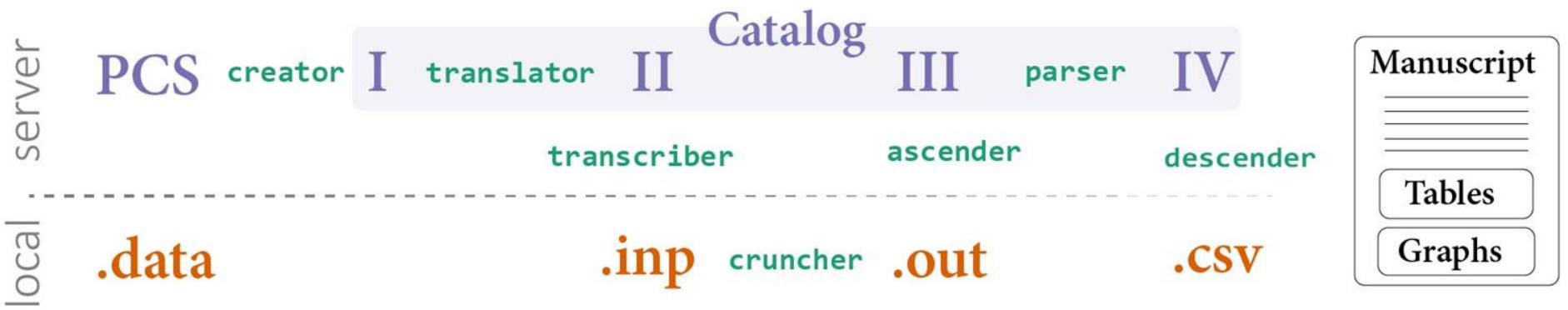
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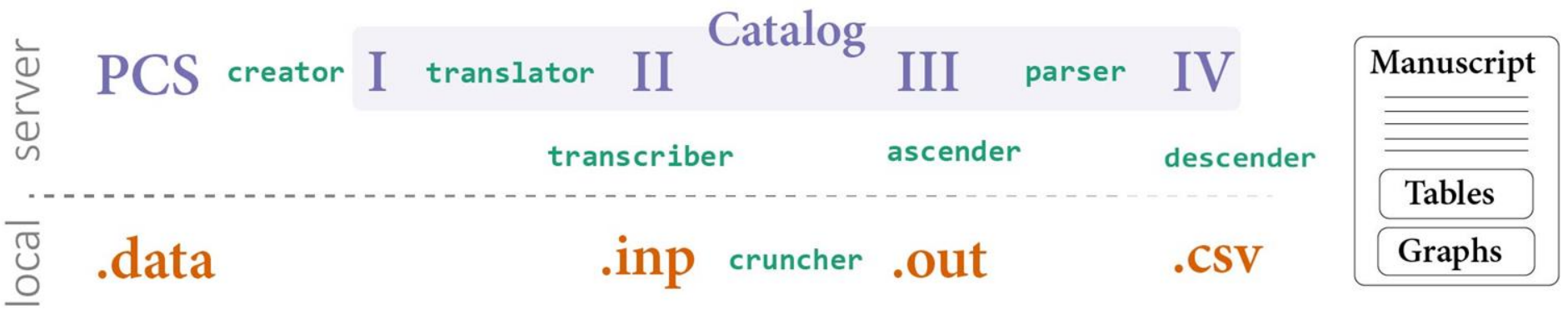
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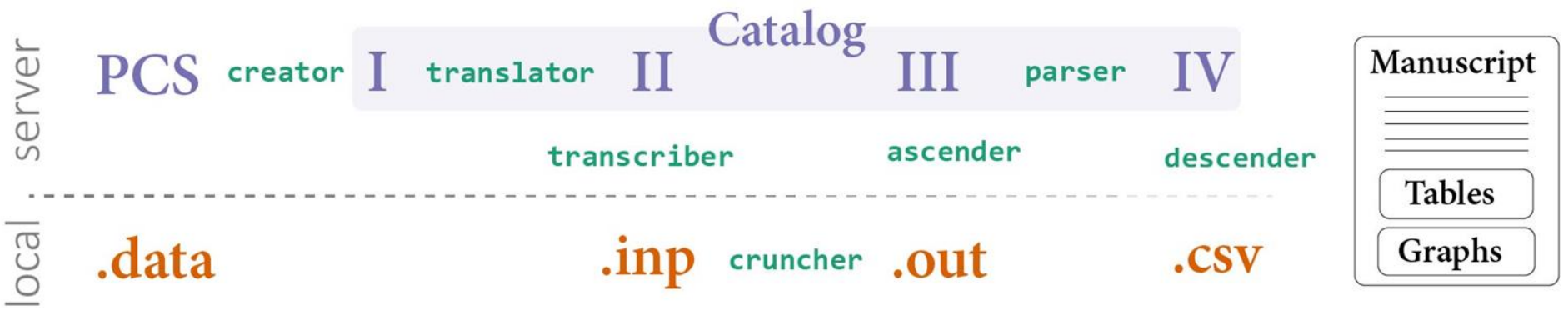
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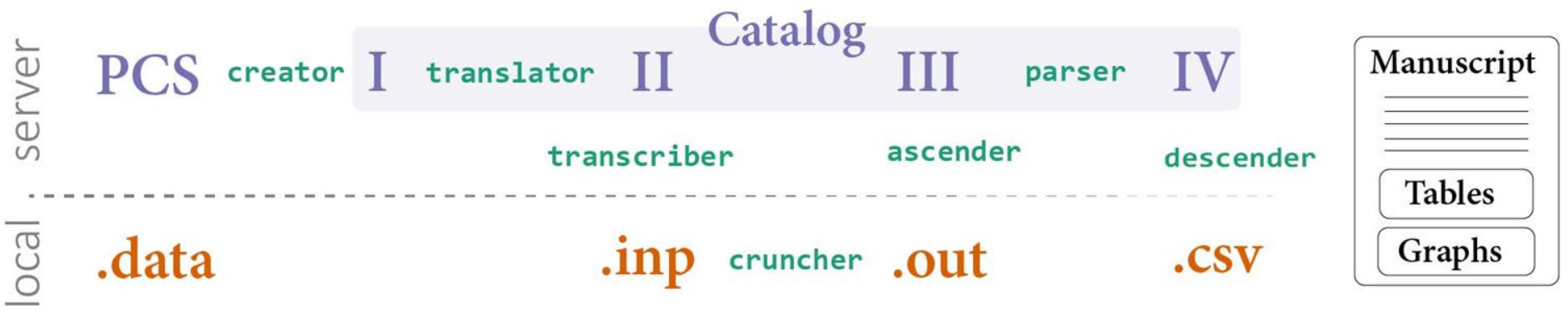
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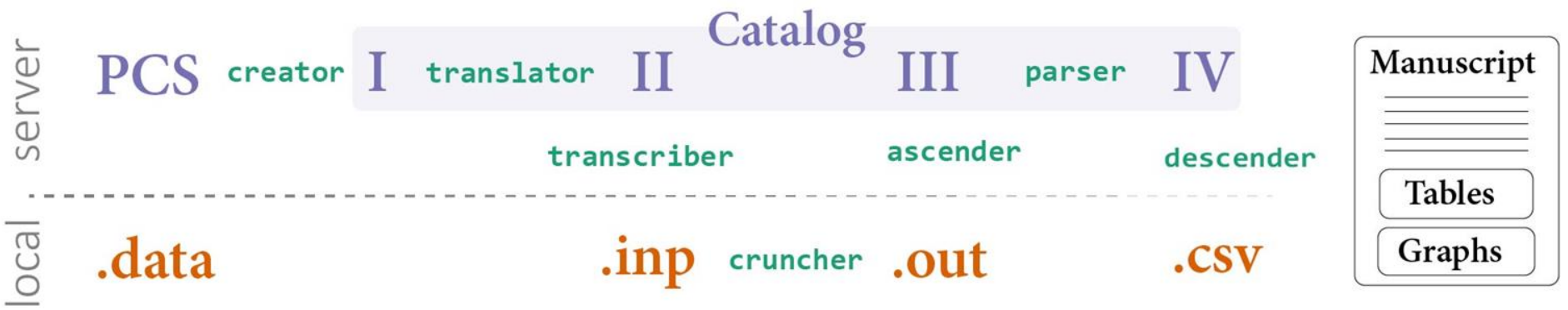
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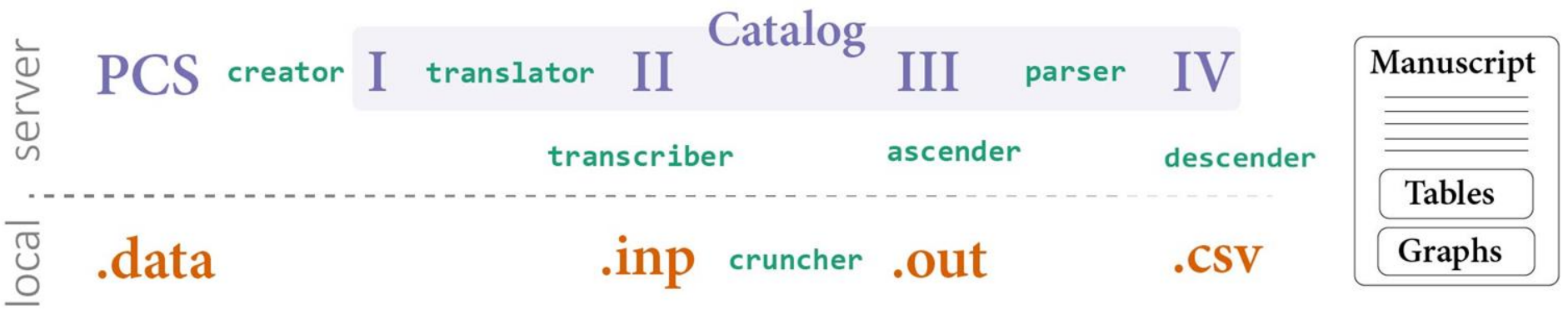
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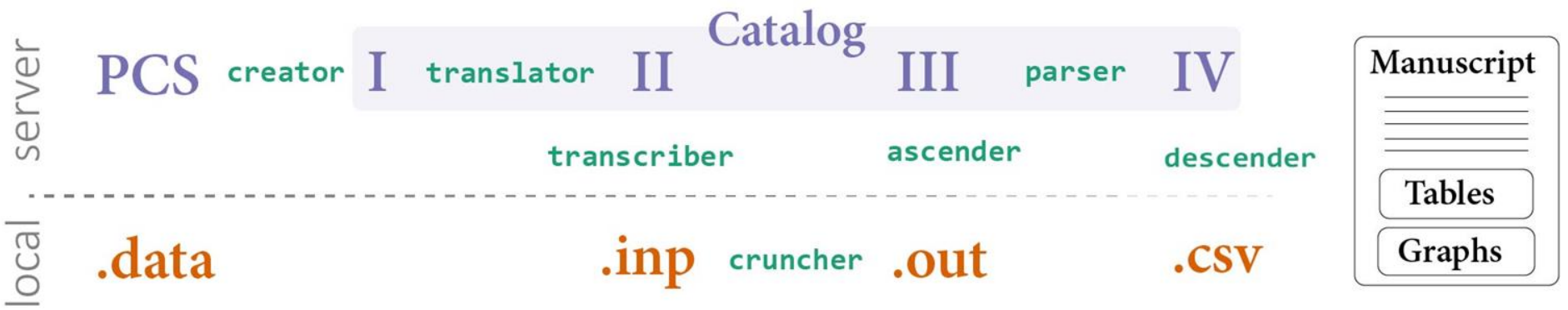
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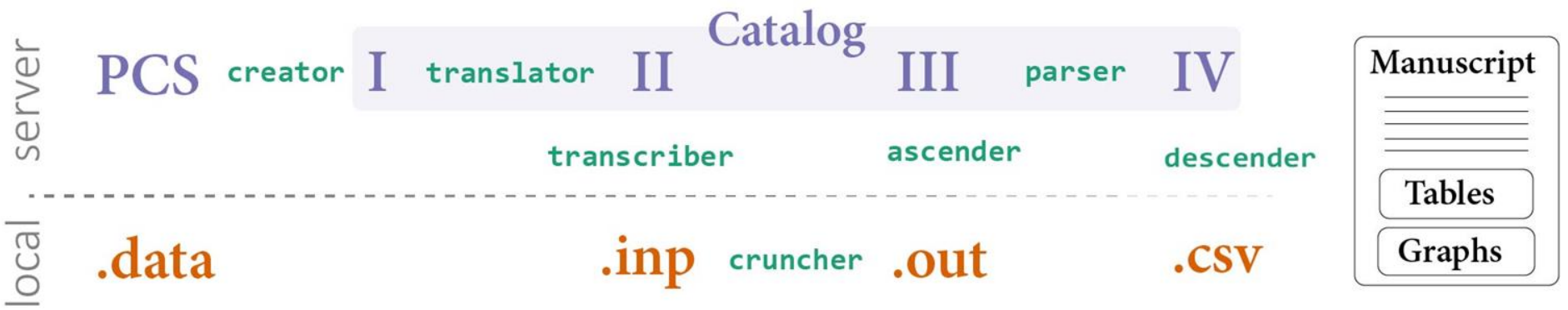
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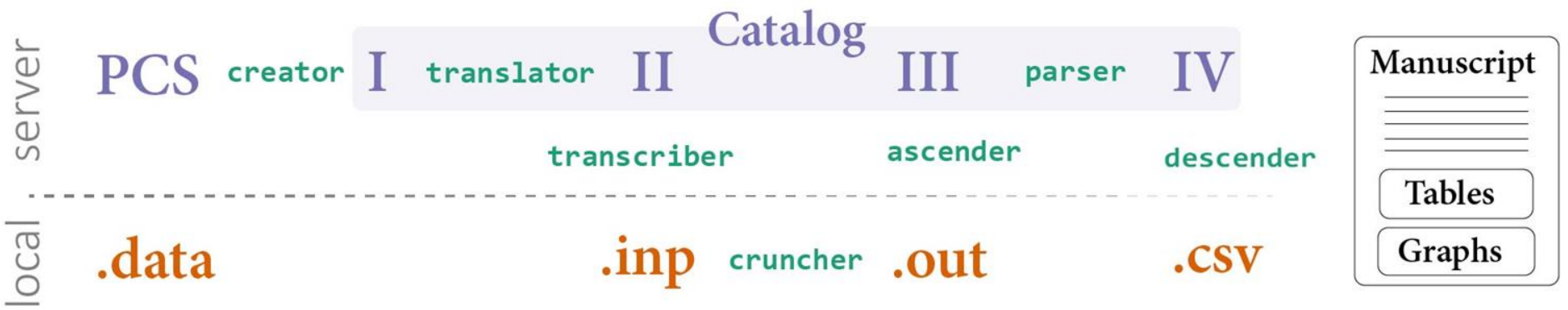
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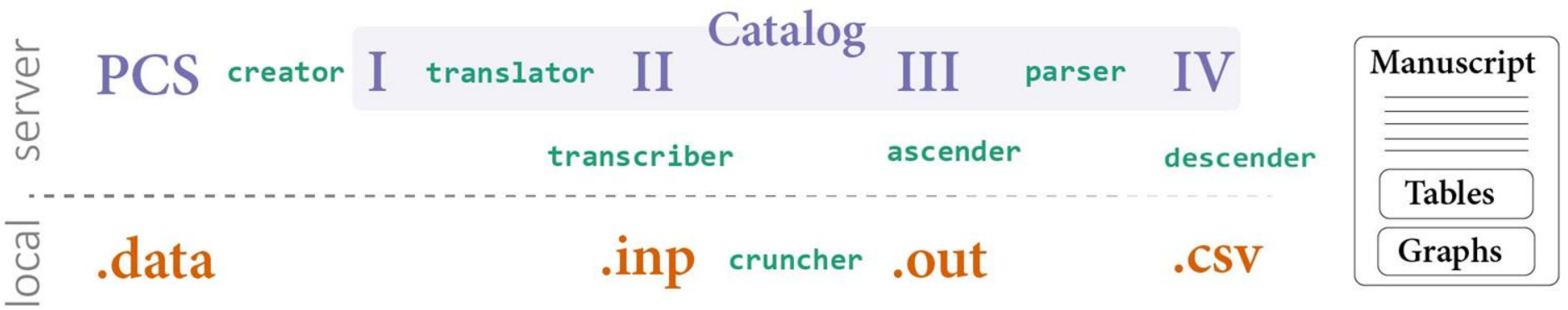
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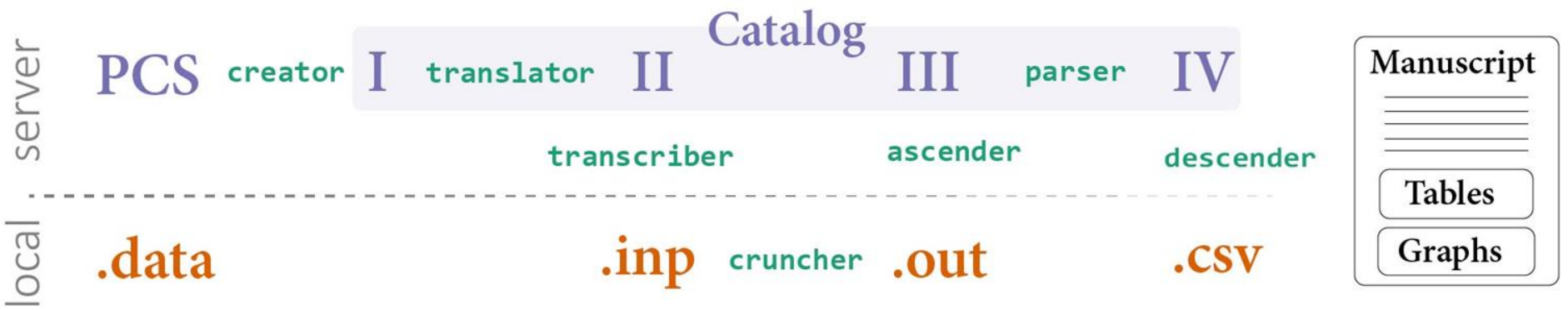
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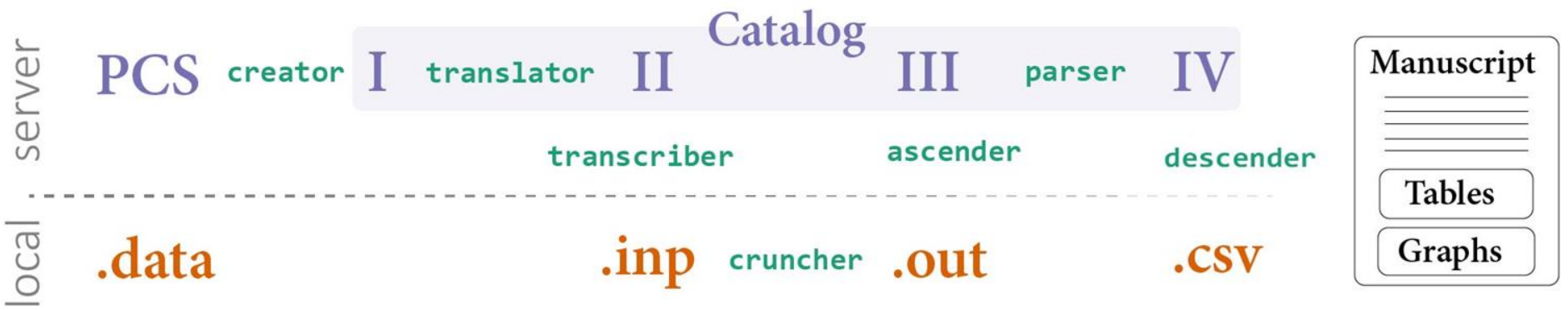
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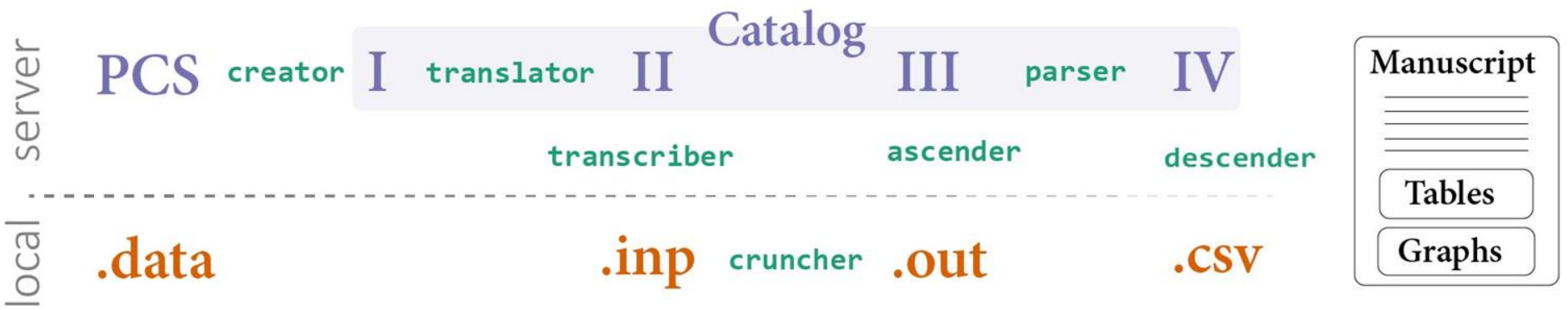
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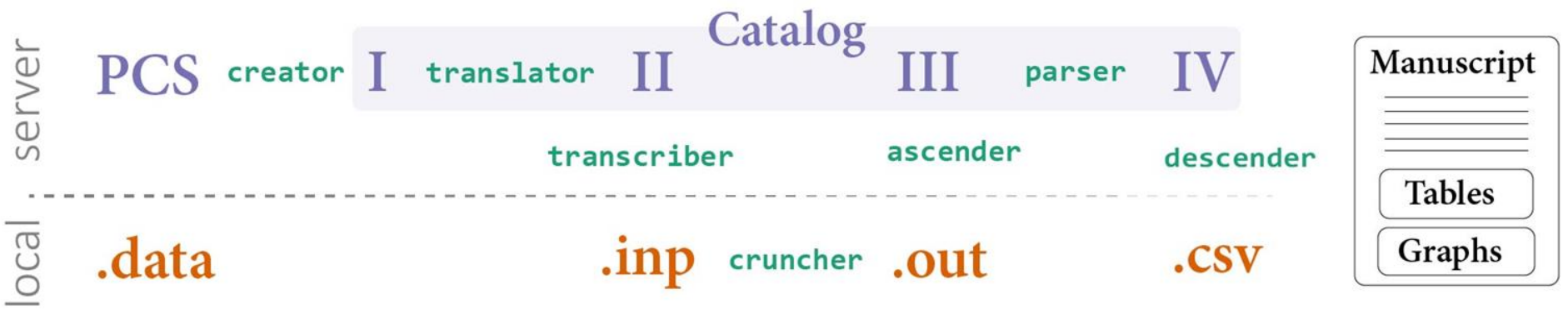
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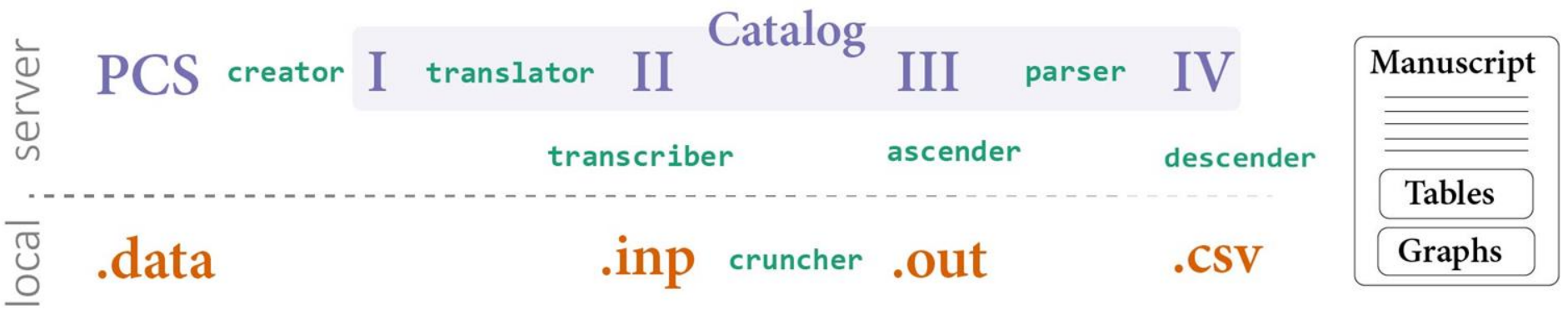
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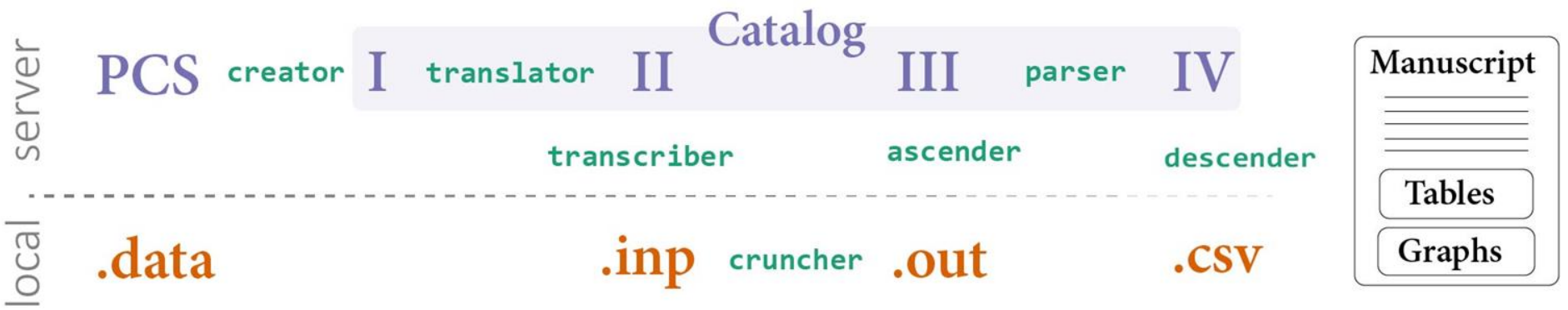
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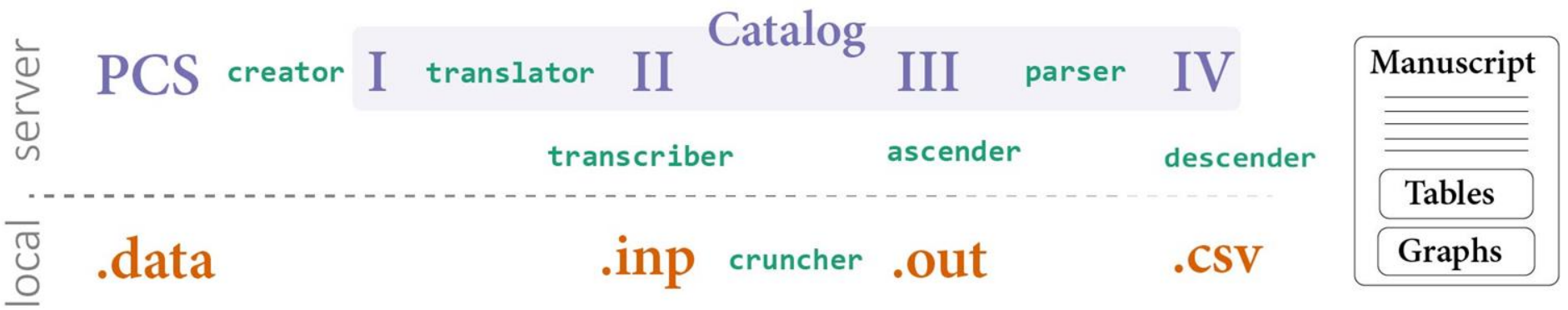
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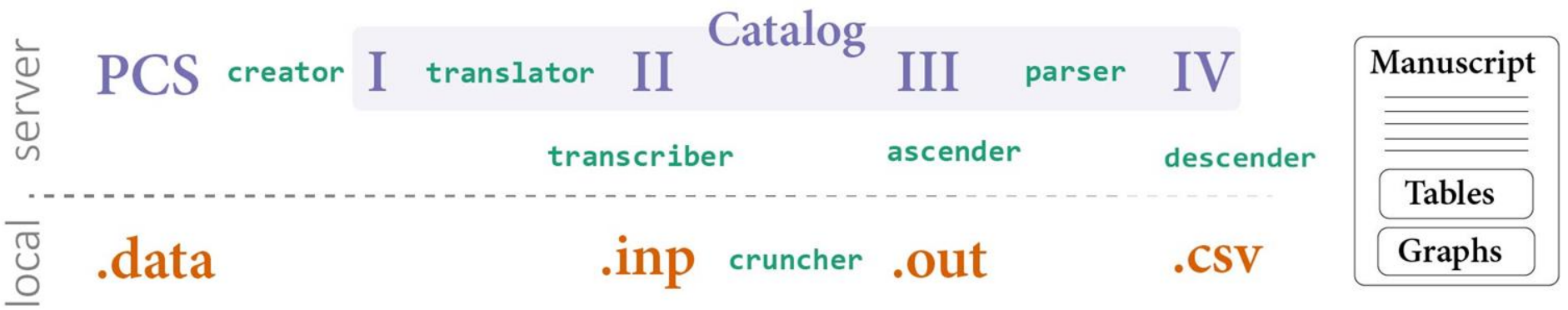
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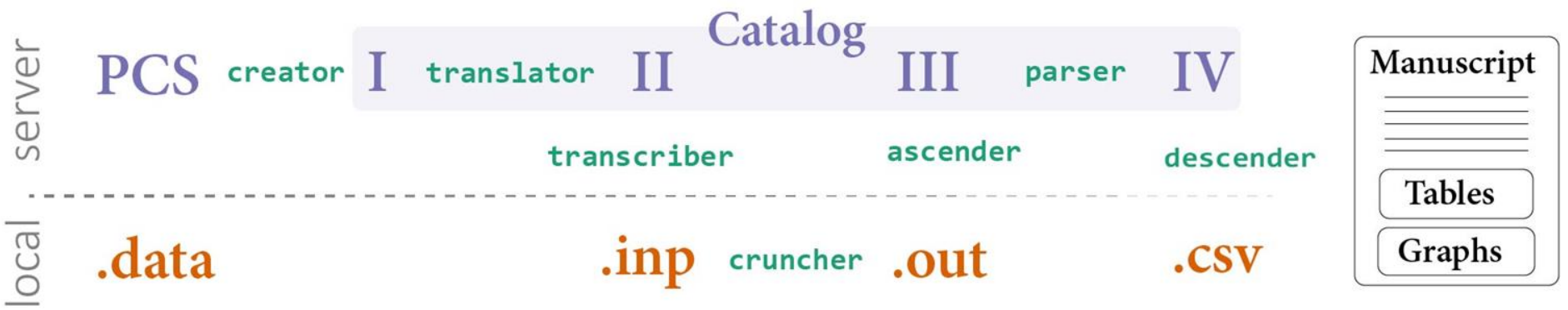
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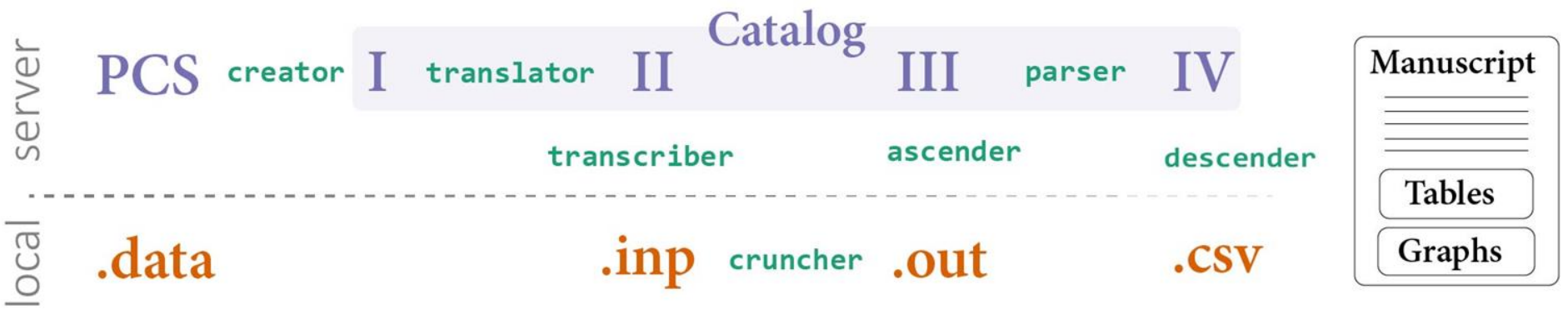
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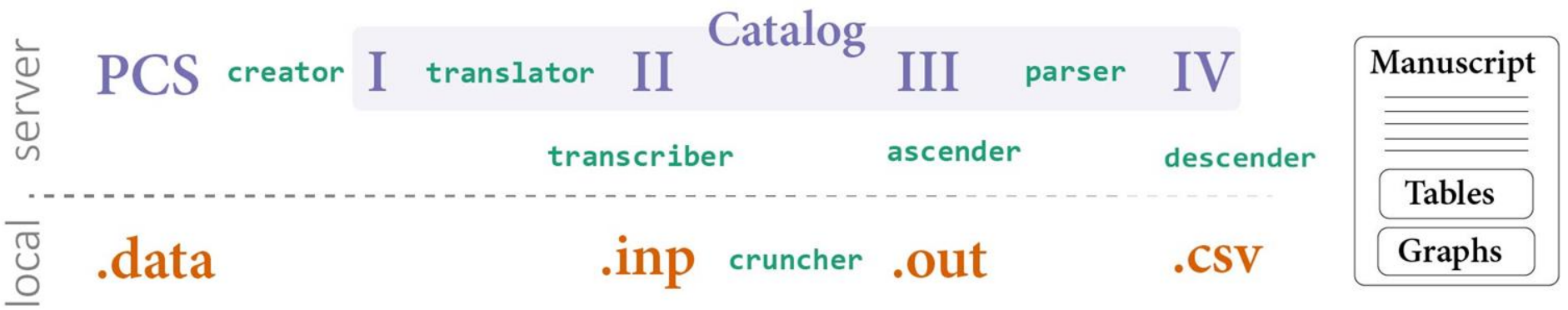
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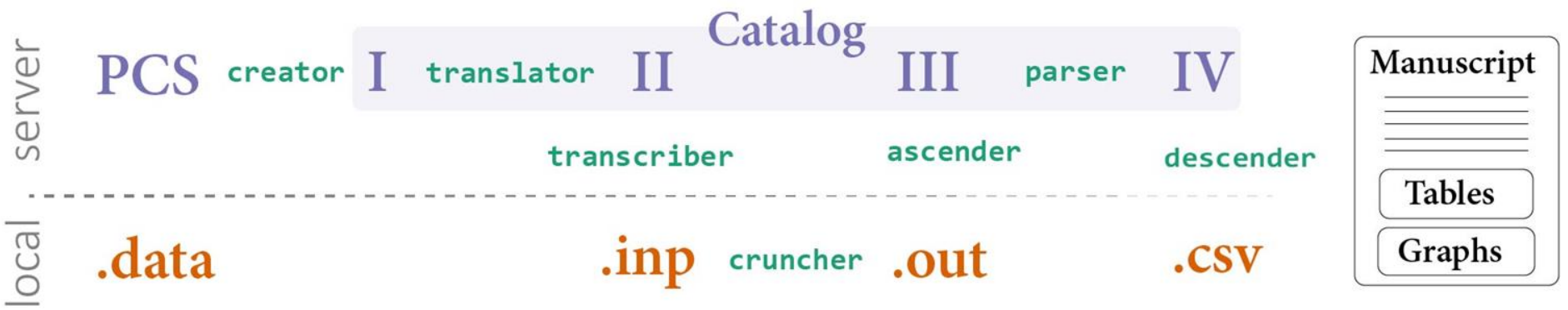
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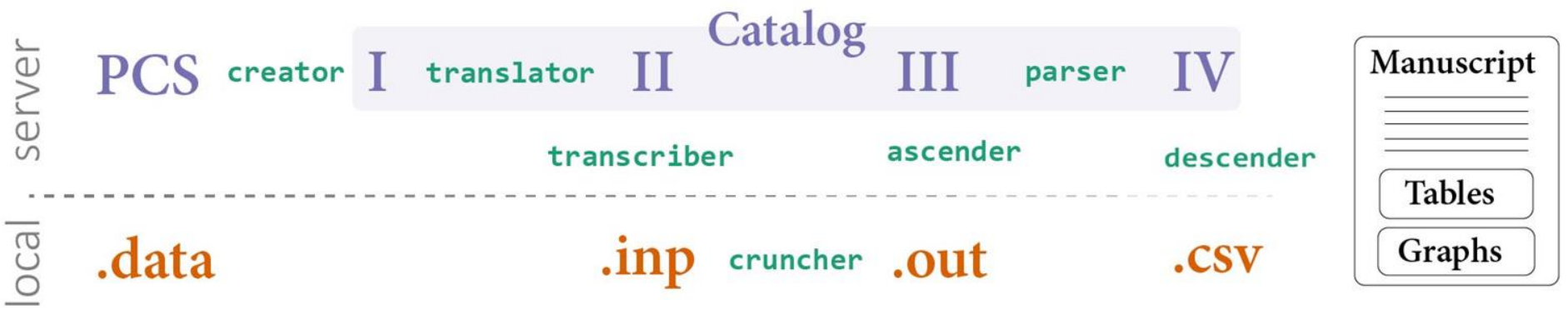
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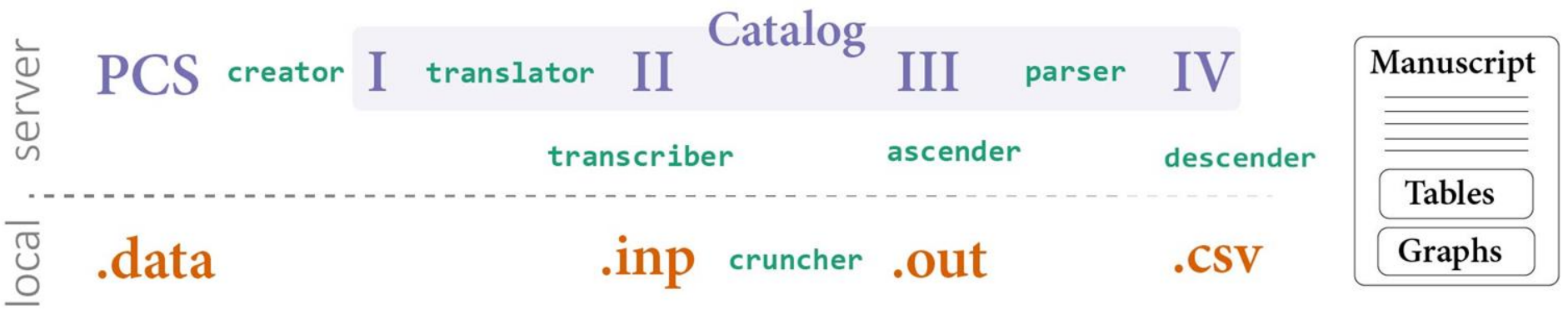
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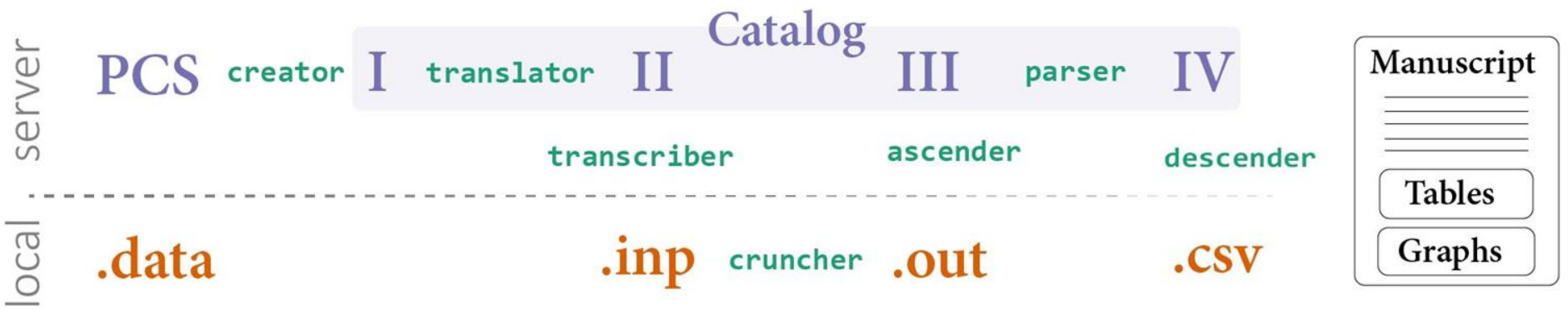
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